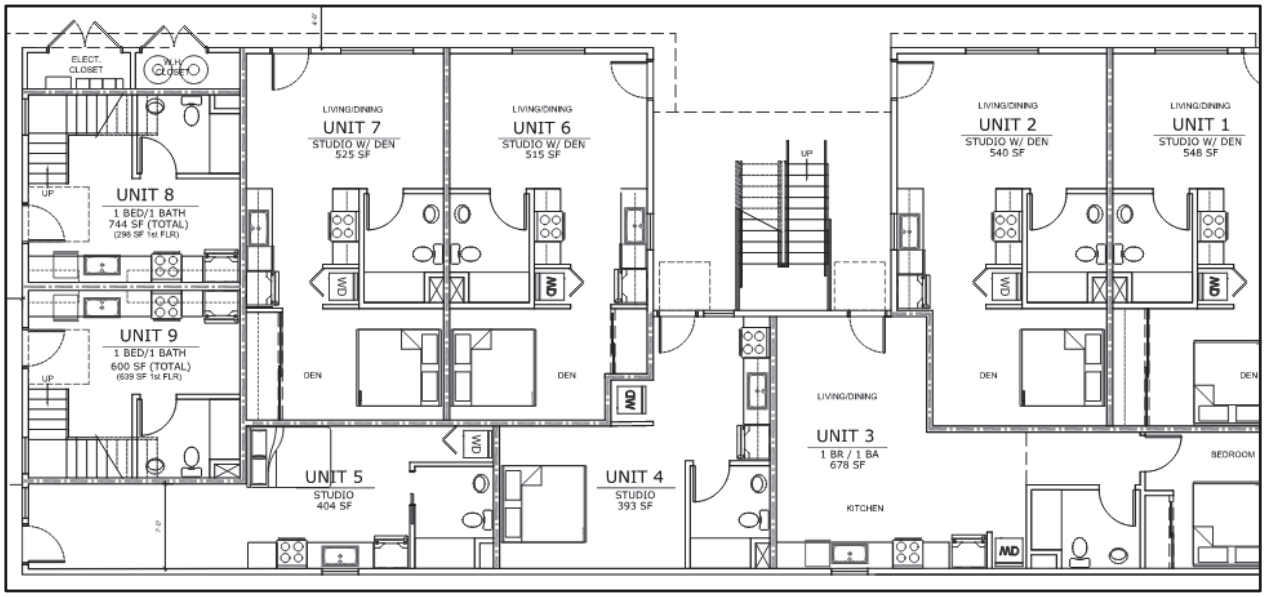
GEOTECHNICAL INVESTIGATION

Bunker Hill Multi-Dwelling Units

APNs 424-321-03 and 424-321-04

Bunker Hill Street

San Diego, CA 92109



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NOVA Project No. 2022168
July 7, 2023

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July 7, 2023
NOVA Project No. 2022168

Subject: Geotechnical Investigation
Bunker Hill Multi-Dwelling Units
APNs 424-321-03 and 424-321-04
Bunker Hill Street
San Diego, CA 92109

Dear Mr. Gerber:

NOVA Services, Inc. (NOVA) is pleased to present our report describing the geotechnical investigation performed for the proposed Bunker Hill Multi-Dwelling Units project in San Diego, California. The investigation was conducted in general conformance with the scope of work presented in our proposals dated August 17, 2022; September 1, 2022; and December 16, 2022. The site is considered geotechnically suitable for the proposed development provided the recommendations within this report are followed.

NOVA appreciates the opportunity to be of service to Gerber Group on this project. If you have any questions regarding this report, please call us at 858.292.7575 x 413.

Sincerely,
NOVA Services, Inc.

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GEOTECHNICAL INVESTIGATION
Bunker Hill Multi-Dwelling Units
APNs. 424-321-03 and 424-321-04
Bunker Hill Street
San Diego, CA 92109

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1. INTRODUCTION

This report presents the results of the geotechnical investigation NOVA performed for the proposed Bunker Hill Multi-Dwelling Units project in San Diego, California. In accordance with our scope of work, NOVA's investigation was performed at three separate parcels on Bunker Hill Street. The western site consists of two parcels (APNs 424-321-03 and 424-321-04) and is separated from the eastern site (APN 424-321-21) by one parcel (APN 424-321-24) in between. Due to the close proximity of the western and eastern sites, we have included the geotechnical findings from both sites in this report. However, this report only provides conclusions and recommendations for the western site (APNs 424-321-03 and 424-321-04).

Based on our review of the architectural site plan (A5D, 2023a), we understand the project will consist of the design and construction of a three-story building with 17 multi-dwelling units (MDU's). The purpose of NOVA's work is to provide conclusions and recommendations regarding the geotechnical aspects of the project. Figure 1-1 presents a site vicinity map. Figure 1-2 presents a site location map.

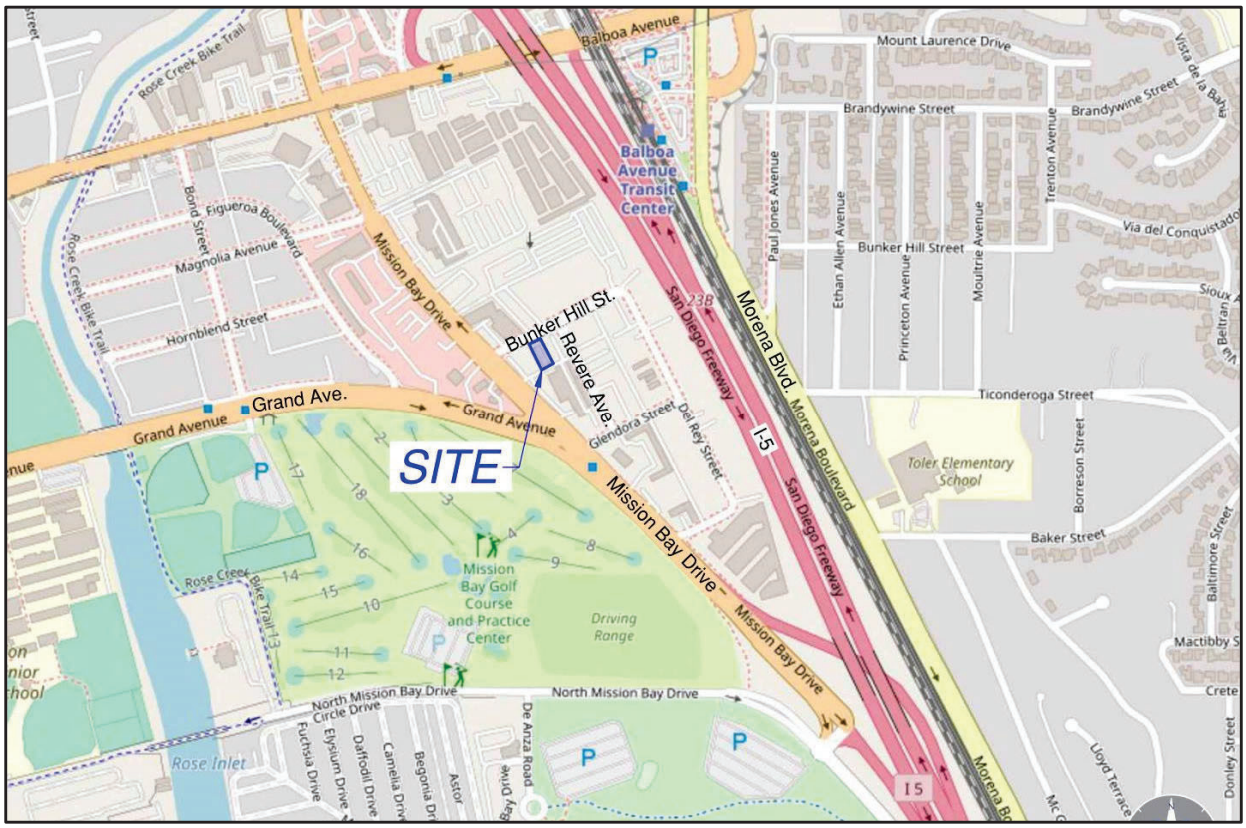


Figure 1-1. Site Vicinity Map

Figure 1-2. Site Location Map

2. SCOPE OF WORK

2.1. Field Investigation

As previously discussed in Section 1, NOVA's field investigation was performed at two sites consisting of three parcels on Bunker Hill Street. Due to the close proximity of the two sites, we have included the geotechnical findings from both sites in this report.

The field investigation consisted of drilling two geotechnical borings (B-1 and B-2) to depths of about 36½ feet and 41½ feet below the ground surface (bgs), and four percolation borings (P-1 through P-4) to depths up to about 5½ feet bgs using a truck-mounted drill rig equipped with a hollow stem auger. Additionally, two cone penetration test (CPT) soundings (CPT-1 and CPT-2) were performed to depths of about 86 feet and 50½ feet bgs. Figure 2-1 presents the approximate locations of the subsurface explorations.

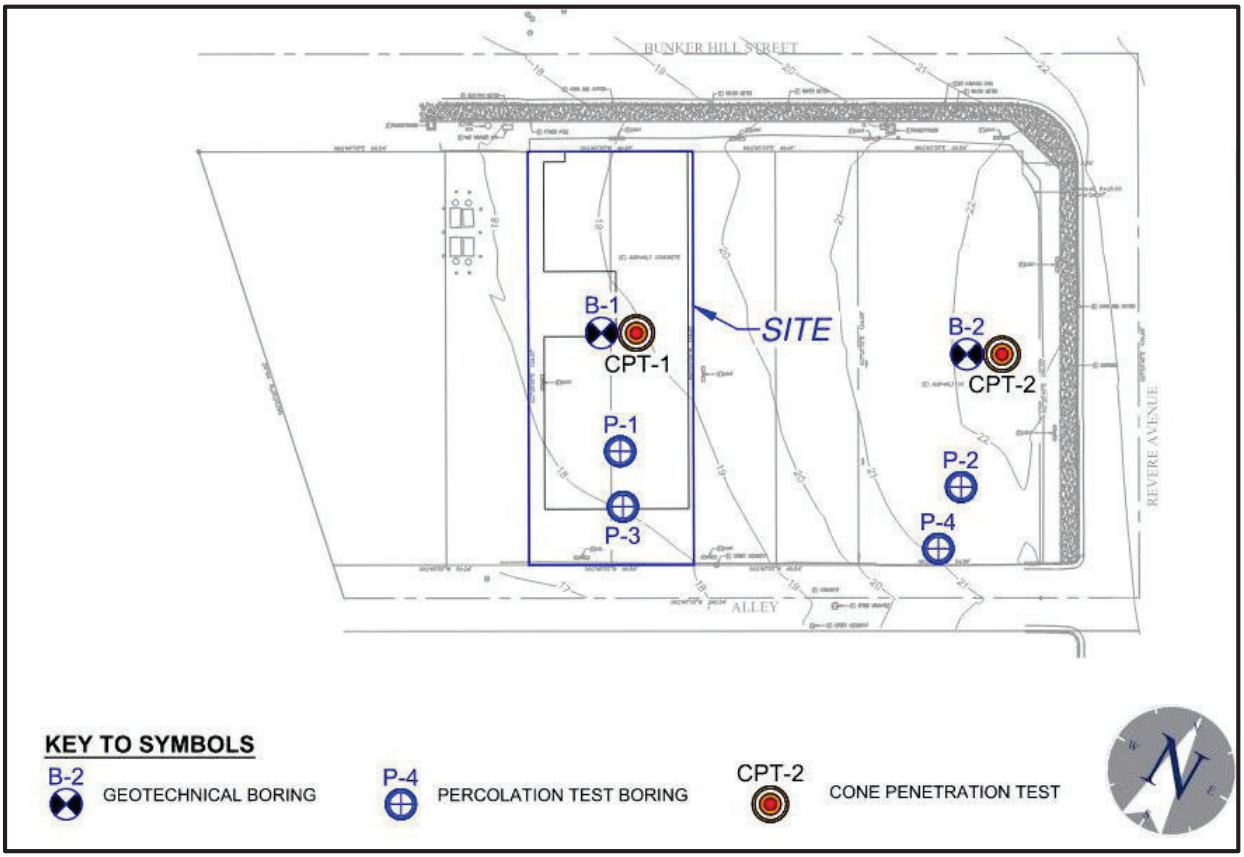


Figure 2-1. Subsurface Exploration Map

A NOVA geologist logged the borings and collected samples of the materials encountered for laboratory observation and testing. Relatively undisturbed samples were obtained using a modified California (CAL) sampler, a ring-lined split tube sampler with a 3-inch outer diameter and 2½-inch inner diameter. Standard Penetration Tests (SPT) were performed in the borings using a 2-inch outer

diameter and 1⅜-inch inner diameter split tube sampler. The CAL and SPT samplers were driven using an automatic hammer with a calibrated Energy Transfer Ratio (ETR) of 96%. The number of blows needed to drive the sampler 18 inches is noted in three, 6-inch intervals on the logs. Sampler refusal was encountered when 50 blows were applied during any one of the three 6-inch intervals, a total of 100 blows was applied, or there was no discernible sampler advancement during the application of 10 successive blows. The field blow counts, N, were corrected to a standard hammer (cathead and rope) with a 60% ETR. The corrected blow counts are noted on the boring logs as N_{60}. Disturbed bulk samples were obtained from the SPT sampler and the drill cuttings. Appendix B presents the logs of the borings. Soils are classified according to the Unified Soil Classification System (USCS). Appendix C presents the logs of the CPTs.

2.1. Laboratory Testing

NOVA tested selected samples to evaluate soil classification and engineering properties and develop geotechnical conclusions and recommendations. The laboratory tests consisted of in-place dry density, moisture content, particle-size distribution, Atterberg limits, expansion index, R-value, and corrosivity. The results of the laboratory tests and brief explanations of the test procedures are presented in Appendix D.

2.2. Borehole Percolation Testing

Borehole percolation testing was performed in P-1 through P-4 to evaluate feasibility of stormwater infiltration. Borehole percolation testing was performed in accordance with the test method described in the City of San Diego Stormwater Standards BMP Design Manual, May 2021 Edition (hereinafter `BMP Manual'). Section 8 of this report discusses the procedure. Appendix E presents the results of the testing. Appendix F presents the infiltration worksheet.

2.3. Analyses and Report Preparation

The results of the field and laboratory testing were used to develop conclusions and preliminary recommendations regarding the geotechnical aspects of the proposed construction. This report presents our findings, conclusions, and recommendations.

3. SITE AND PROJECT DESCRIPTION

3.1. Site Description

The site is composed of two rectangular-shaped parcels, corresponding to APNs 424-321-03 and 424-321-04. It is located on Bunker Hill Street, approximately midway between Mission Bay Drive to the west, and Revere Avenue to the east. The site currently serves as a portion of a larger parking lot that is composed of this site and neighboring parcels to the east and west. The site is bordered by Bunker Hill Street on the north, an alley on the south, and a portion of the existing parking lot on the east and west. The site is relatively flat with ground surface elevations ranging from about +20 feet mean sea level (MSL) in the northeast portion of the site, to about +17 feet MSL in the southwest corner.

Review of historical aerial photography indicates that in 1953, the date of earliest historical aerial imagery, the site was vacant. By 1964, the site had been graded and by 1978 it was being used as a parking lot for the buildings on neighboring parcels. By 1986, the neighboring structures were demolished, and in 1987, the site was developed into a parking lot. The site has existed in roughly the same configuration since that time.

3.2. Proposed Construction

Based on our review of the architectural site plan (A5D, 2023a), and discussion with Gerber Group, we understand the proposed construction will consist of a new at-grade three-story building with 17 residential dwelling units. No below-grade structures are anticipated. Site improvements are anticipated to include site walls, pedestrian hardscape, pavements, underground utilities, and stormwater Best Management Practices (BMPs) facilities.

3.3. Anticipated Earthwork

Current plans indicate that the finished pad grade will be roughly at the existing site elevation. Earthwork is anticipated to consist of remedial and fine grading, excavations for foundations, installation of underground utilities, subgrade preparation, and pavement construction.

4. GEOLOGY AND SUBSURFACE CONDITIONS

4.1. Regional Geology

The site is located within the Peninsular Ranges Geomorphic Province of California, which stretches from the Los Angeles basin to the tip of Baja California in Mexico. This province is characterized as a series of northwest-trending mountain ranges separated by subparallel fault zones and a coastal plain of subdued landforms. This area of the province has undergone several episodes of marine inundation and subsequent marine regression, a process that occurs when sea level falls and exposes the sea floor, throughout the last 54 million years. Gradual emergence of the region from the sea occurred in Pleistocene time, and numerous wave-cut platforms, most of which were covered by relatively thin marine and nonmarine terrace deposits, formed as the sea receded from the land. The mountain ranges are underlain primarily by Mesozoic metamorphic rocks that were intruded by plutonic rocks of the western Peninsular Ranges Batholith. The coastal plain is underlain by subsequently deposited marine and nonmarine sedimentary formations. These sedimentary formations are cut by the active Rose Canyon Fault Zone that comes onshore near La Jolla, continuing southward toward downtown San Diego. Accelerated fluvial erosion during periods of heavy rainfall, along with the lowering of base sea level during Quaternary times, resulted in the rolling hills, mesas, and deeply incised canyons that characterize the landforms in western San Diego County.

Regional geologic maps of the subject property and vicinity (Kennedy and Tan, 2008) indicate the subject property is underlain by artificial fill constructed from mining or quarrying activities, including compacted and non-compacted, non-engineered fill; however, fill was not encountered below the site. The subsurface investigation encountered fine-grained alluvial deposits (Qal) overlying old paralic deposits (Qop). The alluvium is likely the result of deposition from a large historical drainage system located to the east of the site whose tributaries included Stevenson Canyon and the canyon now occupied by Balboa Avenue. The old paralic deposits generally consist of poorly sorted, reddish-brown, interfingered strandline, beach, estuarine, and colluvial deposits composed of siltstone, sandstone, and conglomerate. Figure 4-1 presents the regional geologic map in the vicinity of the site. Plate 1 following the text of this report presents the site-specific geology.

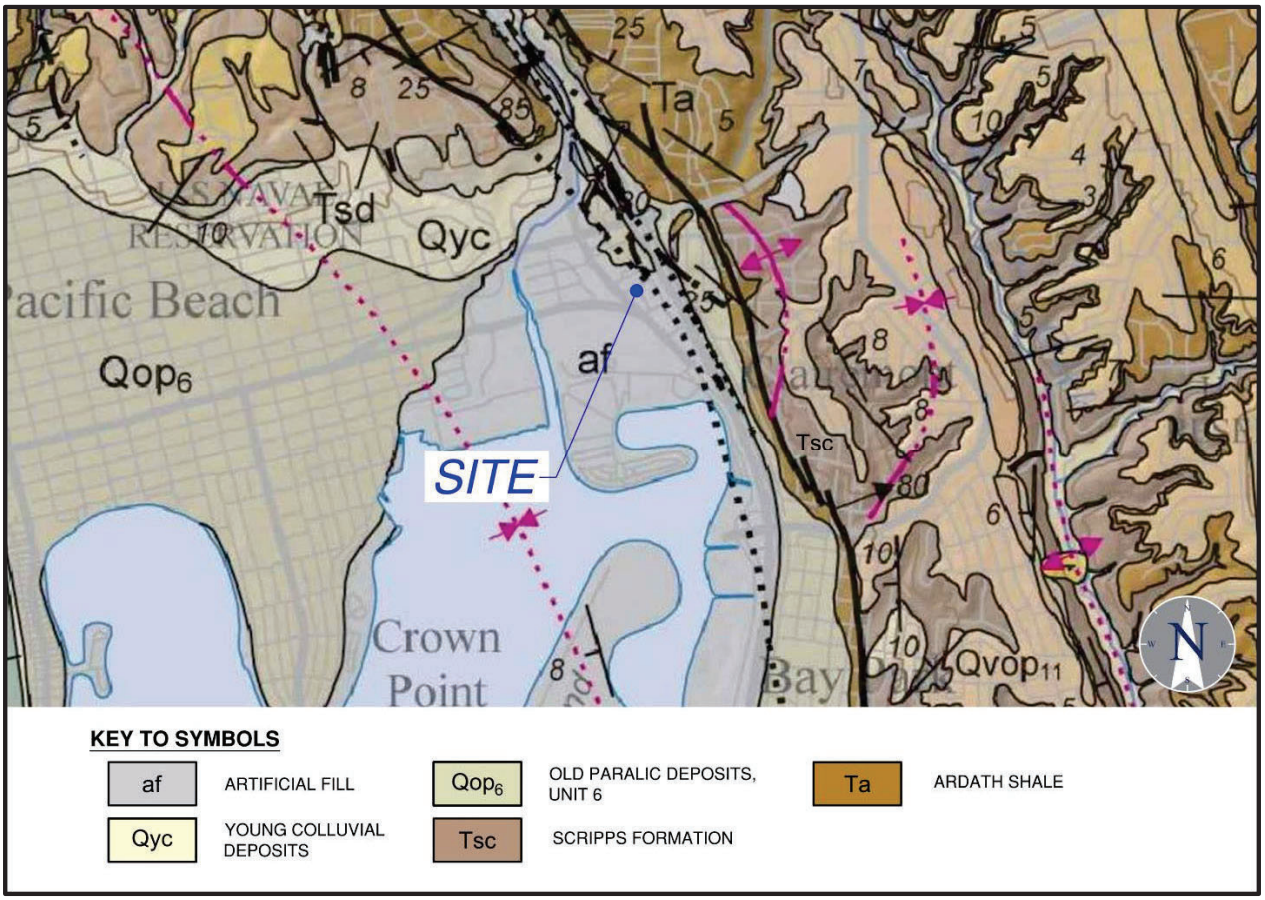


Figure 4-1. Regional Geology Map

4.2. Site-Specific Geology

As encountered in our borings, the site is underlain by Quaternary alluvium and Quaternary old paralic deposits. Descriptions of the materials encountered are presented below. Plate 1 presents the geotechnical map and Plate 2 presents the geologic cross-section.

Quaternary Alluvial Deposits (Qal): Alluvial deposits were encountered beneath the existing pavement section in Boring B-1 to a depth of about 26 feet bgs, and beneath the fill in Boring B-2 to a depth of about 16 feet bgs. As encountered at this site in Boring B-2, these deposits consisted of an approximately 13½-foot-thick layer of very stiff sandy clay, underlain by a minor 1-foot-thick lens of dense poorly graded sand with silt. Figure 4-2 presents a photograph of the alluvium encountered in Boring B-1.

Figure 4-2. Alluvial Deposits in Boring B-1

<u>Quaternary Old Paralic Deposits (Qop)</u>: Old paralic deposits were encountered beneath the alluvial flood plain deposits in the borings to the maximum-explored depth of about 41½ feet bgs. As encountered at this site in Boring B-2, these deposits generally consisted of hard sandy clay and medium dense to dense silty sand. Figures 4-3 presents a photograph of the old paralic deposits encountered in Boring B-2.

Figure 4-3. Old Paralic Deposits in Boring B-2

Groundwater: Groundwater was encountered in Borings B-1 and B-2 at depths of about 15 and 18 feet bgs, respectively, corresponding to elevations of about 3¾ and 4 feet msl. Groundwater and/or groundwater seepage conditions may vary in the future due to changes in land use and/or following periods of heavy rain. Seasonal fluctuations of groundwater elevations should be expected over time. In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present within the near-surface deposits due to local landscape irrigation or precipitation, especially during rainy seasons. Groundwater rise or seepage is difficult to predict. Therefore, such conditions are typically mitigated if and when they occur.

5. GEOLOGIC HAZARDS

5.1. Faulting and Surface Rupture

Major known active faults in the region consist generally of en echelon, northwest striking, right-lateral, strike-slip faults. These include the San Andreas, Elsinore, and San Jacinto Faults located northeast of the site; the San Clemente, San Diego Trough, Agua Blanca-Coronado Bank Faults located to the west of the site; and the Newport-Inglewood-Rose Canyon Fault Zone just east of the site.

Earthquake fault zones have been established along known active faults in California in accordance with the Alquist-Priolo Earthquake Fault Zoning Act. The State Geologist defines an “active” fault as one which has had surface rupture within recent geologic time (i.e., Holocene time, <11,700 years before present [b.p.]). Earthquake fault zones have been delineated to encompass traces of known Holocene-active faults to address hazards associated with fault surface rupture within California. Where developments for human occupancy are proposed within these zones, the state requires detailed fault evaluations be performed so that engineering geologists can identify the locations of active faults and recommend setbacks from locations of possible surface fault rupture.

The site is not located in the Alquist-Priolo Earthquake Fault Zone. The nearest active fault is located about 350 feet northeast of the site within the San Diego section of the Newport-Inglewood-Rose Canyon Fault Zone (NIRC), which is recognized to have the potential for a Magnitude 6.99 seismic event. Evidence of active faulting was not observed at the site during our field investigation. The probability of fault rupture is considered low.

Figure 5-1 shows the locations of known faults in the region of the site. Active faults are presented in orange, potentially active faults with displacement dating between 11,700 years and 700,000 years b.p. are presented in green, and undifferentiated Quaternary faults are presented in purple.

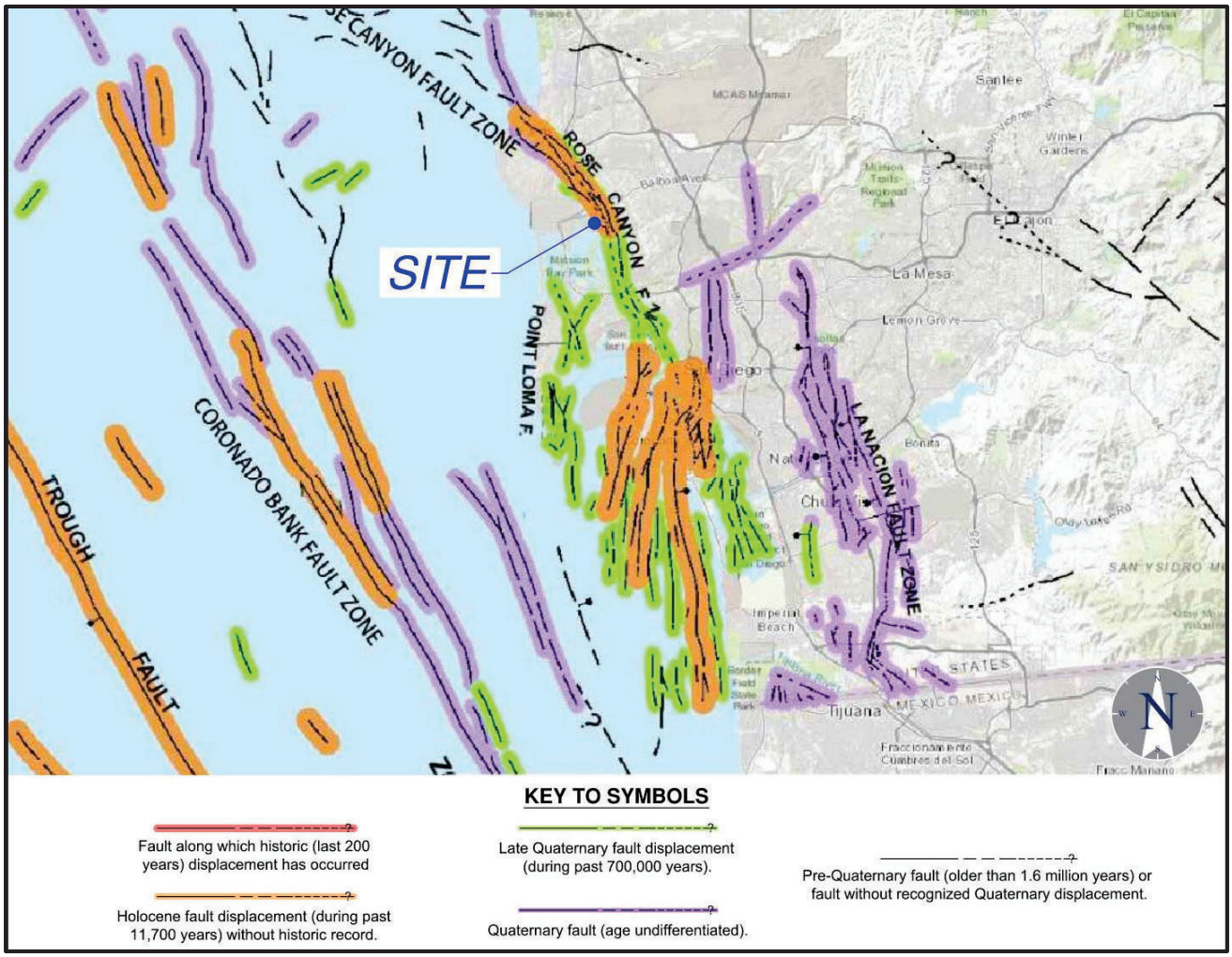


Figure 5-1. Regional Faulting in the Site Vicinity

5.2. City of San Diego Seismic Safety Study

Figure 5-2 shows the site location on the City of San Diego Seismic Safety Study map. The site is located in Geologic Hazard Category 31, identified as an area with a high potential for liquefaction due to shallow groundwater, major drainages, and hydraulic fills (City of San Diego, 2008). In our opinion, the risk of liquefaction at the site is high. Liquefaction mitigation is addressed in this report.

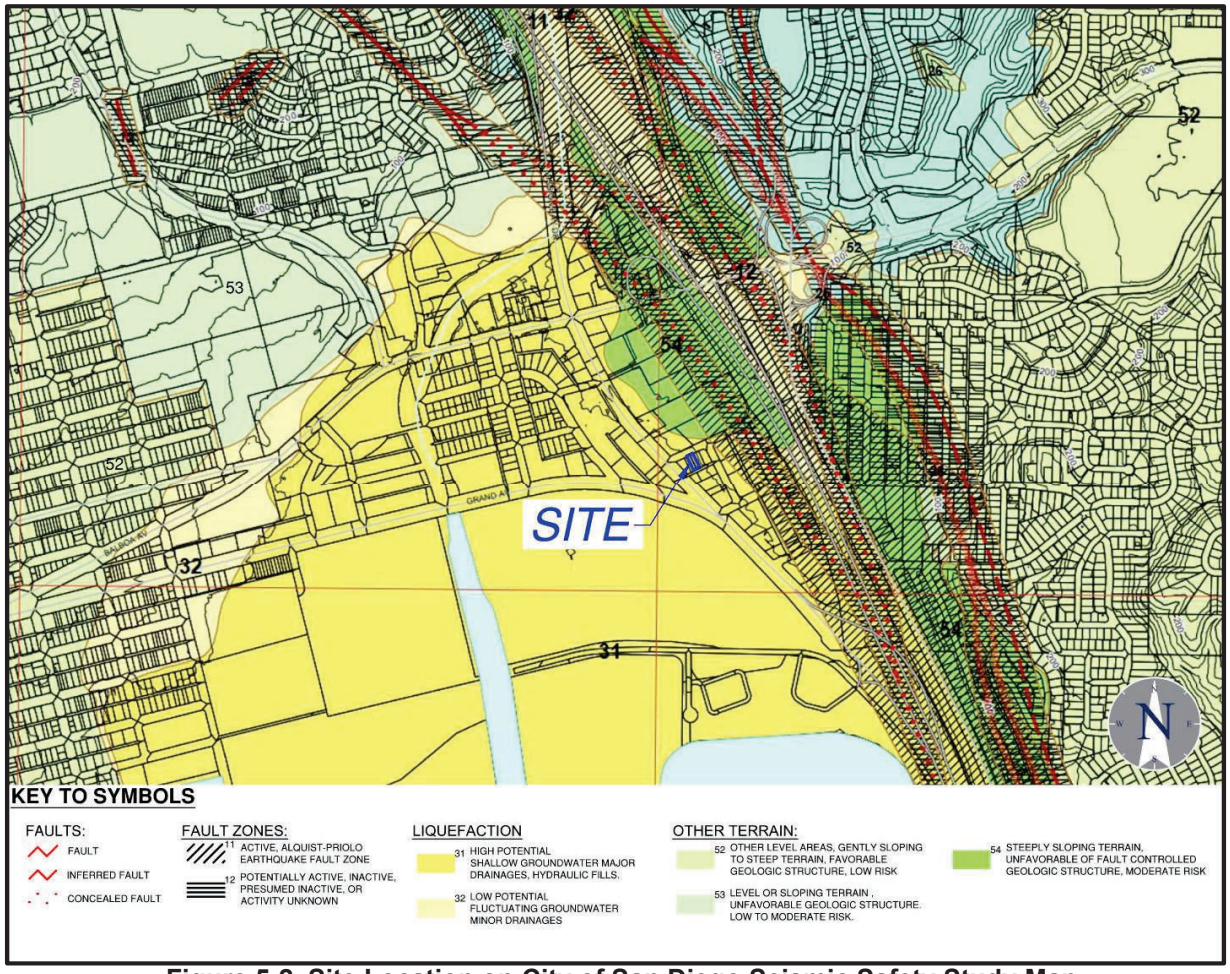


Figure 5-2. Site Location on City of San Diego Seismic Safety Study Map

5.3. Site Class

Based on the results of the field explorations, the project site is classified as a Site Class D. Site Class D is defined as a stiff soil site with average shear wave velocities within the upper 100 feet of the soil profile between 600 and 1,200 ft/s, average field standard penetration resistances between 15 and 50 blows per foot, or average undrained shear strengths between 1,000 and 2,000 pounds per square foot (psf).

5.4. Site-Specific Ground Motion Hazard Analysis

For a Site Class D, a site-specific ground motion hazard analysis (GMHA) is required to be performed based on the requirements of the 2022 California Building Code (CBC) and ASCE 7-16. A site-specific GMHA was performed as part of our investigation. As part of the analysis, base ground motions were evaluated with both a Probabilistic Seismic Hazard Analysis (PSHA) and a Deterministic Seismic

Hazard Analysis (DSHA) to characterize earthquake ground shaking that may occur at the site during future seismic events.

The PSHA is based on an assessment of the recurrence of earthquakes on potential seismic sources in the region and on ground motion prediction models of different seismic sources in the region. The United States Geological Survey (USGS) Unified Hazard Tool (USGS, 2023a) was used to develop seismic hazard curves for various periods and the USGS Risk-Targeted Ground Motion Calculator (USGS, 2023b) was used to analyze ground motions for each corresponding period. Maximum directional scale factors were applied to the results to develop the probabilistic ground motion response spectrum specific to this site.

The DSHA is represented by the 84th percentile of the spectral accelerations for different periods. The logarithmic means and standard deviations of various periods were calculated using the USGS Response Spectra Tool (USGS, 2023c) with ground motion model(s) "Combined: WUS 2018 (5.0, deep basins)." This combined model utilizes attenuation relationships of Abrahamson-et al (2014) NGA West 2, Boore-et al (2014) NGA West 2, Campbell & Bozorgnia (2014) NGA West 2, and Chiou & Youngs (2014) NGA West 2.

The deterministic ground motions are controlled by the Rose Canyon (Newport-Inglewood) Fault. Input parameters were obtained from the USGS Uniform California Earthquake Rupture Forecast, Version 3 (UCERF3) model, and USGS Earthquake Scenario Map (BSSC 2014) (USGS, 2023d), as presented in Table 5-1.

Table 5-1. DSHA Input Parameters

Fault: Rose Canyon (Del Mar Section)	
Mw	6.99
Type	Strike-Slip
Dip (°)	90.0
Rake (°)	180
Width (km)	6.93
R_x (km)	0.11
R_{RUP} (km)	0.11
R_{JB} (km)	0.11
V_{s30} (m/s)	259*

***Measured**

The site-specific Risk-Targeted Maximum Considered Earthquake (MCE_R) was taken as the lesser of the spectral response accelerations determined from the PSHA and DSHA for each period. The site-specific design response spectral accelerations were compared to the design response spectrum from ASCE 7-16, Section 11.4.6 (SEAOC, 2023) to verify that the values obtained from the site-specific analysis are not less than 80% of the accelerations obtained from Section 11.4.6. The site coefficients

and maximum considered earthquake spectral response acceleration parameters are presented in Table 5-2. Tabulated values and graphical plots are attached in Appendix G.

Table 5-2. 2022 CBC and ASCE 7-16 Seismic Design Parameters

Site Coordinates	
Latitude: 32.80297°	Longitude: -117.21560°

Site Coefficients and Spectral Response Acceleration Parameters	Value
Site Class	D
Site Amplification Factor at 0.2 Second, F_a	1.000
Site Amplification Factor at 1.0 Second, F_v	1.812
Spectral Response Acceleration at Short Period, S_S	1.496g
Spectral Response Acceleration at 1-Second Period, S_1	0.726g
Spectral Response Acceleration at Short Period, Adjusted for Site Class, S_{MS}	1.496g
Spectral Response Acceleration at 1-Second Period, Adjusted for Site Class, S_{M1}	1.315g
Design Spectral Acceleration at Short Period, S_{DS}	0.998g
Design Spectral Acceleration at 1-Second Period, S_{D1}	0.877g
Peak Ground Acceleration, PGA_M	0.683g

5.5. Landslides and Slope Stability

Evidence of landslides, deep-seated landslides, or slope instabilities was not observed at the time of NOVA's field evaluation. Additionally, there are no mapped landslides in the vicinity of the project site. The potential for landslides or slope instabilities to occur at the site is considered very low.

5.6. Liquefaction and Dynamic Settlement

Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose, saturated, fine to medium grained cohesionless soils. Effects of severe liquefaction can include sand boils, excessive settlement, bearing capacity failures, and lateral spreading.

As previously mentioned, the site is mapped in a high liquefaction potential zone (Geologic Hazard Category 31) on the City of San Diego Seismic Safety Study map (City of San Diego, 2008). Given the relatively wet, loose/soft nature of the materials beneath the site, the presence of shallow groundwater, and proximity to active faulting, the potential for liquefaction and dynamic settlement to occur is considered high.

The results of CPT-1 for the upper 30 feet were used in the liquefaction analysis program CLiq v.3.3.3.4, produced by GeoLogismiki. A deaggregated modal magnitude (M_w) of 6.89 and a Maximum Considered Earthquake (MCE) geometric mean peak ground acceleration (PGA_M) of 0.683g were

used in our calculations. A design groundwater elevation of about +3¾ ft MSL was considered, which corresponds to a depth of about 15 feet bgs. The method proposed by Boulanger & Idriss (2014) was used for the liquefaction analysis. Appendix C presents the results of the liquefaction analysis.

The results of our analyses indicate that the upper approximately 26 feet of materials beneath the site are susceptible to liquefaction and dynamic settlement. The old paralic deposits were considered to have a low susceptibility to liquefaction based on the age of the geologic deposits. The estimated post-liquefaction and dynamic settlements are estimated to be on the order of about 3½ inch total and 1¾ inch differential. This amount is for free field conditions when no special remedial measure is performed. Dynamic settlement can be mitigated through ground improvement as described in the subsequent sections of this report.

5.7. Flooding, Tsunamis, and Seiches

The site is mapped within an area of minimal flood hazard (FEMA, 2019). The site is not located within a mapped area on the State of California Tsunami Inundation Maps (CGS, 2022a); therefore, damage due to tsunamis is considered very low. Seiches are periodic oscillations in large bodies of water such as lakes, harbors, bays, or reservoirs. The site is not located adjacent to any lakes or confined bodies of water. The closest body of water is De Anza Cove, approximately 0.42 miles way; therefore, the potential for a seiche to affect the site is considered very low.

5.8. Subsidence

The site is not located in an area of known subsidence associated with fluid withdrawal (groundwater or petroleum); therefore, the potential for subsidence due to the extraction of fluids is considered low.

5.9. Hydro-Consolidation

Hydro-consolidation can occur in recently deposited sediments (less than 10,000 years old) that were deposited in a semi-arid environment. Examples of such sediments are eolian sands, alluvial fan deposits, and mudflow sediments deposited during flash floods. The pore spaces between the particle grains can re-adjust when inundated by groundwater, causing the material to consolidate. Given the relatively dense nature of the alluvium and old paralic deposits, these deposits are generally not considered susceptible to hydro-consolidation; however, the upper portion of the alluvial deposits may be susceptible to hydro-consolidation. This potential can be mitigated by removing and replacing this material with compacted fill. Recommendations for remedial grading are provided in this report.

6. CONCLUSIONS

Based on the results of NOVA's investigation, we consider the proposed construction feasible from a geotechnical standpoint provided the recommendations contained in this report are followed. Geotechnical conditions exist that should be addressed prior to construction. Geotechnical design and construction considerations include the following.

- There are no known active faults underlying the site. The primary seismic hazard at the site is the potential for moderate to severe ground shaking in response to large-magnitude earthquakes generated during the lifetime of the proposed construction. The risk of strong ground motion is common to all construction in southern California and is typically mitigated through building design in accordance with the CBC.
- The site is underlain by alluvial deposits that are potentially liquefiable and susceptible to post-liquefaction and dynamic settlements during a significant seismic event. Seismic settlements on the order of 3½ inches total and 1¾ inches differential are estimated. Ground improvement consisting of stone columns can be used to mitigate the liquefaction hazard and resulting settlements to acceptable levels. Recommendations for stone columns are provided in this report. Following installation of stone columns, the building can be supported on shallow foundations.
- The upper soils are potentially compressible. To improve subgrade support and further reduce the potential for settlement, remedial grading of the upper soils will need to be performed. Recommendations for remedial grading are provided herein.
- Based on our laboratory testing, the near surface soils within the proposed building footprint have a very low expansion potential. Soils with a very low to low expansion potential are suitable for direct support of structures or heave-sensitive improvements. However, expansive clays may be encountered during construction. Soils with a medium to very high expansion potential are considered expansive and unsuitable for direct support of structures or heave-sensitive improvements. Recommendations for expansive soils are provided herein.
- In general, excavations are anticipated to be achievable using standard heavy earthmoving equipment in good-working order with experienced operators. Gravel, cobbles, and construction debris should be anticipated.
- The proposed building can be supported on shallow spread footings or a mat foundation with bottom levels bearing on stone columns. Foundation recommendations are provided herein.
- Groundwater was encountered at depths of about 15 and 18 feet bgs, corresponding to elevations of about 3¾ and 4 feet msl, and should be anticipated during construction. Rainfall may cause perched water conditions during wet periods and seepage may develop in the future. Groundwater seepage is difficult to predict. Such conditions are typically mitigated if and when they occur.
- The infiltration feasibility condition category is "No Infiltration" based on the infiltration rates in accordance with the BMP manual. Infiltration is discussed in Section 8 and Worksheet C.4-1 is provided in Appendix F.

7. RECOMMENDATIONS

The remainder of this report presents preliminary recommendations regarding earthwork construction and design of the proposed structures and improvements. These recommendations are based on empirical and analytical methods typical of the standard-of-practice in southern California. If these recommendations appear not to address a specific feature of the project, please contact NOVA for additions or revisions to the recommendations. The recommendations presented herein may need to be updated once final plans are developed.

7.1. Earthwork

Grading and earthwork should be conducted in accordance with the CBC and the recommendations of this report. The following recommendations are provided regarding specific aspects of the proposed earthwork construction. The recommendations should be considered subject to revision based on field conditions observed by NOVA field representatives during grading.

7.1.1. Site Preparation

Site preparation should begin with the removal of existing improvements, vegetation, and debris. Subsurface improvements that are to be abandoned should be removed, and the resulting excavations should be backfilled and compacted in accordance with the recommendations of this report. Pipeline abandonment can consist of capping or rerouting at the project perimeter and removal within the project perimeter. If appropriate, abandoned pipelines can be filled with grout or slurry as recommended by and observed by the geotechnical consultant.

7.1.2. Remedial Grading - Building Pad

Beneath the proposed building pad, any existing fill should be removed in its entirety. Additionally, the alluvial deposits should be excavated to a depth of at least 2 feet below the proposed finished pad elevation to provide a uniform thickness of compacted fill beneath the slab-on-grade. Horizontally, excavations should extend at least 5 feet outside planned perimeter foundations or up to existing improvements or the limits of grading, whichever is less. NOVA should observe the conditions exposed in the bottom of excavations to evaluate whether additional excavation is recommended. The resulting excavation should be filled to finished pad grade with compacted fill having an expansion index (EI) of 50 or less.

7.1.3. Remedial Grading - Pedestrian Hardscape

Beneath proposed pedestrian hardscape areas, the existing soils should be excavated to a depth of at least 2 feet below existing grade or planned subgrade elevation, whichever is deeper. Horizontally, excavations should extend at least 2 feet outside hardscape or up to existing improvements or the limits of grading, whichever is less. NOVA should observe the conditions exposed in the bottom of excavations to evaluate whether additional excavation is recommended. The excavation should be filled with compacted fill having an EI of 50 or less.

7.1.4. Remedial Grading - Vehicular Pavements

Beneath proposed vehicular pavement areas, the existing soils should be excavated to a depth of at least 1 foot below existing grade or planned subgrade elevation, whichever is deeper. Horizontally, excavations should extend at least 2 feet outside the planned pavement or up to existing improvements or the limits of grading, whichever is less. NOVA should observe the conditions exposed in the bottom of excavations to evaluate whether additional excavation is recommended. The excavation should be filled with material suitable for use as compacted fill.

7.1.5. Remedial Grading - Site Walls

Beneath proposed site walls and retaining walls not connected to buildings, the existing soils should be excavated to a depth of at least 2 feet below bottom of footing. Horizontally, the excavations should extend at least 2 feet outside the planned wall footing or up to existing improvements or the limits of grading, whichever is less. NOVA should observe the conditions exposed at the bottom of excavations to evaluate whether additional excavation is recommended. Any required fill should have an EI of 50 or less.

7.1.6. Stone Columns

To reduce the potential for seismic settlement beneath the proposed building and settlement sensitive improvements, ground improvement techniques such as stone columns extending from the bottom of footing elevations and/or bottom of mat slab elevation down to old paralic deposits is recommended. Old paralic deposits are anticipated to be encountered at elevations ranging from -4 to -11 feet msl. A contractor specializing in the design and installation of stone columns should be contacted regarding specific recommendations for this type of construction. Horizontally, the ground improvement should extend to at least 5 feet outside the perimeter of the building and settlement sensitive improvements or up to existing improvements or limits of grading, whichever is less. The effectiveness of installed ground improvement can be evaluated using cone penetrometer testing, or other similar methods, and should be monitored and adjusted by the contractor to protect existing improvements.

7.1.7. Expansive Soil

The on-site soils tested have EIs of 0 and 13, classified as very low expansion potential. To reduce the potential for expansive heave, the top 2 feet of material beneath foundations, concrete slabs-on-grade, and hardscape should have an EI of 50 or less. Horizontally, the soils having an EI of 50 or less should extend at least 5 feet outside the planned perimeter building foundations, at least 2 feet outside concrete slabs, hardscape, and site wall footings, or up to existing improvements or the limits of grading, whichever is less. Based on the results of our laboratory testing, we expect that the on-site soils will generally meet the EI criteria. Clays, if encountered, may not meet the EI criteria.

7.1.8. Compacted Fill

Excavated soils free of organic matter, construction debris, rocks greater than 6 inches, and expansive soil as described above should generally be suitable for reuse as compacted fill. Areas to receive fill should be scarified to a depth of 6 to 8 inches, moisture conditioned to near optimum moisture content,

and compacted to at least 90% relative compaction. Fill and backfill should be placed in 6- to 8-inch-thick loose lifts, moisture conditioned to near optimum moisture content, and compacted to at least 90% relative compaction. The top 12 inches of subgrade beneath pavements should be compacted to at least 95% relative compaction. The maximum density and optimum moisture content for the evaluation of relative compaction should be determined in accordance with ASTM D1557.

7.1.9. Imported Soil

Imported soil should consist of predominately granular soil, free of organic matter and rocks greater than 6 inches. Imported soil should be observed and, if appropriate, tested by NOVA prior to transport to the site to evaluate suitability for the intended use.

7.1.10. Subgrade Stabilization

Excavation bottoms should be firm and unyielding prior to placing fill. In areas of saturated or yielding subgrade, a reinforcing geogrid such as Tensar® InterAx® NX-650 or equivalent can be placed on the excavation bottom, and then at least 12 inches of aggregate base placed and compacted. Once the surface of the aggregate base is firm enough to achieve compaction, then the remaining excavation should be filled to finished pad grade with suitable material.

7.1.11. Excavation Characteristics

It is anticipated that excavations can be achieved with conventional earthwork equipment in good working order. However, very dense formational materials may require extra excavation effort.

7.1.12. Oversized Material

Oversized material is defined as rocks or cemented clasts greater than 6 inches in largest dimension. Oversized material, if encountered, should be broken down to no greater than 6 inches in largest dimension for use in fill, used as landscape material, or disposed of off-site.

7.1.13. Temporary Excavations

Temporary excavations 3 feet deep or less can be made vertically. Deeper temporary excavations should be laid back no steeper than 1:1 (horizontal:vertical) (h:v). The faces of temporary slopes should be inspected daily by the contractor's Competent Person before personnel are allowed to enter the excavation. Any zones of potential instability, sloughing, or raveling should be brought to the attention of the engineer and corrective action implemented before personnel begin working in the excavation. Excavated soils should not be stockpiled behind temporary excavations within a distance equal to the depth of the excavation. NOVA should be notified if other surcharge loads are anticipated so that lateral load criteria can be developed for the specific situation. If temporary slopes are to be maintained during the rainy season, berms are recommended along the tops of slopes to prevent runoff water from entering the excavation and eroding the slope faces.

Slopes steeper than those described above will require shoring. Additionally, temporary excavations that extend below a plane inclined at 1½:1 (h:v) downward from the outside bottom edge of existing structures or improvements will require shoring. Soldier piles and lagging, internally braced shoring,

or trench boxes could be used. If trench boxes are used, the soil immediately adjacent to the trench box is not directly supported. Ground surface deformations immediately adjacent to the pit or trench could be greater where trench boxes are used compared to other methods of shoring.

7.1.14. Temporary Shoring

For the design of cantilevered shoring with level backfill, an active earth pressure equal to a fluid weighing 35 pounds per cubic foot (pcf) can be used. An additional 20 pcf should be added for 2:1 (h:v) sloping ground. The surcharge loads on shoring from traffic and construction equipment working adjacent to the excavation can be modeled by assuming an additional 2 feet of soil behind the shoring. For the design of soldier piles, an allowable passive pressure of 350 psf per foot of embedment can be used, over two times the pile diameter up to a maximum of 5,000 psf. Soldier piles should be spaced at least three pile diameters, center to center. Continuous lagging will be required throughout. Soldier piles should be designed for the full anticipated lateral pressure; however, the pressure on the lagging will be less due to arching in the soils. For the design of lagging, the earth pressure can be limited to a maximum of 400 psf.

7.1.15. Groundwater Seepage

Groundwater seepage should be anticipated in excavations. If dewatering is necessary, the dewatering method should be evaluated and implemented by an experienced dewatering subcontractor.

7.1.16. Slopes

Permanent slopes should be constructed no steeper than 2:1 (h:v). Faces of fill slopes should be compacted either by rolling with a sheepsfoot roller or other suitable equipment, or by overfilling and cutting back to design grade. Fills should be benched into sloping ground inclined steeper than 5:1 (h:v). In NOVA's opinion, slopes constructed no steeper than 2:1 (h:v) will possess an adequate factor of safety. An engineering geologist should observe cut slopes during grading to ascertain that no unforeseen adverse geologic conditions are encountered that require revised recommendations. Slopes are susceptible to surficial slope failure and erosion. Water should not be allowed to flow over the top of slope. Additionally, slopes should be planted with vegetation that will reduce the potential for erosion.

7.1.17. Surface Drainage

Final surface grades around structures should be designed to collect and direct surface water away from structures, including retaining walls, and toward appropriate drainage facilities. The ground around the structure should be graded so that surface water flows rapidly away from the structure without ponding. In general, we recommend that the ground adjacent to the structure slope away at a gradient of at least 2%. Densely vegetated areas where runoff can be impaired should have a minimum gradient of at least 5% within the first 5 feet from the structure. Roof gutters with downspouts that discharge directly into a closed drainage system are recommended on structures. Drainage patterns established at the time of fine grading should be maintained throughout the life of the proposed structures. Site irrigation should be limited to the minimum necessary to sustain landscape

growth. Should excessive irrigation, impaired drainage, or unusually high rainfall occur, saturated zones of perched groundwater can develop.

7.1.18. Grading Plan Review

NOVA should review the grading plans and earthwork specifications to ascertain whether the intent of the recommendations contained in this report have been implemented and that no revised recommendations are needed due to changes in the development scheme.

7.2. Foundations

The foundation recommendations provided herein are considered generally consistent with methods typically used in southern California. Other alternatives may be available. NOVA's recommendations are only minimum criteria based on geotechnical factors and should not be considered a structural design, or to preclude more restrictive criteria of governing agencies or by the structural engineer. The design of the foundation system should be performed by the project structural engineer, incorporating the geotechnical parameters described herein and the requirements of applicable building codes.

The proposed building can be supported on spread footings and/or mat foundations with bottom levels bearing on stone columns. If spread footings are used, a structurally supported slab-at-grade should be used. Site walls not connected to buildings can be supported on spread footings with bottom levels bearing on compacted fill.

7.2.1. Spread Footings

Footings should extend at least 24 inches below lowest adjacent finished grade. A minimum width of 18 inches is recommended for continuous building footings and 24 inches for isolated building footings or site wall footings. An allowable bearing capacity of 4,000 psf can be used for spread footings supported on stone columns designed and installed by a specialty contractor as recommended herein. An allowable bearing capacity of 2,500 psf can be used for spread footings supported on compacted fill. An allowable bearing capacity of 1,500 psf should be used below groundwater level. The allowable bearing capacity can be increased by 500 psf for each foot of depth below the minimum and 250 psf for each foot of width beyond the minimum up to a maximum of 7,500 psf for footings bearing on stone columns above groundwater, 5,000 psf for footings bearing on compacted fill above groundwater level, or 2,500 psf below groundwater level. The bearing value can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. Footings located adjacent to or within slopes should be extended to a depth such that a minimum horizontal distance of 10 feet exists between the lower outside footing edge and the face of the slope.

7.2.2. Mat Foundations

An allowable bearing capacity of 2,000 psf can be used for mat foundations supported on stone columns. Mat foundations typically experience some deflection due to loads placed on the mat and the reaction of the soils underlying the mat. A design modulus of subgrade reaction, K, of 300 pounds per cubic inch (pci) can be used for the subgrade soils in evaluating such deflections. This value is based on an area of 1 square foot and should be adjusted for larger mats. Adjusted values of the

modulus of subgrade reaction, K_v, can be obtained from the following equation for square mats of various widths:

$$K_V = K\left[\frac{\mathrm{B}+1}{2\mathrm{B}}\right]^2 (pci)$$

Where B is the width of the mat in feet.

Adjusted values of the modulus of subgrade reaction, K', can be obtained from the following equation for rectangular mats:

$$K' = \frac{K_v\left(1 + 0.5\left(\frac{B}{L}\right)\right)}{1.5} (pci)$$

Where B is the width and L is the length of the mat in feet.

7.2.3. Lateral Resistance for Shallow Structural Elements

Lateral loads will be resisted by friction between the bottoms of foundations and passive pressure on the faces of foundations and other structural elements below grade. An allowable coefficient of friction of 0.35 can be used. An allowable passive pressure of 350 psf per foot of depth below the ground surface can be used for level ground conditions where the ground is horizontal for a distance of at least 10 feet or three times the height generating the passive pressure. The passive pressure should be reduced for sloping ground conditions. The passive pressure can be increased by ⅓ when considering the total of all loads, including wind or seismic forces. The upper 1 foot of soil should not be relied on for passive support unless the ground is covered with pavements or slabs.

7.2.4. Settlement Characteristics

Static settlement is estimated to be about 1 inch total and ½ inch differential over a distance of 40 feet and should be completed shortly after structural loads are applied. Post-liquefaction dynamic settlement will be dependent on the level of ground improvement performed at the site. The project structural engineer should coordinate with the specialty contractor regarding the amount of tolerable settlement for the selected foundation system (i.e., shallow foundations or mat foundations).

7.2.5. Foundation Plan Review

NOVA should review the foundation plans to ascertain that the intent of the recommendations in this report has been implemented and that revised recommendations are not necessary as a result of changes after this report was completed.

7.2.6. Foundation Excavation Observations

A representative from NOVA should observe the foundation excavations prior to forming or placing reinforcing steel.

7.3. Interior Slabs

Interior concrete structurally supported slabs-at-grade should be underlain by at least 2 feet of material with an EI of 50 or less. The top 12 inches of subgrade soils should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 90% relative compaction. Subgrade preparation should be performed immediately prior to placement of the concrete slab.

We recommend that concrete slabs-on-grade be at least 5 inches thick and reinforced with at least No. 4 bars at 18 inches on center each way. To reduce the potential for excessive cracking, concrete slabs should be provided with construction or 'weakened plane' joints at frequent intervals. The project structural engineer should design on-grade building slabs and joint spacing.

Moisture protection should be installed beneath slabs where moisture sensitive floor coverings will be used. The project architect should review the tolerable moisture transmission rate of the proposed floor covering and specify an appropriate moisture protection system. Typically, a plastic vapor barrier is used. Minimum 15-mil plastic is recommended. The plastic should comply with ASTM E1745. The vapor barrier installation should comply with ASTM E1643. The slab can be placed directly on the vapor barrier.

7.4. Pedestrian Hardscape

Pedestrian hardscape should be underlain by at least 2 feet of material with an EI of 50 or less. The top 12 inches of subgrade soils should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 90% relative compaction. If competent formational sandstone is exposed, scarification and recompaction need not be performed. Subgrade preparation should be performed immediately prior to placement of the hardscape.

Exterior slabs should be at least 4 inches in thickness and reinforced with at least No. 3 bars at 18 inches on center each way. Slabs should be provided with weakened plane joints. Joints should be placed in accordance with the American Concrete Institute (ACI) guidelines. The project architect should select the final joint patterns. A 1-inch maximum size aggregate mix is recommended for concrete for exterior slabs. The corrosion potential of on-site soils with respect to reinforced concrete will need to be taken into account in concrete mix design. Coarse and fine aggregate in concrete should conform to the "Greenbook" specifications.

7.5. Pavement Section Recommendations

Based on our laboratory testing, an R-value of 8 was assumed for design of preliminary pavement sections. The actual R-value of the subgrade soils should be determined after grading, and the final pavement sections should be provided. Based on an R-value of 8, the following preliminary pavement structural sections are provided for the assumed Traffic Indexes in Table 7-1.

Table 7-1. AC and PCC Pavement Sections

Traffic Type	Traffic Index	Asphalt Concrete (inches)	Portland Cement Concrete (inches)
Parking Stalls	4.5	3 AC / 8 AB	7 PCC / 4 AB
Driveways	6.0	4 AC / 11 AB	7 PCC / 4 AB
Fire Lanes	7.5	5 AC / 15 AB	7½ PCC / 4 AB

AC: Asphalt Concrete
AB: Aggregate Base
PCC: Portland Cement Concrete

Subgrade preparation should be performed immediately prior to placement of the pavement section. The upper 12 inches of subgrade should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 95% relative compaction. All soft or yielding areas should be stabilized or removed and replaced with compacted fill or aggregate base. Aggregate base and asphalt concrete should conform to the Caltrans Standard Specifications or the "Greenbook" and should be compacted to at least 95% relative compaction. Aggregate base should have an R-value of not less than 78. All materials and methods of construction should conform to good engineering practices and the minimum local standards.

7.6. Pervious Pavement Section Recommendations

Pervious pavement section recommendations are based on Caltrans (2013) pavement structural design guidelines. The pavement sections below are based on the strength of the materials. However, the actual thickness of the sections may be controlled by the reservoir layer design, which the project civil engineer should determine.

Table 7-2. Pervious Asphalt Pavement Sections

Traffic Type	Category	*Asphalt Treated Permeable Base (ATPB) (inches)	Class 4 Aggregate Base (inches)
Parking Stalls	B	3	12

***1¼ inches of an open-graded friction course (OGFC) should be placed on top of the ATPB.**

Table 7-3. Pervious Concrete Pavement Sections

Traffic Type	Category	Pervious Concrete (inches)	Class 4 Aggregate Base (inches)
Parking Stalls	B	6	8½

Table 7-4. Permeable Interlocking Concrete Pavers (PICP) Sections

Traffic Type	Category	PICP (inches)	Class 3 Permeable (inches)	Class 4 Aggregate Base (inches)
Parking Stalls	B	3⅛	4½	8½

Note: 2 inches of bedding should be placed between the Class 3 permeable material course and pavers.

The top 12 inches of subgrade should be scarified, moisture conditioned to near optimum moisture content, and compacted to at least 95% relative compaction. All soft or yielding subgrade areas should be stabilized or removed and replaced with compacted fill or permeable base. All materials and methods of construction should conform to good engineering practices and the minimum local standards. Deepened curbs or vertical cutoff membranes consisting of 30 mil HDPE or PVC should be installed at the edges of pervious pavements to reduce the potential for water-related distress to adjacent structures or improvements. The membrane should extend below the reservoir section, and a suitable subdrain system should be installed.

7.7. Conventional Retaining Walls

Conventional retaining walls can be supported on spread footings. The recommendations for spread footings provided in the foundation section of this report are also applicable to conventional retaining walls.

The active earth pressure for the design of unrestrained retaining walls with level backfill can be taken as equivalent to the pressure of a fluid weighing 35 pcf. The at-rest earth pressure for the design of restrained retaining wall with level backfill can be taken as equivalent to the pressure of a fluid weighing 55 pcf. These values assume a granular and drained backfill condition. Higher lateral earth pressures would apply if walls retain clay soils. An additional 20 pcf should be added to these values for walls with 2:1 (h:v) sloping backfill. An increase in earth pressure equivalent to an additional 2 feet of retained soil can be used to account for surcharge loads from light traffic. The above values do not include a factor of safety. Appropriate factors of safety should be incorporated into the design. If any other surcharge loads are anticipated, NOVA should be contacted for the necessary increase in soil pressure.

The seismic earth pressure can be taken as equivalent to the pressure of a fluid pressure weighing 17 pcf. This value is for level backfill and does not include a factor of safety. Appropriate factors of safety should be incorporated into the design. This pressure is in addition to the un-factored, active earth pressure. The total equivalent fluid pressure can be modeled as a triangular pressure distribution with the resultant acting at a height of H/3 up from the base of the wall, where H is the retained height of the wall. The passive pressure and bearing capacity can be increased by ⅓ in determining the seismic stability of the wall.

Retaining walls should be provided with a backdrain to reduce the accumulation of hydrostatic pressures or be designed to resist hydrostatic pressures. Backdrains can consist of a 2-foot-wide zone of ¾-inch crushed rock. The crushed rock should be separated from the adjacent soils using a non-

woven filter fabric, such as Mirafi 140N or equivalent. A perforated pipe should be installed at the base of the backdrain and sloped to discharge to a suitable storm drain facility, or weep holes should be provided. As an alternative, a geocomposite drainage system such as Miradrain 6000 or equivalent placed behind the wall and connected to a suitable storm drain facility can be used. The project architect should provide dampproofing/waterproofing specifications and details. Figure 7-1 presents typical conventional retaining wall backdrain details. Note that the guidance provided on Figure 7-1 is conceptual. A variety of options are available to drain retaining walls.

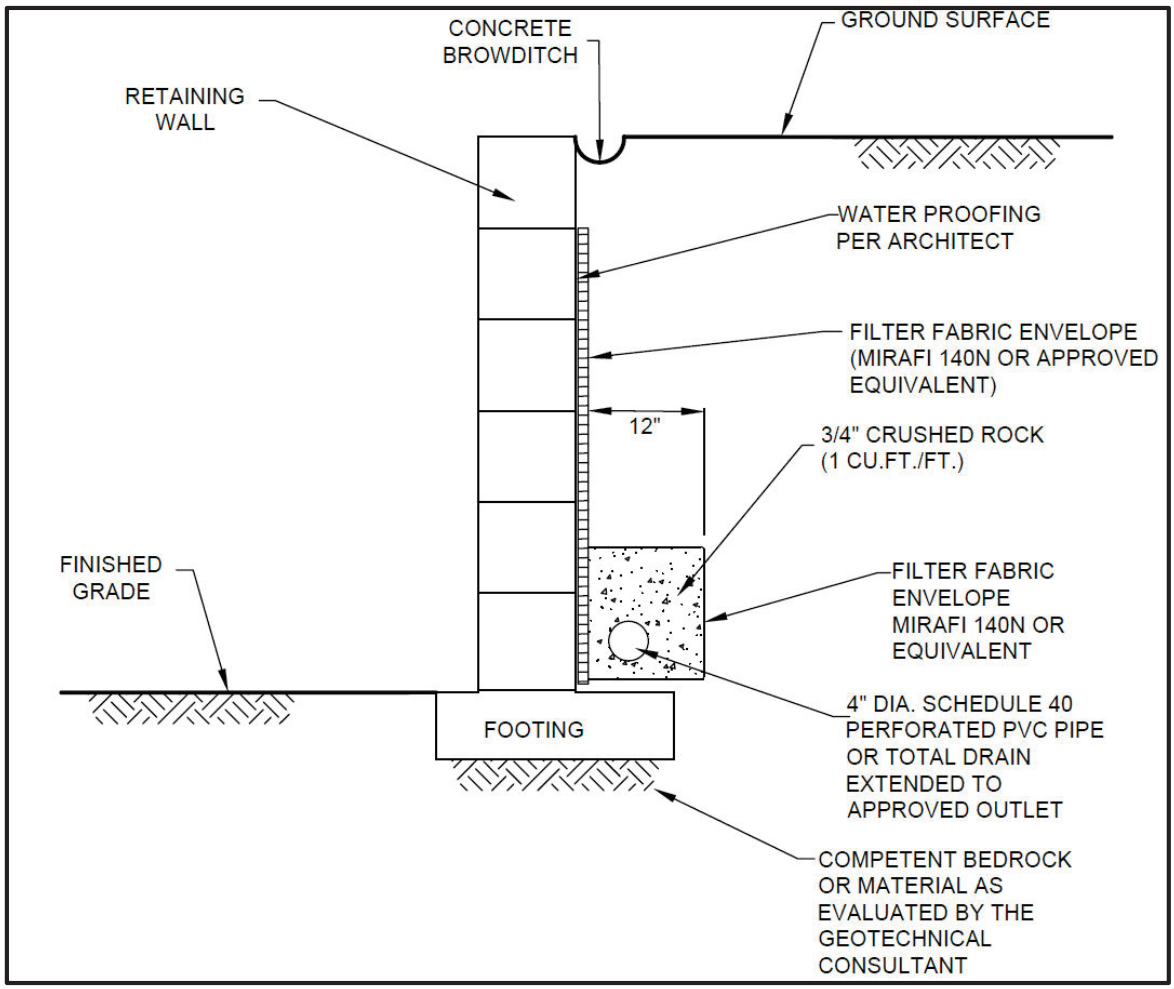


Figure 7-1. Typical Conventional Retaining Wall Backdrain Detail

Wall backfill should consist of granular, free-draining material having an expansion index of 20 or less. The backfill zone is defined by a 1:1 (h:v) plane projected upward from the heel of the wall. Expansive or clayey soil should not be used. Additionally, backfill within 3 feet from the back of the wall should not contain rocks greater than 3 inches in dimension. Backfill should be compacted to at least 90% relative compaction. Backfill should not be placed until walls have achieved adequate structural strength. Compaction of wall backfill will be necessary to minimize settlement of the backfill and overlying settlement sensitive improvements. However, some settlement should still be anticipated.

Provisions should be made for some settlement of concrete slabs and pavements supported on backfill. Additionally, any utilities supported on backfill should be designed to tolerate differential settlement.

7.8. Pipelines

For level ground conditions, a passive earth pressure of 350 psf per foot of depth below the lowest adjacent final grade can be used to compute allowable thrust block resistance. A value of 150 psf per foot should be used below groundwater level.

A modulus of soil reaction (E') of 1,400 psi can be used to evaluate the deflection of buried flexible pipelines. This value assumes that granular bedding material is placed adjacent to the pipe and is compacted to at least 90% relative compaction.

Pipe bedding as specified in the "Greenbook" Standard Specifications for Public Works Construction can be used. Bedding material should consist of clean sand having a sand equivalent not less than 20 and should extend to at least 12 inches above the top of pipe. Alternative materials meeting the intent of the bedding specifications are also acceptable. Samples of materials proposed for use as bedding should be provided to the engineer for inspection and testing before the material is imported for use on the project. The on-site materials are not expected to meet "Greenbook" bedding specifications. The pipe bedding material should be placed over the full width of the trench. After placement of the pipe, the bedding should be brought up uniformly on both sides of the pipe to reduce the potential for unbalanced loads. No voids or uncompacted areas should be left beneath the pipe haunches. Ponding or jetting the pipe bedding should not be allowed.

Where pipeline inclinations exceed 15%, cutoff walls are recommended in trench excavations. Additionally, we do not recommend that open graded rock be used for pipe bedding or backfill because of the potential for piping erosion. The recommended bedding is clean sand having a sand equivalent not less than 20 or 2-sack sand/cement slurry. If sand/cement slurry is used for pipe bedding to at least 1 foot over the top of the pipe, cutoff walls are not considered necessary. The need for cutoff walls should be further evaluated by the civil engineer designing the pipeline.

7.9. Corrosivity

Representative samples of the on-site soils were tested to evaluate corrosion potential. The test results are presented in Appendix D. The project design engineer can use the sulfate results in conjunction with ACI 318 to specify the water/cement ratio, compressive strength, and cementitious material types for concrete exposed to soil. It should be noted that the test results indicate relatively low resistivity, which may be corrosive. A corrosion engineer should be contacted to provide specific corrosion control recommendations.

8. INFILTRATION FEASIBILITY

Final stormwater infiltration Best Management Practices ('stormwater BMP') locations were not identified at the time of the investigation; however, NOVA coordinated with our Client to provide infiltration test rates in the areas most likely to have BMPs. Four geotechnical borings (P-1 through P-4) were converted borehole percolation tests following the recommendations presented in the City of San Diego BMP Design Manual (hereinafter, 'the BMP Manual'). The borings were drilled with a truck-mounted drill rig equipped with an 8-inch hollow stem auger to depths between about 5 and 5½ feet bgs. Field measurements were taken to confirm that the borings were drilled to approximately 8 inches in diameter. The borings were logged by a NOVA geologist, who observed and recorded exposed soil cuttings and the boring conditions.

Once the borings were drilled to the desired depth, approximately 2 inches of ¾-inch gravel was placed on the bottom, then a 3-inch diameter Schedule 40 perforated PVC pipe was inserted into the borehole that extended to the ground surface. The ¾-inch gravel was used to partially fill the annular space around the perforated pipe below existing finish grade to minimize the potential of soil caving. The borehole percolation tests were pre-soaked by filling the holes with water to the ground surface level and testing commenced within a 26-hour window.

On the day of testing, two 25-minute trials were conducted in each borehole. The water did not percolate over 6 inches into the soil unit within 25 minutes. Based on the results of the trials, water levels were recorded every 30 minutes for 6 hours. At the beginning of each test interval, the water level was raised to approximately the same level as the previous tests, to maintain a near-constant head during the test periods. It should be noted that the percolation rate of a soil profile is not the same as its infiltration rate ('I'). Therefore, the field percolation rate was converted to an estimated infiltration rate utilizing the Porchet Method in accordance with guidance contained in the BMP Manual. The table below provides a summary of the infiltration rates determined by the percolation testing.

Table 8-1. Infiltration Rate Test Results

Test Location	Test Depth (feet)	Material at Test Depth	Tested Infiltration Rate (in/hr, FS=2)
P-1	5	Alluvial Deposits: Sandy Clay	0.02
P-2	5	Alluvial Deposits: Sandy Clay	0.01
P-3	5½	Alluvial Deposits: Sandy Clay	0.00
P-4	5	Alluvial Deposits: Sandy Clay	0.00

Note: 'FS' indicates 'Factor of Safety'

As shown in the table, a factor of safety (FS) is applied to the infiltration rate (I) determined by the borehole percolation testing. This factor of safety, at least FS = 2 in local practice, considers the nature and variability of subsurface materials, as well as the natural tendency of infiltration structures to become less efficient with time. The calculated infiltration rates after applying a FS of 2 are less than

0.05-inch per hour. Full and partial BMPs are typically not required on sites with infiltration rates less than 0.05-inch per hour.

Appendix E presents the field data from the percolation testing, and Appendix F presents Worksheet C.4-1: Categorization of Infiltration Feasibility Condition Based on Geotechnical Conditions. The tested infiltration rates do not support reliable stormwater infiltration in any appreciable quantity. Based on our test results, the infiltration feasibility condition category is “No Infiltration.” BMP facilities should be lined throughout with an impermeable geomembrane to reduce the potential for water-related distress to adjacent structures or improvements. A subdrain system should be installed at the bottom of BMP facilities. Additionally, BMP facilities should be kept at least 10 feet from structural foundations and the groundwater table.

9. CLOSURE

NOVA should review project plans and specifications prior to bidding and construction to check that the intent of the recommendations in this report has been incorporated. Observations and tests should be performed during construction. If the conditions encountered during construction differ from those anticipated based on the subsurface exploration program, the presence of personnel from NOVA during construction will enable an evaluation of the exposed conditions and modifications of the recommendations in this report or development of additional recommendations in a timely manner.

NOVA should be advised of changes in the project scope so that the recommendations contained in this report can be evaluated with respect to the revised plans. Changes in recommendations will be verified in writing. The findings in this report are valid as of the date of this report. Changes in the condition of the site can, however, occur with the passage of time, whether they are due to natural processes or work on this or adjacent areas. In addition, changes in the standards of practice and government regulations can occur. Thus, the findings in this report may be invalidated wholly or in part by changes beyond NOVA's control. This report should not be relied upon after a period of two years without a review by NOVA verifying the suitability of the conclusions and recommendations to site conditions at that time.

In the performance of professional services, NOVA exercises the level of care and skill ordinarily exercised by members of the geotechnical profession currently practicing under similar conditions and in the same locality. The client recognizes that subsurface conditions may vary from those encountered at the boring locations and that the data, interpretations, and recommendations reported herein are based solely on the information obtained by NOVA. NOVA will be responsible for those data, interpretations, and recommendations, but shall not be responsible for interpretations by others of the information developed. Our services consist of professional consultation and observation only, and no warranty whatsoever, express or implied, is made or intended in connection with the work performed or to be performed by us, or by our proposal for consulting or other services, or by our furnishing of oral or written reports or findings.

10. REFERENCES

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

Arch5Design (A5D), 2023a, 3-Story – 17 Unit MDU's, Bunker Hill Street, San Diego, CA, 92104, Lots 5 and 6 of Block 3, Stephens Addition, Map 964, Site Plan Interior Lot, Sheet A0.0, dated May 10.

——, 2023b, Bunker Hill – Interior Lot, San Diego, CA, Concept Floor Plans, May 10.

California Department of Transportation (Caltrans), Division of Design, Office of Stormwater Management, 2013, *Pervious Pavement Design Guidance*, dated October.

California Department of Transportation (Caltrans), 2018, Standard Specifications.

California Geological Survey (CGS), 2002, California Geomorphic Provinces Note 36, Electronic Copy, Revised December 2002.

——, 2008, Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special Publication 117A, Revised September 2008.

——, 2015, Fault Activity Map of California, https://maps.conservation.ca.gov/cgs/fam/, accessed in May 2023.

——, 2022a, Tsunami Hazard Area Map, County of San Diego; Produced by the California Governor's Office of Emergency Services; dated October 7, mapped at 1:72,000 scale.

——, 2022b, Earthquake Zones of Required Investigation Website, https://maps.conservation.ca.gov/cgs/EQZApp/app/, accessed in May 2023.

California State Water Resources Control Board (2023), "GeoTracker," accessed in May 2023.

City of San Diego, 2008, Seismic Safety Study, Geologic Hazards and Faults, Grid Tile 25, Grid Scale: 800, April 3.

City of San Diego, 2018, Guidelines for Geotechnical Reports.

Federal Emergency Management Agency, 2019, FIRM Flood Insurance Rate Map, San Diego County, Firm Panel 06073C1612H, https://msc.fema.gov/portal/search, effective 12/20/2019; accessed in May 2023.

Historic Aerials Website, https://www.historicaerials.com/viewer, accessed in May 2023.

International Code Council, 2021, 2022 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 2 of 2, Based on the 2021 International Building Code, Effective 1/1/23.

J&B Engineers & Surveyors (J&B) , 2022, Topographic Survey For: Bunker Hill Street and Revere Avenue, San Diego, CA 92109, Parcel 3 of Parcel Map 1904 and Lots 5 & 6 Block 3, Stephens Addition, Map 964, dated December 2022.

Kennedy, M.P. and Tan, S.S., 2008, Geologic Map of the San Diego 30' x 60' Quadrangle, California, California Geological Survey, Regional Geologic Map No. 3, Scale 1:100,000.

Public Works Standards, Inc., 2021, "Greenbook" Standard Specifications for Public Works Construction, 2021 Edition.

Structural Engineers Association of California (SEAOC), 2023, OSHPD Seismic Design Maps: found at https://seismicmaps.org/, accessed in May 2023.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, 2021, San Diego County Area, California, Area Symbol: CA638, Survey Area: Version 16, dated September 13, found at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx, accessed in May 2023.

United States Geological Survey (USGS), 2022, USGS Geologic Hazards Science Center, U.S. Quaternary Faults, accessed in May 2023.

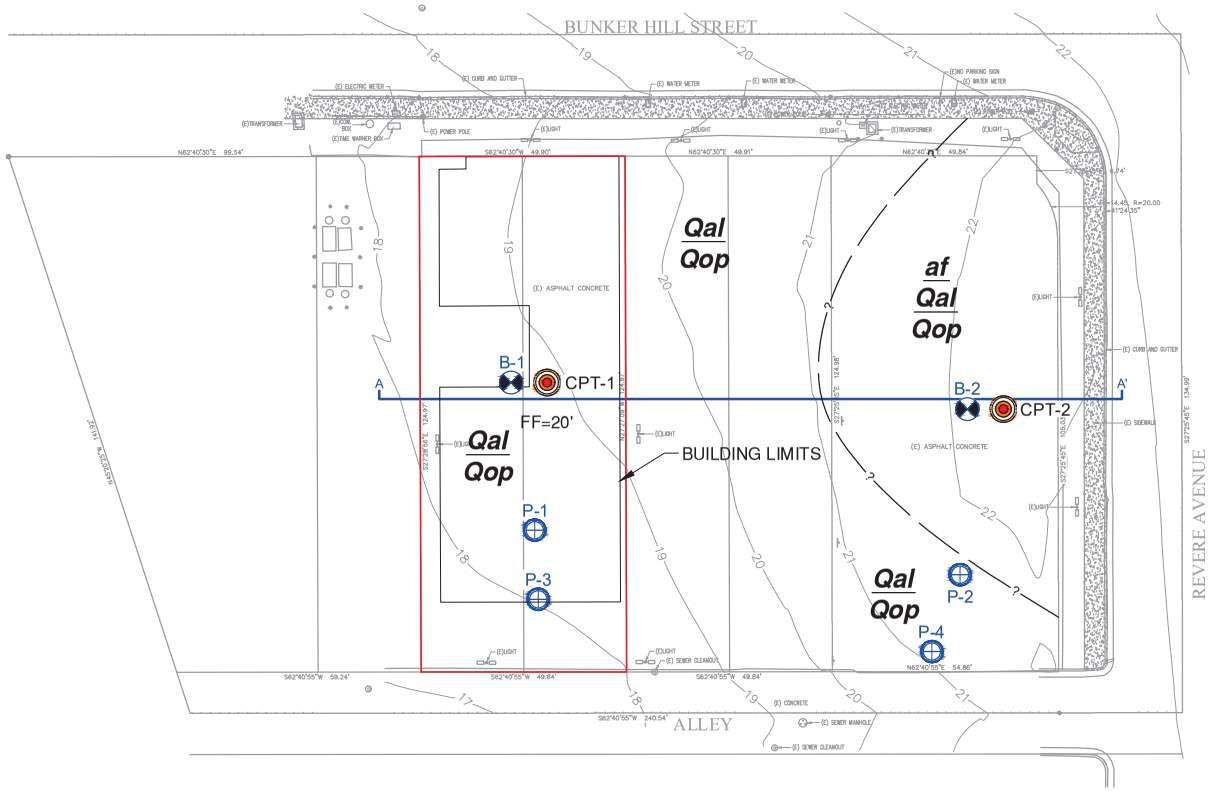
USGS, 2023a, Unified Hazard Tool, https://earthquake.usgs.gov/hazards/interactive/, accessed June.

——, 2023b, Risk-Targeted Ground Motion Calculator, https://earthquake.usgs.gov/designmaps/rtgm/, accessed June.

——, 2023c, Response Spectra Tool, https://earthquake.usgs.gov/nshmp-haz-ws/apps/spectra-plot.html, accessed June.

——, 2023d, BSSC2014 (Scenario Catalog) https://earthquake.usgs.gov/scenarios/catalog/bssc2014/, accessed June.

PLATES



KEY TO SYMBOLS

af	UNDOCUMENTED FILL
Qal	ALLUVIUM
Qop	OLD PARALIC DEPOSITS
B-2	GEOTECHNICAL BORING
P-4	PERCOLATION TEST BORING
CPT-2	CONE PENETRATION TEST
	SITE LIMITS\ LIMITS OF REMEDIAL GRADING
—?—	GEOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
A A'	GEOLOGIC CROSS-SECTION

0 30' 60'

*BASE MAP: J&B, 2022

*NOTE: LOCATIONS APPROXIMATE
FF=FINISHED FLOOR

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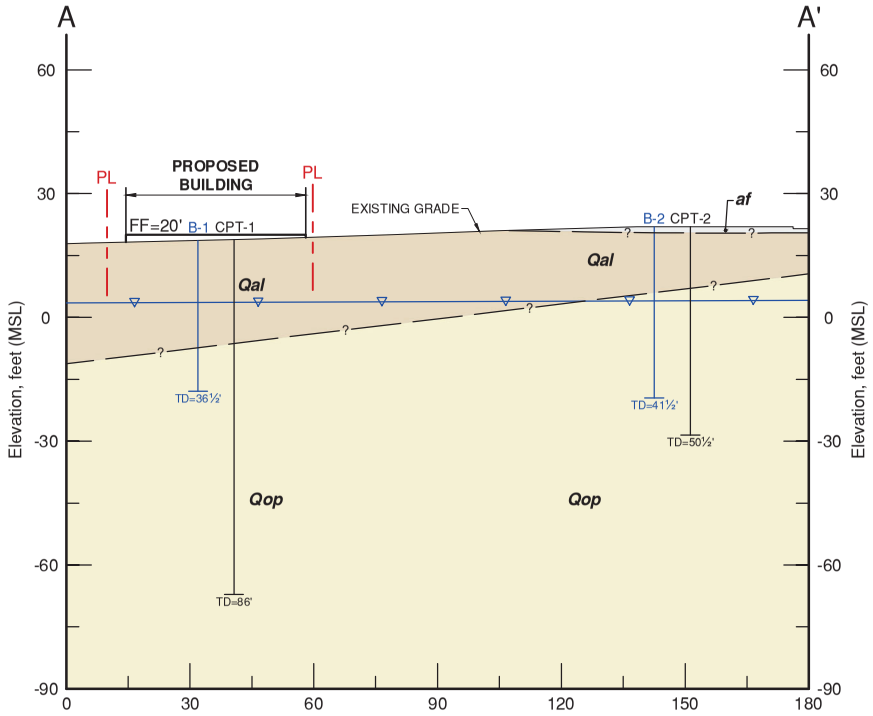
PROJECT NO.:	2022168
DATE:	JULY 2023
DRAWN BY:	DTJ
REVIEWED BY:	MS
SCALE:	1"=30'

DRAWING TITLE:

GEOTECHNICAL MAP



KEY TO SYMBOLS

af	UNDOCUMENTED FILL
Qal	ALLUVIUM
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—?—	GEOLOGIC CONTACT, QUERIED WHERE UNCERTAIN
	APPROXIMATE GROUNDWATER LEVEL
	EXISTING GRADE
	PROPOSED GRADE

0 30' 60'

*NOTE: LOCATIONS APPROXIMATE
FF=FINISHED FLOOR

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DRAWING TITLE:

GEOLOGIC
CROSS-SECTION

PLATE NO. 2 OF 2

APPENDIX A
USE OF THE GEOTECHNICAL REPORT

Important Information About Your

Geotechnical Engineering Report

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

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you —* should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you ASFE-member geotechnical engineer for more information.

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APPENDIX B
BORING LOGS

MAJOR DIVISIONS				TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVEL MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVEL WITH LESS THAN 15% FINES	GW	WELL-GRADED GRAVEL WITH OR WITHOUT SAND
			GP	POORLY GRADED GRAVEL WITH OR WITHOUT SAND
		GRAVEL WITH 15% OR MORE FINES	GM	SILTY GRAVEL WITH OR WITHOUT SAND
			GC	CLAYEY GRAVEL WITH OR WITHOUT SAND
	SAND MORE THAN HALF COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	CLEAN SAND WITH LESS THAN 15% FINES	SW	WELL-GRADED SAND WITH OR WITHOUT GRAVEL
			SP	POORLY GRADED SAND WITH OR WITHOUT GRAVEL
		SAND WITH 15% OR MORE FINES	SM	SILTY SAND WITH OR WITHOUT GRAVEL
			SC	CLAYEY SAND WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML	SILT WITH OR WITHOUT SAND OR GRAVEL
			CL	LEAN CLAY WITH OR WITHOUT SAND OR GRAVEL
			OL	ORGANIC SILT OR CLAY OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH	ELASTIC SILT WITH OR WITHOUT SAND OR GRAVEL
			CH	FAT CLAY WITH OR WITHOUT SAND OR GRAVEL
			OH	ORGANIC SILT OR CLAY OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

- GROUNDWATER / STABILIZED
- GROUNDWATER SEEPAGE
- BULK SAMPLE
- SPT SAMPLE (ASTM D1586)
- MOD. CAL. SAMPLE (ASTM D3550)
- * UNRELIABLE BLOW COUNTS
- GEOLOGIC CONTACT
- SOIL TYPE CHANGE

LAB TEST ABBREVIATIONS

CR	CORROSIVITY
MD	MAXIMUM DENSITY
DS	DIRECT SHEAR
EI	EXPANSION INDEX
AL	ATTERBERG LIMITS
SA	SIEVE ANALYSIS
RV	RESISTANCE VALUE
CN	CONSOLIDATION
SE	SAND EQUIVALENT

LOG ABBREVIATIONS

REF	REFUSAL

RELATIVE DENSITY OF COHESIONLESS SOILS		CONSISTENCY OF COHESIVE SOILS		
RELATIVE DENSITY	SPT N60 BLOWS/FOOT	CONSISTENCY	SPT N60 BLOWS/FOOT	POCKET PENETROMETER MEASUREMENT (TSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	5 - 10	SOFT	3 - 4	0.26 - 0.50
MEDIUM DENSE	11 - 30	MEDIUM STIFF	5 - 8	0.51 - 1.0
DENSE	31 - 50	STIFF	9 - 15	1.1 - 2.0
VERY DENSE	OVER 50	VERY STIFF	16 - 30	2.1 - 4.0
		HARD	OVER 30	OVER 4.0

NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

IF THE 1st 6 INCH INTERVAL IS NOT ACHIEVED, N IS REPORTED AS REF. IF MORE THAN 50 BLOWS ARE RECORDED THE LAST 12 INCHES, N_{60} IS REPORTED AS REF.

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SUBSURFACE EXPLORATION LEGEND

LOG OF BORING B-1

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +18.7 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): 15 **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION (SUMMARY OF SUBSURFACE CONDITIONS (USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER))	LAB TESTS
0								*4 INCHES OF ASPHALT CONCRETE*	
			2 4 6	16			CL-ML	**QUATERNARY ALLUVIAL DEPOSITS (Qal):** *SANDY SILTY CLAY; REDDISH BROWN, MOIST, SOFT, FINE GRAINED SAND*	SA AL EI CR
								VERY STIFF, FINE TO MEDIUM GRAINED SAND, MICACEOUS	
5			4 5 6	18			SM	*SILTY SAND; REDDISH BROWN, MOIST, MEDIUM DENSE, FINE GRAINED, MICACEOUS, 2 INCH LENS OF SANDY CLAY AT 5 FT*	
10			2 5 4	14			CL	*SANDY CLAY; REDDISH BROWN TO BROWN, MOIST, STIFF, FINE GRAINED SAND, WITH POORLY GRADED SAND LAYER AT 10½ FT, PP = 1.75 TSF*	
15			2 2 3	8			SC	*CLAYEY SAND; OLIVE BROWN, WET, LOOSE, FINE GRAINED, MICACEOUS, ORANGE MOTTLING THROUGHOUT*	
20			8 18 20	40	14.4	118.6	GW	*WELL GRADED GRAVEL WITH SAND; REDDISH BROWN, WET, DENSE, FINE TO COARSE GRAINED*	
25			8 6 9	24			SM	*SILTY SAND; REDDISH BROWN, WET, MEDIUM DENSE, FINE TO COARSE GRAINED, MICACEOUS*	
							SM	**OLD PARALIC DEPOSITS (Qop):** *SILTY SAND; GRAY WITH YELLOWISH BROWN MOTTLING, WET, MEDIUM DENSE, VERY FINE GRAINED, MICACEOUS*	
30									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.1

CONTINUED LOG OF BORING B-1

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +18.7 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): 15 **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
30			11 16 22	61			SM	**OLD PARALIC DEPOSITS (Qop)** *(CONTINUED)*: *SILTY SAND; YELLOWISH BROWN, WET, VERY DENSE, FINE TO MEDIUM GRAINED*	
35			4 8 10	29			CL	*SANDY CLAY; GRAYISH BROWN WITH ORANGE MOTTLING, MOIST, VERY STIFF, FINE GRAINED SAND, PP = 2.75 TSF*	
								BORING TERMINATED AT 36½ FT. GROUNDWATER ENCOUNTERED AT 15 FT.	
40									
45									
50									
55									
60									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.2

LOG OF BORING B-2

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +22.1 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): 18 **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
0								*3½ INCHES OF ASPHALT CONCRETE*	
							SC	**FILL (af):** *CLAYEY SAND; BROWN, MOIST, LOOSE, FINE GRAINED, MICACEOUS, SOME DEBRIS*	
			28 25 14	62*			CL	**QUATERNARY ALLUVIAL DEPOSITS (Qal):** *SANDY LEAN CLAY; BROWN, MOIST, FINE GRAINED SAND, UNRELIABLE BLOW COUNTS - SAMPLER BOUNCING ON COBBLE* *NO SAMPLE RECOVERY*	SA AL RV EI CR
5			5 8 10	29				*VERY STIFF, FINE TO COARSE GRAINED SAND*	
10			10 12 16	29	11.0	—			
15			5 12 8	32			SP-SM	*POORLY GRADED SAND WITH SILT; REDDISH BROWN, VERY MOIST TO WET, DENSE, FINE TO MEDIUM GRAINED, MICACEOUS, TRACE GRAVEL*	
							CL	**OLD PARALIC DEPOSITS (Qop):** *SANDY CLAY; GRAY WITH ORANGE MOTTLING, WET, HARD, FINE GRAINED SAND, TRACE GRAVEL, PP = 4.25 TSF*	
20			6 11 11	35				*NO SAMPLE RECOVERY*	
25			3 9 10	30			SM	*SILTY SAND; YELLOWISH BROWN, WET, MEDIUM DENSE, FINE GRAINED, MICACEOUS* *GRAYISH BROWN*	
30									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.3

CONTINUED LOG OF BORING B-2

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +22.1 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): 18 **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
30		☒	6 9 14	37			SM	**OLD PARALIC DEPOSITS (Qop)** *(CONTINUED)*: *SILTY SAND; YELLOWISH BROWN, WET, DENSE, FINE GRAINED, MICACEOUS, 3 INCH LENS OF GRAYISH BROWN SILTY SAND*	
35		☒	4 7 12	30				*MEDIUM DENSE*	
40		☒	4 5 8	21			CL	*SANDY CLAY; GRAYISH BROWN, WET, VERY STIFF, VERY FINE GRAINED SAND, MICACEOUS, PP = 2.25 TSF*	
								BORING TERMINATED AT 41½ FT. GROUNDWATER ENCOUNTERED AT 18 FT.	
45									
50									
55									
60									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.4

LOG OF PERCOLATION BORING P-1

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +18.4 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): N/A **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
0								*3½ INCHES OF ASPHALT CONCRETE*	
	X						CL	**QUATERNARY ALLUVIAL DEPOSITS (Qal):** *SANDY CLAY; REDDISH BROWN, MOIST, SOFT, FINE GRAINED SAND, TRACE GRAVEL*	
5								*BORING TERMINATED AT 5 FT AND CONVERTED TO A PERCOLATION TEST BORING. NO GROUNDWATER ENCOUNTERED.*	
10									
15									
20									
25									
30									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.5

LOG OF PERCOLATION BORING P-2

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +21.6 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): N/A **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
0								*3½ INCHES OF ASPHALT CONCRETE*	
	X						CL	**QUATERNARY ALLUVIAL DEPOSITS (Qal):** *SANDY CLAY; REDDISH BROWN, MOIST, SOFT, FINE GRAINED SAND*	
5								*BORING TERMINATED AT 5 FT AND CONVERTED TO A PERCOLATION TEST BORING. NO GROUNDWATER ENCOUNTERED.*	
10									
15									
20									
25									
30									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.6

LOG OF PERCOLATION BORING P-3

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +18 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): N/A **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
0								*4 INCHES OF ASPHALT CONCRETE*	
	X						CL	**QUATERNARY ALLUVIAL DEPOSITS (Qal):** *SANDY LEAN CLAY; REDDISH BROWN, MOIST, SOFT, FINE TO MEDIUM GRAINED SAND, TRACE GRAVEL*	SA AL
5								*BORING TERMINATED AT 5½ FT AND CONVERTED TO A PERCOLATION TEST BORING. NO GROUNDWATER ENCOUNTERED.*	
10									
15									
20									
25									
30									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.7

LOG OF PERCOLATION BORING P-4

DATE DRILLED: AUG 24, 2022 **DRILLING EQUPMENT:** SABERCAT MTXD **SAMPLE METHOD:** HAMMER: 140 LBS., DROP: 30 IN (AUTO)

ELEVATION (FT): +21.2 MSL **DRILLING METHOD:** 8-INCH HOLLOW STEM AUGER **LOGGED BY:** DTB

GROUNDWATER DEPTH (FT): N/A **NOTES:** ETR~96%, $N_{60} \sim \frac{96}{60}$*N~1.6*N **REVIEWED BY:** MS/GD

DEPTH (FT)	BULK SAMPLE	CAL/SPT SAMPLE	BLOWS PER 6 IN N	N_{60}	MOISTURE (%)	DRY DENSITY (pcf)	SOIL CLASS (USCS)	SOIL DESCRIPTION *SUMMARY OF SUBSURFACE CONDITIONS* *(USCS; COLOR, MOISTURE, DENSITY, GRAIN SIZE, OTHER)*	LAB TESTS
0								*3 INCHES OF ASPHALT CONCRETE*	
	X						CL	**QUATERNARY ALLUVIAL DEPOSITS (Qal):** *SANDY CLAY; REDDISH BROWN, MOIST, SOFT, FINE GRAINED SAND, TRACE GRAVEL*	
5								*BORING TERMINATED AT 5 FT AND CONVERTED TO A PERCOLATION TEST BORING. NO GROUNDWATER ENCOUNTERED.*	
10									
15									
20									
25									
30									

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DRAFTED BY: DTB	PROJECT: 2022168	APPENDIX: B.8

APPENDIX C
CPT DATA AND LIQUEFACTION ANALYSIS

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LIQUEFACTION ANALYSIS REPORT

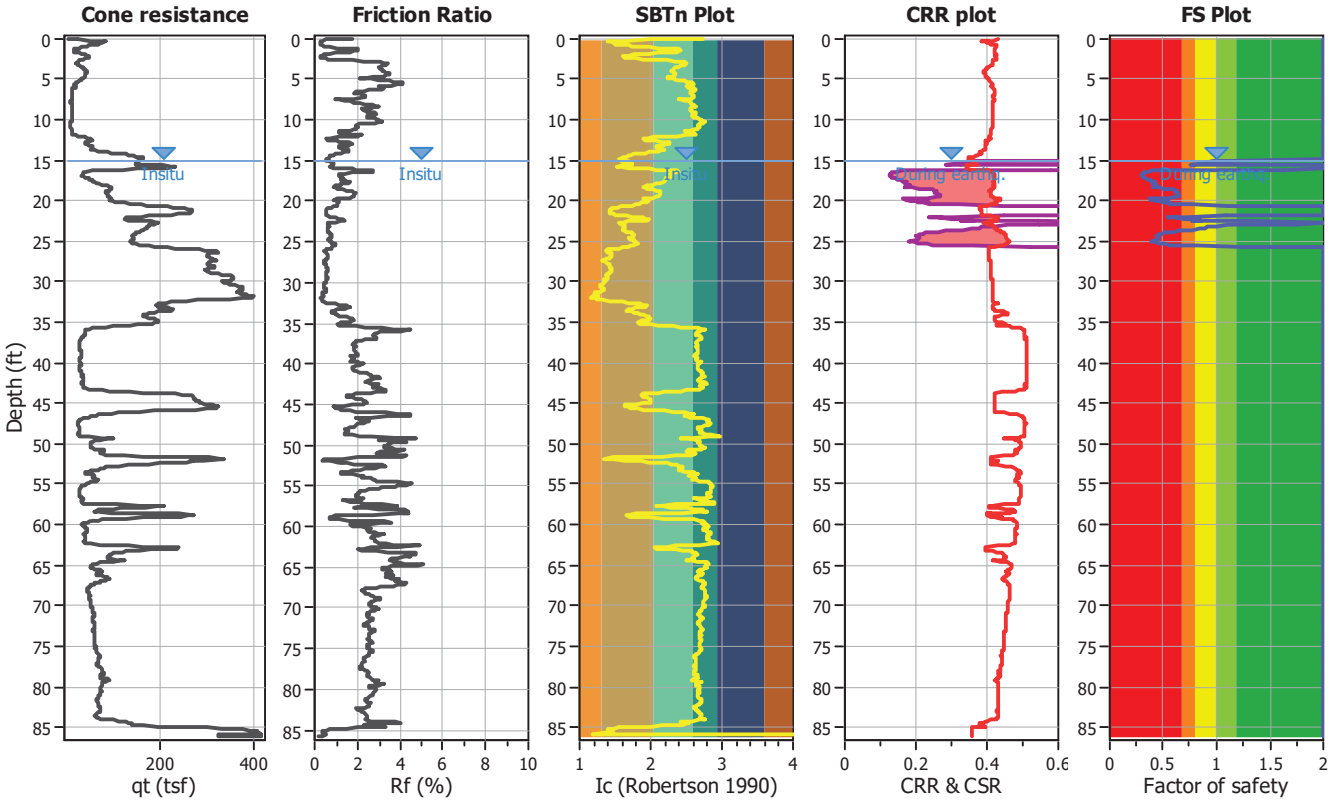
Project title : Bunker Hill Multi-Dwelling Units

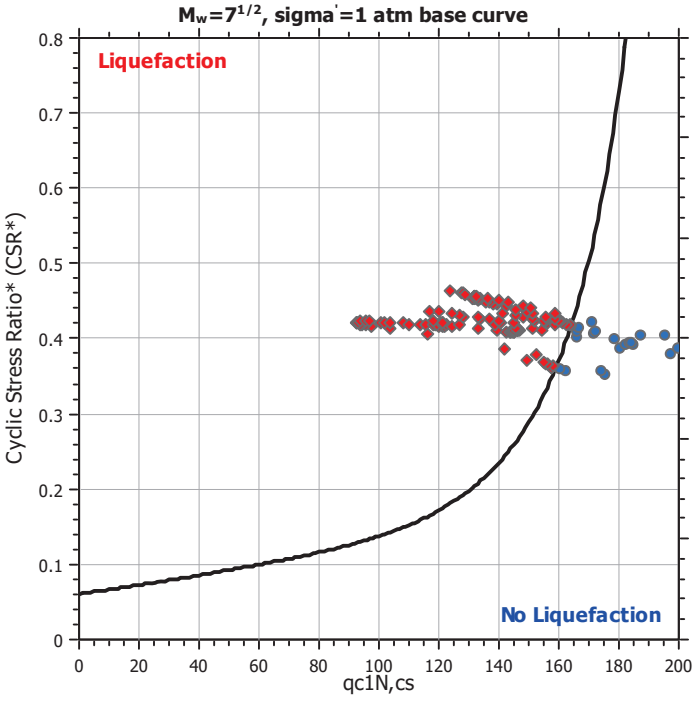
Location : Bunker Hill Street and Revere Avenue, San Diego, CA

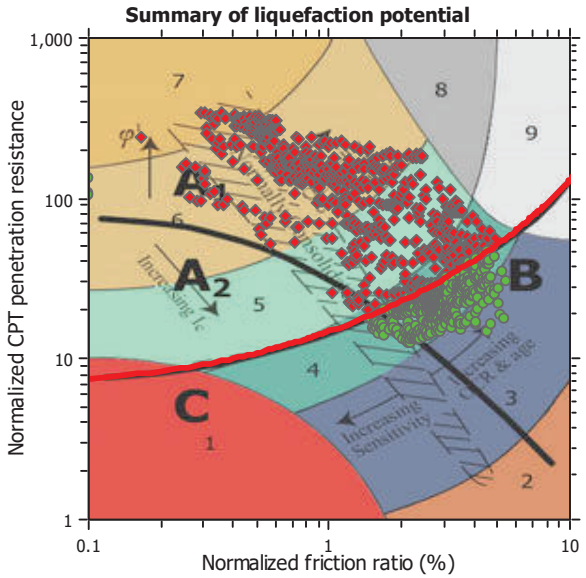
CPT file : CPT-1

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	15.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	30.00 ft
Earthquake magnitude M_w:	6.89	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.68	Unit weight calculation:	Based on SBT	K_σ applied:	No		

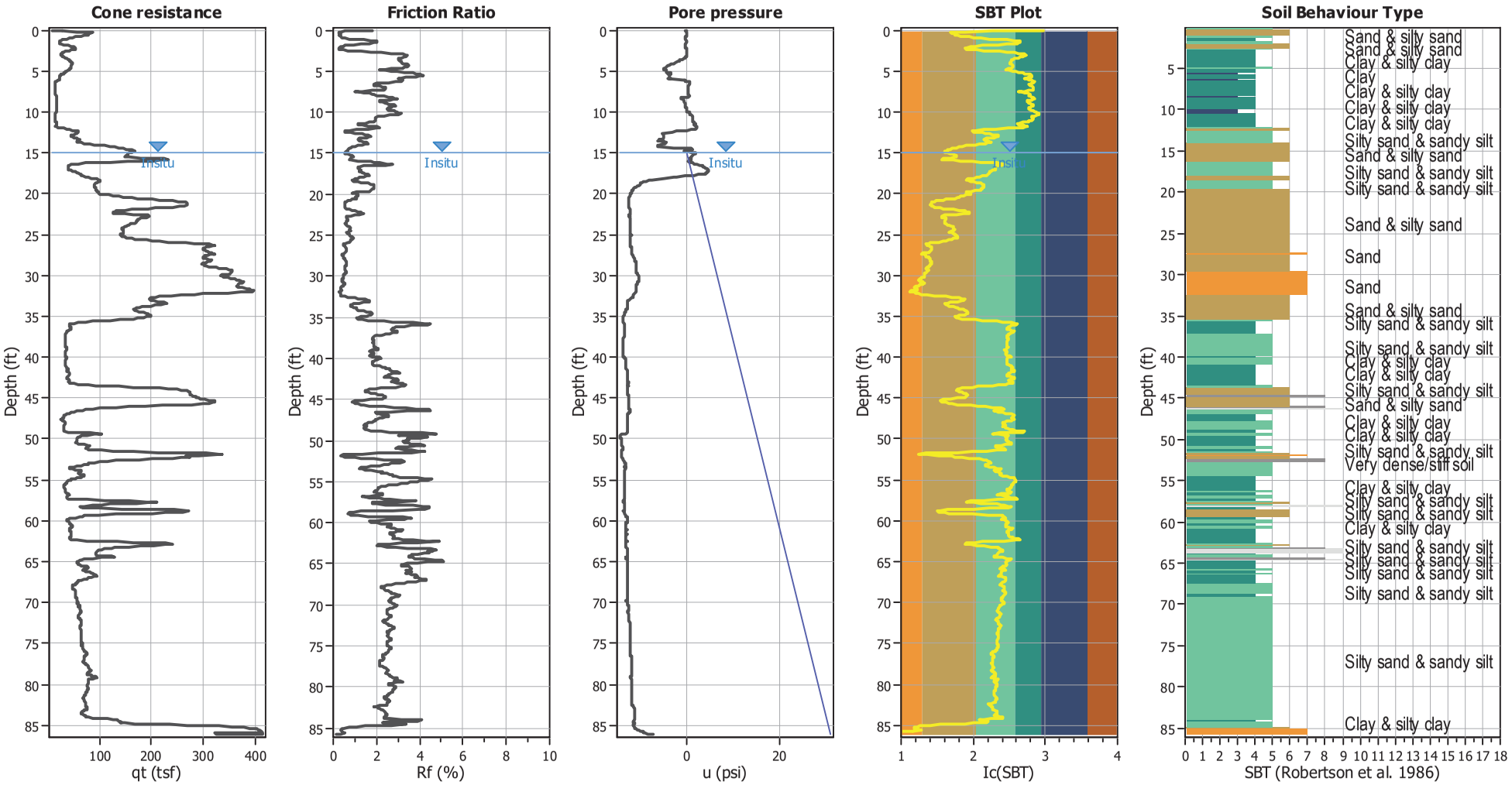






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



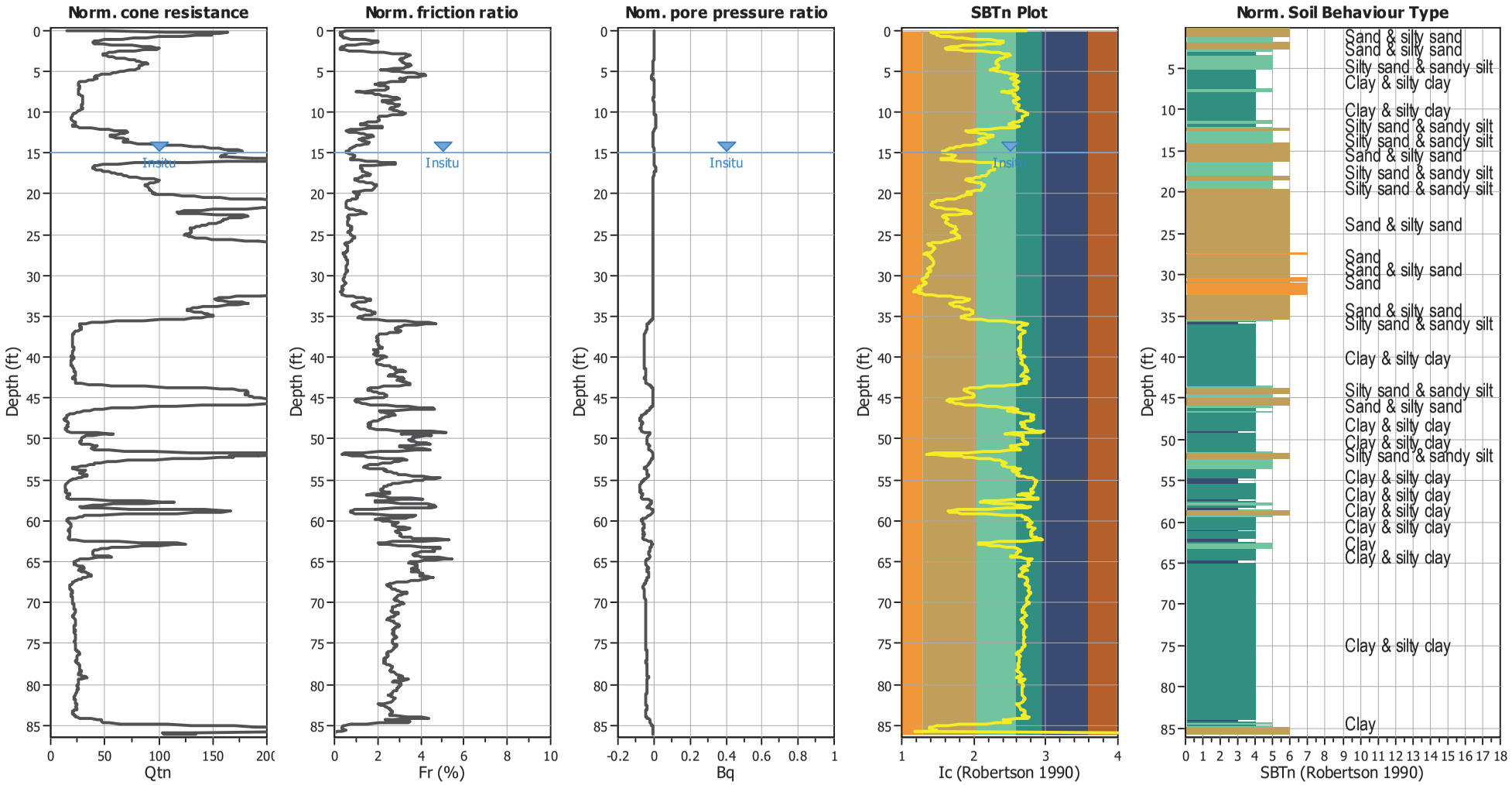
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	30.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



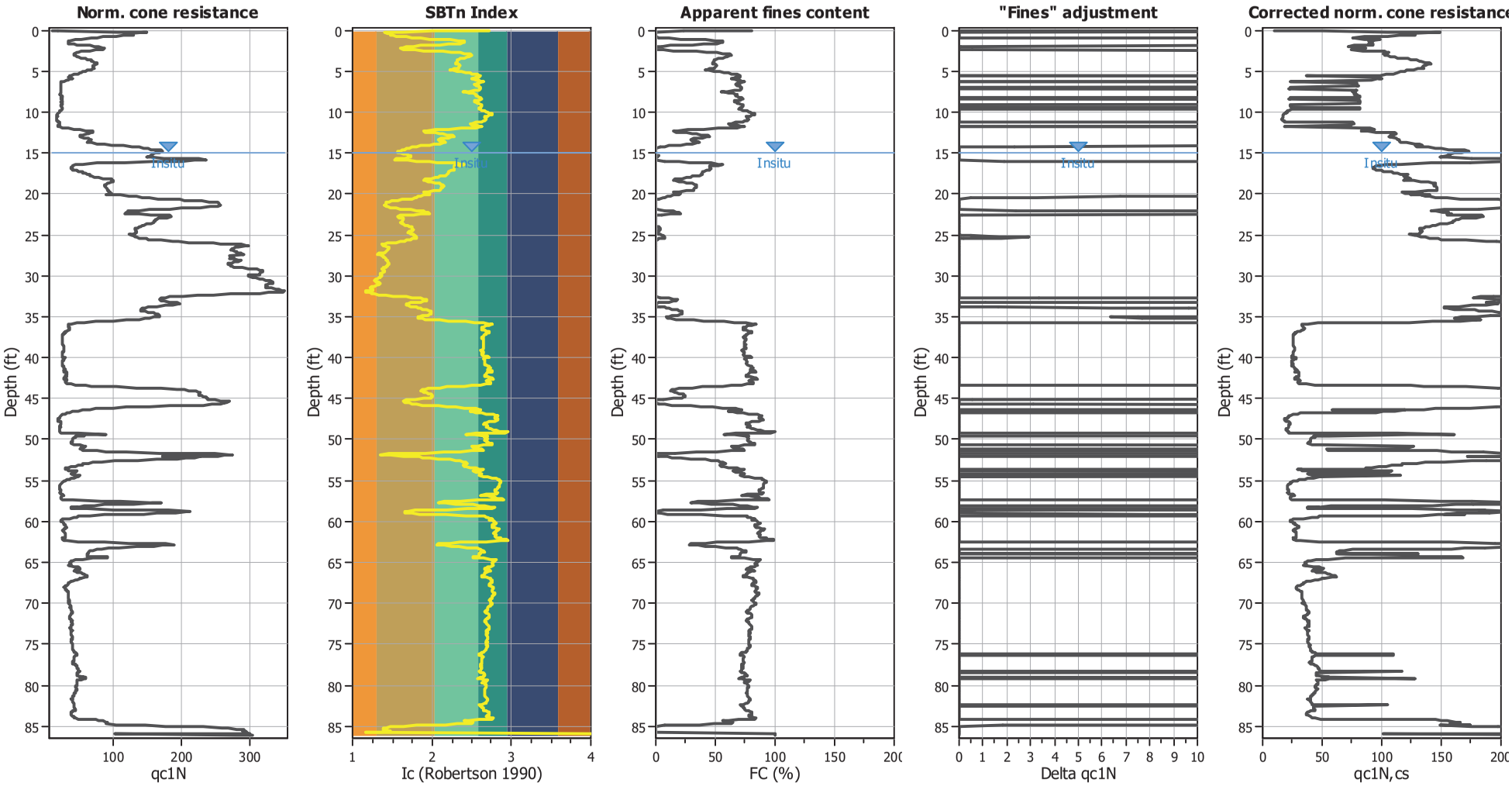
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	30.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

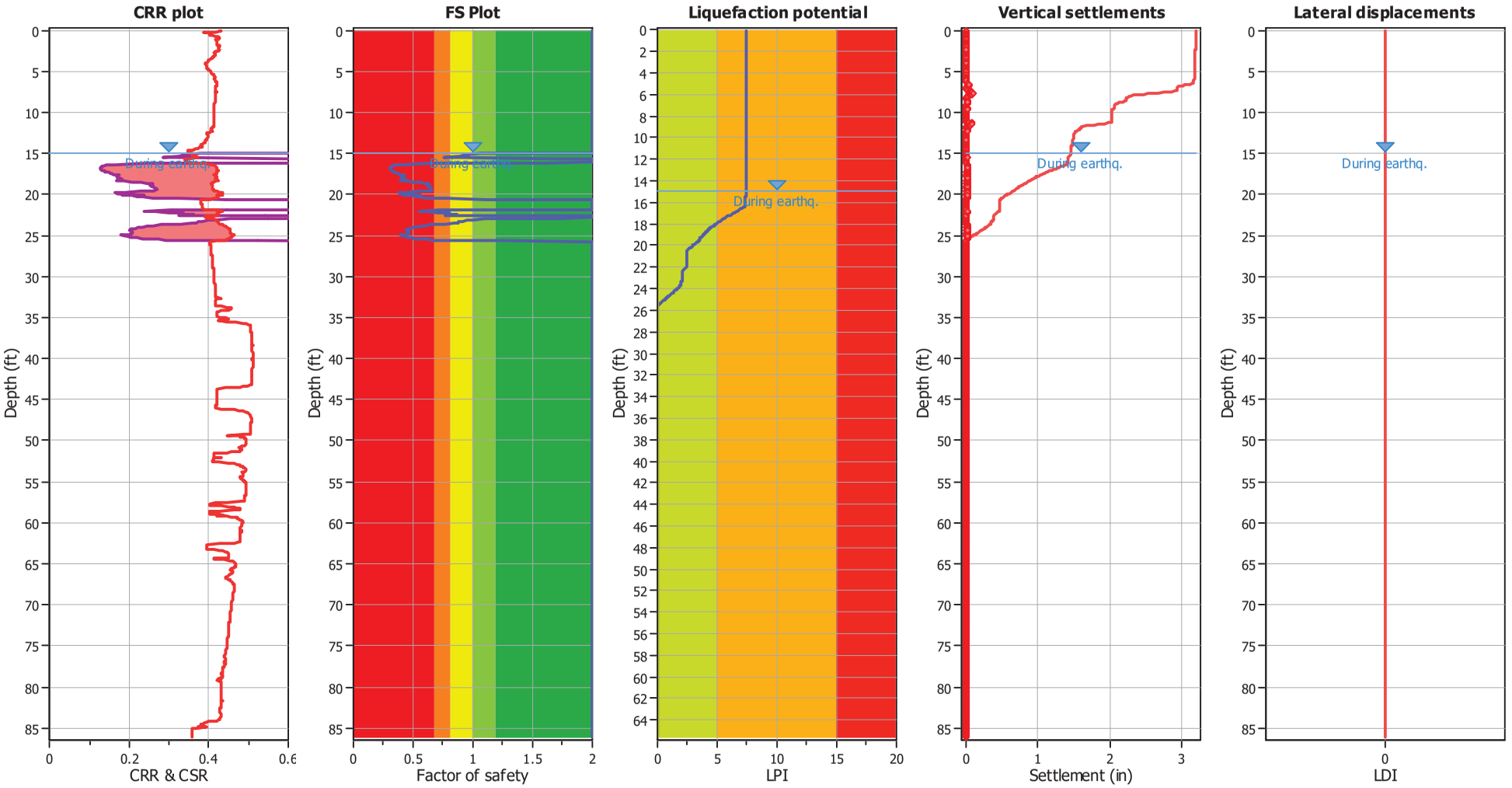
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	30.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	30.00 ft

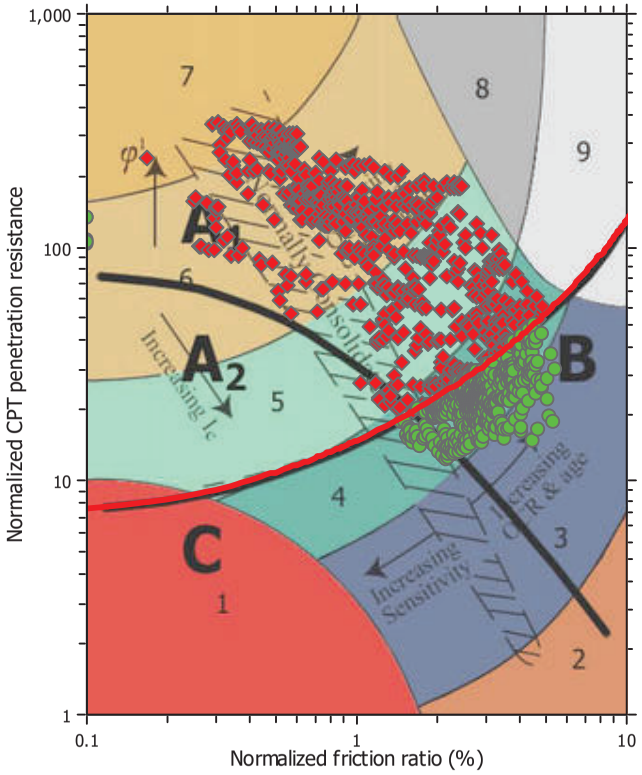
F.S. color scheme

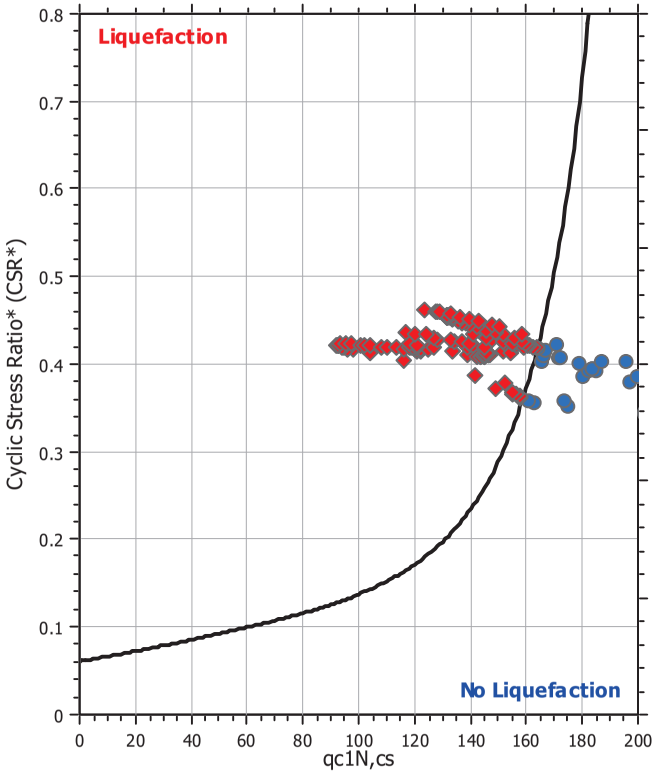
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

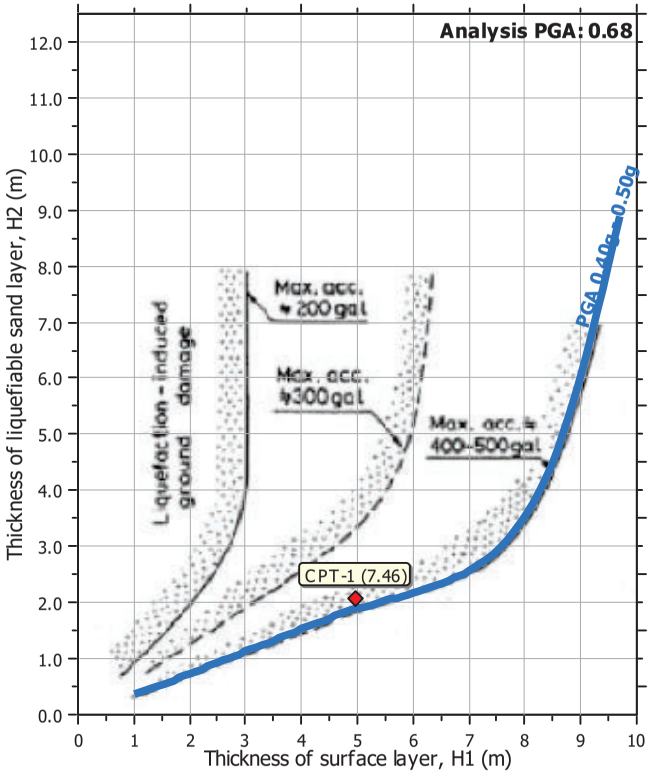
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



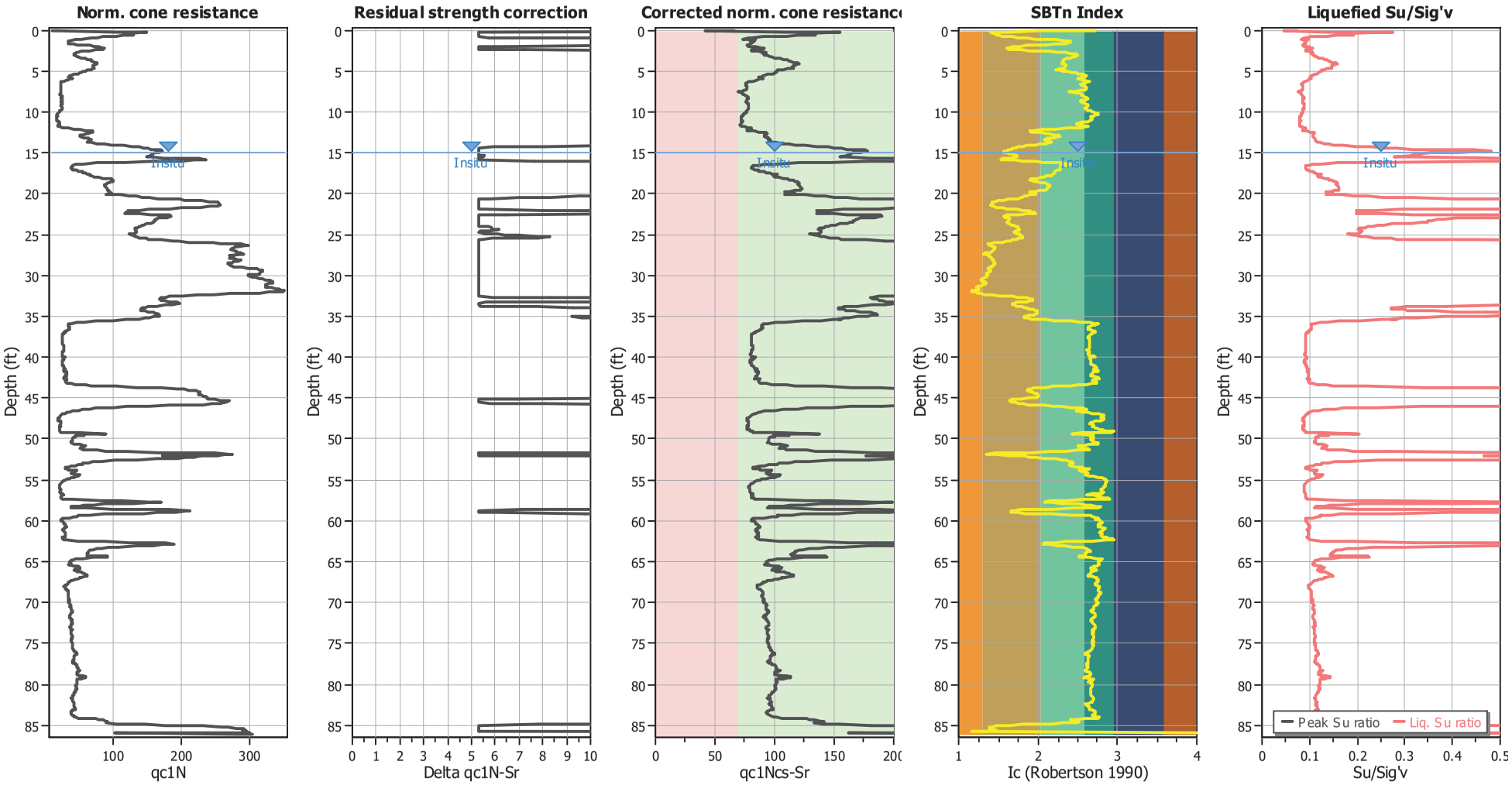




Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	30.00 ft

Check for strength loss plots (Idriss & Boulanger (2008))



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	30.00 ft

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.07	6.07	0.14	0.00	41.80	101.00
2	0.13	11.67	0.15	-0.11	13.07	104.86
3	0.20	65.35	0.18	0.00	4.60	107.67
4	0.27	92.77	0.21	0.00	1.71	109.42
5	0.33	90.02	0.22	0.00	1.56	110.02
6	0.40	76.45	0.23	0.00	2.05	110.23
7	0.47	79.87	0.24	0.00	2.49	110.44
8	0.54	80.06	0.25	0.00	2.50	110.45
9	0.60	76.17	0.23	0.00	2.68	110.05
10	0.66	71.33	0.21	0.00	3.02	109.29
11	0.72	64.97	0.19	0.00	3.55	108.55
12	0.80	58.62	0.18	0.00	4.43	108.21
13	0.87	52.93	0.20	-0.11	5.00	108.09
14	0.93	46.86	0.21	-0.11	5.00	108.06
15	0.99	41.64	0.21	-0.11	9.29	108.18
16	1.06	32.63	0.25	-0.11	12.35	108.95
17	1.13	30.16	0.31	-0.11	16.19	110.07
18	1.19	27.89	0.38	-0.11	20.17	110.94
19	1.25	21.53	0.41	-0.08	23.66	111.44
20	1.32	21.82	0.44	0.00	26.67	111.57
21	1.38	21.06	0.44	0.00	26.95	111.60
22	1.46	21.01	0.42	0.00	26.86	111.30
23	1.52	21.01	0.39	0.00	26.20	110.83
24	1.58	20.96	0.36	-0.11	24.82	110.41
25	1.64	22.76	0.34	-0.11	22.57	110.10
26	1.71	25.61	0.32	-0.11	19.50	109.90
27	1.77	29.31	0.30	-0.11	15.77	109.56
28	1.86	35.38	0.25	-0.11	12.41	109.11
29	1.92	40.31	0.23	-0.11	9.58	108.47
30	1.98	44.87	0.20	-0.11	5.00	107.66
31	2.05	49.32	0.16	-0.11	5.00	106.67
32	2.11	52.26	0.14	-0.11	4.80	105.84
33	2.17	53.59	0.14	-0.11	4.38	105.55
34	2.23	53.97	0.14	0.00	4.39	105.62
35	2.30	52.55	0.14	0.00	4.91	106.14
36	2.38	48.94	0.17	0.00	5.00	107.18
37	2.44	45.62	0.22	0.00	5.00	108.50
38	2.50	41.17	0.27	0.00	10.15	109.69
39	2.57	36.52	0.32	0.00	13.26	111.08
40	2.63	32.91	0.42	0.00	16.95	112.57
41	2.70	30.35	0.54	0.00	20.56	114.04
42	2.76	29.31	0.64	0.00	24.23	115.19
43	2.84	26.08	0.74	0.00	27.02	115.99
44	2.90	25.99	0.80	0.00	29.28	116.52
45	2.96	25.80	0.84	0.00	30.16	116.86
46	3.03	25.42	0.86	0.00	30.78	117.13
47	3.09	25.71	0.90	0.11	30.91	117.41
48	3.15	26.75	0.93	0.11	30.30	117.76

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	3.21	28.55	0.96	0.11	29.19	118.15
50	3.30	30.54	0.99	-0.11	27.99	118.54
51	3.37	32.25	1.03	-0.34	26.89	118.96
52	3.43	34.34	1.07	-0.34	25.82	119.40
53	3.50	36.80	1.12	-0.46	24.87	119.85
54	3.56	38.61	1.16	-0.80	24.16	120.28
55	3.62	40.12	1.21	-1.25	23.73	120.67
56	3.68	41.36	1.26	-1.36	23.46	121.02
57	3.74	42.40	1.30	-1.59	23.33	121.34
58	3.81	43.16	1.35	-1.93	23.20	121.69
59	3.89	44.77	1.42	-2.27	22.96	122.05
60	3.95	46.48	1.46	-2.27	22.70	122.39
61	4.02	47.33	1.50	-2.50	22.54	122.65
62	4.08	47.81	1.54	-2.61	22.68	122.85
63	4.15	47.52	1.57	-2.96	23.12	122.97
64	4.21	46.10	1.59	-3.30	23.80	122.98
65	4.28	44.49	1.59	-3.52	24.38	122.86
66	4.34	43.73	1.54	-3.75	24.56	122.67
67	4.40	43.68	1.50	-4.09	24.44	122.46
68	4.47	43.35	1.47	-4.21	24.17	122.28
69	4.53	43.63	1.44	-4.32	23.81	122.14
70	4.61	44.20	1.41	-4.55	23.52	122.05
71	4.68	44.01	1.41	-4.89	23.05	121.67
72	4.74	42.87	1.23	-4.89	21.72	120.49
73	4.80	41.55	0.83	-4.89	20.37	119.16
74	4.86	40.69	0.86	-4.89	19.89	118.16
75	4.92	38.13	0.89	-4.43	21.38	118.40
76	4.99	36.23	0.96	-4.32	23.45	118.70
77	5.07	33.96	1.03	-4.19	25.54	118.99
78	5.13	32.16	1.07	-4.19	27.38	119.24
79	5.19	31.49	1.11	-4.19	28.56	119.43
80	5.26	31.30	1.14	-3.41	29.67	119.52
81	5.32	29.40	1.14	-3.98	31.00	119.33
82	5.41	26.75	1.08	-3.47	32.52	118.92
83	5.48	25.42	1.03	-3.64	33.97	118.35
84	5.54	23.43	0.98	-3.52	35.04	117.87
85	5.58	22.48	0.95	-3.64	35.54	117.17
86	5.68	21.63	0.81	-3.64	35.31	116.45
87	5.74	21.15	0.75	-3.64	34.59	115.76
88	5.78	21.25	0.73	-3.64	33.22	115.49
89	5.85	23.24	0.71	-3.41	31.43	115.44
90	5.92	24.57	0.70	-3.41	30.73	115.32
91	5.99	22.29	0.69	-3.86	31.72	115.05
92	6.05	20.11	0.66	-0.80	33.37	114.54
93	6.13	19.54	0.61	-0.23	34.98	113.81
94	6.19	17.07	0.55	-0.11	36.05	112.90
95	6.26	15.75	0.49	0.11	37.26	111.76
96	6.33	14.80	0.42	0.46	37.26	110.69

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	6.37	14.42	0.38	0.57	36.47	109.48
98	6.44	13.94	0.31	0.80	35.33	108.42
99	6.51	13.85	0.27	0.80	33.98	107.46
100	6.57	14.04	0.26	0.57	33.07	107.00
101	6.64	14.13	0.26	0.68	32.74	106.92
102	6.71	14.13	0.26	0.57	32.96	107.14
103	6.78	14.23	0.28	0.34	33.58	107.60
104	6.86	14.32	0.31	0.34	34.26	108.08
105	6.89	14.32	0.32	0.34	34.97	108.52
106	6.97	14.32	0.34	0.23	35.37	108.79
107	7.03	14.42	0.35	0.23	35.67	109.00
108	7.10	14.42	0.35	0.23	35.69	109.05
109	7.17	14.42	0.35	0.23	35.75	108.95
110	7.24	14.13	0.33	0.23	35.63	108.70
111	7.31	14.04	0.32	0.34	35.30	108.33
112	7.38	14.04	0.30	0.46	32.54	106.75
113	7.45	14.23	0.15	0.46	29.14	104.59
114	7.48	14.23	0.12	0.46	26.22	102.54
115	7.55	14.32	0.16	0.46	27.48	103.47
116	7.64	14.13	0.21	0.46	29.44	104.78
117	7.68	14.04	0.22	0.46	30.87	105.61
118	7.75	14.04	0.23	0.46	31.86	105.99
119	7.81	13.61	0.24	0.46	33.18	106.38
120	7.88	13.18	0.26	0.46	33.58	106.91
121	7.95	14.61	0.28	0.46	33.32	107.63
122	8.02	15.46	0.31	0.57	33.12	108.78
123	8.08	16.03	0.39	0.57	33.75	109.84
124	8.15	16.31	0.42	0.46	34.72	110.65
125	8.23	16.13	0.44	-0.46	35.54	111.00
126	8.29	15.84	0.45	-1.14	36.14	111.27
127	8.36	16.22	0.47	-1.25	37.00	111.42
128	8.43	15.37	0.47	-0.91	36.31	111.24
129	8.50	16.31	0.41	-0.68	34.97	110.71
130	8.53	16.98	0.37	-0.68	32.89	110.02
131	8.60	16.98	0.35	-0.68	32.52	109.76
132	8.68	16.41	0.37	-0.57	32.54	109.72
133	8.74	17.03	0.37	-0.57	33.27	109.95
134	8.81	16.50	0.39	-0.46	33.38	110.21
135	8.88	17.07	0.41	-0.23	33.91	110.61
136	8.96	17.36	0.43	-0.23	34.26	110.97
137	9.02	17.07	0.44	-0.23	34.82	111.22
138	9.06	16.98	0.45	-0.23	35.68	111.45
139	9.13	16.69	0.48	-0.23	36.44	111.68
140	9.20	16.69	0.49	-0.23	37.00	111.84
141	9.27	16.69	0.49	-0.23	36.94	111.84
142	9.34	16.98	0.47	-0.11	36.37	111.71
143	9.41	17.36	0.46	-0.11	35.65	111.55
144	9.48	17.55	0.45	-0.11	35.12	111.42

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	9.52	17.64	0.45	0.00	34.86	111.34
146	9.59	17.64	0.44	0.00	34.69	111.28
147	9.65	17.83	0.44	0.00	34.68	111.22
148	9.72	17.64	0.43	0.00	35.47	111.11
149	9.79	16.22	0.43	0.00	36.93	111.04
150	9.86	15.56	0.44	0.00	38.64	110.94
151	9.93	15.08	0.44	0.00	39.75	110.89
152	10.00	14.80	0.44	0.38	39.86	111.00
153	10.08	15.81	0.46	0.77	40.65	111.11
154	10.15	14.48	0.46	0.77	41.65	111.04
155	10.22	13.54	0.44	0.77	43.21	110.50
156	10.29	12.97	0.39	0.77	43.53	109.83
157	10.33	12.87	0.37	0.88	42.95	109.15
158	10.40	12.87	0.34	0.99	41.75	108.58
159	10.47	13.25	0.31	1.22	40.34	107.88
160	10.54	13.16	0.27	1.22	39.06	107.12
161	10.62	12.97	0.25	1.22	38.60	106.53
162	10.69	12.78	0.25	1.33	38.65	106.24
163	10.72	12.68	0.24	1.45	38.84	106.22
164	10.79	12.78	0.25	1.45	39.26	106.20
165	10.87	12.40	0.25	1.45	39.42	106.29
166	10.94	12.78	0.25	1.45	39.44	106.44
167	10.99	13.16	0.26	1.45	38.65	106.79
168	11.07	14.01	0.27	1.45	37.93	107.11
169	11.14	14.39	0.28	1.45	37.21	107.26
170	11.21	14.48	0.27	1.45	36.57	107.17
171	11.25	14.77	0.26	1.45	35.07	106.85
172	11.32	15.81	0.24	1.56	32.91	106.41
173	11.39	16.85	0.21	1.56	30.71	105.74
174	11.47	16.95	0.19	1.79	29.81	105.12
175	11.54	16.10	0.18	1.67	30.38	104.94
176	11.57	15.62	0.20	1.79	31.51	104.70
177	11.64	14.67	0.18	1.67	33.39	105.32
178	11.72	14.67	0.24	1.79	35.70	106.37
179	11.79	14.67	0.30	1.90	37.17	108.27
180	11.86	16.85	0.37	2.13	36.14	110.04
181	11.93	20.55	0.44	2.24	33.62	111.42
182	11.97	23.02	0.47	2.24	30.17	112.65
183	12.04	28.42	0.52	2.24	25.42	113.00
184	12.12	35.54	0.42	1.90	19.45	112.12
185	12.19	42.46	0.23	1.11	14.34	110.66
186	12.26	49.95	0.25	0.08	11.34	109.56
187	12.30	53.17	0.27	-0.37	10.36	110.49
188	12.38	58.48	0.30	-2.08	10.21	111.62
189	12.45	60.29	0.37	-2.96	10.92	113.07
190	12.51	57.25	0.46	-2.96	12.27	114.70
191	12.57	58.20	0.58	-2.96	14.06	116.08
192	12.64	55.36	0.68	-5.26	15.49	116.97

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	12.70	52.98	0.70	-5.14	17.09	117.27
194	12.77	48.53	0.71	-5.03	18.66	117.30
195	12.83	45.02	0.74	-5.03	20.15	117.41
196	12.90	44.88	0.78	-4.92	21.15	117.65
197	12.97	44.88	0.80	-4.80	21.48	117.82
198	13.04	44.73	0.80	-4.80	20.65	117.88
199	13.11	50.23	0.76	-4.80	19.24	117.80
200	13.15	53.17	0.73	-4.92	17.36	117.60
201	13.22	56.21	0.68	-5.03	16.07	117.45
202	13.29	59.24	0.68	-5.37	15.18	117.44
203	13.37	60.95	0.70	-5.83	14.96	117.61
204	13.44	60.10	0.71	-5.43	15.17	117.75
205	13.48	59.05	0.72	-6.05	15.70	117.86
206	13.55	57.44	0.74	-5.48	16.38	118.07
207	13.63	56.68	0.79	-4.92	17.24	118.50
208	13.70	56.40	0.87	-4.58	17.93	119.15
209	13.77	58.30	0.96	-4.35	18.14	119.76
210	13.80	61.14	1.00	-4.35	17.28	120.44
211	13.88	70.34	1.06	-4.69	15.70	121.04
212	13.95	80.20	1.10	-5.37	13.79	121.61
213	14.03	90.25	1.11	-5.83	12.01	122.03
214	14.10	101.16	1.12	-6.17	10.66	122.31
215	14.14	107.04	1.12	-6.17	9.38	122.56
216	14.21	119.37	1.12	-6.17	8.23	122.74
217	14.28	130.65	1.11	-5.71	7.17	122.85
218	14.35	137.38	1.08	-2.87	6.42	122.81
219	14.43	140.99	1.05	0.20	5.99	122.73
220	14.47	143.26	1.04	0.88	5.61	122.69
221	14.54	149.43	1.03	1.33	5.24	122.78
222	14.61	157.20	1.05	1.11	4.86	123.02
223	14.68	164.41	1.09	0.20	4.61	123.31
224	14.76	167.73	1.12	-0.48	4.42	123.37
225	14.79	167.92	1.06	-0.60	4.08	122.86
226	14.87	166.21	0.87	-0.03	3.83	122.19
227	14.94	162.42	0.86	1.11	3.73	121.62
228	15.01	158.34	0.86	1.79	3.99	121.67
229	15.05	156.45	0.90	1.79	4.46	122.10
230	15.13	153.22	1.04	1.79	5.07	122.89
231	15.20	153.60	1.19	1.62	5.86	123.84
232	15.28	151.23	1.35	1.33	6.35	124.53
233	15.35	153.98	1.40	1.45	6.66	124.89
234	15.38	152.56	1.39	1.33	6.83	124.88
235	15.46	145.35	1.36	1.11	6.77	124.69
236	15.53	151.32	1.30	1.11	6.40	124.96
237	15.61	172.57	1.49	1.11	5.27	125.82
238	15.68	214.39	1.67	0.54	4.39	126.74
239	15.71	224.53	1.68	1.05	3.60	127.24
240	15.79	236.96	1.66	0.54	3.37	127.42

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	15.86	236.58	1.74	0.99	4.06	128.35
242	15.93	219.51	2.39	0.65	5.91	129.97
243	16.00	200.35	3.22	0.42	8.08	131.16
244	16.04	187.08	3.26	0.65	9.95	131.32
245	16.11	158.06	2.92	0.31	11.92	130.42
246	16.19	116.43	2.61	0.65	14.86	128.98
247	16.26	89.02	2.29	0.99	18.65	127.57
248	16.30	75.93	2.12	1.22	22.39	125.85
249	16.37	53.65	1.62	1.56	25.11	123.49
250	16.45	42.93	0.99	2.24	26.73	120.23
251	16.52	39.23	0.67	2.92	24.84	116.84
252	16.59	39.04	0.49	3.15	22.81	114.70
253	16.63	39.14	0.46	3.38	21.56	113.58
254	16.70	38.57	0.44	3.61	21.57	113.25
255	16.78	37.24	0.43	3.83	21.75	113.07
256	16.85	37.43	0.44	4.06	21.96	113.05
257	16.92	37.62	0.44	4.29	21.95	113.20
258	16.96	38.19	0.46	4.40	21.93	113.63
259	17.03	39.90	0.51	4.63	21.84	114.26
260	17.11	41.79	0.55	4.63	21.20	114.90
261	17.18	45.40	0.56	4.63	20.35	115.34
262	17.22	47.39	0.57	4.57	19.48	115.74
263	17.29	49.67	0.61	4.40	19.01	116.39
264	17.36	53.27	0.69	4.51	19.03	117.32
265	17.43	54.69	0.79	4.29	19.13	118.33
266	17.51	57.63	0.88	3.95	19.13	119.09
267	17.55	60.10	0.92	3.95	18.73	119.78
268	17.62	64.36	1.00	3.38	18.74	120.52
269	17.69	65.12	1.14	2.47	18.77	120.95
270	17.76	64.46	1.08	1.67	18.15	120.56
271	17.84	65.69	0.83	0.42	17.04	119.86
272	17.88	67.59	0.85	-0.26	15.84	119.42
273	17.95	71.00	0.89	-2.08	15.13	119.82
274	18.02	77.45	0.92	-2.87	13.95	120.19
275	18.09	85.42	0.91	-4.76	12.63	120.39
276	18.15	90.54	0.89	-4.76	11.33	120.42
277	18.23	96.80	0.86	-4.76	10.53	120.41
278	18.29	98.60	0.87	-7.42	10.12	120.58
279	18.37	100.40	0.92	-7.87	10.22	120.93
280	18.41	100.78	0.98	-8.10	10.76	121.59
281	18.48	99.74	1.13	-8.67	11.67	122.38
282	18.55	97.84	1.28	-9.23	12.85	123.18
283	18.62	95.28	1.40	-9.57	14.02	123.82
284	18.69	93.00	1.51	-9.69	14.98	124.24
285	18.73	91.58	1.56	-9.80	15.80	124.54
286	18.80	89.31	1.62	-9.80	16.34	124.71
287	18.88	89.21	1.65	-9.91	16.83	124.86
288	18.95	88.07	1.67	-10.03	17.08	124.94

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
289	19.02	87.88	1.68	-10.14	17.18	124.98
290	19.06	88.74	1.68	-10.26	17.08	124.98
291	19.13	89.50	1.67	-10.60	16.93	125.02
292	19.21	90.44	1.69	-10.94	16.85	125.09
293	19.28	91.11	1.71	-11.16	16.78	125.16
294	19.32	91.49	1.70	-11.28	16.56	125.13
295	19.39	92.81	1.66	-11.39	16.28	125.02
296	19.46	93.00	1.63	-11.39	16.06	124.93
297	19.54	93.19	1.63	-11.51	15.92	124.93
298	19.61	94.71	1.64	-11.62	15.38	124.61
299	19.64	95.18	1.41	-11.73	13.65	123.32
300	19.72	96.61	0.86	-11.85	11.65	121.53
301	19.79	97.27	0.78	-11.85	10.32	120.25
302	19.87	98.03	0.91	-11.85	10.59	120.76
303	19.94	99.74	1.03	-11.96	11.18	121.54
304	19.98	99.64	1.08	-11.97	12.07	122.04
305	20.04	91.68	1.15	-11.98	11.93	122.54
306	20.14	110.17	1.22	-11.98	11.51	123.01
307	20.18	114.81	1.25	-11.96	10.22	123.58
308	20.25	126.86	1.31	-12.07	9.46	124.13
309	20.32	138.05	1.41	-12.19	8.76	124.79
310	20.39	146.96	1.51	-12.30	8.35	125.51
311	20.47	155.59	1.64	-12.30	8.11	126.09
312	20.50	160.05	1.71	-12.30	7.76	126.63
313	20.58	172.95	1.79	-12.30	7.05	126.92
314	20.65	188.78	1.74	-12.30	5.92	126.97
315	20.72	206.33	1.59	-12.30	4.88	126.76
316	20.76	214.58	1.53	-12.30	3.93	126.45
317	20.83	228.90	1.44	-12.41	3.27	126.28
318	20.91	240.28	1.41	-12.41	2.68	126.20
319	20.98	253.08	1.41	-12.41	2.26	126.26
320	21.05	263.42	1.41	-12.41	1.99	126.34
321	21.09	266.73	1.41	-12.41	1.82	126.37
322	21.16	269.48	1.39	-12.41	1.74	126.33
323	21.23	268.73	1.37	-12.41	1.70	126.28
324	21.31	269.20	1.37	-12.41	1.67	126.24
325	21.38	270.62	1.37	-12.41	1.66	126.26
326	21.42	270.91	1.38	-12.41	1.69	126.27
327	21.49	266.83	1.39	-12.41	1.83	126.23
328	21.56	256.78	1.37	-12.41	2.08	126.04
329	21.64	241.41	1.32	-12.41	2.46	125.66
330	21.71	221.69	1.26	-12.41	2.91	125.28
331	21.75	211.26	1.26	-12.41	3.54	125.00
332	21.82	192.67	1.27	-12.19	4.28	124.81
333	21.89	175.89	1.26	-12.19	5.35	124.76
334	21.96	161.09	1.35	-12.19	6.79	125.07
335	22.04	146.96	1.56	-12.19	8.23	125.42
336	22.07	139.66	1.57	-12.19	9.59	125.60

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
337	22.15	129.13	1.58	-12.19	10.30	125.51
338	22.22	128.09	1.58	-12.07	10.97	125.59
339	22.30	126.95	1.68	-12.07	11.65	125.96
340	22.37	123.16	1.85	-12.17	12.02	126.45
341	22.40	131.32	1.91	-12.17	11.42	126.77
342	22.47	146.87	1.83	-12.17	9.64	126.72
343	22.55	165.08	1.63	-12.19	7.50	126.28
344	22.61	183.47	1.42	-12.19	5.65	125.58
345	22.69	195.99	1.25	-12.30	4.44	124.86
346	22.76	197.79	1.16	-12.19	3.87	124.35
347	22.80	196.65	1.13	-12.30	3.81	124.08
348	22.87	191.25	1.13	-12.19	4.05	124.06
349	22.94	184.52	1.17	-12.19	4.49	124.15
350	23.01	178.73	1.22	-12.19	4.90	124.27
351	23.09	175.98	1.21	-12.19	5.11	124.26
352	23.13	175.32	1.19	-12.19	5.05	124.01
353	23.20	174.46	1.11	-12.19	4.89	123.65
354	23.27	173.23	1.05	-12.19	4.75	123.32
355	23.35	172.57	1.05	-12.19	4.70	123.16
356	23.39	172.19	1.04	-12.07	4.67	123.05
357	23.46	172.19	1.01	-12.19	4.58	122.84
358	23.53	170.96	0.96	-12.19	4.54	122.60
359	23.60	167.64	0.95	-12.19	4.64	122.41
360	23.68	163.46	0.95	-12.19	4.83	122.33
361	23.71	161.09	0.95	-12.19	5.10	122.33
362	23.79	157.30	0.97	-12.19	5.43	122.47
363	23.86	154.36	1.02	-12.19	5.89	122.75
364	23.93	151.42	1.09	-12.19	6.36	123.12
365	24.01	150.19	1.15	-12.19	6.76	123.42
366	24.04	148.76	1.17	-12.19	7.02	123.58
367	24.12	147.25	1.17	-12.19	7.11	123.47
368	24.19	145.16	1.11	-12.19	7.12	123.26
369	24.26	143.55	1.08	-12.19	7.10	123.03
370	24.34	143.07	1.08	-12.19	7.09	122.94
371	24.37	143.36	1.07	-12.19	7.18	123.09
372	24.45	144.59	1.15	-12.19	7.29	123.33
373	24.52	145.35	1.19	-12.19	7.08	123.16
374	24.59	146.30	0.99	-12.19	6.51	122.44
375	24.66	145.82	0.83	-12.19	5.96	121.62
376	24.70	145.16	0.87	-12.19	6.05	121.67
377	24.78	144.59	1.01	-12.19	6.49	122.25
378	24.85	144.59	1.06	-12.19	6.85	122.71
379	24.92	144.59	1.06	-12.05	7.17	122.75
380	24.97	136.06	1.05	-12.05	7.28	122.68
381	25.05	140.23	1.04	-12.05	7.45	122.73
382	25.12	141.08	1.09	-11.85	7.45	122.98
383	25.16	141.56	1.15	-11.96	7.77	123.55
384	25.23	144.21	1.30	-11.96	8.12	124.23

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
385	25.30	147.15	1.41	-11.96	8.31	124.88
386	25.37	151.99	1.47	-11.96	8.13	125.19
387	25.45	157.49	1.43	-11.96	7.61	125.19
388	25.52	162.99	1.36	-11.96	7.09	125.06
389	25.56	165.93	1.36	-11.96	6.65	125.14
390	25.63	174.75	1.43	-11.96	6.33	125.59
391	25.70	188.12	1.55	-11.96	5.78	126.16
392	25.78	205.66	1.60	-11.96	5.20	126.57
393	25.82	214.77	1.59	-11.96	4.41	126.64
394	25.89	231.08	1.50	-11.96	3.57	126.47
395	25.97	249.10	1.39	-11.96	2.62	126.21
396	26.04	270.24	1.32	-11.96	1.93	126.06
397	26.08	280.86	1.32	-11.96	1.45	126.18
398	26.15	299.07	1.37	-11.96	1.24	126.67
399	26.23	314.43	1.53	-11.96	1.18	127.37
400	26.30	323.54	1.68	-11.96	1.26	128.02
401	26.34	325.15	1.75	-11.96	1.41	128.45
402	26.41	321.26	1.82	-11.96	1.66	128.70
403	26.49	310.83	1.88	-11.96	1.94	128.86
404	26.55	304.95	1.90	-11.85	2.15	128.91
405	26.60	303.53	1.90	-11.85	2.20	128.84
406	26.69	302.96	1.85	-11.85	2.18	128.73
407	26.77	300.78	1.82	-11.85	2.15	128.60
408	26.80	300.02	1.81	-11.85	2.11	128.51
409	26.88	302.01	1.78	-11.85	2.02	128.41
410	26.95	305.33	1.74	-11.85	1.89	128.31
411	27.03	307.99	1.72	-11.85	1.78	128.23
412	27.07	309.31	1.71	-11.73	1.74	128.25
413	27.14	310.26	1.75	-11.73	1.57	127.99
414	27.21	312.25	1.53	-11.73	1.18	127.32
415	27.28	316.90	1.26	-11.73	0.75	126.53
416	27.32	320.12	1.27	-11.73	0.52	126.17
417	27.40	322.31	1.32	-11.73	0.59	126.41
418	27.47	321.55	1.38	-11.62	0.85	126.63
419	27.53	298.98	1.42	-11.53	1.08	126.75
420	27.59	303.43	1.42	-11.53	1.23	126.79
421	27.66	306.56	1.43	-11.53	1.25	126.90
422	27.73	303.24	1.47	-11.39	1.35	127.05
423	27.81	300.12	1.52	-11.39	1.53	127.26
424	27.88	298.41	1.57	-11.28	1.68	127.46
425	27.92	299.36	1.61	-11.28	1.76	127.73
426	28.00	305.33	1.69	-11.16	1.79	128.06
427	28.07	312.82	1.77	-11.16	1.80	128.39
428	28.11	315.48	1.81	-11.05	1.83	128.67
429	28.19	317.56	1.87	-11.05	1.91	128.84
430	28.26	314.34	1.89	-11.05	2.02	128.89
431	28.34	307.51	1.86	-10.94	2.11	128.81
432	28.37	305.05	1.84	-10.94	2.15	128.63

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
433	28.45	301.44	1.79	-10.94	2.15	128.47
434	28.52	298.88	1.75	-10.94	2.14	128.30
435	28.60	298.03	1.73	-10.94	2.13	128.21
436	28.64	298.12	1.73	-10.94	2.09	128.16
437	28.71	300.02	1.72	-10.82	2.02	128.10
438	28.79	302.49	1.68	-10.82	1.90	128.04
439	28.86	306.85	1.67	-10.82	1.79	127.99
440	28.90	309.31	1.67	-10.82	1.67	128.01
441	28.98	315.10	1.67	-10.82	1.54	128.06
442	29.05	323.73	1.67	-10.82	1.38	128.18
443	29.12	333.59	1.71	-10.82	1.26	128.35
444	29.16	338.90	1.74	-10.82	1.19	128.61
445	29.24	346.68	1.82	-10.71	1.22	129.00
446	29.31	352.46	1.96	-10.71	1.32	129.47
447	29.39	356.26	2.08	-10.71	1.43	129.86
448	29.43	357.77	2.12	-10.71	1.56	130.17
449	29.50	356.44	2.22	-10.71	1.53	130.09
450	29.57	355.12	2.01	-10.71	1.35	129.66
451	29.62	353.51	1.76	-10.71	1.14	129.17
452	29.69	352.65	1.84	-10.71	1.01	128.87
453	29.75	353.13	1.79	-10.60	0.98	128.81
454	29.82	354.07	1.72	-10.60	0.93	128.58
455	29.89	345.63	1.69	-10.41	0.97	128.33
456	29.96	334.44	1.64	-10.41	1.03	128.11
457	30.02	334.11	1.60	-10.31	1.04	127.92
458	30.08	333.78	1.58	-10.31	0.98	127.90
459	30.18	341.18	1.62	-10.31	0.94	127.95
460	30.22	342.88	1.62	-10.14	0.82	127.94
461	30.29	348.29	1.56	-10.14	0.65	127.78
462	30.37	354.45	1.50	-10.14	0.48	127.62
463	30.44	357.96	1.49	-10.14	0.36	127.52
464	30.48	359.67	1.48	-10.14	0.28	127.51
465	30.56	365.64	1.47	-10.26	0.23	127.63
466	30.63	372.57	1.55	-10.26	0.26	127.98
467	30.70	376.55	1.68	-10.26	0.37	128.43
468	30.74	377.50	1.75	-10.37	0.53	128.89
469	30.82	377.69	1.86	-10.37	0.69	129.26
470	30.89	377.69	1.95	-10.48	0.84	129.50
471	30.96	373.23	1.95	-10.48	0.92	129.56
472	31.00	370.76	1.92	-10.60	0.89	129.33
473	31.07	367.26	1.78	-10.60	0.73	128.89
474	31.14	366.97	1.63	-10.71	0.48	128.25
475	31.21	367.45	1.48	-10.71	0.21	127.55
476	31.28	365.45	1.34	-10.71	0.00	126.85
477	31.36	365.64	1.22	-10.82	0.00	126.28
478	31.39	366.12	1.18	-10.82	0.00	125.96
479	31.47	370.10	1.17	-10.82	0.00	126.06
480	31.54	376.17	1.26	-10.82	0.00	126.51

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
481	31.61	383.95	1.39	-10.82	0.00	127.23
482	31.68	389.83	1.55	-10.82	0.00	128.08
483	31.75	395.14	1.75	-10.82	0.00	128.27
484	31.79	397.79	1.49	-10.71	0.00	127.41
485	31.86	399.21	1.01	-10.82	0.00	126.25
486	31.93	397.79	1.12	-10.94	0.00	125.86
487	32.01	390.68	1.31	-10.94	0.00	126.35
488	32.08	372.95	1.27	-10.94	0.00	126.40
489	32.12	358.34	1.19	-11.24	0.00	125.57
490	32.18	312.16	0.99	-11.24	0.00	124.46
491	32.25	309.03	0.85	-11.24	0.24	123.67
492	32.32	282.29	0.96	-11.51	0.62	123.41
493	32.40	256.02	0.95	-11.51	1.72	124.24
494	32.48	234.40	1.27	-11.51	2.91	125.11
495	32.51	225.39	1.46	-11.39	4.45	126.51
496	32.59	213.53	1.81	-11.39	5.85	127.70
497	32.66	206.71	2.15	-11.39	7.17	128.70
498	32.70	203.58	2.32	-11.51	8.32	129.53
499	32.78	197.79	2.63	-11.73	9.32	130.23
500	32.85	195.71	2.91	-11.96	10.31	130.94
501	32.93	195.71	3.16	-12.19	10.94	131.45
502	32.97	195.71	3.26	-12.19	11.30	131.80
503	33.04	197.51	3.37	-12.41	11.16	131.90
504	33.12	203.86	3.24	-12.53	10.39	131.68
505	33.19	213.25	2.88	-12.53	9.27	131.19
506	33.23	218.65	2.65	-12.53	7.94	130.42
507	33.31	226.53	2.28	-12.53	6.86	129.68
508	33.38	231.55	2.06	-12.53	6.01	128.97
509	33.46	231.27	1.97	-12.53	5.64	128.54
510	33.49	228.90	1.92	-12.53	5.58	128.17
511	33.57	220.17	1.80	-12.53	5.70	127.71
512	33.65	208.22	1.68	-12.53	6.09	127.27
513	33.72	195.33	1.69	-12.53	6.62	127.03
514	33.76	189.64	1.72	-12.53	7.40	127.12
515	33.83	180.82	1.82	-12.53	8.09	127.27
516	33.91	175.60	1.86	-12.53	8.70	127.36
517	33.98	172.76	1.85	-12.53	9.00	127.34
518	34.02	170.67	1.84	-12.53	9.26	127.37
519	34.10	168.58	1.90	-12.64	9.81	127.73
520	34.17	167.35	2.15	-12.76	10.48	128.24
521	34.21	166.78	2.29	-12.93	11.37	128.96
522	34.29	165.45	2.58	-12.93	11.97	129.64
523	34.35	172.09	2.81	-12.93	12.43	130.37
524	34.43	176.74	3.03	-13.10	12.59	131.04
525	34.50	182.71	3.29	-13.21	12.71	131.57
526	34.54	186.13	3.41	-13.32	12.76	132.01
527	34.61	190.30	3.55	-13.32	12.62	132.22
528	34.69	194.00	3.51	-13.32	12.15	132.13

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
529	34.76	197.22	3.22	-13.32	11.50	131.81
530	34.80	198.27	3.06	-13.32	10.66	131.23
531	34.88	200.07	2.74	-13.44	9.90	130.57
532	34.95	199.21	2.44	-13.55	9.19	129.78
533	35.03	195.04	2.23	-13.55	8.77	129.13
534	35.07	192.67	2.14	-13.55	8.67	128.58
535	35.14	184.52	1.99	-13.55	8.81	128.11
536	35.22	175.70	1.91	-13.55	9.66	128.08
537	35.29	164.98	2.21	-13.55	10.95	128.43
538	35.33	158.44	2.41	-13.55	13.10	129.13
539	35.41	142.70	2.73	-13.55	15.87	129.59
540	35.48	120.41	2.95	-13.55	19.50	129.64
541	35.56	101.63	2.87	-13.55	23.24	129.34
542	35.60	90.63	2.82	-13.55	27.37	128.68
543	35.67	70.53	2.68	-13.55	32.08	127.89
544	35.74	57.25	2.49	-13.55	37.94	126.75
545	35.82	47.39	2.19	-13.44	41.89	125.66
546	35.86	45.11	2.00	-13.44	43.63	124.45
547	35.94	42.17	1.68	-13.32	42.96	123.42
548	36.01	42.17	1.48	-13.32	41.74	122.43
549	36.05	42.17	1.39	-13.32	40.28	121.76
550	36.13	42.17	1.28	-13.32	39.14	121.32
551	36.20	42.93	1.23	-13.32	38.01	121.05
552	36.28	44.07	1.23	-13.32	37.38	120.97
553	36.32	43.79	1.23	-13.32	36.85	120.99
554	36.39	44.92	1.22	-13.32	36.65	121.00
555	36.47	44.92	1.22	-13.32	36.37	120.86
556	36.54	43.88	1.15	-13.32	36.44	120.70
557	36.58	43.69	1.16	-13.32	37.11	120.59
558	36.66	41.98	1.20	-13.32	38.31	120.57
559	36.73	39.99	1.18	-13.32	39.68	120.49
560	36.77	39.04	1.16	-13.32	40.39	120.11
561	36.85	37.72	1.06	-13.32	41.50	119.56
562	36.91	33.92	0.99	-13.38	41.32	118.93
563	36.98	36.11	0.92	-13.38	41.21	118.28
564	37.05	34.68	0.84	-13.38	39.85	117.61
565	37.12	34.02	0.75	-13.44	39.33	116.82
566	37.20	33.54	0.68	-13.44	38.67	116.17
567	37.24	33.26	0.65	-13.44	38.15	115.64
568	37.31	32.88	0.62	-13.44	37.87	115.33
569	37.39	32.88	0.60	-13.44	37.61	115.13
570	37.46	33.07	0.60	-13.44	37.41	115.07
571	37.50	33.17	0.60	-13.44	37.08	115.03
572	37.58	33.54	0.59	-13.44	37.00	115.01
573	37.65	33.26	0.60	-13.55	37.16	115.02
574	37.69	32.88	0.60	-13.55	37.62	115.12
575	37.77	32.88	0.62	-13.55	37.98	115.22
576	37.84	32.88	0.62	-13.55	38.11	115.27

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
577	37.91	32.88	0.62	-13.55	38.00	115.24
578	37.95	33.07	0.61	-13.55	37.66	115.19
579	38.03	33.54	0.61	-13.55	37.48	115.22
580	38.10	33.54	0.62	-13.55	37.49	115.31
581	38.17	33.54	0.63	-13.55	37.69	115.39
582	38.25	33.45	0.63	-13.55	37.75	115.41
583	38.29	33.54	0.62	-13.55	37.80	115.36
584	38.37	33.26	0.62	-13.55	37.82	115.38
585	38.44	33.54	0.63	-13.55	37.86	115.44
586	38.48	33.83	0.64	-13.55	37.72	115.56
587	38.56	34.21	0.65	-13.55	37.65	115.69
588	38.63	34.40	0.66	-13.55	37.64	115.83
589	38.67	34.59	0.67	-13.55	37.79	116.06
590	38.75	34.97	0.70	-13.55	37.89	116.29
591	38.83	35.35	0.72	-13.55	38.09	116.52
592	38.90	35.25	0.73	-13.55	38.04	116.57
593	38.94	35.44	0.72	-13.55	37.21	116.16
594	39.02	35.54	0.60	-13.55	36.31	115.65
595	39.10	35.25	0.59	-13.55	35.63	115.17
596	39.14	35.06	0.60	-13.55	36.08	115.22
597	39.21	34.59	0.61	-13.55	36.55	115.30
598	39.29	34.40	0.62	-13.55	37.09	115.37
599	39.33	34.07	0.62	-13.55	37.64	115.38
600	39.40	33.26	0.63	-13.55	37.81	115.32
601	39.48	33.73	0.61	-13.55	37.72	115.16
602	39.54	33.64	0.59	-13.55	37.09	114.86
603	39.61	33.54	0.55	-13.55	36.56	114.44
604	39.68	33.26	0.51	-13.55	36.87	114.48
605	39.76	33.07	0.60	-13.55	37.84	114.95
606	39.80	33.26	0.66	-13.55	39.40	115.71
607	39.87	32.98	0.71	-13.55	40.34	116.23
608	39.94	33.26	0.74	-13.55	41.14	116.54
609	40.02	32.88	0.76	-13.27	39.75	116.81
610	40.07	37.72	0.76	-13.27	38.72	116.92
611	40.14	36.48	0.75	-13.27	37.75	116.80
612	40.22	34.97	0.71	-12.98	38.34	116.44
613	40.26	34.40	0.68	-12.98	38.61	115.88
614	40.33	33.07	0.61	-12.98	38.63	115.30
615	40.40	32.31	0.57	-12.98	38.61	114.84
616	40.48	32.41	0.57	-12.98	38.65	114.67
617	40.52	32.31	0.58	-12.98	38.72	114.70
618	40.59	32.31	0.58	-12.98	38.76	114.73
619	40.67	32.50	0.58	-12.98	38.60	114.82
620	40.74	33.17	0.59	-12.87	38.37	114.96
621	40.78	33.54	0.60	-12.87	38.28	115.13
622	40.86	33.54	0.62	-12.87	38.65	115.37
623	40.94	33.45	0.65	-12.87	39.35	115.71
624	40.98	33.45	0.69	-12.87	40.59	116.37

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
625	41.05	33.64	0.80	-12.87	41.18	116.90
626	41.12	34.68	0.81	-12.87	41.50	117.48
627	41.20	35.54	0.86	-12.87	41.44	117.81
628	41.24	35.54	0.90	-12.87	41.88	118.22
629	41.31	35.73	0.95	-12.87	42.21	118.51
630	41.39	36.29	0.97	-12.87	41.70	118.77
631	41.46	38.29	0.97	-12.87	40.99	118.93
632	41.50	38.57	0.99	-12.76	40.87	119.08
633	41.58	37.43	1.01	-12.76	41.64	119.44
634	41.66	38.38	1.13	-12.76	43.35	119.80
635	41.70	36.20	1.17	-12.76	43.68	120.08
636	41.77	38.19	1.13	-12.76	42.86	120.05
637	41.85	40.37	1.09	-12.76	40.88	119.94
638	41.92	41.04	1.07	-12.76	39.75	119.84
639	41.96	40.94	1.07	-12.76	39.62	119.78
640	42.04	40.47	1.07	-12.76	39.36	119.62
641	42.11	40.89	1.00	-12.76	39.10	119.37
642	42.15	40.28	0.97	-12.76	38.44	119.09
643	42.23	40.85	0.95	-12.76	38.25	118.83
644	42.30	39.99	0.91	-12.76	39.16	118.90
645	42.38	38.10	1.01	-12.76	40.82	119.12
646	42.42	37.53	1.07	-12.64	42.76	119.49
647	42.50	36.96	1.09	-12.64	43.76	119.59
648	42.58	36.20	1.07	-12.64	44.65	119.63
649	42.62	35.63	1.10	-12.59	43.24	119.83
650	42.68	41.61	1.13	-12.59	41.42	120.01
651	42.75	42.17	1.10	-12.59	39.83	120.13
652	42.83	41.04	1.11	-12.53	40.04	120.07
653	42.91	40.66	1.11	-12.53	40.83	120.13
654	42.95	40.37	1.14	-12.53	41.86	120.47
655	43.02	40.18	1.27	-12.41	42.66	121.00
656	43.10	41.79	1.37	-12.41	42.65	121.64
657	43.14	44.45	1.44	-12.41	41.42	122.52
658	43.21	49.95	1.69	-12.53	39.20	123.70
659	43.29	58.39	1.95	-12.53	36.14	125.17
660	43.36	70.05	2.25	-12.53	33.43	126.39
661	43.40	76.41	2.44	-12.53	30.72	127.56
662	43.48	89.31	2.75	-12.41	27.03	128.62
663	43.56	113.68	2.94	-12.41	23.14	129.58
664	43.60	132.26	3.04	-12.53	18.87	130.51
665	43.68	167.45	3.27	-12.53	15.57	131.37
666	43.76	197.98	3.46	-12.53	13.29	132.09
667	43.79	210.69	3.53	-12.53	11.62	132.62
668	43.87	236.48	3.62	-12.53	10.54	132.96
669	43.93	250.14	3.69	-12.53	9.75	133.34
670	43.99	258.67	3.86	-12.53	9.52	133.72
671	44.06	264.27	4.08	-12.53	9.64	134.22
672	44.12	268.73	4.40	-12.53	9.95	134.76

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
673	44.19	272.23	4.74	-12.53	10.52	135.45
674	44.28	274.61	5.32	-12.53	11.18	136.09
675	44.34	274.04	5.70	-12.53	11.87	136.68
676	44.41	273.99	6.04	-12.53	12.43	137.09
677	44.47	273.99	6.31	-12.53	12.84	137.28
678	44.53	273.94	6.47	-12.53	13.11	137.28
679	44.60	275.36	6.61	-12.53	13.24	137.28
680	44.66	278.11	6.73	-12.41	13.27	137.28
681	44.72	281.62	6.84	-12.41	13.24	137.28
682	44.78	283.24	6.86	-12.41	13.07	137.28
683	44.85	285.70	6.70	-12.41	12.82	137.28
684	44.91	286.55	6.50	-12.41	12.44	137.28
685	44.98	288.26	6.28	-12.41	11.83	137.28
686	45.04	290.25	5.66	-12.41	10.13	136.09
687	45.12	292.91	3.49	-12.41	7.74	134.12
688	45.17	302.68	2.58	-12.41	5.58	132.18
689	45.25	313.96	2.86	-12.30	4.91	131.85
690	45.30	320.79	3.00	-12.35	4.94	132.32
691	45.37	327.71	3.06	-12.40	5.05	132.62
692	45.44	323.44	3.19	-12.40	5.35	132.95
693	45.50	319.18	3.44	-12.40	5.76	133.35
694	45.57	322.78	3.63	-12.41	6.30	133.81
695	45.63	314.25	3.89	-12.41	7.04	134.27
696	45.70	300.30	4.24	-12.41	8.22	134.74
697	45.77	282.10	4.59	-12.41	10.01	135.15
698	45.84	247.58	4.97	-12.41	12.23	135.44
699	45.90	223.97	5.26	-12.41	15.14	135.50
700	45.96	189.45	5.38	-12.41	18.60	135.26
701	46.04	151.51	5.28	-12.41	22.75	134.70
702	46.11	128.47	5.05	-12.41	26.71	134.06
703	46.15	116.71	4.88	-12.41	30.07	133.31
704	46.23	97.84	4.50	-12.41	32.83	132.46
705	46.31	87.31	4.01	-12.30	35.10	131.20
706	46.38	78.97	3.28	-12.19	35.75	129.78
707	46.42	73.09	2.74	-12.19	34.05	127.30
708	46.50	65.79	1.36	-12.07	31.87	124.64
709	46.58	61.33	1.18	-12.07	29.59	121.68
710	46.62	56.30	1.09	-12.07	31.08	120.64
711	46.70	49.29	0.98	-12.19	33.42	119.84
712	46.77	45.02	0.94	-12.32	36.51	119.21
713	46.82	40.56	0.94	-12.32	39.48	118.87
714	46.91	37.81	0.93	-12.32	42.29	118.60
715	46.95	35.82	0.91	-12.53	44.65	118.17
716	47.02	32.60	0.85	-12.53	46.33	117.63
717	47.10	31.36	0.79	-12.53	47.28	117.07
718	47.14	31.27	0.76	-12.53	47.04	116.51
719	47.22	30.70	0.69	-12.53	46.44	115.97
720	47.29	30.41	0.64	-12.53	45.93	115.28

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
721	47.37	29.56	0.59	-12.53	45.93	114.72
722	47.41	28.52	0.56	-12.53	46.49	114.16
723	47.49	27.19	0.53	-12.53	47.35	113.71
724	47.56	26.34	0.51	-12.53	48.01	113.33
725	47.60	26.05	0.49	-12.53	48.19	113.10
726	47.68	26.15	0.49	-12.64	47.40	113.12
727	47.76	27.85	0.50	-12.64	46.05	113.29
728	47.80	29.18	0.51	-12.64	43.83	113.57
729	47.88	31.46	0.52	-12.64	41.61	113.68
730	47.95	32.88	0.50	-12.64	39.57	113.65
731	47.99	33.64	0.48	-12.64	38.24	113.45
732	48.07	33.83	0.47	-12.64	37.98	113.38
733	48.15	33.26	0.48	-12.64	38.75	113.40
734	48.22	31.93	0.49	-12.64	39.98	113.41
735	48.27	31.08	0.48	-12.64	40.74	113.28
736	48.34	31.08	0.47	-12.64	40.84	113.11
737	48.38	31.08	0.46	-12.64	40.10	113.00
738	48.46	32.31	0.45	-12.64	39.62	112.86
739	48.54	31.65	0.44	-12.64	39.26	112.65
740	48.58	31.08	0.42	-12.64	40.16	112.49
741	48.66	29.75	0.44	-12.64	41.26	112.42
742	48.73	29.09	0.44	-12.70	42.67	112.60
743	48.78	28.99	0.47	-12.70	44.41	113.64
744	48.86	30.32	0.64	-12.70	46.51	115.10
745	48.94	30.60	0.77	-12.76	46.71	115.61
746	48.98	30.70	0.59	-12.76	49.17	116.99
747	49.05	31.08	1.05	-12.76	56.25	120.45
748	49.13	32.22	2.19	-12.76	53.46	123.72
749	49.21	53.93	2.32	-12.53	46.71	126.21
750	49.25	68.63	2.61	-12.64	33.05	128.27
751	49.33	117.94	3.22	-12.98	27.61	129.65
752	49.38	117.00	3.28	-13.10	27.84	130.25
753	49.45	77.17	3.30	-13.89	32.10	129.99
754	49.52	78.12	3.31	-14.23	38.29	129.37
755	49.57	68.92	3.09	-14.23	39.56	128.53
756	49.65	60.48	2.47	-14.23	40.21	127.31
757	49.70	61.80	2.16	-14.12	39.41	126.06
758	49.77	60.00	1.99	-14.23	38.66	125.48
759	49.83	58.11	1.99	-14.23	39.39	125.23
760	49.90	56.49	2.01	-14.14	40.10	125.16
761	49.97	56.54	1.97	-14.04	40.04	124.94
762	50.04	56.54	1.83	-14.04	39.37	124.64
763	50.12	56.59	1.78	-13.91	38.96	124.50
764	50.19	57.06	1.85	-13.78	39.19	124.61
765	50.23	56.68	1.92	-13.78	39.94	124.78
766	50.31	55.07	1.92	-13.89	40.89	124.82
767	50.39	53.84	1.92	-13.78	41.78	124.81
768	50.43	53.36	1.95	-13.89	42.78	125.14

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
769	50.50	54.31	2.20	-13.78	43.26	125.87
770	50.58	58.48	2.49	-13.78	43.14	126.73
771	50.62	61.80	2.66	-13.78	41.18	127.54
772	50.70	70.43	2.82	-13.78	37.75	127.95
773	50.77	79.54	2.66	-13.78	34.29	128.05
774	50.81	82.57	2.51	-13.78	31.52	127.68
775	50.89	83.43	2.29	-13.78	30.70	127.29
776	50.97	80.11	2.27	-13.66	31.30	126.96
777	51.05	74.32	2.28	-13.66	33.06	126.87
778	51.09	71.29	2.32	-13.66	34.57	127.15
779	51.16	74.65	2.60	-13.66	36.02	127.87
780	51.24	74.99	3.02	-13.66	36.96	128.79
781	51.28	77.64	3.31	-13.66	37.42	129.83
782	51.36	85.51	3.79	-13.66	34.81	130.62
783	51.43	103.15	3.77	-13.78	30.71	131.22
784	51.48	119.37	3.68	-13.78	24.32	131.50
785	51.55	157.20	3.44	-13.78	17.24	131.66
786	51.63	218.47	3.07	-14.01	10.82	131.16
787	51.68	267.49	2.20	-14.01	5.57	129.40
788	51.73	313.01	1.10	-14.01	2.31	126.97
789	51.80	337.57	1.06	-14.01	0.84	125.40
790	51.87	342.79	1.27	-14.01	1.24	126.68
791	51.95	331.60	1.73	-13.89	2.40	128.59
792	52.01	317.66	2.31	-13.89	4.89	130.18
793	52.07	229.66	2.82	-13.89	6.88	131.72
794	52.13	288.64	3.48	-13.89	8.87	132.93
795	52.19	277.64	4.03	-13.89	9.78	134.34
796	52.27	257.73	4.88	-13.89	12.17	135.40
797	52.34	241.98	5.68	-13.66	15.01	136.27
798	52.42	220.74	6.30	-13.66	17.54	136.74
799	52.46	205.66	6.47	-13.66	20.07	136.64
800	52.54	176.64	6.05	-13.66	22.16	135.79
801	52.61	148.95	4.95	-13.55	23.77	134.38
802	52.66	136.34	4.10	-13.55	24.83	132.46
803	52.73	113.01	3.16	-13.44	25.75	130.51
804	52.81	96.42	2.56	-13.32	27.16	128.65
805	52.85	88.93	2.27	-13.32	28.21	127.04
806	52.93	79.44	1.84	-13.10	28.39	125.74
807	53.01	77.45	1.61	-13.10	27.92	124.60
808	53.05	78.02	1.52	-13.10	26.79	123.81
809	53.12	77.74	1.34	-13.10	26.21	122.76
810	53.20	69.49	1.06	-13.10	25.94	121.32
811	53.24	64.36	0.89	-13.10	26.53	119.50
812	53.32	56.49	0.71	-13.32	27.74	117.89
813	53.39	49.38	0.62	-13.10	29.55	116.25
814	53.47	44.17	0.52	-13.32	31.54	115.25
815	53.51	42.27	0.53	-13.10	33.60	115.24
816	53.59	42.08	0.65	-13.10	35.25	116.07

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
817	53.64	43.41	0.73	-13.10	36.43	117.75
818	53.72	48.43	0.98	-13.10	37.69	119.58
819	53.78	49.67	1.26	-13.27	35.87	121.43
820	53.84	63.89	1.41	-13.30	33.96	122.50
821	53.90	65.88	1.41	-13.30	31.91	122.92
822	53.98	63.80	1.39	-13.32	32.92	123.07
823	54.06	60.29	1.53	-13.32	34.91	123.22
824	54.10	57.82	1.57	-13.32	36.10	123.45
825	54.17	60.52	1.56	-13.32	37.16	123.55
826	54.25	56.59	1.62	-13.32	36.95	123.76
827	54.29	60.76	1.69	-13.21	36.19	124.42
828	54.37	70.24	1.92	-13.32	34.96	125.43
829	54.45	73.09	2.23	-13.32	35.34	126.49
830	54.52	70.62	2.49	-13.32	37.23	127.20
831	54.56	68.35	2.62	-13.21	40.12	127.54
832	54.64	62.75	2.71	-13.32	43.05	127.59
833	54.72	58.20	2.71	-13.21	45.69	127.46
834	54.76	56.02	2.66	-13.44	47.04	126.86
835	54.84	51.94	2.23	-13.21	47.39	125.83
836	54.91	48.24	1.85	-13.21	47.70	124.72
837	54.96	46.35	1.84	-13.21	48.28	123.78
838	55.04	43.31	1.62	-13.21	49.07	123.04
839	55.11	40.94	1.43	-13.26	49.42	122.10
840	55.15	39.52	1.33	-13.26	50.12	121.18
841	55.23	36.11	1.18	-13.30	49.97	120.35
842	55.30	36.77	1.04	-13.26	49.58	119.49
843	55.35	36.01	0.97	-13.26	48.53	118.67
844	55.43	34.49	0.86	-13.21	48.48	117.90
845	55.50	33.17	0.78	-13.21	48.52	117.17
846	55.54	32.60	0.75	-13.21	48.72	116.62
847	55.62	31.65	0.71	-13.21	48.61	116.17
848	55.70	31.55	0.66	-13.27	48.35	115.76
849	55.74	31.46	0.64	-13.21	48.04	115.48
850	55.82	31.17	0.64	-13.27	48.02	115.36
851	55.89	31.17	0.64	-13.21	48.14	115.34
852	55.94	31.17	0.64	-13.21	48.00	115.35
853	56.01	31.55	0.64	-13.21	47.56	115.39
854	56.09	32.31	0.64	-13.44	46.86	115.40
855	56.14	32.79	0.63	-13.44	46.05	115.44
856	56.22	33.54	0.63	-13.44	45.49	115.46
857	56.29	33.73	0.63	-13.32	45.27	115.53
858	56.33	33.64	0.64	-13.44	45.91	115.75
859	56.41	33.07	0.69	-13.21	46.86	116.06
860	56.49	32.98	0.72	-13.21	47.79	116.41
861	56.53	33.17	0.75	-13.44	48.00	116.83
862	56.61	34.49	0.81	-13.44	47.09	117.36
863	56.69	37.62	0.86	-13.32	44.18	117.14
864	56.73	39.42	0.63	-13.32	39.41	116.04

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
865	56.81	41.32	0.45	-13.44	36.14	114.87
866	56.85	41.04	0.56	-13.44	36.46	114.96
867	56.93	38.95	0.65	-13.44	40.14	116.01
868	57.01	36.39	0.73	-13.44	43.56	116.65
869	57.05	35.63	0.77	-13.42	45.58	117.01
870	57.12	35.58	0.79	-13.42	46.96	117.52
871	57.21	35.54	0.90	-13.42	48.58	118.37
872	57.25	36.01	1.07	-13.37	51.50	120.04
873	57.33	37.24	1.48	-13.32	51.84	122.18
874	57.41	46.54	1.93	-13.44	47.75	124.15
875	57.45	60.76	2.10	-13.44	34.40	126.42
876	57.53	115.38	2.47	-13.55	24.29	128.27
877	57.57	152.56	2.77	-13.44	17.44	130.37
878	57.65	202.91	3.43	-13.66	15.19	132.23
879	57.73	219.41	4.27	-13.44	15.26	133.76
880	57.78	204.90	4.83	-13.44	17.89	134.68
881	57.85	171.81	5.35	-13.44	22.21	134.88
882	57.92	139.19	5.41	-13.44	27.15	134.58
883	57.97	121.93	5.11	-13.44	31.74	133.80
884	58.03	101.25	4.60	-13.44	35.19	132.53
885	58.10	84.28	3.72	-13.44	38.66	130.84
886	58.18	71.00	3.01	-13.44	42.20	128.99
887	58.26	58.11	2.62	-13.21	42.47	127.92
888	58.30	71.14	2.63	-13.21	45.08	127.67
889	58.38	56.68	2.93	-13.21	43.03	128.02
890	58.46	71.29	2.83	-13.21	40.15	128.34
891	58.50	88.26	2.75	-13.21	28.67	128.80
892	58.58	138.62	2.57	-13.32	18.67	129.28
893	58.64	198.36	2.41	-13.44	11.72	129.66
894	58.69	247.77	2.34	-13.44	7.83	129.83
895	58.76	283.14	2.21	-13.44	5.99	129.58
896	58.83	278.11	1.95	-13.55	5.24	128.87
897	58.89	259.34	1.72	-13.44	5.43	128.30
898	58.96	247.96	1.85	-13.44	6.11	127.98
899	59.03	229.28	1.82	-13.44	7.26	127.94
900	59.10	205.09	1.83	-13.44	8.85	127.60
901	59.15	175.32	1.80	-13.44	12.40	127.50
902	59.23	124.30	2.11	-13.32	18.30	127.63
903	59.29	96.13	2.42	-13.06	27.65	127.82
904	59.35	72.43	2.65	-13.06	35.13	127.89
905	59.41	71.29	2.67	-13.06	39.07	127.54
906	59.48	70.15	2.34	-12.87	39.22	126.79
907	59.55	63.51	2.01	-12.64	40.55	125.59
908	59.62	53.08	1.80	-12.64	42.54	123.56
909	59.69	44.45	1.09	-12.53	43.47	120.78
910	59.75	40.09	0.64	-12.53	42.00	117.60
911	59.82	38.38	0.64	-12.53	41.55	115.94
912	59.90	36.96	0.64	-12.53	42.91	115.91

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
913	59.94	36.48	0.65	-12.53	44.14	116.11
914	60.01	36.11	0.71	-12.72	44.60	116.85
915	60.07	39.42	0.84	-12.72	45.26	118.14
916	60.15	41.42	1.04	-12.79	45.80	119.33
917	60.23	41.23	1.13	-12.87	46.44	119.99
918	60.27	41.51	1.11	-12.76	46.30	120.13
919	60.35	42.65	1.09	-12.87	45.17	120.12
920	60.43	44.54	1.09	-12.87	44.17	120.15
921	60.47	44.83	1.09	-12.87	43.37	120.30
922	60.55	46.16	1.13	-12.87	43.07	120.51
923	60.59	47.01	1.17	-12.87	43.08	120.86
924	60.67	47.11	1.24	-12.87	43.71	121.22
925	60.75	46.54	1.31	-12.87	44.66	121.55
926	60.79	46.16	1.35	-12.87	45.99	121.80
927	60.87	44.64	1.40	-12.87	47.37	121.90
928	60.95	43.03	1.40	-12.87	48.51	121.84
929	60.99	42.46	1.36	-12.87	48.93	121.49
930	61.07	41.32	1.24	-12.87	48.07	120.96
931	61.15	42.32	1.13	-12.98	47.62	120.42
932	61.19	40.56	1.11	-12.76	46.72	120.13
933	61.27	42.17	1.10	-13.10	46.35	120.12
934	61.31	43.41	1.11	-13.10	45.27	120.31
935	61.39	44.92	1.15	-13.10	44.98	120.63
936	61.47	45.11	1.22	-12.87	45.18	120.90
937	61.51	44.54	1.23	-12.87	45.64	121.05
938	61.59	44.54	1.24	-12.87	45.94	121.10
939	61.67	44.54	1.25	-13.10	46.11	121.16
940	61.71	44.54	1.27	-12.76	46.17	121.19
941	61.79	44.54	1.25	-13.10	46.02	121.16
942	61.87	44.92	1.24	-12.87	45.81	121.10
943	61.91	44.83	1.23	-12.91	47.01	121.11
944	61.98	41.04	1.29	-12.87	48.11	121.29
945	62.05	42.93	1.35	-12.91	49.75	121.55
946	62.13	41.89	1.40	-12.87	50.19	121.80
947	62.17	41.42	1.42	-12.87	52.32	122.41
948	62.25	41.04	1.74	-12.87	54.69	123.66
949	62.33	43.60	2.23	-12.87	55.39	125.23
950	62.37	49.95	2.57	-12.98	49.98	127.08
951	62.45	72.24	3.05	-12.98	39.98	128.70
952	62.52	105.24	3.19	-12.76	31.45	130.05
953	62.57	125.53	3.38	-12.98	24.43	131.34
954	62.64	169.34	3.89	-12.98	19.95	132.57
955	62.70	204.90	4.23	-12.98	16.65	133.74
956	62.76	232.31	4.52	-12.87	14.99	134.57
957	62.82	245.30	4.86	-13.10	14.58	135.21
958	62.89	244.73	5.20	-13.10	15.52	135.72
959	62.95	225.86	5.60	-13.10	17.34	136.09
960	63.02	210.12	5.97	-12.98	20.30	136.26

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
961	63.09	180.06	6.18	-12.98	24.06	136.23
962	63.17	151.04	6.29	-12.98	28.29	136.01
963	63.24	138.71	6.31	-12.98	31.71	135.78
964	63.28	131.32	6.27	-12.98	33.80	135.43
965	63.36	120.13	5.87	-12.76	34.73	134.81
966	63.43	115.95	5.15	-12.76	35.25	134.02
967	63.48	110.26	4.81	-12.64	35.49	133.19
968	63.56	101.82	4.42	-12.76	36.59	132.62
969	63.64	97.08	4.34	-12.76	37.86	132.18
970	63.68	93.57	4.26	-12.76	38.23	131.85
971	63.76	94.09	3.97	-12.74	37.66	131.41
972	63.81	94.09	3.65	-12.74	36.14	130.81
973	63.89	94.62	3.31	-12.74	35.38	130.37
974	63.94	92.53	3.34	-12.64	35.20	130.21
975	64.00	93.10	3.45	-12.64	35.44	130.07
976	64.07	90.92	3.16	-12.64	34.91	129.82
977	64.14	92.48	3.00	-12.76	35.03	129.79
978	64.22	91.87	3.42	-12.76	34.54	130.40
979	64.27	104.19	3.84	-12.76	32.88	131.86
980	64.35	130.84	4.75	-12.76	31.23	133.11
981	64.41	131.98	5.11	-12.76	31.09	133.88
982	64.48	122.59	5.12	-12.87	33.66	133.79
983	64.53	103.72	4.93	-12.76	37.83	133.10
984	64.61	84.09	4.42	-12.98	42.46	131.99
985	64.69	73.85	3.82	-12.76	45.42	130.74
986	64.73	69.58	3.40	-12.76	46.26	129.34
987	64.81	63.32	2.71	-12.76	45.92	127.89
988	64.89	60.00	2.23	-12.76	45.40	126.55
989	64.93	58.77	2.14	-12.64	44.88	125.67
990	65.01	57.35	1.97	-12.64	44.38	125.12
991	65.06	57.25	1.80	-12.64	43.81	124.62
992	65.14	56.78	1.77	-12.64	43.51	124.49
993	65.21	57.54	1.87	-12.76	43.40	124.54
994	65.26	58.30	1.83	-12.76	43.62	124.89
995	65.33	58.96	2.01	-12.76	44.92	125.15
996	65.38	54.60	2.11	-12.76	44.17	125.81
997	65.45	67.40	2.28	-12.76	42.94	126.52
998	65.53	71.38	2.51	-12.76	40.76	127.40
999	65.61	74.61	2.74	-12.76	40.28	128.04
1000	65.65	77.26	2.85	-12.76	39.57	128.39
1001	65.73	79.44	2.81	-12.76	38.73	128.22
1002	65.81	77.17	2.52	-12.76	38.39	127.80
1003	65.85	73.94	2.42	-12.76	39.48	127.29
1004	65.93	67.78	2.42	-12.76	41.49	127.07
1005	66.00	65.12	2.44	-12.76	42.94	126.90
1006	66.05	65.12	2.36	-12.76	42.40	126.80
1007	66.13	69.39	2.30	-12.76	41.14	126.77
1008	66.17	71.10	2.34	-12.76	39.83	127.18

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1009	66.25	75.93	2.63	-12.76	39.13	127.93
1010	66.32	81.91	2.94	-12.76	38.79	128.84
1011	66.37	84.56	3.22	-12.76	38.70	129.64
1012	66.44	87.12	3.49	-12.76	38.55	130.11
1013	66.52	89.68	3.49	-12.64	38.09	130.37
1014	66.57	91.39	3.50	-12.76	37.26	130.44
1015	66.64	93.57	3.50	-12.76	36.80	130.54
1016	66.72	94.33	3.56	-12.76	36.71	130.64
1017	66.77	93.67	3.61	-12.76	37.40	130.70
1018	66.85	89.97	3.64	-12.76	39.13	130.58
1019	66.92	81.72	3.57	-12.76	41.26	130.33
1020	66.97	77.64	3.46	-12.83	42.07	129.98
1021	67.02	80.49	3.28	-12.83	42.34	129.42
1022	67.12	73.09	2.92	-12.83	42.41	128.73
1023	67.16	69.01	2.70	-12.79	43.27	127.70
1024	67.24	64.36	2.31	-12.79	43.60	126.84
1025	67.29	62.56	2.17	-12.76	43.69	125.90
1026	67.37	59.34	1.94	-12.76	43.75	125.16
1027	67.44	57.35	1.77	-12.76	43.63	124.38
1028	67.49	56.30	1.64	-12.76	42.99	123.64
1029	67.56	55.64	1.45	-12.64	42.24	122.94
1030	67.64	54.79	1.35	-12.76	41.66	122.28
1031	67.69	53.46	1.28	-12.76	41.33	121.66
1032	67.77	52.23	1.15	-12.76	41.41	121.11
1033	67.81	50.42	1.11	-12.76	41.84	120.58
1034	67.89	48.05	1.07	-12.76	42.87	120.27
1035	67.97	46.44	1.05	-12.64	43.76	120.09
1036	68.02	46.25	1.07	-12.64	44.33	120.11
1037	68.09	46.39	1.09	-12.64	44.61	120.23
1038	68.14	46.35	1.10	-12.64	44.56	120.38
1039	68.21	47.39	1.12	-12.64	44.31	120.62
1040	68.29	48.91	1.19	-12.64	44.01	120.97
1041	68.34	49.76	1.24	-12.64	43.92	121.46
1042	68.42	51.18	1.34	-12.64	43.86	121.92
1043	68.49	52.51	1.40	-12.64	43.72	122.31
1044	68.54	53.27	1.43	-12.64	43.40	122.43
1045	68.61	53.36	1.39	-12.64	43.50	122.68
1046	68.69	54.12	1.53	-12.64	44.11	123.06
1047	68.74	54.03	1.65	-12.64	44.94	123.49
1048	68.81	53.65	1.66	-12.64	45.48	123.64
1049	68.86	53.36	1.64	-12.64	45.48	123.55
1050	68.94	53.36	1.60	-12.64	45.27	123.41
1051	68.99	53.36	1.57	-12.72	44.92	123.23
1052	69.08	53.36	1.52	-12.72	44.49	123.02
1053	69.14	53.36	1.46	-12.72	43.88	122.75
1054	69.19	53.65	1.40	-12.76	43.32	122.52
1055	69.27	53.84	1.39	-12.76	43.17	122.48
1056	69.34	53.65	1.43	-12.76	43.19	122.57

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1057	69.39	54.41	1.45	-12.76	43.11	122.70
1058	69.46	55.17	1.45	-12.76	42.48	122.76
1059	69.54	56.78	1.44	-12.76	41.90	122.76
1060	69.58	56.78	1.43	-12.76	41.74	122.80
1061	69.66	56.21	1.46	-12.76	42.08	122.83
1062	69.74	55.73	1.47	-12.87	42.37	122.92
1063	69.78	56.40	1.48	-12.76	42.47	123.07
1064	69.86	57.06	1.55	-12.87	42.59	123.31
1065	69.94	57.35	1.61	-12.76	42.83	123.55
1066	69.99	57.44	1.63	-12.66	43.82	123.66
1067	70.04	54.03	1.65	-12.66	43.85	123.80
1068	70.11	58.39	1.69	-12.66	43.87	123.94
1069	70.18	58.67	1.71	-12.53	42.70	124.12
1070	70.25	60.48	1.71	-12.53	42.16	124.11
1071	70.33	60.76	1.66	-12.41	41.44	123.96
1072	70.40	60.67	1.59	-12.41	41.08	123.73
1073	70.44	60.10	1.56	-12.41	40.85	123.50
1074	70.52	59.81	1.52	-12.41	40.64	123.34
1075	70.59	60.29	1.49	-12.41	40.42	123.24
1076	70.64	60.29	1.49	-12.41	40.24	123.21
1077	70.72	60.38	1.50	-12.41	40.26	123.26
1078	70.80	60.76	1.52	-12.41	40.20	123.34
1079	70.84	61.33	1.53	-12.41	39.82	123.46
1080	70.92	63.13	1.55	-12.41	39.39	123.58
1081	70.96	63.70	1.57	-12.41	38.99	123.74
1082	71.05	64.65	1.61	-12.41	38.69	123.78
1083	71.12	64.84	1.56	-12.53	38.60	123.80
1084	71.17	64.46	1.58	-12.53	39.14	123.89
1085	71.25	63.23	1.68	-12.53	40.11	124.09
1086	71.29	62.56	1.72	-12.53	40.94	124.20
1087	71.38	61.71	1.68	-12.41	41.14	124.12
1088	71.42	61.61	1.64	-12.43	41.60	123.79
1089	71.49	57.54	1.54	-12.43	41.56	123.47
1090	71.56	59.24	1.50	-12.43	41.74	123.22
1091	71.63	58.67	1.50	-12.41	41.60	123.11
1092	71.70	57.35	1.47	-12.41	41.55	123.02
1093	71.75	58.77	1.45	-12.30	41.46	122.87
1094	71.82	57.82	1.41	-12.30	40.92	122.76
1095	71.88	58.86	1.40	-12.30	40.21	122.69
1096	71.95	61.33	1.39	-12.30	39.12	122.75
1097	72.02	63.04	1.41	-12.30	38.30	122.93
1098	72.08	63.99	1.46	-12.30	38.14	123.16
1099	72.15	64.18	1.50	-12.30	38.44	123.39
1100	72.22	63.89	1.54	-12.30	39.03	123.61
1101	72.28	63.61	1.60	-12.30	39.64	123.83
1102	72.35	63.61	1.65	-12.30	39.90	123.99
1103	72.42	64.36	1.65	-12.19	39.68	124.06
1104	72.50	65.41	1.64	-12.19	39.46	124.10

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1105	72.54	65.03	1.66	-12.19	39.69	124.19
1106	72.62	64.27	1.71	-12.19	40.39	124.35
1107	72.70	63.70	1.76	-12.19	41.00	124.52
1108	72.74	63.80	1.79	-12.19	41.32	124.64
1109	72.82	63.99	1.80	-12.19	41.44	124.65
1110	72.86	63.32	1.77	-12.19	41.72	124.49
1111	72.94	61.05	1.70	-12.19	41.78	124.05
1112	73.02	59.81	1.53	-12.19	41.84	123.68
1113	73.07	59.81	1.55	-12.19	41.49	123.53
1114	73.15	61.33	1.60	-12.19	41.29	123.68
1115	73.19	62.09	1.61	-12.19	40.75	123.80
1116	73.28	63.51	1.61	-12.19	40.14	123.84
1117	73.32	64.65	1.60	-12.19	39.84	123.87
1118	73.39	63.89	1.61	-12.19	39.75	123.87
1119	73.45	63.99	1.60	-12.19	39.97	123.89
1120	73.53	63.89	1.62	-12.19	40.09	123.91
1121	73.59	63.51	1.62	-12.19	40.36	123.93
1122	73.66	63.04	1.63	-12.19	40.36	123.87
1123	73.72	63.32	1.58	-12.19	40.09	123.78
1124	73.78	64.08	1.56	-12.19	39.81	123.74
1125	73.86	64.08	1.59	-12.19	39.84	123.81
1126	73.93	63.99	1.63	-12.19	39.95	123.99
1127	74.00	65.22	1.67	-12.07	40.03	124.13
1128	74.04	65.17	1.68	-12.07	40.08	124.27
1129	74.12	65.17	1.71	-12.07	40.35	124.40
1130	74.19	65.12	1.75	-12.07	40.61	124.54
1131	74.24	65.31	1.78	-12.07	40.74	124.59
1132	74.31	65.08	1.75	-12.07	40.70	124.48
1133	74.38	64.36	1.68	-12.07	40.39	124.28
1134	74.45	65.03	1.64	-12.07	40.13	124.08
1135	74.50	64.55	1.61	-12.07	39.83	123.94
1136	74.59	64.55	1.59	-12.07	39.85	123.88
1137	74.65	64.46	1.61	-12.07	39.86	123.88
1138	74.71	64.55	1.61	-12.07	40.03	123.91
1139	74.77	64.08	1.61	-12.07	40.04	123.92
1140	74.83	64.55	1.61	-12.07	39.98	123.94
1141	74.92	65.12	1.62	-12.07	39.69	124.00
1142	74.96	66.17	1.63	-12.07	39.48	124.13
1143	75.04	66.93	1.68	-12.07	39.77	124.27
1144	75.11	65.12	1.72	-12.07	40.23	124.39
1145	75.17	65.12	1.73	-12.07	40.65	124.48
1146	75.24	65.79	1.76	-12.07	40.83	124.57
1147	75.29	65.22	1.78	-12.07	40.86	124.64
1148	75.36	65.69	1.77	-12.07	40.62	124.64
1149	75.42	67.02	1.74	-12.07	40.02	124.58
1150	75.50	67.78	1.72	-12.07	39.56	124.55
1151	75.55	67.78	1.72	-12.07	39.39	124.53
1152	75.63	67.78	1.72	-12.07	39.41	124.53

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1153	75.69	67.78	1.72	-12.07	39.27	124.54
1154	75.77	68.63	1.72	-11.96	39.01	124.59
1155	75.83	69.58	1.74	-11.96	38.65	124.66
1156	75.89	70.34	1.75	-11.96	38.33	124.69
1157	75.95	70.62	1.73	-11.96	37.86	124.66
1158	76.02	71.67	1.70	-11.96	37.17	124.61
1159	76.08	73.18	1.69	-11.96	36.29	124.61
1160	76.15	75.27	1.70	-11.96	35.56	124.70
1161	76.21	76.60	1.73	-11.96	35.26	124.81
1162	76.28	76.22	1.75	-11.96	35.31	124.79
1163	76.34	74.89	1.69	-11.96	35.79	124.70
1164	76.41	73.09	1.69	-11.96	36.40	124.55
1165	76.47	71.38	1.68	-11.96	37.18	124.43
1166	76.54	69.77	1.65	-11.96	37.47	124.31
1167	76.62	70.43	1.62	-11.85	37.49	124.17
1168	76.69	69.96	1.60	-11.85	37.05	123.99
1169	76.77	70.15	1.52	-11.85	36.68	123.76
1170	76.81	70.05	1.48	-11.85	36.39	123.62
1171	76.89	70.05	1.51	-11.85	36.40	123.63
1172	76.94	70.34	1.53	-11.85	36.49	123.69
1173	77.02	70.24	1.52	-11.87	36.53	123.69
1174	77.06	69.96	1.51	-11.88	36.63	123.55
1175	77.14	68.44	1.45	-11.88	36.95	123.40
1176	77.20	67.30	1.45	-11.88	37.15	123.31
1177	77.27	68.25	1.47	-11.85	37.19	123.38
1178	77.34	69.01	1.49	-11.85	36.60	123.54
1179	77.40	71.86	1.51	-11.85	36.18	123.75
1180	77.47	72.61	1.57	-11.85	35.92	124.07
1181	77.54	73.75	1.66	-11.85	36.15	124.51
1182	77.62	75.46	1.78	-11.85	36.35	124.93
1183	77.66	76.31	1.84	-11.85	36.32	125.33
1184	77.74	78.49	1.91	-11.85	36.28	125.57
1185	77.79	78.54	1.93	-11.85	36.31	125.75
1186	77.87	78.40	1.97	-11.85	36.55	125.87
1187	77.95	78.59	2.00	-11.85	36.65	125.96
1188	77.99	79.16	2.00	-11.85	36.30	125.95
1189	78.07	80.39	1.95	-11.85	35.89	125.90
1190	78.12	80.49	1.95	-11.85	35.77	125.89
1191	78.20	79.73	1.98	-11.85	35.83	125.94
1192	78.28	80.77	1.99	-11.85	35.87	126.01
1193	78.32	81.24	2.00	-11.85	35.09	126.10
1194	78.40	85.51	2.01	-11.85	35.04	126.13
1195	78.44	81.53	2.00	-11.85	35.75	126.06
1196	78.52	76.31	1.99	-11.85	37.22	125.98
1197	78.60	76.36	2.02	-11.85	38.16	125.96
1198	78.65	76.36	2.03	-11.85	38.18	125.97
1199	78.73	76.41	2.00	-11.85	38.18	125.96
1200	78.77	76.31	2.01	-11.85	38.43	126.12

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1201	78.85	76.98	2.16	-11.85	38.78	126.45
1202	78.90	78.49	2.26	-11.73	37.46	127.18
1203	78.98	92.62	2.53	-11.88	37.70	127.79
1204	79.03	83.62	2.70	-11.88	36.05	128.43
1205	79.11	97.56	2.75	-11.92	35.73	128.66
1206	79.17	98.22	2.72	-11.92	34.50	128.72
1207	79.24	93.19	2.68	-11.96	35.68	128.53
1208	79.30	86.74	2.65	-11.85	38.37	128.24
1209	79.38	77.26	2.61	-11.85	40.27	127.89
1210	79.44	76.88	2.48	-11.85	40.88	127.45
1211	79.50	77.83	2.28	-11.85	39.64	126.93
1212	79.56	78.49	2.09	-11.85	38.25	126.37
1213	79.64	78.49	1.96	-11.85	37.32	126.01
1214	79.70	78.78	1.97	-11.73	37.13	125.98
1215	79.76	79.25	2.06	-11.73	37.55	126.23
1216	79.82	79.25	2.16	-11.73	38.27	126.51
1217	79.91	78.30	2.22	-11.73	38.92	126.68
1218	79.97	77.45	2.22	-11.73	39.40	126.69
1219	80.02	76.69	2.20	-11.73	39.71	126.62
1220	80.08	75.65	2.18	-11.73	39.83	126.51
1221	80.16	75.65	2.14	-11.73	39.85	126.41
1222	80.21	75.46	2.12	-11.73	39.76	126.34
1223	80.28	75.46	2.12	-11.73	39.59	126.31
1224	80.34	76.41	2.11	-11.73	39.29	126.32
1225	80.42	77.36	2.11	-11.73	38.92	126.33
1226	80.48	77.93	2.11	-11.73	38.79	126.35
1227	80.54	77.45	2.11	-11.73	38.88	126.31
1228	80.62	76.50	2.09	-11.73	39.00	126.25
1229	80.68	76.50	2.07	-11.73	39.07	126.14
1230	80.74	75.93	2.04	-11.73	39.00	126.01
1231	80.81	75.55	1.99	-11.73	38.86	125.85
1232	80.87	75.55	1.94	-11.73	38.66	125.66
1233	80.94	75.08	1.90	-11.73	38.58	125.44
1234	81.01	73.66	1.83	-11.73	38.68	125.24
1235	81.07	72.80	1.80	-11.73	38.79	125.08
1236	81.14	72.80	1.80	-11.73	38.90	125.00
1237	81.21	72.24	1.78	-11.73	38.81	124.83
1238	81.28	71.57	1.69	-11.73	38.70	124.55
1239	81.34	70.62	1.62	-11.73	38.70	124.30
1240	81.39	69.68	1.63	-11.73	39.06	124.25
1241	81.46	69.20	1.68	-11.73	39.63	124.40
1242	81.53	69.11	1.73	-11.73	39.99	124.54
1243	81.60	69.30	1.73	-11.71	40.62	124.60
1244	81.66	66.64	1.74	-11.69	40.74	124.64
1245	81.73	68.92	1.76	-11.67	40.99	124.68
1246	81.79	68.54	1.77	-11.67	40.58	124.77
1247	81.86	69.68	1.78	-11.67	40.45	124.80
1248	81.92	70.01	1.77	-11.67	40.13	124.80

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1249	81.98	70.34	1.76	-11.64	39.86	124.78
1250	82.06	70.91	1.75	-11.64	39.75	124.76
1251	82.11	70.53	1.75	-11.64	39.47	124.77
1252	82.18	72.05	1.75	-11.64	39.30	124.80
1253	82.25	72.24	1.76	-11.64	38.52	124.59
1254	82.31	72.71	1.58	-11.62	37.04	123.90
1255	82.38	72.71	1.29	-11.62	35.68	123.30
1256	82.44	72.99	1.39	-11.62	35.18	123.13
1257	82.51	73.66	1.48	-11.62	35.82	123.57
1258	82.58	74.04	1.54	-11.62	36.23	123.88
1259	82.64	74.23	1.58	-11.45	36.64	124.10
1260	82.71	74.04	1.62	-11.45	37.06	124.28
1261	82.77	73.85	1.66	-11.45	37.34	124.48
1262	82.84	74.99	1.71	-11.28	37.56	124.73
1263	82.91	75.74	1.78	-11.28	37.69	124.96
1264	82.97	75.74	1.80	-11.28	37.75	125.08
1265	83.04	76.12	1.79	-11.28	38.12	125.00
1266	83.10	72.90	1.74	-11.28	38.68	124.82
1267	83.17	70.53	1.71	-11.28	39.54	124.58
1268	83.23	68.92	1.68	-11.28	40.30	124.39
1269	83.30	67.02	1.66	-11.28	40.89	124.28
1270	83.36	66.45	1.67	-11.28	41.35	124.15
1271	83.43	65.41	1.61	-11.28	41.58	124.04
1272	83.50	65.03	1.61	-11.24	41.50	123.91
1273	83.56	65.64	1.59	-11.24	41.26	123.83
1274	83.62	65.88	1.55	-11.24	40.92	123.90
1275	83.69	67.49	1.64	-11.16	40.15	124.07
1276	83.76	71.19	1.65	-11.16	39.70	124.31
1277	83.82	70.72	1.68	-11.16	39.44	124.56
1278	83.89	71.57	1.78	-11.16	40.67	125.36
1279	83.95	72.90	2.22	-11.16	42.79	126.84
1280	84.02	75.55	2.90	-11.16	44.27	128.64
1281	84.08	84.47	3.54	-11.16	43.48	130.36
1282	84.15	99.74	4.12	-11.16	39.91	131.59
1283	84.22	118.99	4.21	-11.16	34.76	131.64
1284	84.28	126.67	3.11	-11.28	29.44	130.67
1285	84.34	130.27	2.41	-11.28	26.82	130.04
1286	84.41	134.16	3.29	-11.28	27.35	130.90
1287	84.48	139.47	4.12	-11.30	29.71	132.61
1288	84.55	141.84	4.88	-11.30	31.44	133.74
1289	84.61	141.41	5.26	-11.29	31.03	133.62
1290	84.68	141.41	3.87	-11.30	28.05	132.12
1291	84.74	140.99	2.29	-11.28	23.18	130.39
1292	84.81	163.27	2.70	-11.28	17.94	129.25
1293	84.87	197.22	2.30	-11.34	12.86	128.69
1294	84.94	237.91	1.37	-11.33	8.13	127.34
1295	85.01	273.47	1.34	-11.32	4.96	125.92
1296	85.07	296.99	1.24	-11.32	3.68	126.22

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1297	85.13	332.64	1.39	-11.32	2.59	126.28
1298	85.20	364.32	1.24	-11.26	1.80	126.30
1299	85.27	374.94	1.15	-11.14	1.33	126.46
1300	85.33	393.43	1.40	-10.97	1.38	127.22
1301	85.39	400.83	1.61	-10.82	1.54	128.11
1302	85.46	406.99	1.65	-10.67	1.79	128.83
1303	85.53	406.80	1.87	-10.54	2.15	129.59
1304	85.60	406.61	2.16	-10.43	2.51	130.28
1305	85.66	411.45	2.20	-10.16	2.56	130.48
1306	85.73	414.67	2.03	-9.75	0.97	127.48
1307	85.79	411.68	0.00	-9.12	0.00	122.11
1308	85.86	411.92	0.00	-9.12	100.00	87.36
1309	85.93	419.70	0.00	-9.12	100.00	87.36
1310	85.99	155.69	0.00	-9.01	100.00	87.36
1311	86.05	393.43	0.00	-8.21	100.00	87.36
1312	86.12	426.24	0.00	-7.19	100.00	87.36

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data ::

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1	0.07	0.00	0.00	0.00	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
2	0.13	0.01	0.00	0.01	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
3	0.20	0.01	0.00	0.01	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
4	0.27	0.01	0.00	0.01	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
5	0.33	0.02	0.00	0.02	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
6	0.40	0.02	0.00	0.02	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
7	0.47	0.03	0.00	0.03	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
8	0.54	0.03	0.00	0.03	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
9	0.60	0.03	0.00	0.03	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
10	0.66	0.04	0.00	0.04	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
11	0.72	0.04	0.00	0.04	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
12	0.80	0.04	0.00	0.04	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
13	0.87	0.05	0.00	0.05	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
14	0.93	0.05	0.00	0.05	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
15	0.99	0.05	0.00	0.05	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
16	1.06	0.06	0.00	0.06	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
17	1.13	0.06	0.00	0.06	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
18	1.19	0.06	0.00	0.06	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
19	1.25	0.07	0.00	0.07	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
20	1.32	0.07	0.00	0.07	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
21	1.38	0.08	0.00	0.08	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
22	1.46	0.08	0.00	0.08	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
23	1.52	0.08	0.00	0.08	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
24	1.58	0.09	0.00	0.09	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
25	1.64	0.09	0.00	0.09	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
26	1.71	0.09	0.00	0.09	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
27	1.77	0.10	0.00	0.10	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
28	1.86	0.10	0.00	0.10	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
29	1.92	0.10	0.00	0.10	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
30	1.98	0.11	0.00	0.11	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
31	2.05	0.11	0.00	0.11	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
32	2.11	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
33	2.17	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
34	2.23	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
35	2.30	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
36	2.38	0.13	0.00	0.13	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
37	2.44	0.13	0.00	0.13	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
38	2.50	0.14	0.00	0.14	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
39	2.57	0.14	0.00	0.14	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
40	2.63	0.14	0.00	0.14	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
41	2.70	0.15	0.00	0.15	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
42	2.76	0.15	0.00	0.15	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
43	2.84	0.16	0.00	0.16	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
44	2.90	0.16	0.00	0.16	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
45	2.96	0.16	0.00	0.16	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
46	3.03	0.17	0.00	0.17	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
47	3.09	0.17	0.00	0.17	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
48	3.15	0.17	0.00	0.17	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
49	3.21	0.18	0.00	0.18	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
50	3.30	0.18	0.00	0.18	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
51	3.37	0.19	0.00	0.19	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
52	3.43	0.19	0.00	0.19	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
53	3.50	0.19	0.00	0.19	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
54	3.56	0.20	0.00	0.20	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
55	3.62	0.20	0.00	0.20	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
56	3.68	0.21	0.00	0.21	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
57	3.74	0.21	0.00	0.21	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
58	3.81	0.21	0.00	0.21	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
59	3.89	0.22	0.00	0.22	1.00	0.440	1.17	0.374	1.00	1.00	2.000	No
60	3.95	0.22	0.00	0.22	0.99	0.440	1.17	0.374	1.00	1.00	2.000	No
61	4.02	0.23	0.00	0.23	0.99	0.440	1.17	0.374	1.00	1.00	2.000	No
62	4.08	0.23	0.00	0.23	0.99	0.440	1.17	0.374	1.00	1.00	2.000	No
63	4.15	0.23	0.00	0.23	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
64	4.21	0.24	0.00	0.24	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
65	4.28	0.24	0.00	0.24	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
66	4.34	0.25	0.00	0.25	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
67	4.40	0.25	0.00	0.25	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
68	4.47	0.25	0.00	0.25	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
69	4.53	0.26	0.00	0.26	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
70	4.61	0.26	0.00	0.26	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
71	4.68	0.27	0.00	0.27	0.99	0.439	1.17	0.373	1.00	1.00	2.000	No
72	4.74	0.27	0.00	0.27	0.99	0.439	1.17	0.373	1.00	1.00	2.000	No
73	4.80	0.27	0.00	0.27	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
74	4.86	0.28	0.00	0.28	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
75	4.92	0.28	0.00	0.28	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
76	4.99	0.28	0.00	0.28	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
77	5.07	0.29	0.00	0.29	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
78	5.13	0.29	0.00	0.29	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
79	5.19	0.30	0.00	0.30	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
80	5.26	0.30	0.00	0.30	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
81	5.32	0.30	0.00	0.30	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
82	5.41	0.31	0.00	0.31	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
83	5.48	0.31	0.00	0.31	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
84	5.54	0.32	0.00	0.32	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
85	5.58	0.32	0.00	0.32	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
86	5.68	0.33	0.00	0.33	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
87	5.74	0.33	0.00	0.33	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
88	5.78	0.33	0.00	0.33	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
89	5.85	0.34	0.00	0.34	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
90	5.92	0.34	0.00	0.34	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
91	5.99	0.34	0.00	0.34	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
92	6.05	0.35	0.00	0.35	0.99	0.436	1.17	0.372	1.00	1.00	2.000	No
93	6.13	0.35	0.00	0.35	0.99	0.436	1.17	0.372	1.00	1.00	2.000	No
94	6.19	0.35	0.00	0.35	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
95	6.26	0.36	0.00	0.36	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
96	6.33	0.36	0.00	0.36	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
97	6.37	0.36	0.00	0.36	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
98	6.44	0.37	0.00	0.37	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
99	6.51	0.37	0.00	0.37	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
100	6.57	0.38	0.00	0.38	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
101	6.64	0.38	0.00	0.38	0.99	0.435	1.17	0.371	1.00	1.00	2.000	No
102	6.71	0.38	0.00	0.38	0.98	0.435	1.17	0.371	1.00	1.00	2.000	No
103	6.78	0.39	0.00	0.39	0.98	0.435	1.17	0.371	1.00	1.00	2.000	No
104	6.86	0.39	0.00	0.39	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
105	6.89	0.39	0.00	0.39	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
106	6.97	0.40	0.00	0.40	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
107	7.03	0.40	0.00	0.40	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
108	7.10	0.40	0.00	0.40	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
109	7.17	0.41	0.00	0.41	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
110	7.24	0.41	0.00	0.41	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
111	7.31	0.42	0.00	0.42	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
112	7.38	0.42	0.00	0.42	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
113	7.45	0.42	0.00	0.42	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
114	7.48	0.42	0.00	0.42	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
115	7.55	0.43	0.00	0.43	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
116	7.64	0.43	0.00	0.43	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
117	7.68	0.43	0.00	0.43	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
118	7.75	0.44	0.00	0.44	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
119	7.81	0.44	0.00	0.44	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
120	7.88	0.45	0.00	0.45	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
121	7.95	0.45	0.00	0.45	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
122	8.02	0.45	0.00	0.45	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
123	8.08	0.46	0.00	0.46	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
124	8.15	0.46	0.00	0.46	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
125	8.23	0.46	0.00	0.46	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
126	8.29	0.47	0.00	0.47	0.98	0.433	1.17	0.368	1.00	1.00	2.000	No
127	8.36	0.47	0.00	0.47	0.98	0.433	1.17	0.368	1.00	1.00	2.000	No
128	8.43	0.48	0.00	0.48	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
129	8.50	0.48	0.00	0.48	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
130	8.53	0.48	0.00	0.48	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
131	8.60	0.49	0.00	0.49	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
132	8.68	0.49	0.00	0.49	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
133	8.74	0.49	0.00	0.49	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
134	8.81	0.50	0.00	0.50	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
135	8.88	0.50	0.00	0.50	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
136	8.96	0.50	0.00	0.50	0.98	0.432	1.17	0.367	1.00	1.00	2.000	No
137	9.02	0.51	0.00	0.51	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
138	9.06	0.51	0.00	0.51	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
139	9.13	0.51	0.00	0.51	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
140	9.20	0.52	0.00	0.52	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
141	9.27	0.52	0.00	0.52	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
142	9.34	0.53	0.00	0.53	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No
143	9.41	0.53	0.00	0.53	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No
144	9.48	0.53	0.00	0.53	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
145	9.52	0.54	0.00	0.54	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No
146	9.59	0.54	0.00	0.54	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
147	9.65	0.54	0.00	0.54	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
148	9.72	0.55	0.00	0.55	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
149	9.79	0.55	0.00	0.55	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
150	9.86	0.56	0.00	0.56	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
151	9.93	0.56	0.00	0.56	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
152	10.00	0.56	0.00	0.56	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
153	10.08	0.57	0.00	0.57	0.97	0.429	1.17	0.366	1.00	1.00	2.000	No
154	10.15	0.57	0.00	0.57	0.97	0.429	1.17	0.366	1.00	1.00	2.000	No
155	10.22	0.58	0.00	0.58	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
156	10.29	0.58	0.00	0.58	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
157	10.33	0.58	0.00	0.58	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
158	10.40	0.59	0.00	0.59	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
159	10.47	0.59	0.00	0.59	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
160	10.54	0.59	0.00	0.59	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
161	10.62	0.60	0.00	0.60	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
162	10.69	0.60	0.00	0.60	0.97	0.428	1.17	0.365	1.00	1.00	2.000	No
163	10.72	0.60	0.00	0.60	0.97	0.428	1.17	0.365	1.00	1.00	2.000	No
164	10.79	0.61	0.00	0.61	0.97	0.428	1.17	0.365	1.00	1.00	2.000	No
165	10.87	0.61	0.00	0.61	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
166	10.94	0.61	0.00	0.61	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
167	10.99	0.62	0.00	0.62	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
168	11.07	0.62	0.00	0.62	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
169	11.14	0.62	0.00	0.62	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
170	11.21	0.63	0.00	0.63	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
171	11.25	0.63	0.00	0.63	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
172	11.32	0.63	0.00	0.63	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
173	11.39	0.64	0.00	0.64	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
174	11.47	0.64	0.00	0.64	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
175	11.54	0.65	0.00	0.65	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
176	11.57	0.65	0.00	0.65	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
177	11.64	0.65	0.00	0.65	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
178	11.72	0.66	0.00	0.66	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
179	11.79	0.66	0.00	0.66	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
180	11.86	0.66	0.00	0.66	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
181	11.93	0.67	0.00	0.67	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
182	11.97	0.67	0.00	0.67	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
183	12.04	0.67	0.00	0.67	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
184	12.12	0.68	0.00	0.68	0.96	0.426	1.17	0.362	1.00	1.00	2.000	No
185	12.19	0.68	0.00	0.68	0.96	0.426	1.17	0.362	1.00	1.00	2.000	No
186	12.26	0.69	0.00	0.69	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
187	12.30	0.69	0.00	0.69	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
188	12.38	0.69	0.00	0.69	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
189	12.45	0.70	0.00	0.70	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
190	12.51	0.70	0.00	0.70	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
191	12.57	0.70	0.00	0.70	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
192	12.64	0.71	0.00	0.71	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
193	12.70	0.71	0.00	0.71	0.96	0.425	1.17	0.361	1.00	1.00	2.000	No
194	12.77	0.71	0.00	0.71	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
195	12.83	0.72	0.00	0.72	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
196	12.90	0.72	0.00	0.72	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
197	12.97	0.73	0.00	0.73	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
198	13.04	0.73	0.00	0.73	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
199	13.11	0.73	0.00	0.73	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
200	13.15	0.74	0.00	0.74	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
201	13.22	0.74	0.00	0.74	0.96	0.423	1.17	0.361	1.00	1.00	2.000	No
202	13.29	0.75	0.00	0.75	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
203	13.37	0.75	0.00	0.75	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
204	13.44	0.75	0.00	0.75	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
205	13.48	0.76	0.00	0.76	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
206	13.55	0.76	0.00	0.76	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
207	13.63	0.76	0.00	0.76	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
208	13.70	0.77	0.00	0.77	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
209	13.77	0.77	0.00	0.77	0.96	0.422	1.17	0.360	1.00	1.00	2.000	No
210	13.80	0.78	0.00	0.78	0.96	0.422	1.17	0.360	1.00	1.00	2.000	No
211	13.88	0.78	0.00	0.78	0.96	0.422	1.17	0.359	1.00	1.00	2.000	No
212	13.95	0.78	0.00	0.78	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
213	14.03	0.79	0.00	0.79	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
214	14.10	0.79	0.00	0.79	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
215	14.14	0.80	0.00	0.80	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
216	14.21	0.80	0.00	0.80	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
217	14.28	0.80	0.00	0.80	0.95	0.421	1.17	0.359	1.00	1.00	2.000	No
218	14.35	0.81	0.00	0.81	0.95	0.421	1.17	0.359	1.00	1.00	2.000	No
219	14.43	0.81	0.00	0.81	0.95	0.421	1.17	0.359	1.00	1.00	2.000	No
220	14.47	0.82	0.00	0.82	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
221	14.54	0.82	0.00	0.82	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
222	14.61	0.82	0.00	0.82	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
223	14.68	0.83	0.00	0.83	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
224	14.76	0.83	0.00	0.83	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
225	14.79	0.84	0.00	0.84	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
226	14.87	0.84	0.00	0.84	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
227	14.94	0.85	0.00	0.85	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
228	15.01	0.85	0.00	0.85	0.95	0.420	1.17	0.358	1.00	1.00	0.356	No
229	15.05	0.85	0.00	0.85	0.95	0.421	1.17	0.358	1.00	1.00	0.358	No
230	15.13	0.86	0.00	0.85	0.95	0.422	1.17	0.359	1.00	1.00	0.362	No
231	15.20	0.86	0.01	0.85	0.95	0.423	1.17	0.360	1.00	1.00	0.362	No
232	15.28	0.87	0.01	0.86	0.95	0.424	1.17	0.361	1.00	1.00	0.365	No
233	15.35	0.87	0.01	0.86	0.95	0.424	1.17	0.361	1.00	1.00	0.364	No
234	15.38	0.87	0.01	0.86	0.95	0.425	1.17	0.362	1.00	1.00	0.365	No
235	15.46	0.88	0.01	0.86	0.95	0.426	1.17	0.363	1.00	1.00	0.372	No
236	15.53	0.88	0.02	0.87	0.95	0.427	1.17	0.363	1.00	1.00	0.368	No
237	15.61	0.89	0.02	0.87	0.95	0.428	1.17	0.364	1.00	1.00	0.350	No
238	15.68	0.89	0.02	0.87	0.95	0.429	1.17	0.365	1.00	1.00	0.340	No
239	15.71	0.89	0.02	0.87	0.95	0.429	1.17	0.365	1.00	1.00	0.340	No
240	15.79	0.90	0.02	0.87	0.95	0.430	1.17	0.366	1.00	1.00	0.341	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
241	15.86	0.90	0.03	0.88	0.95	0.431	1.17	0.367	1.00	1.00	0.341	No
242	15.93	0.91	0.03	0.88	0.95	0.432	1.17	0.368	1.00	1.00	0.342	No
243	16.00	0.91	0.03	0.88	0.95	0.433	1.17	0.368	1.00	1.00	0.343	No
244	16.04	0.91	0.03	0.88	0.95	0.433	1.17	0.369	1.00	1.00	0.343	No
245	16.11	0.92	0.03	0.88	0.94	0.434	1.17	0.370	1.00	1.00	0.344	No
246	16.19	0.92	0.04	0.89	0.94	0.435	1.17	0.370	1.00	1.00	0.357	No
247	16.26	0.93	0.04	0.89	0.94	0.436	1.17	0.371	1.00	1.00	0.378	No
248	16.30	0.93	0.04	0.89	0.94	0.436	1.17	0.371	1.00	1.00	0.387	No
249	16.37	0.94	0.04	0.89	0.94	0.437	1.17	0.372	1.00	1.00	0.405	No
250	16.45	0.94	0.05	0.89	0.94	0.438	1.17	0.373	1.00	1.00	0.413	No
251	16.52	0.94	0.05	0.90	0.94	0.439	1.17	0.374	1.00	1.00	0.416	No
252	16.59	0.95	0.05	0.90	0.94	0.440	1.17	0.374	1.00	1.00	0.418	No
253	16.63	0.95	0.05	0.90	0.94	0.440	1.17	0.375	1.00	1.00	0.419	No
254	16.70	0.95	0.05	0.90	0.94	0.441	1.17	0.375	1.00	1.00	0.420	No
255	16.78	0.96	0.06	0.90	0.94	0.442	1.17	0.376	1.00	1.00	0.421	No
256	16.85	0.96	0.06	0.91	0.94	0.443	1.17	0.377	1.00	1.00	0.422	No
257	16.92	0.97	0.06	0.91	0.94	0.443	1.17	0.377	1.00	1.00	0.422	No
258	16.96	0.97	0.06	0.91	0.94	0.444	1.17	0.378	1.00	1.00	0.423	No
259	17.03	0.97	0.06	0.91	0.94	0.445	1.17	0.379	1.00	1.00	0.422	No
260	17.11	0.98	0.07	0.91	0.94	0.445	1.17	0.379	1.00	1.00	0.423	No
261	17.18	0.98	0.07	0.91	0.94	0.446	1.17	0.380	1.00	1.00	0.422	No
262	17.22	0.98	0.07	0.91	0.94	0.447	1.17	0.380	1.00	1.00	0.422	No
263	17.29	0.99	0.07	0.92	0.94	0.447	1.17	0.381	1.00	1.00	0.421	No
264	17.36	0.99	0.07	0.92	0.94	0.448	1.17	0.382	1.00	1.00	0.420	No
265	17.43	1.00	0.08	0.92	0.94	0.449	1.17	0.382	1.00	1.00	0.420	No
266	17.51	1.00	0.08	0.92	0.94	0.450	1.17	0.383	1.00	1.00	0.419	No
267	17.55	1.00	0.08	0.92	0.94	0.450	1.17	0.383	1.00	1.00	0.418	No
268	17.62	1.01	0.08	0.93	0.94	0.451	1.17	0.384	1.00	1.00	0.415	No
269	17.69	1.01	0.08	0.93	0.94	0.452	1.17	0.385	1.00	1.00	0.415	No
270	17.76	1.02	0.09	0.93	0.94	0.452	1.17	0.385	1.00	1.00	0.417	No
271	17.84	1.02	0.09	0.93	0.94	0.453	1.17	0.386	1.00	1.00	0.419	No
272	17.88	1.02	0.09	0.93	0.94	0.454	1.17	0.386	1.00	1.00	0.420	No
273	17.95	1.03	0.09	0.94	0.94	0.454	1.17	0.387	1.00	1.00	0.419	No
274	18.02	1.03	0.09	0.94	0.94	0.455	1.17	0.387	1.00	1.00	0.418	No
275	18.09	1.04	0.10	0.94	0.94	0.456	1.17	0.388	1.00	1.00	0.417	No
276	18.15	1.04	0.10	0.94	0.93	0.456	1.17	0.389	1.00	1.00	0.420	No
277	18.23	1.04	0.10	0.94	0.93	0.457	1.17	0.389	1.00	1.00	0.421	No
278	18.29	1.05	0.10	0.95	0.93	0.458	1.17	0.390	1.00	1.00	0.423	No
279	18.37	1.05	0.11	0.95	0.93	0.458	1.17	0.390	1.00	1.00	0.422	No
280	18.41	1.06	0.11	0.95	0.93	0.459	1.17	0.391	1.00	1.00	0.419	No
281	18.48	1.06	0.11	0.95	0.93	0.460	1.17	0.391	1.00	1.00	0.415	No
282	18.55	1.06	0.11	0.95	0.93	0.460	1.17	0.392	1.00	1.00	0.411	No
283	18.62	1.07	0.11	0.96	0.93	0.461	1.17	0.392	1.00	1.00	0.409	No
284	18.69	1.07	0.12	0.96	0.93	0.462	1.17	0.393	1.00	1.00	0.408	No
285	18.73	1.08	0.12	0.96	0.93	0.462	1.17	0.393	1.00	1.00	0.407	No
286	18.80	1.08	0.12	0.96	0.93	0.463	1.17	0.394	1.00	1.00	0.409	No
287	18.88	1.08	0.12	0.96	0.93	0.463	1.17	0.394	1.00	1.00	0.409	No
288	18.95	1.09	0.12	0.97	0.93	0.464	1.17	0.395	1.00	1.00	0.410	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
289	19.02	1.09	0.13	0.97	0.93	0.465	1.17	0.396	1.00	1.00	0.411	No
290	19.06	1.10	0.13	0.97	0.93	0.465	1.17	0.396	1.00	1.00	0.410	No
291	19.13	1.10	0.13	0.97	0.93	0.466	1.17	0.396	1.00	1.00	0.410	No
292	19.21	1.11	0.13	0.97	0.93	0.466	1.17	0.397	1.00	1.00	0.410	No
293	19.28	1.11	0.13	0.98	0.93	0.467	1.17	0.398	1.00	1.00	0.411	No
294	19.32	1.11	0.13	0.98	0.93	0.467	1.17	0.398	1.00	1.00	0.411	No
295	19.39	1.12	0.14	0.98	0.93	0.468	1.17	0.398	1.00	1.00	0.411	No
296	19.46	1.12	0.14	0.98	0.93	0.468	1.17	0.399	1.00	1.00	0.412	No
297	19.54	1.13	0.14	0.98	0.93	0.469	1.17	0.399	1.00	1.00	0.413	No
298	19.61	1.13	0.14	0.99	0.93	0.470	1.17	0.400	1.00	1.00	0.414	No
299	19.64	1.13	0.14	0.99	0.93	0.470	1.17	0.400	1.00	1.00	0.420	No
300	19.72	1.14	0.15	0.99	0.93	0.471	1.17	0.401	1.00	1.00	0.429	No
301	19.79	1.14	0.15	0.99	0.93	0.471	1.17	0.401	1.00	1.00	0.437	No
302	19.87	1.15	0.15	0.99	0.93	0.472	1.17	0.402	1.00	1.00	0.435	No
303	19.94	1.15	0.15	1.00	0.93	0.473	1.17	0.402	1.00	1.00	0.431	No
304	19.98	1.15	0.16	1.00	0.93	0.473	1.17	0.403	1.00	1.00	0.426	No
305	20.04	1.16	0.16	1.00	0.93	0.473	1.17	0.403	1.00	1.00	0.434	No
306	20.14	1.16	0.16	1.00	0.92	0.474	1.17	0.404	1.00	1.00	0.422	No
307	20.18	1.16	0.16	1.00	0.92	0.474	1.17	0.404	1.00	1.00	0.428	No
308	20.25	1.17	0.16	1.01	0.92	0.475	1.17	0.404	1.00	1.00	0.426	No
309	20.32	1.17	0.17	1.01	0.92	0.476	1.17	0.405	1.00	1.00	0.424	No
310	20.39	1.18	0.17	1.01	0.92	0.476	1.17	0.405	1.00	1.00	0.420	No
311	20.47	1.18	0.17	1.01	0.92	0.477	1.17	0.406	1.00	1.00	0.415	No
312	20.50	1.19	0.17	1.01	0.92	0.477	1.17	0.406	1.00	1.00	0.412	No
313	20.58	1.19	0.17	1.02	0.92	0.478	1.17	0.407	1.00	1.00	0.401	No
314	20.65	1.19	0.18	1.02	0.92	0.478	1.17	0.407	1.00	1.00	0.385	No
315	20.72	1.20	0.18	1.02	0.92	0.479	1.17	0.408	1.00	1.00	0.379	No
316	20.76	1.20	0.18	1.02	0.92	0.479	1.17	0.408	1.00	1.00	0.380	No
317	20.83	1.21	0.18	1.02	0.92	0.480	1.17	0.408	1.00	1.00	0.380	No
318	20.91	1.21	0.18	1.03	0.92	0.480	1.17	0.409	1.00	1.00	0.380	No
319	20.98	1.22	0.19	1.03	0.92	0.481	1.17	0.409	1.00	1.00	0.381	No
320	21.05	1.22	0.19	1.03	0.92	0.481	1.17	0.410	1.00	1.00	0.381	No
321	21.09	1.22	0.19	1.03	0.92	0.481	1.17	0.410	1.00	1.00	0.382	No
322	21.16	1.23	0.19	1.03	0.92	0.482	1.17	0.410	1.00	1.00	0.382	No
323	21.23	1.23	0.19	1.04	0.92	0.482	1.17	0.411	1.00	1.00	0.382	No
324	21.31	1.24	0.20	1.04	0.92	0.483	1.17	0.411	1.00	1.00	0.383	No
325	21.38	1.24	0.20	1.04	0.92	0.484	1.17	0.412	1.00	1.00	0.383	No
326	21.42	1.24	0.20	1.04	0.92	0.484	1.17	0.412	1.00	1.00	0.383	No
327	21.49	1.25	0.20	1.05	0.92	0.484	1.17	0.412	1.00	1.00	0.384	No
328	21.56	1.25	0.20	1.05	0.92	0.485	1.17	0.413	1.00	1.00	0.384	No
329	21.64	1.26	0.21	1.05	0.92	0.485	1.17	0.413	1.00	1.00	0.385	No
330	21.71	1.26	0.21	1.05	0.92	0.486	1.17	0.414	1.00	1.00	0.385	No
331	21.75	1.26	0.21	1.05	0.92	0.486	1.17	0.414	1.00	1.00	0.385	No
332	21.82	1.27	0.21	1.06	0.92	0.487	1.17	0.414	1.00	1.00	0.390	No
333	21.89	1.27	0.22	1.06	0.92	0.487	1.17	0.415	1.00	1.00	0.409	No
334	21.96	1.28	0.22	1.06	0.92	0.488	1.17	0.415	1.00	1.00	0.423	No
335	22.04	1.28	0.22	1.06	0.91	0.488	1.17	0.416	1.00	1.00	0.434	No
336	22.07	1.28	0.22	1.06	0.91	0.488	1.17	0.416	1.00	1.00	0.428	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
337	22.15	1.29	0.22	1.07	0.91	0.489	1.17	0.416	1.00	1.00	0.431	No
338	22.22	1.29	0.23	1.07	0.91	0.489	1.17	0.417	1.00	1.00	0.426	No
339	22.30	1.30	0.23	1.07	0.91	0.490	1.17	0.417	1.00	1.00	0.421	No
340	22.37	1.30	0.23	1.07	0.91	0.490	1.17	0.417	1.00	1.00	0.422	No
341	22.40	1.30	0.23	1.07	0.91	0.490	1.17	0.418	1.00	1.00	0.419	No
342	22.47	1.31	0.23	1.08	0.91	0.491	1.17	0.418	1.00	1.00	0.423	No
343	22.55	1.31	0.24	1.08	0.91	0.491	1.17	0.418	1.00	1.00	0.424	No
344	22.61	1.32	0.24	1.08	0.91	0.492	1.17	0.419	1.00	1.00	0.406	No
345	22.69	1.32	0.24	1.08	0.91	0.492	1.17	0.419	1.00	1.00	0.393	No
346	22.76	1.33	0.24	1.09	0.91	0.493	1.17	0.419	1.00	1.00	0.392	No
347	22.80	1.33	0.24	1.09	0.91	0.493	1.17	0.420	1.00	1.00	0.393	No
348	22.87	1.33	0.25	1.09	0.91	0.493	1.17	0.420	1.00	1.00	0.400	No
349	22.94	1.34	0.25	1.09	0.91	0.494	1.17	0.420	1.00	1.00	0.407	No
350	23.01	1.34	0.25	1.09	0.91	0.494	1.17	0.421	1.00	1.00	0.414	No
351	23.09	1.35	0.25	1.10	0.91	0.495	1.17	0.421	1.00	1.00	0.417	No
352	23.13	1.35	0.25	1.10	0.91	0.495	1.17	0.421	1.00	1.00	0.418	No
353	23.20	1.35	0.26	1.10	0.91	0.495	1.17	0.422	1.00	1.00	0.420	No
354	23.27	1.36	0.26	1.10	0.91	0.496	1.17	0.422	1.00	1.00	0.421	No
355	23.35	1.36	0.26	1.10	0.91	0.496	1.17	0.422	1.00	1.00	0.422	No
356	23.39	1.37	0.26	1.10	0.91	0.496	1.17	0.423	1.00	1.00	0.423	No
357	23.46	1.37	0.26	1.11	0.91	0.497	1.17	0.423	1.00	1.00	0.424	No
358	23.53	1.37	0.27	1.11	0.91	0.497	1.17	0.423	1.00	1.00	0.425	No
359	23.60	1.38	0.27	1.11	0.91	0.498	1.17	0.424	1.00	1.00	0.429	No
360	23.68	1.38	0.27	1.11	0.91	0.498	1.17	0.424	1.00	1.00	0.433	No
361	23.71	1.39	0.27	1.11	0.91	0.498	1.17	0.424	1.00	1.00	0.436	No
362	23.79	1.39	0.27	1.12	0.91	0.499	1.17	0.425	1.00	1.00	0.439	No
363	23.86	1.40	0.28	1.12	0.91	0.499	1.17	0.425	1.00	1.00	0.442	No
364	23.93	1.40	0.28	1.12	0.90	0.499	1.17	0.425	1.00	1.00	0.445	No
365	24.01	1.40	0.28	1.12	0.90	0.500	1.17	0.426	1.00	1.00	0.447	No
366	24.04	1.41	0.28	1.12	0.90	0.500	1.17	0.426	1.00	1.00	0.448	No
367	24.12	1.41	0.28	1.13	0.90	0.500	1.17	0.426	1.00	1.00	0.450	No
368	24.19	1.42	0.29	1.13	0.90	0.501	1.17	0.426	1.00	1.00	0.452	No
369	24.26	1.42	0.29	1.13	0.90	0.501	1.17	0.427	1.00	1.00	0.453	No
370	24.34	1.42	0.29	1.13	0.90	0.502	1.17	0.427	1.00	1.00	0.454	No
371	24.37	1.43	0.29	1.13	0.90	0.502	1.17	0.427	1.00	1.00	0.454	No
372	24.45	1.43	0.29	1.14	0.90	0.502	1.17	0.428	1.00	1.00	0.454	No
373	24.52	1.44	0.30	1.14	0.90	0.503	1.17	0.428	1.00	1.00	0.454	No
374	24.59	1.44	0.30	1.14	0.90	0.503	1.17	0.428	1.00	1.00	0.453	No
375	24.66	1.44	0.30	1.14	0.90	0.503	1.17	0.429	1.00	1.00	0.454	No
376	24.70	1.45	0.30	1.14	0.90	0.503	1.17	0.429	1.00	1.00	0.455	No
377	24.78	1.45	0.31	1.15	0.90	0.504	1.17	0.429	1.00	1.00	0.456	No
378	24.85	1.46	0.31	1.15	0.90	0.504	1.17	0.429	1.00	1.00	0.456	No
379	24.92	1.46	0.31	1.15	0.90	0.505	1.17	0.430	1.00	1.00	0.457	No
380	24.97	1.46	0.31	1.15	0.90	0.505	1.17	0.430	1.00	1.00	0.463	No
381	25.05	1.47	0.31	1.15	0.90	0.505	1.17	0.430	1.00	1.00	0.460	No
382	25.12	1.47	0.32	1.16	0.90	0.506	1.17	0.430	1.00	1.00	0.460	No
383	25.16	1.48	0.32	1.16	0.90	0.506	1.17	0.431	1.00	1.00	0.460	No
384	25.23	1.48	0.32	1.16	0.90	0.506	1.17	0.431	1.00	1.00	0.457	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
385	25.30	1.48	0.32	1.16	0.90	0.506	1.17	0.431	1.00	1.00	0.454	No
386	25.37	1.49	0.32	1.16	0.90	0.507	1.17	0.431	1.00	1.00	0.452	No
387	25.45	1.49	0.33	1.17	0.90	0.507	1.17	0.432	1.00	1.00	0.449	No
388	25.52	1.50	0.33	1.17	0.90	0.507	1.17	0.432	1.00	1.00	0.445	No
389	25.56	1.50	0.33	1.17	0.90	0.508	1.17	0.432	1.00	1.00	0.442	No
390	25.63	1.50	0.33	1.17	0.90	0.508	1.17	0.432	1.00	1.00	0.434	No
391	25.70	1.51	0.33	1.18	0.90	0.508	1.17	0.433	1.00	1.00	0.421	No
392	25.78	1.51	0.34	1.18	0.89	0.509	1.17	0.433	1.00	1.00	0.403	No
393	25.82	1.52	0.34	1.18	0.89	0.509	1.17	0.433	1.00	1.00	0.403	No
394	25.89	1.52	0.34	1.18	0.89	0.509	1.17	0.433	1.00	1.00	0.403	No
395	25.97	1.53	0.34	1.18	0.89	0.509	1.17	0.434	1.00	1.00	0.404	No
396	26.04	1.53	0.34	1.19	0.89	0.510	1.17	0.434	1.00	1.00	0.404	No
397	26.08	1.53	0.35	1.19	0.89	0.510	1.17	0.434	1.00	1.00	0.404	No
398	26.15	1.54	0.35	1.19	0.89	0.510	1.17	0.434	1.00	1.00	0.404	No
399	26.23	1.54	0.35	1.19	0.89	0.510	1.17	0.435	1.00	1.00	0.404	No
400	26.30	1.55	0.35	1.19	0.89	0.511	1.17	0.435	1.00	1.00	0.405	No
401	26.34	1.55	0.35	1.20	0.89	0.511	1.17	0.435	1.00	1.00	0.405	No
402	26.41	1.55	0.36	1.20	0.89	0.511	1.17	0.435	1.00	1.00	0.405	No
403	26.49	1.56	0.36	1.20	0.89	0.511	1.17	0.435	1.00	1.00	0.405	No
404	26.55	1.56	0.36	1.20	0.89	0.512	1.17	0.436	1.00	1.00	0.405	No
405	26.60	1.57	0.36	1.20	0.89	0.512	1.17	0.436	1.00	1.00	0.406	No
406	26.69	1.57	0.36	1.21	0.89	0.512	1.17	0.436	1.00	1.00	0.406	No
407	26.77	1.58	0.37	1.21	0.89	0.512	1.17	0.436	1.00	1.00	0.406	No
408	26.80	1.58	0.37	1.21	0.89	0.513	1.17	0.436	1.00	1.00	0.406	No
409	26.88	1.58	0.37	1.21	0.89	0.513	1.17	0.437	1.00	1.00	0.406	No
410	26.95	1.59	0.37	1.22	0.89	0.513	1.17	0.437	1.00	1.00	0.407	No
411	27.03	1.59	0.38	1.22	0.89	0.513	1.17	0.437	1.00	1.00	0.407	No
412	27.07	1.60	0.38	1.22	0.89	0.514	1.17	0.437	1.00	1.00	0.407	No
413	27.14	1.60	0.38	1.22	0.89	0.514	1.17	0.437	1.00	1.00	0.407	No
414	27.21	1.61	0.38	1.22	0.89	0.514	1.17	0.438	1.00	1.00	0.407	No
415	27.28	1.61	0.38	1.23	0.89	0.514	1.17	0.438	1.00	1.00	0.408	No
416	27.32	1.61	0.38	1.23	0.89	0.514	1.17	0.438	1.00	1.00	0.408	No
417	27.40	1.62	0.39	1.23	0.89	0.515	1.17	0.438	1.00	1.00	0.408	No
418	27.47	1.62	0.39	1.23	0.89	0.515	1.17	0.438	1.00	1.00	0.408	No
419	27.53	1.63	0.39	1.23	0.89	0.515	1.17	0.439	1.00	1.00	0.408	No
420	27.59	1.63	0.39	1.24	0.88	0.515	1.17	0.439	1.00	1.00	0.408	No
421	27.66	1.63	0.40	1.24	0.88	0.516	1.17	0.439	1.00	1.00	0.409	No
422	27.73	1.64	0.40	1.24	0.88	0.516	1.17	0.439	1.00	1.00	0.409	No
423	27.81	1.64	0.40	1.24	0.88	0.516	1.17	0.439	1.00	1.00	0.409	No
424	27.88	1.65	0.40	1.25	0.88	0.516	1.17	0.440	1.00	1.00	0.409	No
425	27.92	1.65	0.40	1.25	0.88	0.516	1.17	0.440	1.00	1.00	0.409	No
426	28.00	1.66	0.41	1.25	0.88	0.517	1.17	0.440	1.00	1.00	0.409	No
427	28.07	1.66	0.41	1.25	0.88	0.517	1.17	0.440	1.00	1.00	0.410	No
428	28.11	1.66	0.41	1.25	0.88	0.517	1.17	0.440	1.00	1.00	0.410	No
429	28.19	1.67	0.41	1.26	0.88	0.517	1.17	0.440	1.00	1.00	0.410	No
430	28.26	1.67	0.41	1.26	0.88	0.518	1.17	0.441	1.00	1.00	0.410	No
431	28.34	1.68	0.42	1.26	0.88	0.518	1.17	0.441	1.00	1.00	0.410	No
432	28.37	1.68	0.42	1.26	0.88	0.518	1.17	0.441	1.00	1.00	0.410	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
433	28.45	1.68	0.42	1.26	0.88	0.518	1.17	0.441	1.00	1.00	0.411	No
434	28.52	1.69	0.42	1.27	0.88	0.518	1.17	0.441	1.00	1.00	0.411	No
435	28.60	1.69	0.42	1.27	0.88	0.519	1.17	0.441	1.00	1.00	0.411	No
436	28.64	1.70	0.43	1.27	0.88	0.519	1.17	0.442	1.00	1.00	0.411	No
437	28.71	1.70	0.43	1.27	0.88	0.519	1.17	0.442	1.00	1.00	0.411	No
438	28.79	1.71	0.43	1.28	0.88	0.519	1.17	0.442	1.00	1.00	0.411	No
439	28.86	1.71	0.43	1.28	0.88	0.519	1.17	0.442	1.00	1.00	0.411	No
440	28.90	1.71	0.43	1.28	0.88	0.519	1.17	0.442	1.00	1.00	0.412	No
441	28.98	1.72	0.44	1.28	0.88	0.520	1.17	0.442	1.00	1.00	0.412	No
442	29.05	1.72	0.44	1.28	0.88	0.520	1.17	0.443	1.00	1.00	0.412	No
443	29.12	1.73	0.44	1.29	0.88	0.520	1.17	0.443	1.00	1.00	0.412	No
444	29.16	1.73	0.44	1.29	0.88	0.520	1.17	0.443	1.00	1.00	0.412	No
445	29.24	1.73	0.44	1.29	0.88	0.520	1.17	0.443	1.00	1.00	0.412	No
446	29.31	1.74	0.45	1.29	0.88	0.520	1.17	0.443	1.00	1.00	0.412	No
447	29.39	1.74	0.45	1.30	0.87	0.521	1.17	0.443	1.00	1.00	0.413	No
448	29.43	1.75	0.45	1.30	0.87	0.521	1.17	0.443	1.00	1.00	0.413	No
449	29.50	1.75	0.45	1.30	0.87	0.521	1.17	0.444	1.00	1.00	0.413	No
450	29.57	1.76	0.45	1.30	0.87	0.521	1.17	0.444	1.00	1.00	0.413	No
451	29.62	1.76	0.46	1.30	0.87	0.521	1.17	0.444	1.00	1.00	0.413	No
452	29.69	1.76	0.46	1.31	0.87	0.521	1.17	0.444	1.00	1.00	0.413	No
453	29.75	1.77	0.46	1.31	0.87	0.522	1.17	0.444	1.00	1.00	0.413	No
454	29.82	1.77	0.46	1.31	0.87	0.522	1.17	0.444	1.00	1.00	0.413	No
455	29.89	1.78	0.46	1.31	0.87	0.522	1.17	0.444	1.00	1.00	0.414	No
456	29.96	1.78	0.47	1.31	0.87	0.522	1.17	0.444	1.00	1.00	0.414	No
457	30.02	1.79	0.47	1.32	0.87	0.522	1.17	0.445	1.00	1.00	2.000	No
458	30.08	1.79	0.47	1.32	0.87	0.522	1.17	0.445	1.00	1.00	2.000	No
459	30.18	1.80	0.47	1.32	0.87	0.523	1.17	0.445	1.00	1.00	2.000	No
460	30.22	1.80	0.47	1.32	0.87	0.523	1.17	0.445	1.00	1.00	2.000	No
461	30.29	1.80	0.48	1.33	0.87	0.523	1.17	0.445	1.00	1.00	2.000	No
462	30.37	1.81	0.48	1.33	0.87	0.523	1.17	0.445	1.00	1.00	2.000	No
463	30.44	1.81	0.48	1.33	0.87	0.523	1.17	0.445	1.00	1.00	2.000	No
464	30.48	1.81	0.48	1.33	0.87	0.523	1.17	0.445	1.00	1.00	2.000	No
465	30.56	1.82	0.49	1.33	0.87	0.523	1.17	0.446	1.00	1.00	2.000	No
466	30.63	1.82	0.49	1.34	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
467	30.70	1.83	0.49	1.34	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
468	30.74	1.83	0.49	1.34	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
469	30.82	1.84	0.49	1.34	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
470	30.89	1.84	0.50	1.35	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
471	30.96	1.85	0.50	1.35	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
472	31.00	1.85	0.50	1.35	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
473	31.07	1.85	0.50	1.35	0.87	0.524	1.17	0.446	1.00	1.00	2.000	No
474	31.14	1.86	0.50	1.35	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
475	31.21	1.86	0.51	1.36	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
476	31.28	1.87	0.51	1.36	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
477	31.36	1.87	0.51	1.36	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
478	31.39	1.87	0.51	1.36	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
479	31.47	1.88	0.51	1.36	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
480	31.54	1.88	0.52	1.37	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
481	31.61	1.89	0.52	1.37	0.86	0.525	1.17	0.447	1.00	1.00	2.000	No
482	31.68	1.89	0.52	1.37	0.86	0.526	1.17	0.447	1.00	1.00	2.000	No
483	31.75	1.90	0.52	1.37	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
484	31.79	1.90	0.52	1.37	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
485	31.86	1.90	0.53	1.38	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
486	31.93	1.91	0.53	1.38	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
487	32.01	1.91	0.53	1.38	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
488	32.08	1.92	0.53	1.38	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
489	32.12	1.92	0.53	1.39	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
490	32.18	1.92	0.54	1.39	0.86	0.526	1.17	0.448	1.00	1.00	2.000	No
491	32.25	1.93	0.54	1.39	0.86	0.527	1.17	0.448	1.00	1.00	2.000	No
492	32.32	1.93	0.54	1.39	0.86	0.527	1.17	0.448	1.00	1.00	2.000	No
493	32.40	1.94	0.54	1.39	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
494	32.48	1.94	0.55	1.40	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
495	32.51	1.94	0.55	1.40	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
496	32.59	1.95	0.55	1.40	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
497	32.66	1.95	0.55	1.40	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
498	32.70	1.96	0.55	1.40	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
499	32.78	1.96	0.55	1.41	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
500	32.85	1.97	0.56	1.41	0.86	0.527	1.17	0.449	1.00	1.00	2.000	No
501	32.93	1.97	0.56	1.41	0.85	0.527	1.17	0.449	1.00	1.00	2.000	No
502	32.97	1.97	0.56	1.41	0.85	0.528	1.17	0.449	1.00	1.00	2.000	No
503	33.04	1.98	0.56	1.42	0.85	0.528	1.17	0.449	1.00	1.00	2.000	No
504	33.12	1.98	0.57	1.42	0.85	0.528	1.17	0.449	1.00	1.00	2.000	No
505	33.19	1.99	0.57	1.42	0.85	0.528	1.17	0.449	1.00	1.00	2.000	No
506	33.23	1.99	0.57	1.42	0.85	0.528	1.17	0.449	1.00	1.00	2.000	No
507	33.31	2.00	0.57	1.42	0.85	0.528	1.17	0.449	1.00	1.00	2.000	No
508	33.38	2.00	0.57	1.43	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
509	33.46	2.01	0.58	1.43	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
510	33.49	2.01	0.58	1.43	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
511	33.57	2.01	0.58	1.43	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
512	33.65	2.02	0.58	1.44	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
513	33.72	2.02	0.58	1.44	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
514	33.76	2.02	0.59	1.44	0.85	0.528	1.17	0.450	1.00	1.00	2.000	No
515	33.83	2.03	0.59	1.44	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
516	33.91	2.03	0.59	1.44	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
517	33.98	2.04	0.59	1.45	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
518	34.02	2.04	0.59	1.45	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
519	34.10	2.05	0.60	1.45	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
520	34.17	2.05	0.60	1.45	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
521	34.21	2.05	0.60	1.45	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
522	34.29	2.06	0.60	1.46	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
523	34.35	2.06	0.60	1.46	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
524	34.43	2.07	0.61	1.46	0.85	0.529	1.17	0.450	1.00	1.00	2.000	No
525	34.50	2.07	0.61	1.46	0.85	0.529	1.17	0.451	1.00	1.00	2.000	No
526	34.54	2.07	0.61	1.47	0.85	0.529	1.17	0.451	1.00	1.00	2.000	No
527	34.61	2.08	0.61	1.47	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
528	34.69	2.08	0.61	1.47	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
529	34.76	2.09	0.62	1.47	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
530	34.80	2.09	0.62	1.47	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
531	34.88	2.10	0.62	1.48	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
532	34.95	2.10	0.62	1.48	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
533	35.03	2.11	0.62	1.48	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
534	35.07	2.11	0.63	1.48	0.84	0.529	1.17	0.451	1.00	1.00	2.000	No
535	35.14	2.11	0.63	1.49	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
536	35.22	2.12	0.63	1.49	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
537	35.29	2.12	0.63	1.49	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
538	35.33	2.13	0.63	1.49	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
539	35.41	2.13	0.64	1.49	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
540	35.48	2.14	0.64	1.50	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
541	35.56	2.14	0.64	1.50	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
542	35.60	2.14	0.64	1.50	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
543	35.67	2.15	0.64	1.50	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
544	35.74	2.15	0.65	1.51	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
545	35.82	2.16	0.65	1.51	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
546	35.86	2.16	0.65	1.51	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
547	35.94	2.16	0.65	1.51	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
548	36.01	2.17	0.66	1.51	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
549	36.05	2.17	0.66	1.52	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
550	36.13	2.18	0.66	1.52	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
551	36.20	2.18	0.66	1.52	0.84	0.530	1.17	0.451	1.00	1.00	2.000	No
552	36.28	2.19	0.66	1.52	0.84	0.530	1.17	0.452	1.00	1.00	2.000	No
553	36.32	2.19	0.67	1.52	0.84	0.530	1.17	0.452	1.00	1.00	2.000	No
554	36.39	2.19	0.67	1.53	0.83	0.530	1.17	0.452	1.00	1.00	2.000	No
555	36.47	2.20	0.67	1.53	0.83	0.530	1.17	0.452	1.00	1.00	2.000	No
556	36.54	2.20	0.67	1.53	0.83	0.530	1.17	0.452	1.00	1.00	2.000	No
557	36.58	2.20	0.67	1.53	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
558	36.66	2.21	0.68	1.53	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
559	36.73	2.21	0.68	1.53	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
560	36.77	2.22	0.68	1.54	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
561	36.85	2.22	0.68	1.54	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
562	36.91	2.22	0.68	1.54	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
563	36.98	2.23	0.69	1.54	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
564	37.05	2.23	0.69	1.54	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
565	37.12	2.24	0.69	1.55	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
566	37.20	2.24	0.69	1.55	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
567	37.24	2.24	0.69	1.55	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
568	37.31	2.25	0.70	1.55	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
569	37.39	2.25	0.70	1.55	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
570	37.46	2.26	0.70	1.55	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
571	37.50	2.26	0.70	1.56	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
572	37.58	2.26	0.70	1.56	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
573	37.65	2.27	0.71	1.56	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
574	37.69	2.27	0.71	1.56	0.83	0.531	1.17	0.452	1.00	1.00	2.000	No
575	37.77	2.27	0.71	1.56	0.83	0.531	1.17	0.453	1.00	1.00	2.000	No
576	37.84	2.28	0.71	1.56	0.83	0.532	1.17	0.453	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
577	37.91	2.28	0.71	1.57	0.83	0.532	1.17	0.453	1.00	1.00	2.000	No
578	37.95	2.28	0.72	1.57	0.83	0.532	1.17	0.453	1.00	1.00	2.000	No
579	38.03	2.29	0.72	1.57	0.83	0.532	1.17	0.453	1.00	1.00	2.000	No
580	38.10	2.29	0.72	1.57	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
581	38.17	2.30	0.72	1.57	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
582	38.25	2.30	0.73	1.58	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
583	38.29	2.30	0.73	1.58	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
584	38.37	2.31	0.73	1.58	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
585	38.44	2.31	0.73	1.58	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
586	38.48	2.31	0.73	1.58	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
587	38.56	2.32	0.73	1.58	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
588	38.63	2.32	0.74	1.59	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
589	38.67	2.33	0.74	1.59	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
590	38.75	2.33	0.74	1.59	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
591	38.83	2.33	0.74	1.59	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
592	38.90	2.34	0.75	1.59	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
593	38.94	2.34	0.75	1.59	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
594	39.02	2.35	0.75	1.60	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
595	39.10	2.35	0.75	1.60	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
596	39.14	2.35	0.75	1.60	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
597	39.21	2.36	0.76	1.60	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
598	39.29	2.36	0.76	1.60	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
599	39.33	2.36	0.76	1.60	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
600	39.40	2.37	0.76	1.61	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
601	39.48	2.37	0.76	1.61	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
602	39.54	2.38	0.77	1.61	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
603	39.61	2.38	0.77	1.61	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
604	39.68	2.38	0.77	1.61	0.82	0.532	1.17	0.453	1.00	1.00	2.000	No
605	39.76	2.39	0.77	1.62	0.82	0.533	1.17	0.453	1.00	1.00	2.000	No
606	39.80	2.39	0.77	1.62	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
607	39.87	2.39	0.78	1.62	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
608	39.94	2.40	0.78	1.62	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
609	40.02	2.40	0.78	1.62	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
610	40.07	2.41	0.78	1.62	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
611	40.14	2.41	0.78	1.63	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
612	40.22	2.41	0.79	1.63	0.81	0.533	1.17	0.453	1.00	1.00	2.000	No
613	40.26	2.42	0.79	1.63	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
614	40.33	2.42	0.79	1.63	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
615	40.40	2.43	0.79	1.63	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
616	40.48	2.43	0.79	1.63	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
617	40.52	2.43	0.80	1.64	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
618	40.59	2.44	0.80	1.64	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
619	40.67	2.44	0.80	1.64	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
620	40.74	2.45	0.80	1.64	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
621	40.78	2.45	0.80	1.64	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
622	40.86	2.45	0.81	1.65	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
623	40.94	2.46	0.81	1.65	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
624	40.98	2.46	0.81	1.65	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
625	41.05	2.46	0.81	1.65	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
626	41.12	2.47	0.82	1.65	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
627	41.20	2.47	0.82	1.65	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
628	41.24	2.47	0.82	1.66	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
629	41.31	2.48	0.82	1.66	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
630	41.39	2.48	0.82	1.66	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
631	41.46	2.49	0.83	1.66	0.81	0.533	1.17	0.454	1.00	1.00	2.000	No
632	41.50	2.49	0.83	1.66	0.80	0.533	1.17	0.454	1.00	1.00	2.000	No
633	41.58	2.49	0.83	1.66	0.80	0.533	1.17	0.454	1.00	1.00	2.000	No
634	41.66	2.50	0.83	1.67	0.80	0.533	1.17	0.454	1.00	1.00	2.000	No
635	41.70	2.50	0.83	1.67	0.80	0.533	1.17	0.454	1.00	1.00	2.000	No
636	41.77	2.51	0.84	1.67	0.80	0.533	1.17	0.454	1.00	1.00	2.000	No
637	41.85	2.51	0.84	1.67	0.80	0.533	1.17	0.454	1.00	1.00	2.000	No
638	41.92	2.51	0.84	1.67	0.80	0.533	1.17	0.453	1.00	1.00	2.000	No
639	41.96	2.52	0.84	1.68	0.80	0.533	1.17	0.453	1.00	1.00	2.000	No
640	42.04	2.52	0.84	1.68	0.80	0.533	1.17	0.453	1.00	1.00	2.000	No
641	42.11	2.53	0.85	1.68	0.80	0.533	1.17	0.453	1.00	1.00	2.000	No
642	42.15	2.53	0.85	1.68	0.80	0.533	1.17	0.453	1.00	1.00	2.000	No
643	42.23	2.53	0.85	1.68	0.80	0.533	1.17	0.453	1.00	1.00	2.000	No
644	42.30	2.54	0.85	1.69	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
645	42.38	2.54	0.85	1.69	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
646	42.42	2.54	0.86	1.69	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
647	42.50	2.55	0.86	1.69	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
648	42.58	2.55	0.86	1.69	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
649	42.62	2.56	0.86	1.69	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
650	42.68	2.56	0.86	1.70	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
651	42.75	2.56	0.87	1.70	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
652	42.83	2.57	0.87	1.70	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
653	42.91	2.57	0.87	1.70	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
654	42.95	2.58	0.87	1.70	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
655	43.02	2.58	0.87	1.71	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
656	43.10	2.59	0.88	1.71	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
657	43.14	2.59	0.88	1.71	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
658	43.21	2.59	0.88	1.71	0.80	0.532	1.17	0.453	1.00	1.00	2.000	No
659	43.29	2.60	0.88	1.71	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
660	43.36	2.60	0.88	1.72	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
661	43.40	2.60	0.89	1.72	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
662	43.48	2.61	0.89	1.72	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
663	43.56	2.61	0.89	1.72	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
664	43.60	2.62	0.89	1.72	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
665	43.68	2.62	0.89	1.73	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
666	43.76	2.63	0.90	1.73	0.79	0.532	1.17	0.453	1.00	1.00	2.000	No
667	43.79	2.63	0.90	1.73	0.79	0.531	1.17	0.453	1.00	1.00	2.000	No
668	43.87	2.63	0.90	1.73	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
669	43.93	2.64	0.90	1.74	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
670	43.99	2.64	0.90	1.74	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
671	44.06	2.65	0.91	1.74	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
672	44.12	2.65	0.91	1.74	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
673	44.19	2.66	0.91	1.75	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
674	44.28	2.66	0.91	1.75	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
675	44.34	2.67	0.92	1.75	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
676	44.41	2.67	0.92	1.75	0.79	0.531	1.17	0.452	1.00	1.00	2.000	No
677	44.47	2.68	0.92	1.76	0.79	0.530	1.17	0.452	1.00	1.00	2.000	No
678	44.53	2.68	0.92	1.76	0.79	0.530	1.17	0.452	1.00	1.00	2.000	No
679	44.60	2.68	0.92	1.76	0.79	0.530	1.17	0.452	1.00	1.00	2.000	No
680	44.66	2.69	0.93	1.76	0.79	0.530	1.17	0.451	1.00	1.00	2.000	No
681	44.72	2.69	0.93	1.77	0.79	0.530	1.17	0.451	1.00	1.00	2.000	No
682	44.78	2.70	0.93	1.77	0.79	0.530	1.17	0.451	1.00	1.00	2.000	No
683	44.85	2.70	0.93	1.77	0.79	0.530	1.17	0.451	1.00	1.00	2.000	No
684	44.91	2.71	0.93	1.77	0.79	0.530	1.17	0.451	1.00	1.00	2.000	No
685	44.98	2.71	0.94	1.78	0.78	0.530	1.17	0.451	1.00	1.00	2.000	No
686	45.04	2.71	0.94	1.78	0.78	0.530	1.17	0.451	1.00	1.00	2.000	No
687	45.12	2.72	0.94	1.78	0.78	0.529	1.17	0.451	1.00	1.00	2.000	No
688	45.17	2.72	0.94	1.78	0.78	0.529	1.17	0.451	1.00	1.00	2.000	No
689	45.25	2.73	0.94	1.78	0.78	0.529	1.17	0.451	1.00	1.00	2.000	No
690	45.30	2.73	0.95	1.79	0.78	0.529	1.17	0.451	1.00	1.00	2.000	No
691	45.37	2.74	0.95	1.79	0.78	0.529	1.17	0.450	1.00	1.00	2.000	No
692	45.44	2.74	0.95	1.79	0.78	0.529	1.17	0.450	1.00	1.00	2.000	No
693	45.50	2.75	0.95	1.79	0.78	0.529	1.17	0.450	1.00	1.00	2.000	No
694	45.57	2.75	0.95	1.80	0.78	0.529	1.17	0.450	1.00	1.00	2.000	No
695	45.63	2.75	0.96	1.80	0.78	0.529	1.17	0.450	1.00	1.00	2.000	No
696	45.70	2.76	0.96	1.80	0.78	0.529	1.17	0.450	1.00	1.00	2.000	No
697	45.77	2.76	0.96	1.80	0.78	0.528	1.17	0.450	1.00	1.00	2.000	No
698	45.84	2.77	0.96	1.81	0.78	0.528	1.17	0.450	1.00	1.00	2.000	No
699	45.90	2.77	0.96	1.81	0.78	0.528	1.17	0.450	1.00	1.00	2.000	No
700	45.96	2.78	0.97	1.81	0.78	0.528	1.17	0.450	1.00	1.00	2.000	No
701	46.04	2.78	0.97	1.81	0.78	0.528	1.17	0.450	1.00	1.00	2.000	No
702	46.11	2.79	0.97	1.82	0.78	0.528	1.17	0.449	1.00	1.00	2.000	No
703	46.15	2.79	0.97	1.82	0.78	0.528	1.17	0.449	1.00	1.00	2.000	No
704	46.23	2.79	0.97	1.82	0.78	0.528	1.17	0.449	1.00	1.00	2.000	No
705	46.31	2.80	0.98	1.82	0.78	0.528	1.17	0.449	1.00	1.00	2.000	No
706	46.38	2.80	0.98	1.83	0.78	0.528	1.17	0.449	1.00	1.00	2.000	No
707	46.42	2.81	0.98	1.83	0.78	0.527	1.17	0.449	1.00	1.00	2.000	No
708	46.50	2.81	0.98	1.83	0.78	0.527	1.17	0.449	1.00	1.00	2.000	No
709	46.58	2.82	0.99	1.83	0.78	0.527	1.17	0.449	1.00	1.00	2.000	No
710	46.62	2.82	0.99	1.83	0.78	0.527	1.17	0.449	1.00	1.00	2.000	No
711	46.70	2.82	0.99	1.83	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
712	46.77	2.83	0.99	1.84	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
713	46.82	2.83	0.99	1.84	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
714	46.91	2.84	1.00	1.84	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
715	46.95	2.84	1.00	1.84	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
716	47.02	2.84	1.00	1.84	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
717	47.10	2.85	1.00	1.85	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
718	47.14	2.85	1.00	1.85	0.77	0.527	1.17	0.449	1.00	1.00	2.000	No
719	47.22	2.85	1.01	1.85	0.77	0.527	1.17	0.448	1.00	1.00	2.000	No
720	47.29	2.86	1.01	1.85	0.77	0.527	1.17	0.448	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
721	47.37	2.86	1.01	1.85	0.77	0.527	1.17	0.448	1.00	1.00	2.000	No
722	47.41	2.87	1.01	1.85	0.77	0.527	1.17	0.448	1.00	1.00	2.000	No
723	47.49	2.87	1.01	1.86	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
724	47.56	2.87	1.02	1.86	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
725	47.60	2.88	1.02	1.86	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
726	47.68	2.88	1.02	1.86	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
727	47.76	2.88	1.02	1.86	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
728	47.80	2.89	1.02	1.86	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
729	47.88	2.89	1.03	1.87	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
730	47.95	2.90	1.03	1.87	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
731	47.99	2.90	1.03	1.87	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
732	48.07	2.90	1.03	1.87	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
733	48.15	2.91	1.03	1.87	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
734	48.22	2.91	1.04	1.87	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
735	48.27	2.91	1.04	1.88	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
736	48.34	2.92	1.04	1.88	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
737	48.38	2.92	1.04	1.88	0.77	0.526	1.17	0.448	1.00	1.00	2.000	No
738	48.46	2.92	1.04	1.88	0.76	0.526	1.17	0.448	1.00	1.00	2.000	No
739	48.54	2.93	1.05	1.88	0.76	0.526	1.17	0.448	1.00	1.00	2.000	No
740	48.58	2.93	1.05	1.88	0.76	0.526	1.17	0.448	1.00	1.00	2.000	No
741	48.66	2.94	1.05	1.89	0.76	0.526	1.17	0.448	1.00	1.00	2.000	No
742	48.73	2.94	1.05	1.89	0.76	0.526	1.17	0.447	1.00	1.00	2.000	No
743	48.78	2.94	1.05	1.89	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
744	48.86	2.95	1.06	1.89	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
745	48.94	2.95	1.06	1.89	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
746	48.98	2.95	1.06	1.89	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
747	49.05	2.96	1.06	1.90	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
748	49.13	2.96	1.06	1.90	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
749	49.21	2.97	1.07	1.90	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
750	49.25	2.97	1.07	1.90	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
751	49.33	2.98	1.07	1.91	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
752	49.38	2.98	1.07	1.91	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
753	49.45	2.98	1.07	1.91	0.76	0.525	1.17	0.447	1.00	1.00	2.000	No
754	49.52	2.99	1.08	1.91	0.76	0.524	1.17	0.447	1.00	1.00	2.000	No
755	49.57	2.99	1.08	1.91	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
756	49.65	3.00	1.08	1.92	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
757	49.70	3.00	1.08	1.92	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
758	49.77	3.00	1.08	1.92	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
759	49.83	3.01	1.09	1.92	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
760	49.90	3.01	1.09	1.92	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
761	49.97	3.02	1.09	1.93	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
762	50.04	3.02	1.09	1.93	0.76	0.524	1.17	0.446	1.00	1.00	2.000	No
763	50.12	3.03	1.10	1.93	0.76	0.523	1.17	0.446	1.00	1.00	2.000	No
764	50.19	3.03	1.10	1.93	0.76	0.523	1.17	0.446	1.00	1.00	2.000	No
765	50.23	3.03	1.10	1.93	0.75	0.523	1.17	0.446	1.00	1.00	2.000	No
766	50.31	3.04	1.10	1.94	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No
767	50.39	3.04	1.10	1.94	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No
768	50.43	3.05	1.11	1.94	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
769	50.50	3.05	1.11	1.94	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No
770	50.58	3.05	1.11	1.94	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No
771	50.62	3.06	1.11	1.95	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No
772	50.70	3.06	1.11	1.95	0.75	0.523	1.17	0.445	1.00	1.00	2.000	No
773	50.77	3.07	1.12	1.95	0.75	0.522	1.17	0.445	1.00	1.00	2.000	No
774	50.81	3.07	1.12	1.95	0.75	0.522	1.17	0.445	1.00	1.00	2.000	No
775	50.89	3.07	1.12	1.96	0.75	0.522	1.17	0.445	1.00	1.00	2.000	No
776	50.97	3.08	1.12	1.96	0.75	0.522	1.17	0.444	1.00	1.00	2.000	No
777	51.05	3.08	1.12	1.96	0.75	0.522	1.17	0.444	1.00	1.00	2.000	No
778	51.09	3.09	1.13	1.96	0.75	0.522	1.17	0.444	1.00	1.00	2.000	No
779	51.16	3.09	1.13	1.96	0.75	0.522	1.17	0.444	1.00	1.00	2.000	No
780	51.24	3.10	1.13	1.97	0.75	0.522	1.17	0.444	1.00	1.00	2.000	No
781	51.28	3.10	1.13	1.97	0.75	0.521	1.17	0.444	1.00	1.00	2.000	No
782	51.36	3.10	1.13	1.97	0.75	0.521	1.17	0.444	1.00	1.00	2.000	No
783	51.43	3.11	1.14	1.97	0.75	0.521	1.17	0.444	1.00	1.00	2.000	No
784	51.48	3.11	1.14	1.97	0.75	0.521	1.17	0.444	1.00	1.00	2.000	No
785	51.55	3.12	1.14	1.98	0.75	0.521	1.17	0.444	1.00	1.00	2.000	No
786	51.63	3.12	1.14	1.98	0.75	0.521	1.17	0.443	1.00	1.00	2.000	No
787	51.68	3.13	1.14	1.98	0.75	0.521	1.17	0.443	1.00	1.00	2.000	No
788	51.73	3.13	1.15	1.98	0.75	0.521	1.17	0.443	1.00	1.00	2.000	No
789	51.80	3.13	1.15	1.99	0.75	0.520	1.17	0.443	1.00	1.00	2.000	No
790	51.87	3.14	1.15	1.99	0.75	0.520	1.17	0.443	1.00	1.00	2.000	No
791	51.95	3.14	1.15	1.99	0.75	0.520	1.17	0.443	1.00	1.00	2.000	No
792	52.01	3.15	1.15	1.99	0.74	0.520	1.17	0.443	1.00	1.00	2.000	No
793	52.07	3.15	1.16	1.99	0.74	0.520	1.17	0.443	1.00	1.00	2.000	No
794	52.13	3.16	1.16	2.00	0.74	0.520	1.17	0.443	1.00	1.00	2.000	No
795	52.19	3.16	1.16	2.00	0.74	0.520	1.17	0.442	1.00	1.00	2.000	No
796	52.27	3.16	1.16	2.00	0.74	0.520	1.17	0.442	1.00	1.00	2.000	No
797	52.34	3.17	1.17	2.00	0.74	0.519	1.17	0.442	1.00	1.00	2.000	No
798	52.42	3.17	1.17	2.01	0.74	0.519	1.17	0.442	1.00	1.00	2.000	No
799	52.46	3.18	1.17	2.01	0.74	0.519	1.17	0.442	1.00	1.00	2.000	No
800	52.54	3.18	1.17	2.01	0.74	0.519	1.17	0.442	1.00	1.00	2.000	No
801	52.61	3.19	1.17	2.01	0.74	0.519	1.17	0.442	1.00	1.00	2.000	No
802	52.66	3.19	1.17	2.02	0.74	0.519	1.17	0.442	1.00	1.00	2.000	No
803	52.73	3.20	1.18	2.02	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
804	52.81	3.20	1.18	2.02	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
805	52.85	3.20	1.18	2.02	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
806	52.93	3.21	1.18	2.02	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
807	53.01	3.21	1.19	2.03	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
808	53.05	3.22	1.19	2.03	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
809	53.12	3.22	1.19	2.03	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
810	53.20	3.22	1.19	2.03	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
811	53.24	3.23	1.19	2.03	0.74	0.518	1.17	0.441	1.00	1.00	2.000	No
812	53.32	3.23	1.20	2.04	0.74	0.517	1.17	0.441	1.00	1.00	2.000	No
813	53.39	3.24	1.20	2.04	0.74	0.517	1.17	0.441	1.00	1.00	2.000	No
814	53.47	3.24	1.20	2.04	0.74	0.517	1.17	0.440	1.00	1.00	2.000	No
815	53.51	3.24	1.20	2.04	0.74	0.517	1.17	0.440	1.00	1.00	2.000	No
816	53.59	3.25	1.20	2.04	0.74	0.517	1.17	0.440	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
817	53.64	3.25	1.21	2.04	0.74	0.517	1.17	0.440	1.00	1.00	2.000	No
818	53.72	3.25	1.21	2.05	0.74	0.517	1.17	0.440	1.00	1.00	2.000	No
819	53.78	3.26	1.21	2.05	0.74	0.517	1.17	0.440	1.00	1.00	2.000	No
820	53.84	3.26	1.21	2.05	0.73	0.517	1.17	0.440	1.00	1.00	2.000	No
821	53.90	3.27	1.21	2.05	0.73	0.517	1.17	0.440	1.00	1.00	2.000	No
822	53.98	3.27	1.22	2.05	0.73	0.516	1.17	0.440	1.00	1.00	2.000	No
823	54.06	3.28	1.22	2.06	0.73	0.516	1.17	0.440	1.00	1.00	2.000	No
824	54.10	3.28	1.22	2.06	0.73	0.516	1.17	0.440	1.00	1.00	2.000	No
825	54.17	3.28	1.22	2.06	0.73	0.516	1.17	0.439	1.00	1.00	2.000	No
826	54.25	3.29	1.22	2.06	0.73	0.516	1.17	0.439	1.00	1.00	2.000	No
827	54.29	3.29	1.23	2.06	0.73	0.516	1.17	0.439	1.00	1.00	2.000	No
828	54.37	3.30	1.23	2.07	0.73	0.516	1.17	0.439	1.00	1.00	2.000	No
829	54.45	3.30	1.23	2.07	0.73	0.516	1.17	0.439	1.00	1.00	2.000	No
830	54.52	3.30	1.23	2.07	0.73	0.515	1.17	0.439	1.00	1.00	2.000	No
831	54.56	3.31	1.23	2.07	0.73	0.515	1.17	0.439	1.00	1.00	2.000	No
832	54.64	3.31	1.24	2.08	0.73	0.515	1.17	0.439	1.00	1.00	2.000	No
833	54.72	3.32	1.24	2.08	0.73	0.515	1.17	0.439	1.00	1.00	2.000	No
834	54.76	3.32	1.24	2.08	0.73	0.515	1.17	0.438	1.00	1.00	2.000	No
835	54.84	3.32	1.24	2.08	0.73	0.515	1.17	0.438	1.00	1.00	2.000	No
836	54.91	3.33	1.25	2.08	0.73	0.515	1.17	0.438	1.00	1.00	2.000	No
837	54.96	3.33	1.25	2.09	0.73	0.515	1.17	0.438	1.00	1.00	2.000	No
838	55.04	3.34	1.25	2.09	0.73	0.514	1.17	0.438	1.00	1.00	2.000	No
839	55.11	3.34	1.25	2.09	0.73	0.514	1.17	0.438	1.00	1.00	2.000	No
840	55.15	3.34	1.25	2.09	0.73	0.514	1.17	0.438	1.00	1.00	2.000	No
841	55.23	3.35	1.26	2.09	0.73	0.514	1.17	0.438	1.00	1.00	2.000	No
842	55.30	3.35	1.26	2.10	0.73	0.514	1.17	0.438	1.00	1.00	2.000	No
843	55.35	3.36	1.26	2.10	0.73	0.514	1.17	0.438	1.00	1.00	2.000	No
844	55.43	3.36	1.26	2.10	0.73	0.514	1.17	0.437	1.00	1.00	2.000	No
845	55.50	3.37	1.26	2.10	0.73	0.514	1.17	0.437	1.00	1.00	2.000	No
846	55.54	3.37	1.26	2.10	0.73	0.514	1.17	0.437	1.00	1.00	2.000	No
847	55.62	3.37	1.27	2.10	0.73	0.514	1.17	0.437	1.00	1.00	2.000	No
848	55.70	3.38	1.27	2.11	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
849	55.74	3.38	1.27	2.11	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
850	55.82	3.38	1.27	2.11	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
851	55.89	3.39	1.28	2.11	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
852	55.94	3.39	1.28	2.11	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
853	56.01	3.39	1.28	2.12	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
854	56.09	3.40	1.28	2.12	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
855	56.14	3.40	1.28	2.12	0.72	0.513	1.17	0.437	1.00	1.00	2.000	No
856	56.22	3.41	1.29	2.12	0.72	0.513	1.17	0.436	1.00	1.00	2.000	No
857	56.29	3.41	1.29	2.12	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
858	56.33	3.41	1.29	2.12	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
859	56.41	3.42	1.29	2.13	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
860	56.49	3.42	1.29	2.13	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
861	56.53	3.42	1.30	2.13	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
862	56.61	3.43	1.30	2.13	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
863	56.69	3.43	1.30	2.13	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
864	56.73	3.44	1.30	2.13	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
865	56.81	3.44	1.30	2.14	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
866	56.85	3.44	1.31	2.14	0.72	0.512	1.17	0.436	1.00	1.00	2.000	No
867	56.93	3.45	1.31	2.14	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
868	57.01	3.45	1.31	2.14	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
869	57.05	3.45	1.31	2.14	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
870	57.12	3.46	1.31	2.14	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
871	57.21	3.46	1.32	2.15	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
872	57.25	3.47	1.32	2.15	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
873	57.33	3.47	1.32	2.15	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
874	57.41	3.48	1.32	2.15	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
875	57.45	3.48	1.32	2.15	0.72	0.511	1.17	0.435	1.00	1.00	2.000	No
876	57.53	3.48	1.33	2.16	0.71	0.510	1.17	0.435	1.00	1.00	2.000	No
877	57.57	3.49	1.33	2.16	0.71	0.510	1.17	0.434	1.00	1.00	2.000	No
878	57.65	3.49	1.33	2.16	0.71	0.510	1.17	0.434	1.00	1.00	2.000	No
879	57.73	3.50	1.33	2.16	0.71	0.510	1.17	0.434	1.00	1.00	2.000	No
880	57.78	3.50	1.33	2.17	0.71	0.510	1.17	0.434	1.00	1.00	2.000	No
881	57.85	3.51	1.34	2.17	0.71	0.510	1.17	0.434	1.00	1.00	2.000	No
882	57.92	3.51	1.34	2.17	0.71	0.509	1.17	0.434	1.00	1.00	2.000	No
883	57.97	3.51	1.34	2.17	0.71	0.509	1.17	0.434	1.00	1.00	2.000	No
884	58.03	3.52	1.34	2.18	0.71	0.509	1.17	0.433	1.00	1.00	2.000	No
885	58.10	3.52	1.34	2.18	0.71	0.509	1.17	0.433	1.00	1.00	2.000	No
886	58.18	3.53	1.35	2.18	0.71	0.509	1.17	0.433	1.00	1.00	2.000	No
887	58.26	3.53	1.35	2.18	0.71	0.509	1.17	0.433	1.00	1.00	2.000	No
888	58.30	3.53	1.35	2.18	0.71	0.509	1.17	0.433	1.00	1.00	2.000	No
889	58.38	3.54	1.35	2.19	0.71	0.508	1.17	0.433	1.00	1.00	2.000	No
890	58.46	3.55	1.36	2.19	0.71	0.508	1.17	0.433	1.00	1.00	2.000	No
891	58.50	3.55	1.36	2.19	0.71	0.508	1.17	0.433	1.00	1.00	2.000	No
892	58.58	3.55	1.36	2.19	0.71	0.508	1.17	0.432	1.00	1.00	2.000	No
893	58.64	3.56	1.36	2.20	0.71	0.508	1.17	0.432	1.00	1.00	2.000	No
894	58.69	3.56	1.36	2.20	0.71	0.508	1.17	0.432	1.00	1.00	2.000	No
895	58.76	3.56	1.37	2.20	0.71	0.508	1.17	0.432	1.00	1.00	2.000	No
896	58.83	3.57	1.37	2.20	0.71	0.507	1.17	0.432	1.00	1.00	2.000	No
897	58.89	3.57	1.37	2.20	0.71	0.507	1.17	0.432	1.00	1.00	2.000	No
898	58.96	3.58	1.37	2.21	0.71	0.507	1.17	0.432	1.00	1.00	2.000	No
899	59.03	3.58	1.37	2.21	0.71	0.507	1.17	0.432	1.00	1.00	2.000	No
900	59.10	3.59	1.38	2.21	0.71	0.507	1.17	0.431	1.00	1.00	2.000	No
901	59.15	3.59	1.38	2.21	0.71	0.507	1.17	0.431	1.00	1.00	2.000	No
902	59.23	3.59	1.38	2.21	0.71	0.506	1.17	0.431	1.00	1.00	2.000	No
903	59.29	3.60	1.38	2.22	0.71	0.506	1.17	0.431	1.00	1.00	2.000	No
904	59.35	3.60	1.38	2.22	0.71	0.506	1.17	0.431	1.00	1.00	2.000	No
905	59.41	3.61	1.39	2.22	0.71	0.506	1.17	0.431	1.00	1.00	2.000	No
906	59.48	3.61	1.39	2.22	0.70	0.506	1.17	0.431	1.00	1.00	2.000	No
907	59.55	3.62	1.39	2.23	0.70	0.506	1.17	0.431	1.00	1.00	2.000	No
908	59.62	3.62	1.39	2.23	0.70	0.506	1.17	0.431	1.00	1.00	2.000	No
909	59.69	3.62	1.39	2.23	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
910	59.75	3.63	1.40	2.23	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
911	59.82	3.63	1.40	2.23	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
912	59.90	3.64	1.40	2.23	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
913	59.94	3.64	1.40	2.24	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
914	60.01	3.64	1.40	2.24	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
915	60.07	3.65	1.41	2.24	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
916	60.15	3.65	1.41	2.24	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
917	60.23	3.66	1.41	2.24	0.70	0.505	1.17	0.430	1.00	1.00	2.000	No
918	60.27	3.66	1.41	2.25	0.70	0.504	1.17	0.430	1.00	1.00	2.000	No
919	60.35	3.66	1.41	2.25	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
920	60.43	3.67	1.42	2.25	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
921	60.47	3.67	1.42	2.25	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
922	60.55	3.67	1.42	2.25	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
923	60.59	3.68	1.42	2.25	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
924	60.67	3.68	1.42	2.26	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
925	60.75	3.69	1.43	2.26	0.70	0.504	1.17	0.429	1.00	1.00	2.000	No
926	60.79	3.69	1.43	2.26	0.70	0.503	1.17	0.429	1.00	1.00	2.000	No
927	60.87	3.69	1.43	2.26	0.70	0.503	1.17	0.429	1.00	1.00	2.000	No
928	60.95	3.70	1.43	2.27	0.70	0.503	1.17	0.428	1.00	1.00	2.000	No
929	60.99	3.70	1.43	2.27	0.70	0.503	1.17	0.428	1.00	1.00	2.000	No
930	61.07	3.71	1.44	2.27	0.70	0.503	1.17	0.428	1.00	1.00	2.000	No
931	61.15	3.71	1.44	2.27	0.70	0.503	1.17	0.428	1.00	1.00	2.000	No
932	61.19	3.71	1.44	2.27	0.70	0.503	1.17	0.428	1.00	1.00	2.000	No
933	61.27	3.72	1.44	2.27	0.70	0.502	1.17	0.428	1.00	1.00	2.000	No
934	61.31	3.72	1.44	2.28	0.70	0.502	1.17	0.428	1.00	1.00	2.000	No
935	61.39	3.73	1.45	2.28	0.69	0.502	1.17	0.428	1.00	1.00	2.000	No
936	61.47	3.73	1.45	2.28	0.69	0.502	1.17	0.428	1.00	1.00	2.000	No
937	61.51	3.73	1.45	2.28	0.69	0.502	1.17	0.427	1.00	1.00	2.000	No
938	61.59	3.74	1.45	2.28	0.69	0.502	1.17	0.427	1.00	1.00	2.000	No
939	61.67	3.74	1.46	2.29	0.69	0.502	1.17	0.427	1.00	1.00	2.000	No
940	61.71	3.75	1.46	2.29	0.69	0.502	1.17	0.427	1.00	1.00	2.000	No
941	61.79	3.75	1.46	2.29	0.69	0.501	1.17	0.427	1.00	1.00	2.000	No
942	61.87	3.75	1.46	2.29	0.69	0.501	1.17	0.427	1.00	1.00	2.000	No
943	61.91	3.76	1.46	2.29	0.69	0.501	1.17	0.427	1.00	1.00	2.000	No
944	61.98	3.76	1.47	2.30	0.69	0.501	1.17	0.427	1.00	1.00	2.000	No
945	62.05	3.77	1.47	2.30	0.69	0.501	1.17	0.427	1.00	1.00	2.000	No
946	62.13	3.77	1.47	2.30	0.69	0.501	1.17	0.426	1.00	1.00	2.000	No
947	62.17	3.77	1.47	2.30	0.69	0.501	1.17	0.426	1.00	1.00	2.000	No
948	62.25	3.78	1.47	2.30	0.69	0.501	1.17	0.426	1.00	1.00	2.000	No
949	62.33	3.78	1.48	2.31	0.69	0.500	1.17	0.426	1.00	1.00	2.000	No
950	62.37	3.79	1.48	2.31	0.69	0.500	1.17	0.426	1.00	1.00	2.000	No
951	62.45	3.79	1.48	2.31	0.69	0.500	1.17	0.426	1.00	1.00	2.000	No
952	62.52	3.80	1.48	2.31	0.69	0.500	1.17	0.426	1.00	1.00	2.000	No
953	62.57	3.80	1.48	2.31	0.69	0.500	1.17	0.426	1.00	1.00	2.000	No
954	62.64	3.80	1.49	2.32	0.69	0.500	1.17	0.425	1.00	1.00	2.000	No
955	62.70	3.81	1.49	2.32	0.69	0.499	1.17	0.425	1.00	1.00	2.000	No
956	62.76	3.81	1.49	2.32	0.69	0.499	1.17	0.425	1.00	1.00	2.000	No
957	62.82	3.82	1.49	2.32	0.69	0.499	1.17	0.425	1.00	1.00	2.000	No
958	62.89	3.82	1.49	2.33	0.69	0.499	1.17	0.425	1.00	1.00	2.000	No
959	62.95	3.82	1.50	2.33	0.69	0.499	1.17	0.425	1.00	1.00	2.000	No
960	63.02	3.83	1.50	2.33	0.69	0.499	1.17	0.425	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
961	63.09	3.83	1.50	2.33	0.69	0.498	1.17	0.424	1.00	1.00	2.000	No
962	63.17	3.84	1.50	2.34	0.69	0.498	1.17	0.424	1.00	1.00	2.000	No
963	63.24	3.84	1.51	2.34	0.69	0.498	1.17	0.424	1.00	1.00	2.000	No
964	63.28	3.85	1.51	2.34	0.69	0.498	1.17	0.424	1.00	1.00	2.000	No
965	63.36	3.85	1.51	2.34	0.68	0.498	1.17	0.424	1.00	1.00	2.000	No
966	63.43	3.86	1.51	2.35	0.68	0.498	1.17	0.424	1.00	1.00	2.000	No
967	63.48	3.86	1.51	2.35	0.68	0.497	1.17	0.424	1.00	1.00	2.000	No
968	63.56	3.86	1.51	2.35	0.68	0.497	1.17	0.423	1.00	1.00	2.000	No
969	63.64	3.87	1.52	2.35	0.68	0.497	1.17	0.423	1.00	1.00	2.000	No
970	63.68	3.87	1.52	2.35	0.68	0.497	1.17	0.423	1.00	1.00	2.000	No
971	63.76	3.88	1.52	2.36	0.68	0.497	1.17	0.423	1.00	1.00	2.000	No
972	63.81	3.88	1.52	2.36	0.68	0.497	1.17	0.423	1.00	1.00	2.000	No
973	63.89	3.89	1.53	2.36	0.68	0.496	1.17	0.423	1.00	1.00	2.000	No
974	63.94	3.89	1.53	2.36	0.68	0.496	1.17	0.423	1.00	1.00	2.000	No
975	64.00	3.89	1.53	2.37	0.68	0.496	1.17	0.422	1.00	1.00	2.000	No
976	64.07	3.90	1.53	2.37	0.68	0.496	1.17	0.422	1.00	1.00	2.000	No
977	64.14	3.90	1.53	2.37	0.68	0.496	1.17	0.422	1.00	1.00	2.000	No
978	64.22	3.91	1.54	2.37	0.68	0.496	1.17	0.422	1.00	1.00	2.000	No
979	64.27	3.91	1.54	2.37	0.68	0.496	1.17	0.422	1.00	1.00	2.000	No
980	64.35	3.92	1.54	2.38	0.68	0.495	1.17	0.422	1.00	1.00	2.000	No
981	64.41	3.92	1.54	2.38	0.68	0.495	1.17	0.422	1.00	1.00	2.000	No
982	64.48	3.93	1.54	2.38	0.68	0.495	1.17	0.421	1.00	1.00	2.000	No
983	64.53	3.93	1.55	2.38	0.68	0.495	1.17	0.421	1.00	1.00	2.000	No
984	64.61	3.93	1.55	2.39	0.68	0.495	1.17	0.421	1.00	1.00	2.000	No
985	64.69	3.94	1.55	2.39	0.68	0.494	1.17	0.421	1.00	1.00	2.000	No
986	64.73	3.94	1.55	2.39	0.68	0.494	1.17	0.421	1.00	1.00	2.000	No
987	64.81	3.95	1.55	2.39	0.68	0.494	1.17	0.421	1.00	1.00	2.000	No
988	64.89	3.95	1.56	2.40	0.68	0.494	1.17	0.421	1.00	1.00	2.000	No
989	64.93	3.95	1.56	2.40	0.68	0.494	1.17	0.421	1.00	1.00	2.000	No
990	65.01	3.96	1.56	2.40	0.68	0.494	1.17	0.420	1.00	1.00	2.000	No
991	65.06	3.96	1.56	2.40	0.68	0.494	1.17	0.420	1.00	1.00	2.000	No
992	65.14	3.97	1.56	2.40	0.68	0.493	1.17	0.420	1.00	1.00	2.000	No
993	65.21	3.97	1.57	2.41	0.68	0.493	1.17	0.420	1.00	1.00	2.000	No
994	65.26	3.97	1.57	2.41	0.68	0.493	1.17	0.420	1.00	1.00	2.000	No
995	65.33	3.98	1.57	2.41	0.68	0.493	1.17	0.420	1.00	1.00	2.000	No
996	65.38	3.98	1.57	2.41	0.68	0.493	1.17	0.420	1.00	1.00	2.000	No
997	65.45	3.99	1.57	2.41	0.67	0.493	1.17	0.420	1.00	1.00	2.000	No
998	65.53	3.99	1.58	2.42	0.67	0.493	1.17	0.419	1.00	1.00	2.000	No
999	65.61	4.00	1.58	2.42	0.67	0.492	1.17	0.419	1.00	1.00	2.000	No
1000	65.65	4.00	1.58	2.42	0.67	0.492	1.17	0.419	1.00	1.00	2.000	No
1001	65.73	4.00	1.58	2.42	0.67	0.492	1.17	0.419	1.00	1.00	2.000	No
1002	65.81	4.01	1.59	2.42	0.67	0.492	1.17	0.419	1.00	1.00	2.000	No
1003	65.85	4.01	1.59	2.43	0.67	0.492	1.17	0.419	1.00	1.00	2.000	No
1004	65.93	4.02	1.59	2.43	0.67	0.492	1.17	0.419	1.00	1.00	2.000	No
1005	66.00	4.02	1.59	2.43	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No
1006	66.05	4.03	1.59	2.43	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No
1007	66.13	4.03	1.60	2.44	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No
1008	66.17	4.03	1.60	2.44	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1009	66.25	4.04	1.60	2.44	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No
1010	66.32	4.04	1.60	2.44	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No
1011	66.37	4.05	1.60	2.44	0.67	0.491	1.17	0.418	1.00	1.00	2.000	No
1012	66.44	4.05	1.61	2.45	0.67	0.490	1.17	0.418	1.00	1.00	2.000	No
1013	66.52	4.06	1.61	2.45	0.67	0.490	1.17	0.417	1.00	1.00	2.000	No
1014	66.57	4.06	1.61	2.45	0.67	0.490	1.17	0.417	1.00	1.00	2.000	No
1015	66.64	4.06	1.61	2.45	0.67	0.490	1.17	0.417	1.00	1.00	2.000	No
1016	66.72	4.07	1.61	2.46	0.67	0.490	1.17	0.417	1.00	1.00	2.000	No
1017	66.77	4.07	1.62	2.46	0.67	0.490	1.17	0.417	1.00	1.00	2.000	No
1018	66.85	4.08	1.62	2.46	0.67	0.489	1.17	0.417	1.00	1.00	2.000	No
1019	66.92	4.08	1.62	2.46	0.67	0.489	1.17	0.417	1.00	1.00	2.000	No
1020	66.97	4.08	1.62	2.46	0.67	0.489	1.17	0.417	1.00	1.00	2.000	No
1021	67.02	4.09	1.62	2.47	0.67	0.489	1.17	0.416	1.00	1.00	2.000	No
1022	67.12	4.09	1.63	2.47	0.67	0.489	1.17	0.416	1.00	1.00	2.000	No
1023	67.16	4.10	1.63	2.47	0.67	0.489	1.17	0.416	1.00	1.00	2.000	No
1024	67.24	4.10	1.63	2.47	0.67	0.489	1.17	0.416	1.00	1.00	2.000	No
1025	67.29	4.11	1.63	2.47	0.67	0.488	1.17	0.416	1.00	1.00	2.000	No
1026	67.37	4.11	1.63	2.48	0.67	0.488	1.17	0.416	1.00	1.00	2.000	No
1027	67.44	4.12	1.64	2.48	0.67	0.488	1.17	0.416	1.00	1.00	2.000	No
1028	67.49	4.12	1.64	2.48	0.67	0.488	1.17	0.416	1.00	1.00	2.000	No
1029	67.56	4.12	1.64	2.48	0.66	0.488	1.17	0.415	1.00	1.00	2.000	No
1030	67.64	4.13	1.64	2.48	0.66	0.488	1.17	0.415	1.00	1.00	2.000	No
1031	67.69	4.13	1.64	2.49	0.66	0.488	1.17	0.415	1.00	1.00	2.000	No
1032	67.77	4.13	1.65	2.49	0.66	0.487	1.17	0.415	1.00	1.00	2.000	No
1033	67.81	4.14	1.65	2.49	0.66	0.487	1.17	0.415	1.00	1.00	2.000	No
1034	67.89	4.14	1.65	2.49	0.66	0.487	1.17	0.415	1.00	1.00	2.000	No
1035	67.97	4.15	1.65	2.49	0.66	0.487	1.17	0.415	1.00	1.00	2.000	No
1036	68.02	4.15	1.65	2.50	0.66	0.487	1.17	0.415	1.00	1.00	2.000	No
1037	68.09	4.15	1.66	2.50	0.66	0.487	1.17	0.414	1.00	1.00	2.000	No
1038	68.14	4.16	1.66	2.50	0.66	0.487	1.17	0.414	1.00	1.00	2.000	No
1039	68.21	4.16	1.66	2.50	0.66	0.487	1.17	0.414	1.00	1.00	2.000	No
1040	68.29	4.17	1.66	2.50	0.66	0.486	1.17	0.414	1.00	1.00	2.000	No
1041	68.34	4.17	1.66	2.51	0.66	0.486	1.17	0.414	1.00	1.00	2.000	No
1042	68.42	4.17	1.67	2.51	0.66	0.486	1.17	0.414	1.00	1.00	2.000	No
1043	68.49	4.18	1.67	2.51	0.66	0.486	1.17	0.414	1.00	1.00	2.000	No
1044	68.54	4.18	1.67	2.51	0.66	0.486	1.17	0.414	1.00	1.00	2.000	No
1045	68.61	4.19	1.67	2.51	0.66	0.486	1.17	0.414	1.00	1.00	2.000	No
1046	68.69	4.19	1.68	2.52	0.66	0.486	1.17	0.413	1.00	1.00	2.000	No
1047	68.74	4.19	1.68	2.52	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1048	68.81	4.20	1.68	2.52	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1049	68.86	4.20	1.68	2.52	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1050	68.94	4.21	1.68	2.52	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1051	68.99	4.21	1.68	2.52	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1052	69.08	4.21	1.69	2.53	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1053	69.14	4.22	1.69	2.53	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1054	69.19	4.22	1.69	2.53	0.66	0.485	1.17	0.413	1.00	1.00	2.000	No
1055	69.27	4.23	1.69	2.53	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No
1056	69.34	4.23	1.70	2.54	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1057	69.39	4.23	1.70	2.54	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No
1058	69.46	4.24	1.70	2.54	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No
1059	69.54	4.24	1.70	2.54	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No
1060	69.58	4.25	1.70	2.54	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No
1061	69.66	4.25	1.71	2.55	0.66	0.484	1.17	0.412	1.00	1.00	2.000	No
1062	69.74	4.26	1.71	2.55	0.65	0.483	1.17	0.412	1.00	1.00	2.000	No
1063	69.78	4.26	1.71	2.55	0.65	0.483	1.17	0.411	1.00	1.00	2.000	No
1064	69.86	4.26	1.71	2.55	0.65	0.483	1.17	0.411	1.00	1.00	2.000	No
1065	69.94	4.27	1.71	2.55	0.65	0.483	1.17	0.411	1.00	1.00	2.000	No
1066	69.99	4.27	1.72	2.55	0.65	0.483	1.17	0.411	1.00	1.00	2.000	No
1067	70.04	4.27	1.72	2.56	0.65	0.483	1.17	0.411	1.00	1.00	2.000	No
1068	70.11	4.28	1.72	2.56	0.65	0.483	1.17	0.411	1.00	1.00	2.000	No
1069	70.18	4.28	1.72	2.56	0.65	0.482	1.17	0.411	1.00	1.00	2.000	No
1070	70.25	4.29	1.72	2.56	0.65	0.482	1.17	0.411	1.00	1.00	2.000	No
1071	70.33	4.29	1.73	2.57	0.65	0.482	1.17	0.410	1.00	1.00	2.000	No
1072	70.40	4.30	1.73	2.57	0.65	0.482	1.17	0.410	1.00	1.00	2.000	No
1073	70.44	4.30	1.73	2.57	0.65	0.482	1.17	0.410	1.00	1.00	2.000	No
1074	70.52	4.30	1.73	2.57	0.65	0.482	1.17	0.410	1.00	1.00	2.000	No
1075	70.59	4.31	1.73	2.57	0.65	0.482	1.17	0.410	1.00	1.00	2.000	No
1076	70.64	4.31	1.74	2.57	0.65	0.481	1.17	0.410	1.00	1.00	2.000	No
1077	70.72	4.32	1.74	2.58	0.65	0.481	1.17	0.410	1.00	1.00	2.000	No
1078	70.80	4.32	1.74	2.58	0.65	0.481	1.17	0.410	1.00	1.00	2.000	No
1079	70.84	4.32	1.74	2.58	0.65	0.481	1.17	0.410	1.00	1.00	2.000	No
1080	70.92	4.33	1.74	2.58	0.65	0.481	1.17	0.409	1.00	1.00	2.000	No
1081	70.96	4.33	1.75	2.58	0.65	0.481	1.17	0.409	1.00	1.00	2.000	No
1082	71.05	4.34	1.75	2.59	0.65	0.481	1.17	0.409	1.00	1.00	2.000	No
1083	71.12	4.34	1.75	2.59	0.65	0.480	1.17	0.409	1.00	1.00	2.000	No
1084	71.17	4.34	1.75	2.59	0.65	0.480	1.17	0.409	1.00	1.00	2.000	No
1085	71.25	4.35	1.75	2.59	0.65	0.480	1.17	0.409	1.00	1.00	2.000	No
1086	71.29	4.35	1.76	2.59	0.65	0.480	1.17	0.409	1.00	1.00	2.000	No
1087	71.38	4.36	1.76	2.60	0.65	0.480	1.17	0.409	1.00	1.00	2.000	No
1088	71.42	4.36	1.76	2.60	0.65	0.480	1.17	0.409	1.00	1.00	2.000	No
1089	71.49	4.36	1.76	2.60	0.65	0.480	1.17	0.408	1.00	1.00	2.000	No
1090	71.56	4.37	1.76	2.60	0.65	0.480	1.17	0.408	1.00	1.00	2.000	No
1091	71.63	4.37	1.77	2.61	0.65	0.479	1.17	0.408	1.00	1.00	2.000	No
1092	71.70	4.38	1.77	2.61	0.65	0.479	1.17	0.408	1.00	1.00	2.000	No
1093	71.75	4.38	1.77	2.61	0.65	0.479	1.17	0.408	1.00	1.00	2.000	No
1094	71.82	4.38	1.77	2.61	0.65	0.479	1.17	0.408	1.00	1.00	2.000	No
1095	71.88	4.39	1.77	2.61	0.65	0.479	1.17	0.408	1.00	1.00	2.000	No
1096	71.95	4.39	1.78	2.61	0.64	0.479	1.17	0.408	1.00	1.00	2.000	No
1097	72.02	4.40	1.78	2.62	0.64	0.479	1.17	0.407	1.00	1.00	2.000	No
1098	72.08	4.40	1.78	2.62	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No
1099	72.15	4.40	1.78	2.62	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No
1100	72.22	4.41	1.79	2.62	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No
1101	72.28	4.41	1.79	2.63	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No
1102	72.35	4.42	1.79	2.63	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No
1103	72.42	4.42	1.79	2.63	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No
1104	72.50	4.43	1.79	2.63	0.64	0.478	1.17	0.407	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1105	72.54	4.43	1.80	2.63	0.64	0.477	1.17	0.407	1.00	1.00	2.000	No
1106	72.62	4.43	1.80	2.64	0.64	0.477	1.17	0.406	1.00	1.00	2.000	No
1107	72.70	4.44	1.80	2.64	0.64	0.477	1.17	0.406	1.00	1.00	2.000	No
1108	72.74	4.44	1.80	2.64	0.64	0.477	1.17	0.406	1.00	1.00	2.000	No
1109	72.82	4.45	1.80	2.64	0.64	0.477	1.17	0.406	1.00	1.00	2.000	No
1110	72.86	4.45	1.81	2.64	0.64	0.477	1.17	0.406	1.00	1.00	2.000	No
1111	72.94	4.45	1.81	2.65	0.64	0.477	1.17	0.406	1.00	1.00	2.000	No
1112	73.02	4.46	1.81	2.65	0.64	0.476	1.17	0.406	1.00	1.00	2.000	No
1113	73.07	4.46	1.81	2.65	0.64	0.476	1.17	0.406	1.00	1.00	2.000	No
1114	73.15	4.47	1.81	2.65	0.64	0.476	1.17	0.405	1.00	1.00	2.000	No
1115	73.19	4.47	1.82	2.65	0.64	0.476	1.17	0.405	1.00	1.00	2.000	No
1116	73.28	4.47	1.82	2.66	0.64	0.476	1.17	0.405	1.00	1.00	2.000	No
1117	73.32	4.48	1.82	2.66	0.64	0.476	1.17	0.405	1.00	1.00	2.000	No
1118	73.39	4.48	1.82	2.66	0.64	0.476	1.17	0.405	1.00	1.00	2.000	No
1119	73.45	4.49	1.82	2.66	0.64	0.476	1.17	0.405	1.00	1.00	2.000	No
1120	73.53	4.49	1.83	2.66	0.64	0.475	1.17	0.405	1.00	1.00	2.000	No
1121	73.59	4.49	1.83	2.67	0.64	0.475	1.17	0.405	1.00	1.00	2.000	No
1122	73.66	4.50	1.83	2.67	0.64	0.475	1.17	0.405	1.00	1.00	2.000	No
1123	73.72	4.50	1.83	2.67	0.64	0.475	1.17	0.404	1.00	1.00	2.000	No
1124	73.78	4.51	1.83	2.67	0.64	0.475	1.17	0.404	1.00	1.00	2.000	No
1125	73.86	4.51	1.84	2.67	0.64	0.475	1.17	0.404	1.00	1.00	2.000	No
1126	73.93	4.51	1.84	2.68	0.64	0.475	1.17	0.404	1.00	1.00	2.000	No
1127	74.00	4.52	1.84	2.68	0.64	0.474	1.17	0.404	1.00	1.00	2.000	No
1128	74.04	4.52	1.84	2.68	0.64	0.474	1.17	0.404	1.00	1.00	2.000	No
1129	74.12	4.53	1.84	2.68	0.64	0.474	1.17	0.404	1.00	1.00	2.000	No
1130	74.19	4.53	1.85	2.68	0.64	0.474	1.17	0.404	1.00	1.00	2.000	No
1131	74.24	4.53	1.85	2.69	0.64	0.474	1.17	0.404	1.00	1.00	2.000	No
1132	74.31	4.54	1.85	2.69	0.63	0.474	1.17	0.403	1.00	1.00	2.000	No
1133	74.38	4.54	1.85	2.69	0.63	0.474	1.17	0.403	1.00	1.00	2.000	No
1134	74.45	4.55	1.85	2.69	0.63	0.473	1.17	0.403	1.00	1.00	2.000	No
1135	74.50	4.55	1.86	2.69	0.63	0.473	1.17	0.403	1.00	1.00	2.000	No
1136	74.59	4.56	1.86	2.70	0.63	0.473	1.17	0.403	1.00	1.00	2.000	No
1137	74.65	4.56	1.86	2.70	0.63	0.473	1.17	0.403	1.00	1.00	2.000	No
1138	74.71	4.56	1.86	2.70	0.63	0.473	1.17	0.403	1.00	1.00	2.000	No
1139	74.77	4.57	1.86	2.70	0.63	0.473	1.17	0.403	1.00	1.00	2.000	No
1140	74.83	4.57	1.87	2.70	0.63	0.473	1.17	0.402	1.00	1.00	2.000	No
1141	74.92	4.58	1.87	2.71	0.63	0.473	1.17	0.402	1.00	1.00	2.000	No
1142	74.96	4.58	1.87	2.71	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1143	75.04	4.58	1.87	2.71	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1144	75.11	4.59	1.88	2.71	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1145	75.17	4.59	1.88	2.71	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1146	75.24	4.60	1.88	2.72	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1147	75.29	4.60	1.88	2.72	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1148	75.36	4.60	1.88	2.72	0.63	0.472	1.17	0.402	1.00	1.00	2.000	No
1149	75.42	4.61	1.89	2.72	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1150	75.50	4.61	1.89	2.72	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1151	75.55	4.62	1.89	2.73	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1152	75.63	4.62	1.89	2.73	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1153	75.69	4.62	1.89	2.73	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1154	75.77	4.63	1.90	2.73	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1155	75.83	4.63	1.90	2.73	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1156	75.89	4.64	1.90	2.74	0.63	0.471	1.17	0.401	1.00	1.00	2.000	No
1157	75.95	4.64	1.90	2.74	0.63	0.470	1.17	0.401	1.00	1.00	2.000	No
1158	76.02	4.64	1.90	2.74	0.63	0.470	1.17	0.400	1.00	1.00	2.000	No
1159	76.08	4.65	1.91	2.74	0.63	0.470	1.17	0.400	1.00	1.00	2.000	No
1160	76.15	4.65	1.91	2.74	0.63	0.470	1.17	0.400	1.00	1.00	2.000	No
1161	76.21	4.66	1.91	2.75	0.63	0.470	1.17	0.400	1.00	1.00	2.000	No
1162	76.28	4.66	1.91	2.75	0.63	0.470	1.17	0.400	1.00	1.00	2.000	No
1163	76.34	4.66	1.91	2.75	0.63	0.470	1.17	0.400	1.00	1.00	2.000	No
1164	76.41	4.67	1.92	2.75	0.63	0.469	1.17	0.400	1.00	1.00	2.000	No
1165	76.47	4.67	1.92	2.75	0.63	0.469	1.17	0.400	1.00	1.00	2.000	No
1166	76.54	4.68	1.92	2.76	0.63	0.469	1.17	0.399	1.00	1.00	2.000	No
1167	76.62	4.68	1.92	2.76	0.63	0.469	1.17	0.399	1.00	1.00	2.000	No
1168	76.69	4.69	1.92	2.76	0.63	0.469	1.17	0.399	1.00	1.00	2.000	No
1169	76.77	4.69	1.93	2.76	0.62	0.469	1.17	0.399	1.00	1.00	2.000	No
1170	76.81	4.69	1.93	2.77	0.62	0.469	1.17	0.399	1.00	1.00	2.000	No
1171	76.89	4.70	1.93	2.77	0.62	0.468	1.17	0.399	1.00	1.00	2.000	No
1172	76.94	4.70	1.93	2.77	0.62	0.468	1.17	0.399	1.00	1.00	2.000	No
1173	77.02	4.71	1.93	2.77	0.62	0.468	1.17	0.399	1.00	1.00	2.000	No
1174	77.06	4.71	1.94	2.77	0.62	0.468	1.17	0.399	1.00	1.00	2.000	No
1175	77.14	4.71	1.94	2.78	0.62	0.468	1.17	0.398	1.00	1.00	2.000	No
1176	77.20	4.72	1.94	2.78	0.62	0.468	1.17	0.398	1.00	1.00	2.000	No
1177	77.27	4.72	1.94	2.78	0.62	0.468	1.17	0.398	1.00	1.00	2.000	No
1178	77.34	4.73	1.95	2.78	0.62	0.468	1.17	0.398	1.00	1.00	2.000	No
1179	77.40	4.73	1.95	2.78	0.62	0.467	1.17	0.398	1.00	1.00	2.000	No
1180	77.47	4.73	1.95	2.79	0.62	0.467	1.17	0.398	1.00	1.00	2.000	No
1181	77.54	4.74	1.95	2.79	0.62	0.467	1.17	0.398	1.00	1.00	2.000	No
1182	77.62	4.74	1.95	2.79	0.62	0.467	1.17	0.398	1.00	1.00	2.000	No
1183	77.66	4.75	1.96	2.79	0.62	0.467	1.17	0.398	1.00	1.00	2.000	No
1184	77.74	4.75	1.96	2.79	0.62	0.467	1.17	0.397	1.00	1.00	2.000	No
1185	77.79	4.75	1.96	2.80	0.62	0.467	1.17	0.397	1.00	1.00	2.000	No
1186	77.87	4.76	1.96	2.80	0.62	0.467	1.17	0.397	1.00	1.00	2.000	No
1187	77.95	4.76	1.96	2.80	0.62	0.466	1.17	0.397	1.00	1.00	2.000	No
1188	77.99	4.77	1.97	2.80	0.62	0.466	1.17	0.397	1.00	1.00	2.000	No
1189	78.07	4.77	1.97	2.80	0.62	0.466	1.17	0.397	1.00	1.00	2.000	No
1190	78.12	4.78	1.97	2.81	0.62	0.466	1.17	0.397	1.00	1.00	2.000	No
1191	78.20	4.78	1.97	2.81	0.62	0.466	1.17	0.397	1.00	1.00	2.000	No
1192	78.28	4.78	1.97	2.81	0.62	0.466	1.17	0.397	1.00	1.00	2.000	No
1193	78.32	4.79	1.98	2.81	0.62	0.466	1.17	0.396	1.00	1.00	2.000	No
1194	78.40	4.79	1.98	2.81	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1195	78.44	4.80	1.98	2.82	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1196	78.52	4.80	1.98	2.82	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1197	78.60	4.81	1.98	2.82	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1198	78.65	4.81	1.99	2.82	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1199	78.73	4.81	1.99	2.83	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1200	78.77	4.82	1.99	2.83	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1201	78.85	4.82	1.99	2.83	0.62	0.465	1.17	0.396	1.00	1.00	2.000	No
1202	78.90	4.82	1.99	2.83	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1203	78.98	4.83	2.00	2.83	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1204	79.03	4.83	2.00	2.83	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1205	79.11	4.84	2.00	2.84	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1206	79.17	4.84	2.00	2.84	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1207	79.24	4.85	2.00	2.84	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1208	79.30	4.85	2.01	2.84	0.62	0.464	1.17	0.395	1.00	1.00	2.000	No
1209	79.38	4.85	2.01	2.85	0.61	0.463	1.17	0.395	1.00	1.00	2.000	No
1210	79.44	4.86	2.01	2.85	0.61	0.463	1.17	0.395	1.00	1.00	2.000	No
1211	79.50	4.86	2.01	2.85	0.61	0.463	1.17	0.394	1.00	1.00	2.000	No
1212	79.56	4.87	2.01	2.85	0.61	0.463	1.17	0.394	1.00	1.00	2.000	No
1213	79.64	4.87	2.02	2.85	0.61	0.463	1.17	0.394	1.00	1.00	2.000	No
1214	79.70	4.88	2.02	2.86	0.61	0.463	1.17	0.394	1.00	1.00	2.000	No
1215	79.76	4.88	2.02	2.86	0.61	0.463	1.17	0.394	1.00	1.00	2.000	No
1216	79.82	4.88	2.02	2.86	0.61	0.463	1.17	0.394	1.00	1.00	2.000	No
1217	79.91	4.89	2.03	2.86	0.61	0.462	1.17	0.394	1.00	1.00	2.000	No
1218	79.97	4.89	2.03	2.87	0.61	0.462	1.17	0.394	1.00	1.00	2.000	No
1219	80.02	4.90	2.03	2.87	0.61	0.462	1.17	0.394	1.00	1.00	2.000	No
1220	80.08	4.90	2.03	2.87	0.61	0.462	1.17	0.393	1.00	1.00	2.000	No
1221	80.16	4.90	2.03	2.87	0.61	0.462	1.17	0.393	1.00	1.00	2.000	No
1222	80.21	4.91	2.03	2.87	0.61	0.462	1.17	0.393	1.00	1.00	2.000	No
1223	80.28	4.91	2.04	2.88	0.61	0.462	1.17	0.393	1.00	1.00	2.000	No
1224	80.34	4.92	2.04	2.88	0.61	0.462	1.17	0.393	1.00	1.00	2.000	No
1225	80.42	4.92	2.04	2.88	0.61	0.461	1.17	0.393	1.00	1.00	2.000	No
1226	80.48	4.92	2.04	2.88	0.61	0.461	1.17	0.393	1.00	1.00	2.000	No
1227	80.54	4.93	2.04	2.88	0.61	0.461	1.17	0.393	1.00	1.00	2.000	No
1228	80.62	4.93	2.05	2.89	0.61	0.461	1.17	0.393	1.00	1.00	2.000	No
1229	80.68	4.94	2.05	2.89	0.61	0.461	1.17	0.392	1.00	1.00	2.000	No
1230	80.74	4.94	2.05	2.89	0.61	0.461	1.17	0.392	1.00	1.00	2.000	No
1231	80.81	4.95	2.05	2.89	0.61	0.461	1.17	0.392	1.00	1.00	2.000	No
1232	80.87	4.95	2.06	2.89	0.61	0.461	1.17	0.392	1.00	1.00	2.000	No
1233	80.94	4.95	2.06	2.90	0.61	0.460	1.17	0.392	1.00	1.00	2.000	No
1234	81.01	4.96	2.06	2.90	0.61	0.460	1.17	0.392	1.00	1.00	2.000	No
1235	81.07	4.96	2.06	2.90	0.61	0.460	1.17	0.392	1.00	1.00	2.000	No
1236	81.14	4.97	2.06	2.90	0.61	0.460	1.17	0.392	1.00	1.00	2.000	No
1237	81.21	4.97	2.07	2.90	0.61	0.460	1.17	0.392	1.00	1.00	2.000	No
1238	81.28	4.97	2.07	2.91	0.61	0.460	1.17	0.391	1.00	1.00	2.000	No
1239	81.34	4.98	2.07	2.91	0.61	0.460	1.17	0.391	1.00	1.00	2.000	No
1240	81.39	4.98	2.07	2.91	0.61	0.460	1.17	0.391	1.00	1.00	2.000	No
1241	81.46	4.99	2.07	2.91	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1242	81.53	4.99	2.08	2.91	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1243	81.60	5.00	2.08	2.92	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1244	81.66	5.00	2.08	2.92	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1245	81.73	5.00	2.08	2.92	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1246	81.79	5.01	2.08	2.92	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1247	81.86	5.01	2.09	2.92	0.61	0.459	1.17	0.391	1.00	1.00	2.000	No
1248	81.92	5.01	2.09	2.93	0.61	0.459	1.17	0.390	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1249	81.98	5.02	2.09	2.93	0.61	0.458	1.17	0.390	1.00	1.00	2.000	No
1250	82.06	5.02	2.09	2.93	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1251	82.11	5.03	2.09	2.93	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1252	82.18	5.03	2.10	2.94	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1253	82.25	5.04	2.10	2.94	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1254	82.31	5.04	2.10	2.94	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1255	82.38	5.04	2.10	2.94	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1256	82.44	5.05	2.10	2.94	0.60	0.458	1.17	0.390	1.00	1.00	2.000	No
1257	82.51	5.05	2.11	2.95	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1258	82.58	5.06	2.11	2.95	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1259	82.64	5.06	2.11	2.95	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1260	82.71	5.06	2.11	2.95	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1261	82.77	5.07	2.11	2.95	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1262	82.84	5.07	2.12	2.96	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1263	82.91	5.08	2.12	2.96	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1264	82.97	5.08	2.12	2.96	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1265	83.04	5.08	2.12	2.96	0.60	0.457	1.17	0.389	1.00	1.00	2.000	No
1266	83.10	5.09	2.12	2.96	0.60	0.456	1.17	0.389	1.00	1.00	2.000	No
1267	83.17	5.09	2.13	2.97	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1268	83.23	5.10	2.13	2.97	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1269	83.30	5.10	2.13	2.97	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1270	83.36	5.10	2.13	2.97	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1271	83.43	5.11	2.14	2.97	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1272	83.50	5.11	2.14	2.98	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1273	83.56	5.12	2.14	2.98	0.60	0.456	1.17	0.388	1.00	1.00	2.000	No
1274	83.62	5.12	2.14	2.98	0.60	0.455	1.17	0.388	1.00	1.00	2.000	No
1275	83.69	5.12	2.14	2.98	0.60	0.455	1.17	0.388	1.00	1.00	2.000	No
1276	83.76	5.13	2.15	2.98	0.60	0.455	1.17	0.388	1.00	1.00	2.000	No
1277	83.82	5.13	2.15	2.99	0.60	0.455	1.17	0.387	1.00	1.00	2.000	No
1278	83.89	5.14	2.15	2.99	0.60	0.455	1.17	0.387	1.00	1.00	2.000	No
1279	83.95	5.14	2.15	2.99	0.60	0.455	1.17	0.387	1.00	1.00	2.000	No
1280	84.02	5.15	2.15	2.99	0.60	0.455	1.17	0.387	1.00	1.00	2.000	No
1281	84.08	5.15	2.16	2.99	0.60	0.455	1.17	0.387	1.00	1.00	2.000	No
1282	84.15	5.15	2.16	3.00	0.60	0.454	1.17	0.387	1.00	1.00	2.000	No
1283	84.22	5.16	2.16	3.00	0.60	0.454	1.17	0.387	1.00	1.00	2.000	No
1284	84.28	5.16	2.16	3.00	0.60	0.454	1.17	0.387	1.00	1.00	2.000	No
1285	84.34	5.17	2.16	3.00	0.60	0.454	1.17	0.387	1.00	1.00	2.000	No
1286	84.41	5.17	2.17	3.01	0.60	0.454	1.17	0.387	1.00	1.00	2.000	No
1287	84.48	5.18	2.17	3.01	0.60	0.454	1.17	0.386	1.00	1.00	2.000	No
1288	84.55	5.18	2.17	3.01	0.60	0.454	1.17	0.386	1.00	1.00	2.000	No
1289	84.61	5.18	2.17	3.01	0.60	0.454	1.17	0.386	1.00	1.00	2.000	No
1290	84.68	5.19	2.17	3.01	0.60	0.453	1.17	0.386	1.00	1.00	2.000	No
1291	84.74	5.19	2.18	3.02	0.60	0.453	1.17	0.386	1.00	1.00	2.000	No
1292	84.81	5.20	2.18	3.02	0.60	0.453	1.17	0.386	1.00	1.00	2.000	No
1293	84.87	5.20	2.18	3.02	0.60	0.453	1.17	0.386	1.00	1.00	2.000	No
1294	84.94	5.21	2.18	3.02	0.60	0.453	1.17	0.386	1.00	1.00	2.000	No
1295	85.01	5.21	2.18	3.03	0.60	0.453	1.17	0.386	1.00	1.00	2.000	No
1296	85.07	5.21	2.19	3.03	0.59	0.453	1.17	0.385	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1297	85.13	5.22	2.19	3.03	0.59	0.453	1.17	0.385	1.00	1.00	2.000	No
1298	85.20	5.22	2.19	3.03	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1299	85.27	5.23	2.19	3.03	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1300	85.33	5.23	2.19	3.04	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1301	85.39	5.23	2.20	3.04	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1302	85.46	5.24	2.20	3.04	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1303	85.53	5.24	2.20	3.04	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1304	85.60	5.25	2.20	3.05	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1305	85.66	5.25	2.20	3.05	0.59	0.452	1.17	0.385	1.00	1.00	2.000	No
1306	85.73	5.26	2.21	3.05	0.59	0.452	1.17	0.384	1.00	1.00	2.000	No
1307	85.79	5.26	2.21	3.05	0.59	0.451	1.17	0.384	1.00	1.00	2.000	No
1308	85.86	5.26	2.21	3.05	0.59	0.451	1.17	0.384	1.00	1.00	2.000	No
1309	85.93	5.27	2.21	3.05	0.59	0.451	1.17	0.384	1.00	1.00	2.000	No
1310	85.99	5.27	2.21	3.05	0.59	0.451	1.17	0.384	1.00	1.00	2.000	No
1311	86.05	5.27	2.22	3.05	0.59	0.451	1.17	0.384	1.00	1.00	2.000	No
1312	86.12	5.27	2.22	3.06	0.59	0.451	1.17	0.384	1.00	1.00	2.000	No

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
σ_v: Total overburden pressure at test point (tsf)
u_0: Water pressure at test point (tsf)
σ_v': Effective overburden pressure based on GWT during earthquake (tsf)
r_d: Nonlinear shear mass factor
CSR: Cyclic Stress Ratio
MSF: Magnitude Scaling Factor
CSR_{eq}: CSR adjusted for M=7.5
K_σ: Effective overburden stress factor
CSR^*: CSR fully adjusted

:: Cyclic Resistance Ratio (CRR) calculation data ::

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1	0.07	7.94	81.00	2.72	0.59	1.70	9.75	0.00	9.75	4.000	No	Yes	2.00
2	0.13	27.70	23.36	2.00	0.64	1.70	18.75	31.29	50.04	4.000	No	No	2.00
3	0.20	56.60	0.00	1.61	0.49	1.70	104.99	0.00	104.99	4.000	No	No	2.00
4	0.27	82.71	0.00	1.42	0.40	1.70	149.05	0.00	149.05	4.000	No	No	2.00
5	0.33	86.41	0.00	1.40	0.41	1.70	144.63	0.00	144.63	4.000	No	No	2.00
6	0.40	82.11	0.00	1.44	0.45	1.70	122.83	0.00	122.83	4.000	No	No	2.00
7	0.47	78.79	0.00	1.47	0.44	1.70	128.32	0.00	128.32	4.000	No	No	2.00
8	0.54	78.70	0.00	1.48	0.44	1.70	128.63	0.00	128.63	4.000	No	No	2.00
9	0.60	75.85	0.00	1.49	0.45	1.70	122.38	0.00	122.38	4.000	No	No	2.00
10	0.66	70.82	0.00	1.51	0.47	1.70	114.60	0.00	114.60	4.000	No	No	2.00
11	0.72	64.97	0.00	1.55	0.49	1.70	104.38	0.00	104.38	4.000	No	No	2.00
12	0.80	58.84	0.00	1.60	0.51	1.70	94.18	0.00	94.18	4.000	No	No	2.00
13	0.87	52.80	0.00	1.67	0.53	1.70	85.04	0.00	85.04	4.000	No	No	2.00
14	0.93	47.14	2.68	1.75	0.56	1.70	75.29	0.00	75.29	4.000	No	No	2.00
15	0.99	40.38	11.24	1.85	0.55	1.70	66.90	9.92	76.82	4.000	No	No	2.00
16	1.06	34.81	21.22	1.98	0.53	1.70	52.42	32.96	85.38	4.000	No	No	2.00
17	1.13	30.23	32.01	2.11	0.51	1.70	48.46	47.19	95.65	4.000	No	No	2.00
18	1.19	26.53	41.75	2.23	0.50	1.70	44.81	53.81	98.62	4.000	No	No	2.00
19	1.25	23.75	49.42	2.33	0.52	1.70	34.59	54.94	89.53	4.000	No	No	2.00
20	1.32	21.47	55.51	2.41	0.52	1.70	35.06	57.23	92.29	4.000	No	No	2.00
21	1.38	21.30	56.04	2.41	0.52	1.70	33.84	57.07	90.90	4.000	No	No	2.00
22	1.46	21.03	55.87	2.41	0.52	1.70	33.76	56.99	90.75	4.000	No	No	2.00
23	1.52	20.99	54.59	2.39	0.52	1.70	33.76	56.58	90.34	4.000	No	No	2.00
24	1.58	21.58	51.81	2.36	0.52	1.70	33.68	55.61	89.28	4.000	No	No	2.00
25	1.64	23.11	47.10	2.30	0.52	1.70	36.57	54.47	91.04	4.000	No	No	2.00
26	1.71	25.89	40.20	2.21	0.51	1.70	41.15	51.97	93.12	4.000	No	No	2.00
27	1.77	30.10	30.89	2.10	0.51	1.70	47.09	45.77	92.86	4.000	No	No	2.00
28	1.86	35.00	21.40	1.98	0.52	1.70	56.84	33.95	90.80	4.000	No	No	2.00
29	1.92	40.19	12.26	1.87	0.55	1.70	64.76	12.56	77.32	4.000	No	No	2.00
30	1.98	44.83	4.46	1.77	0.57	1.70	72.09	0.05	72.14	4.000	No	No	2.00
31	2.05	48.82	0.00	1.68	0.55	1.70	79.24	0.00	79.24	4.000	No	No	2.00
32	2.11	51.72	0.00	1.63	0.54	1.70	83.96	0.00	83.96	4.000	No	No	2.00
33	2.17	53.27	0.00	1.60	0.53	1.70	86.10	0.00	86.10	4.000	No	No	2.00
34	2.23	53.37	0.00	1.60	0.53	1.70	86.71	0.00	86.71	4.000	No	No	2.00
35	2.30	51.82	0.00	1.63	0.53	1.70	84.43	0.00	84.43	4.000	No	No	2.00
36	2.38	49.04	0.00	1.70	0.55	1.70	78.63	0.00	78.63	4.000	No	No	2.00
37	2.44	45.24	6.00	1.79	0.56	1.70	73.29	0.55	73.84	4.000	No	No	2.00
38	2.50	41.10	14.17	1.89	0.54	1.70	66.15	17.94	84.09	4.000	No	No	2.00
39	2.57	36.87	23.92	2.01	0.50	1.70	58.67	38.71	97.39	4.000	No	No	2.00
40	2.63	33.26	33.97	2.14	0.49	1.70	52.87	50.00	102.88	4.000	No	No	2.00
41	2.70	30.86	42.65	2.25	0.49	1.70	48.76	55.31	104.07	4.000	No	No	2.00
42	2.76	28.58	50.61	2.35	0.49	1.70	47.09	58.73	105.82	4.000	No	No	2.00
43	2.84	27.13	56.19	2.41	0.50	1.70	41.90	59.33	101.23	4.000	No	No	2.00
44	2.90	25.96	60.46	2.47	0.49	1.70	41.76	60.55	102.31	4.000	No	No	2.00
45	2.96	25.74	62.07	2.49	0.49	1.70	41.45	60.89	102.34	4.000	No	No	2.00
46	3.03	25.64	63.17	2.50	0.49	1.70	40.84	61.00	101.84	4.000	No	No	2.00
47	3.09	25.96	63.40	2.51	0.49	1.70	41.31	61.18	102.49	4.000	No	No	2.00
48	3.15	27.00	62.31	2.49	0.49	1.70	42.98	61.38	104.36	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
49	3.21	28.61	60.29	2.47	0.48	1.70	45.87	61.66	107.53	4.000	No	No	2.00
50	3.30	30.45	58.05	2.44	0.47	1.70	49.07	61.89	110.96	4.000	No	No	2.00
51	3.37	32.37	55.93	2.41	0.47	1.70	51.81	61.97	113.79	4.000	No	No	2.00
52	3.43	34.46	53.83	2.39	0.46	1.70	55.17	62.15	117.32	4.000	No	No	2.00
53	3.50	36.58	51.93	2.36	0.45	1.70	59.12	62.48	121.60	4.000	No	No	2.00
54	3.56	38.50	50.47	2.34	0.45	1.70	62.03	62.64	124.67	4.000	No	No	2.00
55	3.62	40.01	49.57	2.33	0.44	1.70	64.46	62.89	127.34	4.000	No	No	2.00
56	3.68	41.27	49.00	2.32	0.44	1.70	66.45	63.15	129.60	4.000	No	No	2.00
57	3.74	42.28	48.72	2.32	0.44	1.70	68.12	63.45	131.58	4.000	No	No	2.00
58	3.81	43.42	48.45	2.32	0.43	1.70	69.34	63.64	132.98	4.000	No	No	2.00
59	3.89	44.77	47.95	2.31	0.43	1.70	71.93	64.07	136.00	4.000	No	No	2.00
60	3.95	46.16	47.38	2.30	0.42	1.70	74.68	64.49	139.17	4.000	No	No	2.00
61	4.02	47.17	47.05	2.30	0.42	1.70	76.04	64.67	140.71	4.000	No	No	2.00
62	4.08	47.51	47.33	2.30	0.42	1.70	76.81	65.02	141.84	4.000	No	No	2.00
63	4.15	47.10	48.27	2.32	0.42	1.70	76.35	65.39	141.73	4.000	No	No	2.00
64	4.21	45.99	49.72	2.33	0.42	1.70	74.07	65.49	139.56	4.000	No	No	2.00
65	4.28	44.72	50.92	2.35	0.43	1.70	71.48	65.35	136.83	4.000	No	No	2.00
66	4.34	43.91	51.30	2.35	0.43	1.70	70.26	65.19	135.45	4.000	No	No	2.00
67	4.40	43.53	51.05	2.35	0.43	1.70	70.18	65.06	135.24	4.000	No	No	2.00
68	4.47	43.49	50.49	2.34	0.43	1.70	69.65	64.67	134.32	4.000	No	No	2.00
69	4.53	43.66	49.74	2.33	0.43	1.70	70.10	64.45	134.55	4.000	No	No	2.00
70	4.61	43.88	49.13	2.33	0.43	1.70	71.01	64.41	135.42	4.000	No	No	2.00
71	4.68	43.62	48.14	2.31	0.43	1.70	70.71	63.85	134.55	4.000	No	No	2.00
72	4.74	42.74	45.24	2.28	0.44	1.70	68.88	61.85	130.73	4.000	No	No	2.00
73	4.80	41.63	42.22	2.24	0.44	1.70	66.76	59.52	126.28	4.000	No	No	2.00
74	4.86	40.06	41.11	2.23	0.45	1.70	65.37	58.46	123.83	4.000	No	No	2.00
75	4.92	38.28	44.50	2.27	0.46	1.70	61.26	59.50	120.76	4.000	No	No	2.00
76	4.99	36.04	48.98	2.32	0.46	1.70	58.21	60.97	119.18	4.000	No	No	2.00
77	5.07	34.06	53.27	2.38	0.46	1.70	54.56	61.77	116.34	4.000	No	No	2.00
78	5.13	32.48	56.88	2.42	0.47	1.70	51.67	62.24	113.91	4.000	No	No	2.00
79	5.19	31.59	59.11	2.45	0.47	1.70	50.59	62.64	113.23	4.000	No	No	2.00
80	5.26	30.67	61.16	2.48	0.47	1.70	50.29	63.14	113.43	4.000	No	No	2.00
81	5.32	29.10	63.57	2.51	0.48	1.70	47.24	62.91	110.15	4.000	No	No	2.00
82	5.41	27.14	66.23	2.54	0.49	1.70	42.98	62.33	105.31	4.000	No	No	2.00
83	5.48	25.15	68.70	2.57	0.49	1.70	40.84	62.25	103.09	4.000	No	No	2.00
84	5.54	23.72	70.48	2.59	0.50	1.70	37.64	61.68	99.32	4.000	No	No	2.00
85	5.58	22.46	71.29	2.60	0.50	1.70	36.12	0.00	36.12	4.000	No	Yes	2.00
86	5.68	21.70	70.91	2.60	0.51	1.70	34.75	60.92	95.67	4.000	No	No	2.00
87	5.74	21.29	69.73	2.58	0.51	1.70	33.98	60.46	94.44	4.000	No	No	2.00
88	5.78	21.83	67.43	2.56	0.51	1.70	34.14	60.05	94.19	4.000	No	No	2.00
89	5.85	22.97	64.33	2.52	0.50	1.70	37.34	60.28	97.62	4.000	No	No	2.00
90	5.92	23.32	63.09	2.50	0.50	1.70	39.48	60.59	100.06	4.000	No	No	2.00
91	5.99	22.28	64.84	2.52	0.51	1.70	35.81	59.96	95.77	4.000	No	No	2.00
92	6.05	20.62	67.69	2.56	0.52	1.70	32.31	59.57	91.88	4.000	No	No	2.00
93	6.13	18.90	70.38	2.59	0.52	1.70	31.39	59.83	91.23	4.000	No	No	2.00
94	6.19	17.45	72.13	2.61	0.53	1.70	27.43	0.00	27.43	4.000	No	Yes	2.00
95	6.26	15.88	74.06	2.64	0.54	1.70	25.30	0.00	25.30	4.000	No	Yes	2.00
96	6.33	15.00	74.06	2.64	0.54	1.70	23.78	0.00	23.78	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
97	6.37	14.40	72.81	2.62	0.54	1.70	23.17	0.00	23.17	4.000	No	Yes	2.00
98	6.44	14.08	70.95	2.60	0.55	1.70	22.40	57.31	79.71	4.000	No	No	2.00
99	6.51	13.95	68.72	2.57	0.55	1.70	22.25	56.86	79.11	4.000	No	No	2.00
100	6.57	14.02	67.18	2.55	0.55	1.70	22.56	56.65	79.21	4.000	No	No	2.00
101	6.64	14.11	66.60	2.55	0.55	1.70	22.70	56.58	79.28	4.000	No	No	2.00
102	6.71	14.17	66.98	2.55	0.55	1.70	22.70	56.65	79.35	4.000	No	No	2.00
103	6.78	14.23	68.04	2.56	0.55	1.70	22.86	56.91	79.77	4.000	No	No	2.00
104	6.86	14.29	69.19	2.58	0.55	1.70	23.01	57.17	80.18	4.000	No	No	2.00
105	6.89	14.32	70.36	2.59	0.55	1.70	23.01	57.38	80.39	4.000	No	No	2.00
106	6.97	14.36	71.03	2.60	0.54	1.70	23.01	0.00	23.01	4.000	No	Yes	2.00
107	7.03	14.39	71.51	2.61	0.54	1.70	23.12	0.00	23.12	4.000	No	Yes	2.00
108	7.10	14.42	71.55	2.61	0.54	1.69	23.00	0.00	23.00	4.000	No	Yes	2.00
109	7.17	14.33	71.65	2.61	0.54	1.68	22.90	0.00	22.90	4.000	No	Yes	2.00
110	7.24	14.20	71.44	2.61	0.55	1.67	22.36	0.00	22.36	4.000	No	Yes	2.00
111	7.31	14.07	70.90	2.60	0.55	1.67	22.14	57.23	79.36	4.000	No	No	2.00
112	7.38	14.11	66.27	2.54	0.55	1.66	22.08	56.33	78.41	4.000	No	No	2.00
113	7.45	14.17	60.19	2.46	0.55	1.66	22.33	55.02	77.36	4.000	No	No	2.00
114	7.48	14.27	54.63	2.40	0.56	1.66	22.36	53.49	75.85	4.000	No	No	2.00
115	7.55	14.23	57.08	2.43	0.56	1.65	22.37	54.21	76.57	4.000	No	No	2.00
116	7.64	14.17	60.74	2.47	0.55	1.64	21.90	55.04	76.94	4.000	No	No	2.00
117	7.68	14.08	63.33	2.50	0.55	1.64	21.70	55.59	77.28	4.000	No	No	2.00
118	7.75	13.90	65.08	2.53	0.55	1.63	21.59	55.94	77.53	4.000	No	No	2.00
119	7.81	13.62	67.36	2.55	0.55	1.62	20.86	56.19	77.05	4.000	No	No	2.00
120	7.88	13.81	68.03	2.56	0.56	1.62	20.14	56.12	76.26	4.000	No	No	2.00
121	7.95	14.42	67.59	2.56	0.55	1.60	22.11	56.60	78.71	4.000	No	No	2.00
122	8.02	15.37	67.25	2.55	0.55	1.59	23.22	56.85	80.07	4.000	No	No	2.00
123	8.08	15.94	68.32	2.57	0.54	1.58	23.91	57.26	81.17	4.000	No	No	2.00
124	8.15	16.16	69.95	2.59	0.54	1.57	24.18	57.65	81.83	4.000	No	No	2.00
125	8.23	16.09	71.30	2.60	0.54	1.56	23.81	0.00	23.81	4.000	No	Yes	2.00
126	8.29	16.05	72.27	2.62	0.54	1.56	23.31	0.00	23.31	4.000	No	Yes	2.00
127	8.36	15.79	73.66	2.63	0.54	1.55	23.72	0.00	23.72	4.000	No	Yes	2.00
128	8.43	15.95	72.55	2.62	0.55	1.55	22.47	0.00	22.47	4.000	No	Yes	2.00
129	8.50	16.21	70.36	2.59	0.54	1.54	23.68	57.58	81.26	4.000	No	No	2.00
130	8.53	16.75	66.86	2.55	0.54	1.53	24.57	57.17	81.74	4.000	No	No	2.00
131	8.60	16.78	66.24	2.54	0.54	1.53	24.48	57.01	81.50	4.000	No	No	2.00
132	8.68	16.80	66.26	2.54	0.55	1.52	23.61	56.77	80.38	4.000	No	No	2.00
133	8.74	16.64	67.52	2.56	0.54	1.51	24.34	57.23	81.58	4.000	No	No	2.00
134	8.81	16.86	67.71	2.56	0.54	1.51	23.53	57.04	80.57	4.000	No	No	2.00
135	8.88	16.97	68.60	2.57	0.54	1.50	24.19	57.40	81.60	4.000	No	No	2.00
136	8.96	17.16	69.18	2.58	0.54	1.49	24.48	57.59	82.07	4.000	No	No	2.00
137	9.02	17.13	70.12	2.59	0.54	1.49	23.99	57.63	81.62	4.000	No	No	2.00
138	9.06	16.91	71.53	2.61	0.54	1.48	23.82	0.00	23.82	4.000	No	Yes	2.00
139	9.13	16.78	72.76	2.62	0.54	1.48	23.33	0.00	23.33	4.000	No	Yes	2.00
140	9.20	16.69	73.66	2.63	0.54	1.47	23.23	0.00	23.23	4.000	No	Yes	2.00
141	9.27	16.78	73.56	2.63	0.54	1.47	23.14	0.00	23.14	4.000	No	Yes	2.00
142	9.34	17.01	72.64	2.62	0.54	1.46	23.44	0.00	23.44	4.000	No	Yes	2.00
143	9.41	17.30	71.47	2.61	0.54	1.45	23.85	0.00	23.85	4.000	No	Yes	2.00
144	9.48	17.52	70.61	2.60	0.54	1.45	24.01	57.72	81.74	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
145	9.52	17.61	70.18	2.59	0.54	1.44	24.09	57.67	81.76	4.000	No	No	2.00
146	9.59	17.70	69.90	2.59	0.54	1.44	24.00	57.59	81.59	4.000	No	No	2.00
147	9.65	17.70	69.89	2.59	0.54	1.43	24.17	57.64	81.80	4.000	No	No	2.00
148	9.72	17.23	71.18	2.60	0.54	1.43	23.82	0.00	23.82	4.000	No	Yes	2.00
149	9.79	16.47	73.54	2.63	0.55	1.43	21.90	0.00	21.90	4.000	No	Yes	2.00
150	9.86	15.62	76.24	2.67	0.55	1.43	20.96	0.00	20.96	4.000	No	Yes	2.00
151	9.93	15.15	77.94	2.69	0.55	1.42	20.26	0.00	20.26	4.000	No	Yes	2.00
152	10.00	15.24	78.10	2.69	0.55	1.42	19.82	0.00	19.82	4.000	No	Yes	2.00
153	10.08	15.04	79.30	2.70	0.55	1.41	21.02	0.00	21.02	4.000	No	Yes	2.00
154	10.15	14.62	80.79	2.72	0.55	1.41	19.25	0.00	19.25	4.000	No	Yes	2.00
155	10.22	13.67	83.06	2.75	0.56	1.40	17.97	0.00	17.97	4.000	No	Yes	2.00
156	10.29	13.14	83.53	2.76	0.56	1.40	17.18	0.00	17.18	4.000	No	Yes	2.00
157	10.33	12.92	82.69	2.75	0.56	1.40	17.02	0.00	17.02	4.000	No	Yes	2.00
158	10.40	13.01	80.93	2.72	0.56	1.39	16.97	0.00	16.97	4.000	No	Yes	2.00
159	10.47	13.11	78.83	2.70	0.56	1.39	17.39	0.00	17.39	4.000	No	Yes	2.00
160	10.54	13.14	76.88	2.67	0.56	1.39	17.23	0.00	17.23	4.000	No	Yes	2.00
161	10.62	12.99	76.16	2.66	0.56	1.38	16.93	0.00	16.93	4.000	No	Yes	2.00
162	10.69	12.83	76.25	2.67	0.56	1.38	16.63	0.00	16.63	4.000	No	Yes	2.00
163	10.72	12.77	76.53	2.67	0.57	1.37	16.48	0.00	16.48	4.000	No	Yes	2.00
164	10.79	12.64	77.18	2.68	0.56	1.37	16.54	0.00	16.54	4.000	No	Yes	2.00
165	10.87	12.67	77.43	2.68	0.57	1.37	16.01	0.00	16.01	4.000	No	Yes	2.00
166	10.94	12.80	77.45	2.68	0.57	1.36	16.43	0.00	16.43	4.000	No	Yes	2.00
167	10.99	13.34	76.24	2.67	0.56	1.36	16.87	0.00	16.87	4.000	No	Yes	2.00
168	11.07	13.87	75.13	2.65	0.56	1.35	17.86	0.00	17.86	4.000	No	Yes	2.00
169	11.14	14.31	73.98	2.64	0.56	1.34	18.27	0.00	18.27	4.000	No	Yes	2.00
170	11.21	14.57	72.97	2.62	0.56	1.34	18.32	0.00	18.32	4.000	No	Yes	2.00
171	11.25	15.04	70.53	2.59	0.56	1.34	18.66	56.14	74.80	4.000	No	No	2.00
172	11.32	15.83	66.90	2.55	0.56	1.33	19.88	55.82	75.70	4.000	No	No	2.00
173	11.39	16.56	63.05	2.50	0.56	1.32	21.09	55.35	76.44	4.000	No	No	2.00
174	11.47	16.66	61.42	2.48	0.56	1.32	21.15	54.99	76.15	4.000	No	No	2.00
175	11.54	16.25	62.45	2.49	0.56	1.32	20.06	54.92	74.98	4.000	No	No	2.00
176	11.57	15.49	64.46	2.52	0.56	1.32	19.44	55.19	74.63	4.000	No	No	2.00
177	11.64	15.01	67.72	2.56	0.56	1.31	18.22	55.50	73.72	4.000	No	No	2.00
178	11.72	14.70	71.55	2.61	0.56	1.31	18.14	0.00	18.14	4.000	No	Yes	2.00
179	11.79	15.42	73.93	2.64	0.56	1.30	18.08	0.00	18.08	4.000	No	Yes	2.00
180	11.86	17.39	72.27	2.62	0.55	1.29	20.62	0.00	20.62	4.000	No	Yes	2.00
181	11.93	20.17	68.12	2.56	0.54	1.28	24.91	57.52	82.43	4.000	No	No	2.00
182	11.97	24.03	62.08	2.49	0.53	1.28	27.79	57.03	84.81	4.000	No	No	2.00
183	12.04	29.02	53.02	2.38	0.52	1.27	33.99	56.12	90.11	4.000	No	No	2.00
184	12.12	35.50	40.07	2.21	0.51	1.26	42.19	52.15	94.33	4.000	No	No	2.00
185	12.19	42.66	27.01	2.05	0.52	1.25	50.35	41.83	92.19	4.000	No	No	2.00
186	12.26	48.53	18.09	1.94	0.53	1.26	59.40	27.30	86.70	4.000	No	No	2.00
187	12.30	53.86	14.91	1.90	0.54	1.26	63.37	19.71	83.08	4.000	No	No	2.00
188	12.38	57.29	14.40	1.89	0.53	1.25	69.12	18.79	87.91	4.000	No	No	2.00
189	12.45	58.63	16.72	1.92	0.51	1.24	70.52	25.17	95.69	4.000	No	No	2.00
190	12.51	58.54	20.95	1.97	0.50	1.23	66.45	34.47	100.92	4.000	No	No	2.00
191	12.57	56.88	26.22	2.04	0.48	1.22	66.83	43.76	110.59	4.000	No	No	2.00
192	12.64	55.45	30.15	2.09	0.47	1.21	63.32	48.28	111.61	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
193	12.70	52.22	34.32	2.14	0.47	1.21	60.43	51.99	112.43	4.000	No	No	2.00
194	12.77	48.77	38.21	2.19	0.48	1.21	55.35	54.02	109.37	4.000	No	No	2.00
195	12.83	46.07	41.72	2.23	0.48	1.21	51.32	55.40	106.72	4.000	No	No	2.00
196	12.90	44.86	43.97	2.26	0.48	1.20	50.99	56.61	107.60	4.000	No	No	2.00
197	12.97	44.76	44.73	2.27	0.48	1.20	50.84	56.98	107.82	4.000	No	No	2.00
198	13.04	46.54	42.85	2.25	0.48	1.20	50.59	55.88	106.47	4.000	No	No	2.00
199	13.11	49.31	39.58	2.21	0.47	1.19	56.42	55.25	111.68	4.000	No	No	2.00
200	13.15	53.13	35.00	2.15	0.47	1.19	59.62	52.43	112.05	4.000	No	No	2.00
201	13.22	56.13	31.68	2.11	0.47	1.18	62.83	49.89	112.73	4.000	No	No	2.00
202	13.29	58.72	29.31	2.08	0.47	1.18	65.99	47.81	113.80	4.000	No	No	2.00
203	13.37	60.02	28.71	2.07	0.47	1.17	67.65	47.37	115.02	4.000	No	No	2.00
204	13.44	59.95	29.28	2.08	0.47	1.17	66.55	47.89	114.44	4.000	No	No	2.00
205	13.48	58.78	30.71	2.10	0.47	1.17	65.29	49.33	114.63	4.000	No	No	2.00
206	13.55	57.64	32.50	2.12	0.47	1.17	63.36	50.86	114.22	4.000	No	No	2.00
207	13.63	56.77	34.69	2.15	0.47	1.16	62.32	52.75	115.07	4.000	No	No	2.00
208	13.70	57.06	36.41	2.17	0.46	1.16	61.82	54.13	115.95	4.000	No	No	2.00
209	13.77	58.55	36.93	2.17	0.46	1.15	63.63	54.97	118.60	4.000	No	No	2.00
210	13.80	63.20	34.80	2.15	0.46	1.15	66.58	53.80	120.38	4.000	No	No	2.00
211	13.88	70.49	30.71	2.10	0.44	1.14	76.08	51.56	127.63	4.000	No	No	2.00
212	13.95	80.19	25.43	2.03	0.43	1.14	86.30	46.00	132.30	4.000	No	No	2.00
213	14.03	90.45	20.16	1.96	0.43	1.13	96.81	36.95	133.75	4.000	No	No	2.00
214	14.10	99.40	15.89	1.91	0.43	1.13	108.19	26.52	134.72	4.000	No	No	2.00
215	14.14	109.10	11.55	1.86	0.44	1.13	114.75	12.88	127.64	4.000	No	No	2.00
216	14.21	118.93	7.42	1.81	0.44	1.13	127.51	2.34	129.85	4.000	No	No	2.00
217	14.28	129.06	3.32	1.75	0.42	1.12	138.63	0.00	138.63	4.000	No	No	2.00
218	14.35	136.30	0.30	1.72	0.41	1.12	145.01	0.00	145.01	4.000	No	No	2.00
219	14.43	140.53	0.00	1.69	0.41	1.11	148.26	0.00	148.26	4.000	No	No	2.00
220	14.47	144.57	0.00	1.67	0.40	1.11	150.34	0.00	150.34	4.000	No	No	2.00
221	14.54	149.98	0.00	1.65	0.39	1.11	156.10	0.00	156.10	4.000	No	No	2.00
222	14.61	157.03	0.00	1.63	0.38	1.10	163.40	0.00	163.40	4.000	No	No	2.00
223	14.68	163.12	0.00	1.62	0.37	1.09	170.12	0.00	170.12	4.000	No	No	2.00
224	14.76	166.68	0.00	1.60	0.37	1.09	173.04	0.00	173.04	4.000	No	No	2.00
225	14.79	167.28	0.00	1.58	0.37	1.09	173.06	0.00	173.06	4.000	No	No	2.00
226	14.87	165.52	0.00	1.57	0.37	1.09	171.07	0.00	171.07	4.000	No	No	2.00
227	14.94	162.34	0.00	1.56	0.38	1.09	167.06	0.00	167.06	4.000	No	No	2.00
228	15.01	159.09	0.00	1.58	0.38	1.09	162.80	0.00	162.80	0.403	No	No	1.13
229	15.05	156.03	0.00	1.61	0.39	1.09	160.88	0.00	160.88	0.381	No	No	1.06
230	15.13	154.45	0.00	1.64	0.39	1.09	157.58	0.00	157.58	0.348	No	No	0.96
231	15.20	152.71	0.00	1.69	0.39	1.09	157.79	0.00	157.79	0.350	No	No	0.97
232	15.28	152.96	0.00	1.71	0.39	1.09	155.32	0.00	155.32	0.328	No	No	0.90
233	15.35	152.61	1.26	1.73	0.39	1.08	157.85	0.00	157.85	0.351	No	No	0.96
234	15.38	150.65	1.96	1.74	0.39	1.08	156.38	0.00	156.38	0.337	No	No	0.92
235	15.46	149.76	1.73	1.73	0.40	1.09	149.19	0.00	149.19	0.284	No	No	0.76
236	15.53	156.43	0.20	1.71	0.40	1.08	154.87	0.00	154.87	0.325	No	No	0.88
237	15.61	179.44	0.00	1.65	0.36	1.08	175.33	0.00	175.33	0.608	No	No	1.74
238	15.68	203.84	0.00	1.60	0.31	1.06	215.29	0.00	215.29	4.000	No	No	2.00
239	15.71	225.30	0.00	1.55	0.30	1.06	224.86	0.00	224.86	4.000	No	No	2.00
240	15.79	232.70	0.00	1.54	0.28	1.06	236.48	0.00	236.48	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
241	15.86	231.03	0.00	1.58	0.28	1.06	235.95	0.00	235.95	4.000	No	No	2.00
242	15.93	218.82	0.00	1.69	0.30	1.06	219.56	0.00	219.56	4.000	No	No	2.00
243	16.00	202.32	6.85	1.80	0.33	1.06	201.02	1.88	202.90	2.237	No	No	2.00
244	16.04	181.84	13.53	1.88	0.31	1.06	187.24	24.30	211.54	3.868	No	No	2.00
245	16.11	153.86	19.88	1.96	0.33	1.06	158.37	44.52	202.89	2.235	No	No	2.00
246	16.19	121.18	28.45	2.07	0.37	1.07	117.38	56.73	174.10	0.581	No	No	1.63
247	16.26	93.81	38.18	2.19	0.40	1.07	90.18	62.21	152.39	0.305	No	No	0.81
248	16.30	72.88	46.72	2.30	0.42	1.07	77.11	64.77	141.88	0.243	No	No	0.63
249	16.37	57.53	52.41	2.37	0.46	1.08	54.86	61.52	116.38	0.164	No	No	0.40
250	16.45	45.30	55.63	2.41	0.49	1.09	44.04	59.74	103.78	0.143	No	No	0.35
251	16.52	40.44	51.85	2.36	0.50	1.09	40.29	57.40	97.69	0.135	No	No	0.32
252	16.59	39.18	47.61	2.31	0.51	1.09	40.08	55.62	95.70	0.132	No	No	0.32
253	16.63	38.97	44.89	2.27	0.51	1.09	40.18	54.36	94.54	0.131	No	No	0.31
254	16.70	38.37	44.93	2.27	0.51	1.09	39.57	54.22	93.79	0.130	No	No	0.31
255	16.78	37.80	45.32	2.28	0.52	1.08	38.18	54.06	92.25	0.128	No	No	0.30
256	16.85	37.49	45.78	2.28	0.51	1.08	38.33	54.32	92.65	0.129	No	No	0.30
257	16.92	37.81	45.76	2.28	0.51	1.08	38.48	54.35	92.83	0.129	No	No	0.30
258	16.96	38.63	45.72	2.28	0.51	1.08	39.04	54.47	93.51	0.130	No	No	0.31
259	17.03	40.03	45.50	2.28	0.51	1.08	40.71	54.80	95.51	0.132	No	No	0.31
260	17.11	42.43	44.09	2.26	0.50	1.08	42.57	54.56	97.13	0.134	No	No	0.32
261	17.18	44.93	42.18	2.24	0.50	1.08	46.15	54.39	100.54	0.138	No	No	0.33
262	17.22	47.55	40.16	2.21	0.49	1.07	48.12	53.64	101.76	0.140	No	No	0.33
263	17.29	50.17	39.04	2.20	0.49	1.07	50.36	53.43	103.79	0.143	No	No	0.34
264	17.36	52.61	39.07	2.20	0.48	1.07	53.88	54.29	108.17	0.149	No	No	0.36
265	17.43	55.26	39.31	2.20	0.48	1.07	55.22	54.78	110.01	0.152	No	No	0.36
266	17.51	57.53	39.33	2.20	0.47	1.07	58.07	55.48	113.55	0.158	No	No	0.38
267	17.55	60.75	38.36	2.19	0.46	1.07	60.49	55.35	115.84	0.163	No	No	0.39
268	17.62	63.24	38.39	2.19	0.45	1.06	64.62	56.35	120.97	0.174	No	No	0.42
269	17.69	64.68	38.47	2.19	0.45	1.06	65.30	56.57	121.87	0.176	No	No	0.42
270	17.76	65.11	36.96	2.17	0.46	1.06	64.61	55.22	119.83	0.171	No	No	0.41
271	17.84	65.92	34.19	2.14	0.46	1.06	65.79	53.06	118.85	0.169	No	No	0.40
272	17.88	68.08	31.09	2.10	0.46	1.06	67.67	50.26	117.93	0.167	No	No	0.40
273	17.95	71.99	29.19	2.08	0.46	1.06	70.98	48.65	119.64	0.171	No	No	0.41
274	18.02	77.91	25.90	2.04	0.45	1.06	77.30	45.16	122.46	0.177	No	No	0.42
275	18.09	84.41	22.06	1.99	0.45	1.05	85.13	39.51	124.63	0.183	No	No	0.44
276	18.15	90.85	18.05	1.94	0.45	1.05	90.23	30.82	121.05	0.174	No	No	0.41
277	18.23	95.23	15.46	1.91	0.46	1.05	96.38	24.12	120.50	0.173	No	No	0.41
278	18.29	98.50	14.09	1.89	0.46	1.05	98.13	20.08	118.20	0.168	No	No	0.40
279	18.37	99.81	14.43	1.89	0.45	1.05	99.75	21.25	121.01	0.174	No	No	0.41
280	18.41	100.19	16.20	1.91	0.44	1.05	99.96	26.68	126.64	0.188	No	No	0.45
281	18.48	99.33	19.11	1.95	0.43	1.05	98.70	34.60	133.31	0.208	No	No	0.50
282	18.55	97.49	22.70	2.00	0.42	1.04	96.62	42.61	139.23	0.231	No	No	0.56
283	18.62	95.24	26.11	2.04	0.42	1.04	93.95	48.51	142.46	0.246	No	No	0.60
284	18.69	93.15	28.76	2.07	0.41	1.04	91.59	52.15	143.74	0.252	No	No	0.62
285	18.73	91.16	30.97	2.10	0.41	1.04	90.13	54.79	144.92	0.259	No	No	0.63
286	18.80	89.89	32.39	2.12	0.41	1.04	87.83	55.99	143.82	0.253	No	No	0.62
287	18.88	88.72	33.66	2.13	0.41	1.04	87.63	57.34	144.97	0.259	No	No	0.63
288	18.95	88.24	34.28	2.14	0.41	1.04	86.43	57.73	144.16	0.255	No	No	0.62

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
289	19.02	88.08	34.55	2.14	0.41	1.04	86.16	57.94	144.11	0.254	No	No	0.62
290	19.06	88.56	34.29	2.14	0.41	1.04	86.95	57.85	144.81	0.258	No	No	0.63
291	19.13	89.41	33.91	2.14	0.41	1.04	87.61	57.60	145.20	0.260	No	No	0.63
292	19.21	90.19	33.69	2.13	0.41	1.03	88.43	57.56	145.99	0.264	No	No	0.64
293	19.28	90.85	33.52	2.13	0.41	1.03	88.99	57.50	146.49	0.267	No	No	0.65
294	19.32	91.64	32.96	2.12	0.41	1.03	89.32	56.96	146.28	0.266	No	No	0.65
295	19.39	92.27	32.25	2.12	0.41	1.03	90.52	56.40	146.92	0.270	No	No	0.66
296	19.46	92.84	31.66	2.11	0.41	1.03	90.63	55.73	146.35	0.267	No	No	0.65
297	19.54	93.47	31.29	2.10	0.41	1.03	90.73	55.31	146.04	0.265	No	No	0.64
298	19.61	94.19	29.85	2.09	0.41	1.03	92.12	53.76	145.88	0.264	No	No	0.64
299	19.64	95.33	25.05	2.03	0.42	1.03	92.61	46.44	139.06	0.231	No	No	0.55
300	19.72	96.18	19.04	1.95	0.44	1.03	94.04	33.83	127.87	0.191	No	No	0.45
301	19.79	97.13	14.76	1.90	0.46	1.03	94.73	21.87	116.60	0.164	No	No	0.38
302	19.87	98.18	15.67	1.91	0.46	1.03	95.33	24.66	119.99	0.171	No	No	0.39
303	19.94	98.96	17.57	1.93	0.44	1.03	96.82	30.27	127.09	0.189	No	No	0.44
304	19.98	96.85	20.35	1.97	0.43	1.03	96.60	37.39	133.99	0.211	No	No	0.49
305	20.04	100.32	19.91	1.96	0.45	1.03	88.90	35.29	124.19	0.181	No	No	0.42
306	20.14	105.38	18.61	1.95	0.42	1.02	106.52	34.26	140.78	0.238	No	No	0.56
307	20.18	117.11	14.42	1.89	0.43	1.02	111.03	22.10	133.13	0.208	No	No	0.49
308	20.25	126.40	11.85	1.86	0.43	1.02	122.53	14.21	136.74	0.221	No	No	0.52
309	20.32	137.11	9.35	1.83	0.42	1.02	133.17	6.75	139.92	0.234	No	No	0.55
310	20.39	146.69	7.84	1.81	0.41	1.02	141.58	3.23	144.80	0.258	No	No	0.61
311	20.47	154.02	6.96	1.80	0.40	1.02	149.67	1.78	151.46	0.299	No	No	0.72
312	20.50	162.69	5.63	1.78	0.40	1.02	153.86	0.47	154.33	0.320	No	No	0.78
313	20.58	173.75	2.86	1.75	0.38	1.02	165.98	0.00	165.98	0.443	No	No	1.10
314	20.65	189.18	0.00	1.69	0.36	1.01	180.86	0.00	180.86	0.753	No	No	1.95
315	20.72	203.05	0.00	1.63	0.33	1.01	197.35	0.00	197.35	1.635	No	No	2.00
316	20.76	216.43	0.00	1.57	0.32	1.01	205.09	0.00	205.09	2.551	No	No	2.00
317	20.83	227.74	0.00	1.53	0.31	1.01	218.50	0.00	218.50	4.000	No	No	2.00
318	20.91	240.57	0.00	1.49	0.29	1.01	229.11	0.00	229.11	4.000	No	No	2.00
319	20.98	252.08	0.00	1.46	0.28	1.01	241.06	0.00	241.06	4.000	No	No	2.00
320	21.05	260.90	0.00	1.44	0.27	1.01	250.68	0.00	250.68	4.000	No	No	2.00
321	21.09	266.36	0.00	1.42	0.26	1.01	253.73	0.00	253.73	4.000	No	No	2.00
322	21.16	268.13	0.00	1.42	0.26	1.01	256.19	0.00	256.19	4.000	No	No	2.00
323	21.23	268.96	0.00	1.41	0.26	1.01	255.33	0.00	255.33	4.000	No	No	2.00
324	21.31	269.34	0.00	1.41	0.26	1.00	255.62	0.00	255.62	4.000	No	No	2.00
325	21.38	270.06	0.00	1.41	0.26	1.00	256.82	0.00	256.82	4.000	No	No	2.00
326	21.42	269.27	0.00	1.41	0.26	1.00	257.01	0.00	257.01	4.000	No	No	2.00
327	21.49	264.66	0.00	1.42	0.26	1.00	253.00	0.00	253.00	4.000	No	No	2.00
328	21.56	254.83	0.00	1.44	0.28	1.00	243.35	0.00	243.35	4.000	No	No	2.00
329	21.64	239.78	0.00	1.47	0.29	1.00	228.68	0.00	228.68	4.000	No	No	2.00
330	21.71	224.61	0.00	1.51	0.32	1.00	209.90	0.00	209.90	3.464	No	No	2.00
331	21.75	208.36	0.00	1.55	0.33	1.00	199.96	0.00	199.96	1.887	No	No	2.00
332	21.82	193.10	0.00	1.60	0.35	1.00	182.25	0.00	182.25	0.797	No	No	2.00
333	21.89	176.37	0.00	1.66	0.38	1.00	166.25	0.00	166.25	0.447	No	No	1.09
334	21.96	161.14	1.81	1.74	0.40	1.00	152.13	0.00	152.13	0.304	No	No	0.72
335	22.04	149.06	7.41	1.81	0.42	1.00	138.66	2.41	141.06	0.239	No	No	0.55
336	22.07	138.41	12.28	1.87	0.41	1.00	131.72	16.16	147.87	0.275	No	No	0.64

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
337	22.15	132.12	14.70	1.90	0.41	1.00	121.67	23.88	145.55	0.262	No	No	0.61
338	22.22	127.88	16.89	1.92	0.40	1.00	120.60	30.87	151.47	0.299	No	No	0.70
339	22.30	125.89	19.05	1.95	0.39	1.00	119.43	37.05	156.48	0.338	No	No	0.80
340	22.37	126.97	20.21	1.97	0.39	0.99	115.76	39.67	155.43	0.329	No	No	0.78
341	22.40	133.61	18.34	1.94	0.39	0.99	123.39	35.53	158.92	0.361	No	No	0.86
342	22.47	147.58	12.46	1.87	0.40	0.99	137.88	17.12	155.00	0.326	No	No	0.77
343	22.55	164.96	4.63	1.77	0.40	0.99	154.84	0.10	154.94	0.325	No	No	0.77
344	22.61	181.34	0.00	1.67	0.37	0.99	172.05	0.00	172.05	0.540	No	No	1.33
345	22.69	192.24	0.00	1.60	0.35	0.99	183.72	0.00	183.72	0.848	No	No	2.00
346	22.76	196.63	0.00	1.57	0.35	0.99	185.28	0.00	185.28	0.907	No	No	2.00
347	22.80	195.05	0.00	1.57	0.35	0.99	184.14	0.00	184.14	0.863	No	No	2.00
348	22.87	190.63	0.00	1.58	0.36	0.99	178.92	0.00	178.92	0.696	No	No	1.74
349	22.94	184.66	0.00	1.61	0.37	0.99	172.44	0.00	172.44	0.548	No	No	1.34
350	23.01	179.57	0.00	1.63	0.38	0.99	166.86	0.00	166.86	0.455	No	No	1.10
351	23.09	176.50	0.00	1.64	0.38	0.99	164.14	0.00	164.14	0.419	No	No	1.00
352	23.13	175.08	0.00	1.64	0.38	0.99	163.45	0.00	163.45	0.410	No	No	0.98
353	23.20	174.16	0.00	1.63	0.38	0.99	162.51	0.00	162.51	0.399	No	No	0.95
354	23.27	173.24	0.00	1.62	0.39	0.98	161.23	0.00	161.23	0.385	No	No	0.91
355	23.35	172.49	0.00	1.62	0.39	0.98	160.48	0.00	160.48	0.377	No	No	0.89
356	23.39	172.14	0.00	1.62	0.39	0.98	160.06	0.00	160.06	0.372	No	No	0.88
357	23.46	171.61	0.00	1.61	0.39	0.98	159.93	0.00	159.93	0.371	No	No	0.88
358	23.53	170.09	0.00	1.61	0.39	0.98	158.65	0.00	158.65	0.358	No	No	0.84
359	23.60	167.18	0.00	1.62	0.39	0.98	155.42	0.00	155.42	0.329	No	No	0.77
360	23.68	163.89	0.00	1.63	0.40	0.98	151.37	0.00	151.37	0.298	No	No	0.69
361	23.71	160.44	0.00	1.64	0.40	0.98	149.09	0.00	149.09	0.283	No	No	0.65
362	23.79	157.41	0.00	1.66	0.41	0.98	145.42	0.00	145.42	0.261	No	No	0.59
363	23.86	154.18	0.00	1.69	0.42	0.98	142.54	0.00	142.54	0.246	No	No	0.56
364	23.93	151.81	0.03	1.71	0.42	0.98	139.67	0.00	139.67	0.233	No	No	0.52
365	24.01	149.95	1.68	1.73	0.42	0.98	138.40	0.00	138.40	0.228	No	No	0.51
366	24.04	148.56	2.71	1.75	0.43	0.97	137.01	0.00	137.01	0.222	No	No	0.50
367	24.12	146.88	3.09	1.75	0.43	0.97	135.48	0.00	135.48	0.216	No	No	0.48
368	24.19	145.14	3.14	1.75	0.43	0.97	133.41	0.00	133.42	0.209	No	No	0.46
369	24.26	143.75	3.05	1.75	0.43	0.97	131.80	0.00	131.80	0.203	No	No	0.45
370	24.34	143.15	3.03	1.75	0.44	0.97	131.24	0.00	131.24	0.202	No	No	0.44
371	24.37	143.50	3.36	1.75	0.44	0.97	131.45	0.00	131.45	0.202	No	No	0.45
372	24.45	144.26	3.82	1.76	0.43	0.97	132.48	0.01	132.49	0.206	No	No	0.45
373	24.52	145.24	2.96	1.75	0.43	0.97	133.08	0.00	133.08	0.208	No	No	0.46
374	24.59	145.65	0.67	1.72	0.43	0.97	133.84	0.00	133.84	0.210	No	No	0.46
375	24.66	145.58	0.00	1.69	0.43	0.97	133.29	0.00	133.29	0.208	No	No	0.46
376	24.70	145.01	0.00	1.70	0.43	0.97	132.61	0.00	132.61	0.206	No	No	0.45
377	24.78	144.60	0.59	1.72	0.43	0.97	131.97	0.00	131.97	0.204	No	No	0.45
378	24.85	144.42	2.06	1.74	0.43	0.96	131.86	0.00	131.86	0.204	No	No	0.45
379	24.92	141.57	3.34	1.75	0.43	0.96	131.75	0.00	131.75	0.203	No	No	0.45
380	24.97	140.12	3.75	1.76	0.45	0.96	123.75	0.01	123.76	0.180	No	No	0.39
381	25.05	138.95	4.42	1.77	0.44	0.96	127.51	0.06	127.57	0.190	No	No	0.41
382	25.12	140.78	4.45	1.77	0.44	0.96	128.19	0.06	128.25	0.192	No	No	0.42
383	25.16	142.11	5.68	1.78	0.44	0.96	128.58	0.46	129.04	0.195	No	No	0.42
384	25.23	144.13	6.99	1.80	0.43	0.96	130.96	1.71	132.67	0.206	No	No	0.45

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
385	25.30	147.61	7.72	1.81	0.43	0.96	133.61	2.91	136.52	0.220	No	No	0.48
386	25.37	152.04	7.02	1.80	0.42	0.96	137.96	1.80	139.76	0.234	No	No	0.52
387	25.45	157.32	5.07	1.78	0.41	0.96	142.91	0.20	143.12	0.249	No	No	0.56
388	25.52	161.96	2.99	1.75	0.41	0.96	147.91	0.00	147.91	0.276	No	No	0.62
389	25.56	167.72	1.24	1.73	0.40	0.96	150.58	0.00	150.58	0.293	No	No	0.66
390	25.63	176.09	0.00	1.71	0.39	0.96	158.67	0.00	158.67	0.358	No	No	0.83
391	25.70	189.34	0.00	1.68	0.37	0.96	171.02	0.00	171.02	0.522	No	No	1.24
392	25.78	202.68	0.00	1.65	0.35	0.96	187.29	0.00	187.29	0.992	No	No	2.00
393	25.82	217.00	0.00	1.60	0.34	0.96	195.76	0.00	195.76	1.502	No	No	2.00
394	25.89	231.48	0.00	1.55	0.32	0.97	210.94	0.00	210.94	3.714	No	No	2.00
395	25.97	249.97	0.00	1.48	0.29	0.97	227.78	0.00	227.78	4.000	No	No	2.00
396	26.04	266.56	0.00	1.43	0.27	0.97	247.62	0.00	247.62	4.000	No	No	2.00
397	26.08	283.22	0.00	1.39	0.26	0.97	257.50	0.00	257.50	4.000	No	No	2.00
398	26.15	297.95	0.00	1.38	0.26	0.97	274.05	0.00	274.05	4.000	No	No	2.00
399	26.23	312.17	0.00	1.37	0.26	0.97	287.96	0.00	287.96	4.000	No	No	2.00
400	26.30	320.87	0.00	1.38	0.26	0.97	296.15	0.00	296.15	4.000	No	No	2.00
401	26.34	323.14	0.00	1.39	0.26	0.97	297.54	0.00	297.54	4.000	No	No	2.00
402	26.41	318.91	0.00	1.41	0.26	0.97	293.84	0.00	293.84	4.000	No	No	2.00
403	26.49	312.17	0.00	1.43	0.26	0.97	284.12	0.00	284.12	4.000	No	No	2.00
404	26.55	306.27	0.00	1.45	0.26	0.97	278.63	0.00	278.63	4.000	No	No	2.00
405	26.60	303.64	0.00	1.45	0.26	0.97	277.23	0.00	277.23	4.000	No	No	2.00
406	26.69	302.25	0.00	1.45	0.26	0.97	276.53	0.00	276.53	4.000	No	No	2.00
407	26.77	301.08	0.00	1.45	0.26	0.97	274.39	0.00	274.39	4.000	No	No	2.00
408	26.80	300.77	0.00	1.45	0.26	0.97	273.62	0.00	273.62	4.000	No	No	2.00
409	26.88	302.28	0.00	1.44	0.26	0.96	275.28	0.00	275.28	4.000	No	No	2.00
410	26.95	304.94	0.00	1.43	0.26	0.96	278.17	0.00	278.17	4.000	No	No	2.00
411	27.03	307.37	0.00	1.42	0.26	0.96	280.44	0.00	280.44	4.000	No	No	2.00
412	27.07	309.02	0.00	1.42	0.26	0.96	281.57	0.00	281.57	4.000	No	No	2.00
413	27.14	310.44	0.00	1.40	0.26	0.96	282.29	0.00	282.29	4.000	No	No	2.00
414	27.21	312.97	0.00	1.37	0.26	0.96	283.95	0.00	283.95	4.000	No	No	2.00
415	27.28	316.25	0.00	1.33	0.26	0.96	288.03	0.00	288.03	4.000	No	No	2.00
416	27.32	319.61	0.00	1.31	0.26	0.96	290.88	0.00	290.88	4.000	No	No	2.00
417	27.40	321.16	0.00	1.32	0.26	0.96	292.72	0.00	292.72	4.000	No	No	2.00
418	27.47	314.11	0.00	1.34	0.26	0.96	291.88	0.00	291.88	4.000	No	No	2.00
419	27.53	307.82	0.00	1.36	0.26	0.96	271.28	0.00	271.28	4.000	No	No	2.00
420	27.59	302.82	0.00	1.38	0.26	0.96	275.20	0.00	275.20	4.000	No	No	2.00
421	27.66	304.24	0.00	1.38	0.26	0.96	277.91	0.00	277.91	4.000	No	No	2.00
422	27.73	303.14	0.00	1.39	0.26	0.96	274.77	0.00	274.77	4.000	No	No	2.00
423	27.81	300.43	0.00	1.40	0.26	0.96	271.80	0.00	271.80	4.000	No	No	2.00
424	27.88	299.13	0.00	1.41	0.26	0.96	270.11	0.00	270.11	4.000	No	No	2.00
425	27.92	300.87	0.00	1.42	0.26	0.96	270.90	0.00	270.90	4.000	No	No	2.00
426	28.00	305.68	0.00	1.42	0.26	0.96	276.16	0.00	276.16	4.000	No	No	2.00
427	28.07	311.05	0.00	1.42	0.26	0.96	282.79	0.00	282.79	4.000	No	No	2.00
428	28.11	315.13	0.00	1.43	0.26	0.96	285.11	0.00	285.11	4.000	No	No	2.00
429	28.19	315.63	0.00	1.43	0.26	0.96	286.84	0.00	286.84	4.000	No	No	2.00
430	28.26	312.98	0.00	1.44	0.26	0.96	283.78	0.00	283.78	4.000	No	No	2.00
431	28.34	308.81	0.00	1.45	0.26	0.95	277.47	0.00	277.47	4.000	No	No	2.00
432	28.37	304.51	0.00	1.45	0.26	0.95	275.18	0.00	275.18	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
433	28.45	301.63	0.00	1.45	0.26	0.95	271.78	0.00	271.78	4.000	No	No	2.00
434	28.52	299.29	0.00	1.45	0.26	0.95	269.34	0.00	269.34	4.000	No	No	2.00
435	28.60	298.19	0.00	1.45	0.26	0.95	268.44	0.00	268.44	4.000	No	No	2.00
436	28.64	298.57	0.00	1.45	0.26	0.95	268.45	0.00	268.45	4.000	No	No	2.00
437	28.71	300.05	0.00	1.44	0.26	0.95	270.02	0.00	270.02	4.000	No	No	2.00
438	28.79	302.96	0.00	1.43	0.26	0.95	272.10	0.00	272.10	4.000	No	No	2.00
439	28.86	306.06	0.00	1.42	0.26	0.95	275.88	0.00	275.88	4.000	No	No	2.00
440	28.90	310.26	0.00	1.41	0.26	0.95	278.02	0.00	278.02	4.000	No	No	2.00
441	28.98	315.89	0.00	1.40	0.26	0.95	283.08	0.00	283.08	4.000	No	No	2.00
442	29.05	323.98	0.00	1.39	0.26	0.95	290.69	0.00	290.69	4.000	No	No	2.00
443	29.12	331.92	0.00	1.38	0.26	0.95	299.39	0.00	299.39	4.000	No	No	2.00
444	29.16	339.57	0.00	1.37	0.26	0.95	304.08	0.00	304.08	4.000	No	No	2.00
445	29.24	345.86	0.00	1.37	0.26	0.95	310.90	0.00	310.90	4.000	No	No	2.00
446	29.31	351.65	0.00	1.38	0.26	0.95	315.92	0.00	315.92	4.000	No	No	2.00
447	29.39	355.34	0.00	1.39	0.26	0.95	319.16	0.00	319.16	4.000	No	No	2.00
448	29.43	356.67	0.00	1.40	0.26	0.95	320.43	0.00	320.43	4.000	No	No	2.00
449	29.50	356.29	0.00	1.40	0.26	0.95	319.08	0.00	319.08	4.000	No	No	2.00
450	29.57	354.87	0.00	1.39	0.26	0.95	317.73	0.00	317.73	4.000	No	No	2.00
451	29.62	353.61	0.00	1.37	0.26	0.95	316.20	0.00	316.20	4.000	No	No	2.00
452	29.69	352.94	0.00	1.36	0.26	0.95	315.27	0.00	315.27	4.000	No	No	2.00
453	29.75	353.13	0.00	1.35	0.26	0.95	315.58	0.00	315.58	4.000	No	No	2.00
454	29.82	350.79	0.00	1.35	0.26	0.95	316.28	0.00	316.28	4.000	No	No	2.00
455	29.89	344.56	0.00	1.35	0.26	0.94	308.58	0.00	308.58	4.000	No	No	2.00
456	29.96	337.91	0.00	1.36	0.26	0.94	298.46	0.00	298.46	4.000	No	No	2.00
457	30.02	333.96	0.00	1.36	0.26	0.94	298.05	0.00	298.05	4.000	No	No	2.00
458	30.08	336.21	0.00	1.35	0.26	0.94	297.63	0.00	297.63	4.000	No	No	2.00
459	30.18	339.13	0.00	1.35	0.26	0.94	304.04	0.00	304.04	4.000	No	No	2.00
460	30.22	343.97	0.00	1.34	0.26	0.94	305.48	0.00	305.48	4.000	No	No	2.00
461	30.29	348.39	0.00	1.32	0.26	0.94	310.14	0.00	310.14	4.000	No	No	2.00
462	30.37	353.42	0.00	1.31	0.26	0.94	315.48	0.00	315.48	4.000	No	No	2.00
463	30.44	357.21	0.00	1.30	0.26	0.94	318.45	0.00	318.45	4.000	No	No	2.00
464	30.48	360.94	0.00	1.29	0.26	0.94	319.89	0.00	319.89	4.000	No	No	2.00
465	30.56	365.81	0.00	1.28	0.26	0.94	325.04	0.00	325.04	4.000	No	No	2.00
466	30.63	371.44	0.00	1.29	0.26	0.94	331.04	0.00	331.04	4.000	No	No	2.00
467	30.70	375.39	0.00	1.30	0.26	0.94	334.42	0.00	334.42	4.000	No	No	2.00
468	30.74	377.10	0.00	1.31	0.26	0.94	335.18	0.00	335.18	4.000	No	No	2.00
469	30.82	377.48	0.00	1.33	0.26	0.94	335.18	0.00	335.18	4.000	No	No	2.00
470	30.89	376.05	0.00	1.34	0.26	0.94	335.02	0.00	335.02	4.000	No	No	2.00
471	30.96	373.74	0.00	1.35	0.26	0.94	330.91	0.00	330.91	4.000	No	No	2.00
472	31.00	370.26	0.00	1.35	0.26	0.94	328.64	0.00	328.64	4.000	No	No	2.00
473	31.07	368.18	0.00	1.33	0.26	0.94	325.38	0.00	325.38	4.000	No	No	2.00
474	31.14	367.07	0.00	1.31	0.26	0.94	324.97	0.00	324.97	4.000	No	No	2.00
475	31.21	366.47	0.00	1.28	0.26	0.94	325.25	0.00	325.25	4.000	No	No	2.00
476	31.28	366.03	0.00	1.25	0.26	0.94	323.34	0.00	323.34	4.000	No	No	2.00
477	31.36	365.58	0.00	1.23	0.26	0.94	323.37	0.00	323.37	4.000	No	No	2.00
478	31.39	367.13	0.00	1.22	0.26	0.94	323.71	0.00	323.71	4.000	No	No	2.00
479	31.47	370.64	0.00	1.22	0.26	0.94	327.09	0.00	327.09	4.000	No	No	2.00
480	31.54	376.58	0.00	1.22	0.26	0.93	332.31	0.00	332.31	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
481	31.61	383.16	0.00	1.24	0.26	0.93	339.03	0.00	339.03	4.000	No	No	2.00
482	31.68	389.48	0.00	1.26	0.26	0.93	344.06	0.00	344.06	4.000	No	No	2.00
483	31.75	394.10	0.00	1.26	0.26	0.93	348.59	0.00	348.59	4.000	No	No	2.00
484	31.79	397.22	0.00	1.22	0.26	0.93	350.85	0.00	350.85	4.000	No	No	2.00
485	31.86	398.11	0.00	1.17	0.26	0.93	351.95	0.00	351.95	4.000	No	No	2.00
486	31.93	395.74	0.00	1.16	0.26	0.93	350.54	0.00	350.54	4.000	No	No	2.00
487	32.01	386.98	0.00	1.20	0.26	0.93	344.12	0.00	344.12	4.000	No	No	2.00
488	32.08	373.83	0.00	1.22	0.26	0.93	328.36	0.00	328.36	4.000	No	No	2.00
489	32.12	347.66	0.00	1.25	0.26	0.93	315.42	0.00	315.42	4.000	No	No	2.00
490	32.18	326.35	0.00	1.25	0.26	0.93	274.67	0.00	274.67	4.000	No	No	2.00
491	32.25	301.00	0.00	1.28	0.26	0.93	271.80	0.00	271.80	4.000	No	No	2.00
492	32.32	282.28	0.00	1.32	0.27	0.93	247.70	0.00	247.70	4.000	No	No	2.00
493	32.40	257.40	0.00	1.42	0.30	0.92	222.73	0.00	222.73	4.000	No	No	2.00
494	32.48	238.44	0.00	1.51	0.33	0.91	202.36	0.00	202.36	4.000	No	No	2.00
495	32.51	224.28	0.00	1.61	0.34	0.91	193.91	0.00	193.91	4.000	No	No	2.00
496	32.59	215.05	0.00	1.69	0.35	0.91	182.77	0.00	182.77	4.000	No	No	2.00
497	32.66	207.78	3.32	1.75	0.36	0.90	176.36	0.00	176.37	4.000	No	No	2.00
498	32.70	202.53	7.75	1.81	0.36	0.90	173.68	3.35	177.03	4.000	No	No	2.00
499	32.78	198.86	11.35	1.85	0.35	0.90	169.09	14.53	183.61	4.000	No	No	2.00
500	32.85	196.23	14.71	1.90	0.34	0.91	168.03	27.66	195.70	4.000	No	No	2.00
501	32.93	195.54	16.79	1.92	0.32	0.91	168.46	35.50	203.96	4.000	No	No	2.00
502	32.97	196.13	17.93	1.94	0.32	0.91	168.68	39.56	208.25	4.000	No	No	2.00
503	33.04	198.85	17.49	1.93	0.32	0.91	170.14	38.20	208.34	4.000	No	No	2.00
504	33.12	204.69	14.98	1.90	0.32	0.91	175.26	29.30	204.55	4.000	No	No	2.00
505	33.19	211.74	11.18	1.85	0.33	0.91	182.69	14.43	197.12	4.000	No	No	2.00
506	33.23	219.30	6.33	1.79	0.35	0.90	186.54	1.13	187.67	4.000	No	No	2.00
507	33.31	225.40	2.10	1.74	0.34	0.90	193.61	0.00	193.61	4.000	No	No	2.00
508	33.38	229.60	0.00	1.69	0.33	0.91	198.15	0.00	198.15	4.000	No	No	2.00
509	33.46	230.39	0.00	1.67	0.33	0.90	197.77	0.00	197.77	4.000	No	No	2.00
510	33.49	226.60	0.00	1.67	0.34	0.90	195.50	0.00	195.50	4.000	No	No	2.00
511	33.57	218.92	0.00	1.68	0.35	0.90	187.30	0.00	187.30	4.000	No	No	2.00
512	33.65	207.73	0.00	1.70	0.36	0.90	176.13	0.00	176.13	4.000	No	No	2.00
513	33.72	197.55	1.09	1.73	0.38	0.89	164.23	0.00	164.23	4.000	No	No	2.00
514	33.76	188.42	4.22	1.77	0.39	0.89	159.00	0.04	159.04	4.000	No	No	2.00
515	33.83	181.84	6.87	1.80	0.40	0.88	151.03	1.66	152.70	4.000	No	No	2.00
516	33.91	176.21	9.11	1.83	0.40	0.88	146.59	6.36	152.96	4.000	No	No	2.00
517	33.98	172.83	10.22	1.84	0.40	0.88	144.19	9.65	153.84	4.000	No	No	2.00
518	34.02	170.49	11.14	1.85	0.40	0.88	142.49	12.67	155.16	4.000	No	No	2.00
519	34.10	168.68	13.03	1.88	0.39	0.89	141.02	19.37	160.39	4.000	No	No	2.00
520	34.17	167.39	15.29	1.90	0.38	0.89	140.41	27.48	167.89	4.000	No	No	2.00
521	34.21	166.34	18.18	1.94	0.36	0.89	140.52	37.09	177.62	4.000	No	No	2.00
522	34.29	167.92	20.04	1.96	0.35	0.89	139.60	42.46	182.06	4.000	No	No	2.00
523	34.35	171.24	21.46	1.98	0.34	0.90	145.87	47.22	193.09	4.000	No	No	2.00
524	34.43	176.99	21.93	1.99	0.33	0.90	150.12	49.08	199.20	4.000	No	No	2.00
525	34.50	181.67	22.30	1.99	0.32	0.90	155.59	50.88	206.46	4.000	No	No	2.00
526	34.54	186.19	22.45	1.99	0.32	0.90	158.72	51.76	210.48	4.000	No	No	2.00
527	34.61	189.95	22.03	1.99	0.31	0.90	162.40	51.22	213.62	4.000	No	No	2.00
528	34.69	193.65	20.59	1.97	0.31	0.90	165.42	47.60	213.02	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
529	34.76	196.30	18.59	1.94	0.32	0.90	167.83	41.69	209.52	4.000	No	No	2.00
530	34.80	198.33	15.90	1.91	0.33	0.90	167.99	32.18	200.16	4.000	No	No	2.00
531	34.88	198.99	13.35	1.88	0.34	0.89	168.72	22.37	191.10	4.000	No	No	2.00
532	34.95	197.91	10.90	1.85	0.36	0.89	167.01	12.78	179.79	4.000	No	No	2.00
533	35.03	195.44	9.40	1.83	0.37	0.88	162.59	7.52	170.11	4.000	No	No	2.00
534	35.07	190.55	9.01	1.83	0.38	0.88	160.28	6.34	166.62	4.000	No	No	2.00
535	35.14	184.10	9.51	1.83	0.39	0.88	152.92	7.66	160.59	4.000	No	No	2.00
536	35.22	174.87	12.52	1.87	0.38	0.88	145.75	17.79	163.54	4.000	No	No	2.00
537	35.29	166.18	16.84	1.92	0.37	0.88	137.20	32.42	169.62	4.000	No	No	2.00
538	35.33	155.18	23.44	2.01	0.35	0.89	132.61	49.98	182.59	4.000	No	No	2.00
539	35.41	140.32	31.17	2.10	0.36	0.88	119.21	61.10	180.30	4.000	No	No	2.00
540	35.48	121.38	40.21	2.22	0.38	0.88	99.79	66.17	165.96	4.000	No	No	2.00
541	35.56	104.03	48.55	2.32	0.40	0.87	83.48	67.39	150.88	4.000	No	No	2.00
542	35.60	87.40	56.87	2.42	0.42	0.86	74.06	68.42	142.48	4.000	No	No	2.00
543	35.67	72.61	65.47	2.53	0.45	0.85	56.89	66.15	123.04	4.000	No	No	2.00
544	35.74	58.20	75.14	2.65	0.48	0.85	45.75	0.00	45.75	4.000	No	Yes	2.00
545	35.82	49.72	81.14	2.73	0.50	0.84	37.57	0.00	37.57	4.000	No	Yes	2.00
546	35.86	44.70	83.66	2.76	0.50	0.84	35.69	0.00	35.69	4.000	No	Yes	2.00
547	35.94	42.96	82.70	2.75	0.51	0.83	33.25	0.00	33.25	4.000	No	Yes	2.00
548	36.01	41.98	80.92	2.72	0.51	0.83	33.22	0.00	33.22	4.000	No	Yes	2.00
549	36.05	41.98	78.73	2.70	0.51	0.83	33.20	0.00	33.20	4.000	No	Yes	2.00
550	36.13	42.23	77.00	2.68	0.51	0.83	33.16	0.00	33.16	4.000	No	Yes	2.00
551	36.20	42.86	75.25	2.65	0.51	0.83	33.75	0.00	33.75	4.000	No	Yes	2.00
552	36.28	43.40	74.26	2.64	0.51	0.83	34.65	0.00	34.65	4.000	No	Yes	2.00
553	36.32	44.07	73.42	2.63	0.51	0.83	34.40	0.00	34.40	4.000	No	Yes	2.00
554	36.39	44.35	73.09	2.63	0.51	0.83	35.29	0.00	35.29	4.000	No	Yes	2.00
555	36.47	44.38	72.64	2.62	0.51	0.83	35.27	0.00	35.27	4.000	No	Yes	2.00
556	36.54	43.97	72.75	2.62	0.51	0.83	34.39	0.00	34.39	4.000	No	Yes	2.00
557	36.58	42.99	73.83	2.64	0.51	0.83	34.23	0.00	34.23	4.000	No	Yes	2.00
558	36.66	41.69	75.71	2.66	0.51	0.83	32.82	0.00	32.82	4.000	No	Yes	2.00
559	36.73	40.14	77.83	2.69	0.52	0.83	31.19	0.00	31.19	4.000	No	Yes	2.00
560	36.77	38.72	78.91	2.70	0.52	0.82	30.42	0.00	30.42	4.000	No	Yes	2.00
561	36.85	36.70	80.57	2.72	0.52	0.82	29.34	0.00	29.34	4.000	No	Yes	2.00
562	36.91	35.72	80.29	2.72	0.53	0.82	26.27	0.00	26.27	4.000	No	Yes	2.00
563	36.98	34.71	80.14	2.71	0.52	0.82	28.01	0.00	28.01	4.000	No	Yes	2.00
564	37.05	34.74	78.08	2.69	0.53	0.82	26.83	0.00	26.83	4.000	No	Yes	2.00
565	37.12	33.89	77.30	2.68	0.53	0.82	26.28	0.00	26.28	4.000	No	Yes	2.00
566	37.20	33.41	76.28	2.67	0.53	0.82	25.88	0.00	25.88	4.000	No	Yes	2.00
567	37.24	33.03	75.47	2.66	0.53	0.82	25.64	0.00	25.64	4.000	No	Yes	2.00
568	37.31	32.81	75.03	2.65	0.54	0.81	25.32	0.00	25.32	4.000	No	Yes	2.00
569	37.39	32.75	74.61	2.65	0.54	0.81	25.30	0.00	25.30	4.000	No	Yes	2.00
570	37.46	32.85	74.30	2.64	0.54	0.81	25.43	0.00	25.43	4.000	No	Yes	2.00
571	37.50	33.07	73.79	2.63	0.54	0.81	25.50	0.00	25.50	4.000	No	Yes	2.00
572	37.58	33.13	73.66	2.63	0.53	0.81	25.78	0.00	25.78	4.000	No	Yes	2.00
573	37.65	33.03	73.90	2.64	0.54	0.81	25.54	0.00	25.54	4.000	No	Yes	2.00
574	37.69	32.81	74.63	2.65	0.54	0.81	25.23	0.00	25.23	4.000	No	Yes	2.00
575	37.77	32.68	75.20	2.65	0.54	0.81	25.21	0.00	25.21	4.000	No	Yes	2.00
576	37.84	32.68	75.40	2.66	0.54	0.81	25.20	0.00	25.20	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
577	37.91	32.75	75.23	2.65	0.54	0.81	25.18	0.00	25.18	4.000	No	Yes	2.00
578	37.95	32.97	74.71	2.65	0.54	0.81	25.32	0.00	25.32	4.000	No	Yes	2.00
579	38.03	33.19	74.41	2.64	0.53	0.81	25.67	0.00	25.67	4.000	No	Yes	2.00
580	38.10	33.34	74.43	2.64	0.53	0.81	25.65	0.00	25.65	4.000	No	Yes	2.00
581	38.17	33.31	74.74	2.65	0.53	0.81	25.64	0.00	25.64	4.000	No	Yes	2.00
582	38.25	33.31	74.85	2.65	0.53	0.81	25.55	0.00	25.55	4.000	No	Yes	2.00
583	38.29	33.22	74.91	2.65	0.53	0.81	25.61	0.00	25.61	4.000	No	Yes	2.00
584	38.37	33.25	74.95	2.65	0.54	0.81	25.37	0.00	25.37	4.000	No	Yes	2.00
585	38.44	33.35	75.01	2.65	0.53	0.81	25.58	0.00	25.58	4.000	No	Yes	2.00
586	38.48	33.66	74.79	2.65	0.53	0.81	25.79	0.00	25.79	4.000	No	Yes	2.00
587	38.56	33.95	74.69	2.65	0.53	0.81	26.08	0.00	26.08	4.000	No	Yes	2.00
588	38.63	34.20	74.67	2.65	0.53	0.81	26.21	0.00	26.21	4.000	No	Yes	2.00
589	38.67	34.46	74.91	2.65	0.53	0.81	26.35	0.00	26.35	4.000	No	Yes	2.00
590	38.75	34.77	75.05	2.65	0.53	0.81	26.63	0.00	26.63	4.000	No	Yes	2.00
591	38.83	34.99	75.37	2.65	0.53	0.81	26.91	0.00	26.91	4.000	No	Yes	2.00
592	38.90	35.15	75.30	2.65	0.53	0.80	26.81	0.00	26.81	4.000	No	Yes	2.00
593	38.94	35.21	73.99	2.64	0.53	0.80	26.95	0.00	26.95	4.000	No	Yes	2.00
594	39.02	35.21	72.55	2.62	0.53	0.80	27.00	0.00	27.00	4.000	No	Yes	2.00
595	39.10	35.09	71.44	2.61	0.53	0.80	26.75	0.00	26.75	4.000	No	Yes	2.00
596	39.14	34.77	72.17	2.61	0.53	0.80	26.59	0.00	26.59	4.000	No	Yes	2.00
597	39.21	34.49	72.94	2.62	0.53	0.80	26.21	0.00	26.21	4.000	No	Yes	2.00
598	39.29	34.16	73.80	2.64	0.53	0.80	26.04	0.00	26.04	4.000	No	Yes	2.00
599	39.33	33.71	74.67	2.65	0.53	0.80	25.78	0.00	25.78	4.000	No	Yes	2.00
600	39.40	33.49	74.94	2.65	0.54	0.80	25.13	0.00	25.13	4.000	No	Yes	2.00
601	39.48	33.35	74.79	2.65	0.54	0.80	25.48	0.00	25.48	4.000	No	Yes	2.00
602	39.54	33.44	73.80	2.63	0.54	0.80	25.39	0.00	25.39	4.000	No	Yes	2.00
603	39.61	33.28	72.95	2.62	0.54	0.80	25.29	0.00	25.29	4.000	No	Yes	2.00
604	39.68	33.09	73.45	2.63	0.54	0.80	25.06	0.00	25.06	4.000	No	Yes	2.00
605	39.76	33.00	74.99	2.65	0.54	0.80	24.90	0.00	24.90	4.000	No	Yes	2.00
606	39.80	32.91	77.40	2.68	0.54	0.80	25.05	0.00	25.05	4.000	No	Yes	2.00
607	39.87	32.97	78.83	2.70	0.54	0.80	24.82	0.00	24.82	4.000	No	Yes	2.00
608	39.94	32.85	80.03	2.71	0.53	0.80	25.03	0.00	25.03	4.000	No	Yes	2.00
609	40.02	34.43	77.94	2.69	0.54	0.80	24.71	0.00	24.71	4.000	No	Yes	2.00
610	40.07	35.50	76.36	2.67	0.52	0.80	28.47	0.00	28.47	4.000	No	Yes	2.00
611	40.14	36.20	74.84	2.65	0.53	0.80	27.47	0.00	27.47	4.000	No	Yes	2.00
612	40.22	35.10	75.76	2.66	0.53	0.80	26.28	0.00	26.28	4.000	No	Yes	2.00
613	40.26	33.96	76.18	2.66	0.53	0.79	25.83	0.00	25.83	4.000	No	Yes	2.00
614	40.33	33.07	76.21	2.67	0.54	0.79	24.78	0.00	24.78	4.000	No	Yes	2.00
615	40.40	32.41	76.18	2.66	0.54	0.79	24.17	0.00	24.17	4.000	No	Yes	2.00
616	40.48	32.16	76.24	2.67	0.54	0.79	24.23	0.00	24.23	4.000	No	Yes	2.00
617	40.52	32.16	76.35	2.67	0.54	0.79	24.15	0.00	24.15	4.000	No	Yes	2.00
618	40.59	32.19	76.41	2.67	0.54	0.79	24.13	0.00	24.13	4.000	No	Yes	2.00
619	40.67	32.47	76.16	2.66	0.54	0.79	24.26	0.00	24.26	4.000	No	Yes	2.00
620	40.74	32.88	75.81	2.66	0.54	0.79	24.76	0.00	24.76	4.000	No	Yes	2.00
621	40.78	33.23	75.68	2.66	0.54	0.79	25.04	0.00	25.04	4.000	No	Yes	2.00
622	40.86	33.32	76.24	2.67	0.54	0.79	25.02	0.00	25.02	4.000	No	Yes	2.00
623	40.94	33.29	77.33	2.68	0.54	0.79	24.94	0.00	24.94	4.000	No	Yes	2.00
624	40.98	33.33	79.21	2.70	0.54	0.79	24.94	0.00	24.94	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
625	41.05	33.74	80.08	2.71	0.53	0.79	25.07	0.00	25.07	4.000	No	Yes	2.00
626	41.12	34.43	80.57	2.72	0.53	0.79	25.86	0.00	25.86	4.000	No	Yes	2.00
627	41.20	35.07	80.48	2.72	0.53	0.79	26.51	0.00	26.51	4.000	No	Yes	2.00
628	41.24	35.42	81.13	2.73	0.53	0.79	26.50	0.00	26.50	4.000	No	Yes	2.00
629	41.31	35.67	81.61	2.73	0.53	0.79	26.63	0.00	26.63	4.000	No	Yes	2.00
630	41.39	36.58	80.85	2.72	0.53	0.79	27.05	0.00	27.05	4.000	No	Yes	2.00
631	41.46	37.53	79.80	2.71	0.52	0.79	28.57	0.00	28.57	4.000	No	Yes	2.00
632	41.50	37.91	79.62	2.71	0.52	0.79	28.78	0.00	28.78	4.000	No	Yes	2.00
633	41.58	37.94	80.76	2.72	0.53	0.79	27.88	0.00	27.88	4.000	No	Yes	2.00
634	41.66	37.15	83.26	2.75	0.52	0.79	28.61	0.00	28.61	4.000	No	Yes	2.00
635	41.70	37.41	83.74	2.76	0.53	0.79	26.91	0.00	26.91	4.000	No	Yes	2.00
636	41.77	38.07	82.56	2.74	0.52	0.79	28.43	0.00	28.43	4.000	No	Yes	2.00
637	41.85	39.68	79.64	2.71	0.52	0.79	30.09	0.00	30.09	4.000	No	Yes	2.00
638	41.92	40.60	77.94	2.69	0.52	0.79	30.58	0.00	30.58	4.000	No	Yes	2.00
639	41.96	40.63	77.73	2.68	0.52	0.79	30.49	0.00	30.49	4.000	No	Yes	2.00
640	42.04	40.58	77.35	2.68	0.52	0.79	30.10	0.00	30.10	4.000	No	Yes	2.00
641	42.11	40.36	76.94	2.67	0.52	0.79	30.40	0.00	30.40	4.000	No	Yes	2.00
642	42.15	40.49	75.91	2.66	0.52	0.79	29.91	0.00	29.91	4.000	No	Yes	2.00
643	42.23	40.19	75.62	2.66	0.52	0.79	30.33	0.00	30.33	4.000	No	Yes	2.00
644	42.30	39.46	77.03	2.68	0.52	0.78	29.65	0.00	29.65	4.000	No	Yes	2.00
645	42.38	38.36	79.54	2.71	0.52	0.78	28.18	0.00	28.18	4.000	No	Yes	2.00
646	42.42	37.35	82.41	2.74	0.53	0.78	27.75	0.00	27.75	4.000	No	Yes	2.00
647	42.50	36.71	83.85	2.76	0.53	0.78	27.29	0.00	27.29	4.000	No	Yes	2.00
648	42.58	36.08	85.12	2.78	0.53	0.78	26.70	0.00	26.70	4.000	No	Yes	2.00
649	42.62	37.63	83.10	2.75	0.53	0.78	26.24	0.00	26.24	4.000	No	Yes	2.00
650	42.68	39.62	80.45	2.72	0.52	0.78	30.82	0.00	30.82	4.000	No	Yes	2.00
651	42.75	41.43	78.05	2.69	0.52	0.78	31.22	0.00	31.22	4.000	No	Yes	2.00
652	42.83	41.11	78.38	2.69	0.52	0.78	30.33	0.00	30.33	4.000	No	Yes	2.00
653	42.91	40.51	79.56	2.71	0.52	0.78	30.02	0.00	30.02	4.000	No	Yes	2.00
654	42.95	40.22	81.09	2.73	0.52	0.78	29.79	0.00	29.79	4.000	No	Yes	2.00
655	43.02	40.60	82.26	2.74	0.52	0.78	29.63	0.00	29.63	4.000	No	Yes	2.00
656	43.10	41.96	82.25	2.74	0.52	0.78	30.85	0.00	30.85	4.000	No	Yes	2.00
657	43.14	45.22	80.44	2.72	0.51	0.78	32.90	0.00	32.90	4.000	No	Yes	2.00
658	43.21	50.75	77.09	2.68	0.50	0.79	37.14	0.00	37.14	4.000	No	Yes	2.00
659	43.29	59.28	72.28	2.62	0.48	0.79	43.73	0.00	43.73	4.000	No	Yes	2.00
660	43.36	68.10	67.79	2.56	0.46	0.80	53.00	65.57	118.57	4.000	No	No	2.00
661	43.40	78.41	63.06	2.50	0.45	0.80	58.08	65.86	123.94	4.000	No	No	2.00
662	43.48	92.95	56.21	2.42	0.43	0.81	68.51	66.66	135.17	4.000	No	No	2.00
663	43.56	111.57	48.33	2.32	0.39	0.83	88.74	68.66	157.39	4.000	No	No	2.00
664	43.60	137.62	38.69	2.20	0.37	0.83	104.24	65.98	170.22	4.000	No	No	2.00
665	43.68	165.72	30.37	2.09	0.33	0.85	134.42	63.10	197.52	4.000	No	No	2.00
666	43.76	191.86	23.99	2.01	0.31	0.86	160.80	55.91	216.71	4.000	No	No	2.00
667	43.79	214.87	18.97	1.95	0.31	0.86	170.80	43.29	214.09	4.000	No	No	2.00
668	43.87	232.26	15.47	1.91	0.30	0.86	192.99	32.83	225.82	4.000	No	No	2.00
669	43.93	248.25	12.82	1.87	0.30	0.86	204.14	22.36	226.50	4.000	No	No	2.00
670	43.99	257.51	12.03	1.86	0.29	0.87	211.57	19.31	230.88	4.000	No	No	2.00
671	44.06	263.71	12.47	1.87	0.28	0.87	217.05	21.52	238.57	4.000	No	No	2.00
672	44.12	268.23	13.52	1.88	0.27	0.87	221.89	26.62	248.51	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
673	44.19	271.68	15.41	1.91	0.26	0.88	225.43	35.43	260.86	4.000	No	No	2.00
674	44.28	273.45	17.55	1.93	0.26	0.88	227.28	44.79	272.07	4.000	No	No	2.00
675	44.34	274.03	19.74	1.96	0.26	0.88	226.73	53.20	279.93	4.000	No	No	2.00
676	44.41	273.83	21.45	1.98	0.26	0.88	226.61	59.10	285.71	4.000	No	No	2.00
677	44.47	273.79	22.69	2.00	0.26	0.87	226.53	63.03	289.56	4.000	No	No	2.00
678	44.53	274.25	23.49	2.01	0.26	0.87	226.40	65.41	291.81	4.000	No	No	2.00
679	44.60	275.62	23.86	2.01	0.26	0.87	227.50	66.69	294.18	4.000	No	No	2.00
680	44.66	278.18	23.94	2.01	0.26	0.87	229.69	67.28	296.97	4.000	No	No	2.00
681	44.72	280.81	23.85	2.01	0.26	0.87	232.51	67.48	299.98	4.000	No	No	2.00
682	44.78	283.34	23.37	2.00	0.26	0.87	233.76	66.26	300.02	4.000	No	No	2.00
683	44.85	284.98	22.60	2.00	0.26	0.87	235.71	64.22	299.93	4.000	No	No	2.00
684	44.91	286.66	21.46	1.98	0.26	0.87	236.33	60.60	296.92	4.000	No	No	2.00
685	44.98	288.17	19.62	1.96	0.26	0.87	237.65	54.19	291.84	4.000	No	No	2.00
686	45.04	290.29	14.12	1.89	0.26	0.87	239.21	30.61	269.82	4.000	No	No	2.00
687	45.12	295.10	5.54	1.78	0.28	0.86	239.22	0.52	239.74	4.000	No	No	2.00
688	45.17	303.01	0.00	1.67	0.27	0.87	248.41	0.00	248.41	4.000	No	No	2.00
689	45.25	312.30	0.00	1.63	0.26	0.87	258.47	0.00	258.47	4.000	No	No	2.00
690	45.30	320.64	0.00	1.63	0.26	0.87	264.01	0.00	264.01	4.000	No	No	2.00
691	45.37	323.80	0.00	1.64	0.26	0.87	269.62	0.00	269.62	4.000	No	No	2.00
692	45.44	323.26	0.00	1.66	0.26	0.87	266.01	0.00	266.01	4.000	No	No	2.00
693	45.50	321.62	0.00	1.68	0.26	0.87	262.42	0.00	262.42	4.000	No	No	2.00
694	45.57	318.56	0.00	1.71	0.26	0.87	265.28	0.00	265.28	4.000	No	No	2.00
695	45.63	312.26	2.80	1.75	0.26	0.87	258.18	0.00	258.18	4.000	No	No	2.00
696	45.70	298.70	7.36	1.80	0.27	0.87	245.83	3.11	248.94	4.000	No	No	2.00
697	45.77	276.48	13.73	1.88	0.26	0.87	231.60	28.24	259.84	4.000	No	No	2.00
698	45.84	251.04	20.83	1.97	0.26	0.87	203.19	53.70	256.88	4.000	No	No	2.00
699	45.90	220.15	29.21	2.08	0.26	0.87	183.75	71.11	254.86	4.000	No	No	2.00
700	45.96	188.13	38.06	2.19	0.29	0.85	153.07	76.91	229.98	4.000	No	No	2.00
701	46.04	156.30	47.50	2.31	0.34	0.83	119.53	76.21	195.74	4.000	No	No	2.00
702	46.11	132.05	55.58	2.41	0.37	0.82	99.69	74.98	174.67	4.000	No	No	2.00
703	46.15	114.16	61.90	2.49	0.38	0.81	89.78	74.51	164.29	4.000	No	No	2.00
704	46.23	100.44	66.76	2.55	0.41	0.80	73.97	71.38	145.35	4.000	No	No	2.00
705	46.31	87.86	70.57	2.59	0.43	0.79	65.34	69.78	135.12	4.000	No	No	2.00
706	46.38	79.61	71.64	2.61	0.44	0.78	58.57	0.00	58.57	4.000	No	Yes	2.00
707	46.42	72.44	68.83	2.57	0.46	0.78	53.82	66.04	119.86	4.000	No	No	2.00
708	46.50	66.56	65.10	2.53	0.47	0.77	47.98	63.50	111.48	4.000	No	No	2.00
709	46.58	60.97	61.02	2.48	0.49	0.77	44.41	61.45	105.86	4.000	No	No	2.00
710	46.62	55.47	63.70	2.51	0.49	0.76	40.55	61.04	101.59	4.000	No	No	2.00
711	46.70	50.03	67.76	2.56	0.51	0.76	35.23	60.43	95.66	4.000	No	No	2.00
712	46.77	44.78	72.86	2.62	0.52	0.75	32.02	0.00	32.02	4.000	No	Yes	2.00
713	46.82	40.95	77.52	2.68	0.52	0.75	28.71	0.00	28.71	4.000	No	Yes	2.00
714	46.91	37.88	81.72	2.73	0.53	0.75	26.67	0.00	26.67	4.000	No	Yes	2.00
715	46.95	35.23	85.12	2.78	0.53	0.74	25.21	0.00	25.21	4.000	No	Yes	2.00
716	47.02	33.08	87.47	2.81	0.54	0.74	22.84	0.00	22.84	4.000	No	Yes	2.00
717	47.10	31.56	88.77	2.82	0.54	0.74	21.92	0.00	21.92	4.000	No	Yes	2.00
718	47.14	30.93	88.44	2.82	0.54	0.74	21.85	0.00	21.85	4.000	No	Yes	2.00
719	47.22	30.61	87.62	2.81	0.54	0.74	21.42	0.00	21.42	4.000	No	Yes	2.00
720	47.29	30.04	86.91	2.80	0.55	0.74	21.19	0.00	21.19	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
721	47.37	29.32	86.91	2.80	0.55	0.74	20.56	0.00	20.56	4.000	No	Yes	2.00
722	47.41	28.24	87.69	2.81	0.55	0.73	19.80	0.00	19.80	4.000	No	Yes	2.00
723	47.49	27.17	88.86	2.82	0.55	0.73	18.84	0.00	18.84	4.000	No	Yes	2.00
724	47.56	26.35	89.76	2.83	0.55	0.73	18.22	0.00	18.22	4.000	No	Yes	2.00
725	47.60	26.00	90.00	2.84	0.56	0.73	18.01	0.00	18.01	4.000	No	Yes	2.00
726	47.68	26.50	88.93	2.82	0.56	0.73	18.06	0.00	18.06	4.000	No	Yes	2.00
727	47.76	27.54	87.08	2.80	0.55	0.73	19.27	0.00	19.27	4.000	No	Yes	2.00
728	47.80	29.31	83.96	2.76	0.55	0.73	20.21	0.00	20.21	4.000	No	Yes	2.00
729	47.88	30.99	80.72	2.72	0.54	0.73	21.83	0.00	21.83	4.000	No	Yes	2.00
730	47.95	32.48	77.66	2.68	0.54	0.73	22.83	0.00	22.83	4.000	No	Yes	2.00
731	47.99	33.27	75.60	2.66	0.54	0.73	23.36	0.00	23.36	4.000	No	Yes	2.00
732	48.07	33.39	75.20	2.65	0.54	0.73	23.48	0.00	23.48	4.000	No	Yes	2.00
733	48.15	32.82	76.40	2.67	0.54	0.73	23.06	0.00	23.06	4.000	No	Yes	2.00
734	48.22	31.91	78.28	2.69	0.54	0.73	22.10	0.00	22.10	4.000	No	Yes	2.00
735	48.27	31.18	79.42	2.71	0.55	0.73	21.48	0.00	21.48	4.000	No	Yes	2.00
736	48.34	30.90	79.58	2.71	0.55	0.73	21.47	0.00	21.47	4.000	No	Yes	2.00
737	48.38	31.31	78.47	2.69	0.55	0.73	21.46	0.00	21.46	4.000	No	Yes	2.00
738	48.46	31.50	77.73	2.68	0.54	0.73	22.33	0.00	22.33	4.000	No	Yes	2.00
739	48.54	31.50	77.19	2.68	0.55	0.73	21.84	0.00	21.84	4.000	No	Yes	2.00
740	48.58	30.64	78.55	2.69	0.55	0.73	21.42	0.00	21.42	4.000	No	Yes	2.00
741	48.66	29.79	80.21	2.72	0.55	0.73	20.46	0.00	20.46	4.000	No	Yes	2.00
742	48.73	29.09	82.28	2.74	0.55	0.73	19.99	0.00	19.99	4.000	No	Yes	2.00
743	48.78	29.28	84.78	2.77	0.55	0.73	19.92	0.00	19.92	4.000	No	Yes	2.00
744	48.86	29.79	87.71	2.81	0.55	0.73	20.87	0.00	20.87	4.000	No	Yes	2.00
745	48.94	30.36	87.98	2.81	0.55	0.73	21.06	0.00	21.06	4.000	No	Yes	2.00
746	48.98	30.61	91.31	2.85	0.54	0.73	21.14	0.00	21.14	4.000	No	Yes	2.00
747	49.05	31.15	100.00	2.97	0.54	0.73	21.42	0.00	21.42	4.000	No	Yes	2.00
748	49.13	38.89	96.86	2.92	0.54	0.73	22.22	0.00	22.22	4.000	No	Yes	2.00
749	49.21	51.41	87.98	2.81	0.49	0.75	38.19	0.00	38.19	4.000	No	Yes	2.00
750	49.25	79.98	67.13	2.55	0.47	0.76	49.24	64.34	113.58	4.000	No	No	2.00
751	49.33	101.00	57.32	2.43	0.38	0.80	88.89	72.69	161.57	4.000	No	No	2.00
752	49.38	103.84	57.77	2.43	0.39	0.80	88.08	72.63	160.70	4.000	No	No	2.00
753	49.45	90.57	65.50	2.53	0.45	0.76	55.79	65.84	121.63	4.000	No	No	2.00
754	49.52	74.53	75.68	2.66	0.45	0.77	56.65	0.00	56.65	4.000	No	Yes	2.00
755	49.57	68.97	77.65	2.68	0.46	0.76	49.45	0.00	49.45	4.000	No	Yes	2.00
756	49.65	63.53	78.63	2.70	0.48	0.75	42.94	0.00	42.94	4.000	No	Yes	2.00
757	49.70	60.56	77.41	2.68	0.48	0.75	43.91	0.00	43.91	4.000	No	Yes	2.00
758	49.77	59.77	76.27	2.67	0.48	0.75	42.51	0.00	42.51	4.000	No	Yes	2.00
759	49.83	58.00	77.39	2.68	0.49	0.75	41.06	0.00	41.06	4.000	No	Yes	2.00
760	49.90	56.84	78.47	2.69	0.49	0.75	39.81	0.00	39.81	4.000	No	Yes	2.00
761	49.97	56.32	78.38	2.69	0.49	0.75	39.82	0.00	39.82	4.000	No	Yes	2.00
762	50.04	56.36	77.36	2.68	0.49	0.74	39.79	0.00	39.79	4.000	No	Yes	2.00
763	50.12	56.53	76.72	2.67	0.49	0.74	39.79	0.00	39.79	4.000	No	Yes	2.00
764	50.19	56.58	77.07	2.68	0.49	0.74	40.12	0.00	40.12	4.000	No	Yes	2.00
765	50.23	56.07	78.23	2.69	0.49	0.74	39.84	0.00	39.84	4.000	No	Yes	2.00
766	50.31	55.00	79.66	2.71	0.49	0.74	38.62	0.00	38.62	4.000	No	Yes	2.00
767	50.39	53.89	80.98	2.72	0.50	0.74	37.68	0.00	37.68	4.000	No	Yes	2.00
768	50.43	53.64	82.44	2.74	0.50	0.74	37.32	0.00	37.32	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
769	50.50	55.18	83.14	2.75	0.49	0.74	38.01	0.00	38.01	4.000	No	Yes	2.00
770	50.58	58.00	82.96	2.75	0.49	0.74	41.13	0.00	41.13	4.000	No	Yes	2.00
771	50.62	63.37	80.09	2.71	0.48	0.75	43.60	0.00	43.60	4.000	No	Yes	2.00
772	50.70	70.39	74.84	2.65	0.46	0.75	50.13	0.00	50.13	4.000	No	Yes	2.00
773	50.77	77.31	69.24	2.58	0.45	0.76	57.11	67.09	124.20	4.000	No	No	2.00
774	50.81	81.65	64.48	2.52	0.45	0.76	59.39	66.61	126.00	4.000	No	No	2.00
775	50.89	81.84	63.03	2.50	0.44	0.76	60.00	66.40	126.40	4.000	No	No	2.00
776	50.97	79.09	64.10	2.51	0.45	0.76	57.37	65.94	123.31	4.000	No	No	2.00
777	51.05	75.04	67.16	2.55	0.46	0.75	52.88	65.40	118.28	4.000	No	No	2.00
778	51.09	73.22	69.71	2.58	0.47	0.75	50.56	65.28	115.85	4.000	No	No	2.00
779	51.16	73.45	72.08	2.61	0.46	0.75	53.16	0.00	53.16	4.000	No	Yes	2.00
780	51.24	75.56	73.58	2.63	0.46	0.75	53.41	0.00	53.41	4.000	No	Yes	2.00
781	51.28	79.18	74.33	2.64	0.45	0.76	55.46	0.00	55.46	4.000	No	Yes	2.00
782	51.36	88.57	70.10	2.59	0.44	0.76	61.54	68.57	130.10	4.000	No	No	2.00
783	51.43	102.48	63.05	2.50	0.41	0.77	75.50	70.81	146.31	4.000	No	No	2.00
784	51.48	126.37	50.80	2.35	0.39	0.78	88.45	69.82	158.26	4.000	No	No	2.00
785	51.55	164.81	34.69	2.15	0.35	0.80	119.32	65.48	184.81	4.000	No	No	2.00
786	51.63	214.19	16.41	1.92	0.33	0.81	168.23	34.12	202.35	4.000	No	No	2.00
787	51.68	266.12	0.00	1.67	0.32	0.82	206.62	0.00	206.62	4.000	No	No	2.00
788	51.73	305.82	0.00	1.46	0.27	0.84	249.71	0.00	249.71	4.000	No	No	2.00
789	51.80	330.92	0.00	1.34	0.26	0.85	270.19	0.00	270.19	4.000	No	No	2.00
790	51.87	337.12	0.00	1.38	0.26	0.85	274.29	0.00	274.29	4.000	No	No	2.00
791	51.95	330.48	0.00	1.47	0.26	0.85	265.25	0.00	265.25	4.000	No	No	2.00
792	52.01	292.77	0.00	1.63	0.27	0.85	253.85	0.00	253.85	4.000	No	No	2.00
793	52.07	278.45	2.18	1.74	0.37	0.79	171.70	0.00	171.70	4.000	No	No	2.00
794	52.13	265.11	9.75	1.83	0.28	0.84	227.96	10.31	238.27	4.000	No	No	2.00
795	52.19	274.47	12.92	1.87	0.28	0.84	220.12	23.76	243.88	4.000	No	No	2.00
796	52.27	258.92	20.66	1.97	0.26	0.85	205.84	53.51	259.36	4.000	No	No	2.00
797	52.34	239.95	28.85	2.07	0.26	0.84	193.20	72.29	265.49	4.000	No	No	2.00
798	52.42	222.60	35.46	2.16	0.26	0.84	176.18	79.20	255.38	4.000	No	No	2.00
799	52.46	200.82	41.53	2.23	0.27	0.84	163.09	82.73	245.82	4.000	No	No	2.00
800	52.54	176.89	46.22	2.29	0.31	0.82	136.96	79.89	216.84	4.000	No	No	2.00
801	52.61	153.78	49.66	2.33	0.35	0.80	112.69	75.67	188.36	4.000	No	No	2.00
802	52.66	132.57	51.84	2.36	0.36	0.79	101.95	73.92	175.87	4.000	No	No	2.00
803	52.73	115.06	53.70	2.38	0.40	0.77	82.42	69.49	151.92	4.000	No	No	2.00
804	52.81	99.26	56.45	2.42	0.43	0.76	69.09	66.90	135.99	4.000	No	No	2.00
805	52.85	88.07	58.46	2.44	0.44	0.75	63.20	65.95	129.16	4.000	No	No	2.00
806	52.93	81.75	58.80	2.45	0.46	0.74	55.79	63.99	119.79	4.000	No	No	2.00
807	53.01	78.11	57.90	2.44	0.46	0.74	54.21	63.27	117.48	4.000	No	No	2.00
808	53.05	77.55	55.75	2.41	0.46	0.74	54.57	62.67	117.24	4.000	No	No	2.00
809	53.12	74.89	54.61	2.40	0.46	0.74	54.30	62.19	116.49	4.000	No	No	2.00
810	53.20	70.34	54.07	2.39	0.48	0.73	47.99	60.28	108.27	4.000	No	No	2.00
811	53.24	63.26	55.22	2.40	0.49	0.73	44.14	59.63	103.77	4.000	No	No	2.00
812	53.32	56.55	57.58	2.43	0.50	0.72	38.38	58.78	97.16	4.000	No	No	2.00
813	53.39	49.82	60.94	2.47	0.52	0.71	33.24	58.28	91.52	4.000	No	No	2.00
814	53.47	45.08	64.53	2.52	0.53	0.71	29.54	58.09	87.63	4.000	No	No	2.00
815	53.51	42.65	68.07	2.56	0.53	0.71	28.21	58.46	86.68	4.000	No	No	2.00
816	53.59	42.40	70.83	2.60	0.53	0.71	28.09	58.95	87.04	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
817	53.64	44.45	72.74	2.62	0.52	0.71	29.04	0.00	29.04	4.000	No	Yes	2.00
818	53.72	46.98	74.74	2.65	0.51	0.71	32.63	0.00	32.63	4.000	No	Yes	2.00
819	53.78	53.81	71.83	2.61	0.51	0.71	33.48	0.00	33.48	4.000	No	Yes	2.00
820	53.84	59.62	68.68	2.57	0.48	0.73	43.86	63.12	106.98	4.000	No	No	2.00
821	53.90	64.33	65.18	2.53	0.48	0.73	45.27	62.74	108.01	4.000	No	No	2.00
822	53.98	63.13	66.92	2.55	0.48	0.73	43.72	62.70	106.42	4.000	No	No	2.00
823	54.06	60.44	70.26	2.59	0.49	0.72	41.12	62.65	103.76	4.000	No	No	2.00
824	54.10	59.35	72.20	2.62	0.49	0.72	39.32	0.00	39.32	4.000	No	Yes	2.00
825	54.17	58.12	73.91	2.64	0.49	0.72	41.31	0.00	41.31	4.000	No	Yes	2.00
826	54.25	59.10	73.58	2.63	0.50	0.72	38.39	0.00	38.39	4.000	No	Yes	2.00
827	54.29	62.34	72.35	2.62	0.49	0.72	41.43	0.00	41.43	4.000	No	Yes	2.00
828	54.37	67.84	70.34	2.59	0.47	0.73	48.45	64.80	113.25	4.000	No	No	2.00
829	54.45	71.12	70.97	2.60	0.46	0.73	50.58	65.55	116.13	4.000	No	No	2.00
830	54.52	70.50	74.02	2.64	0.47	0.73	48.73	0.00	48.73	4.000	No	Yes	2.00
831	54.56	67.05	78.49	2.69	0.47	0.73	47.06	0.00	47.06	4.000	No	Yes	2.00
832	54.64	62.91	82.83	2.75	0.48	0.72	42.90	0.00	42.90	4.000	No	Yes	2.00
833	54.72	58.80	86.58	2.79	0.49	0.72	39.54	0.00	39.54	4.000	No	Yes	2.00
834	54.76	55.20	88.44	2.82	0.49	0.72	37.94	0.00	37.94	4.000	No	Yes	2.00
835	54.84	51.88	88.92	2.82	0.50	0.71	34.97	0.00	34.97	4.000	No	Yes	2.00
836	54.91	48.65	89.34	2.83	0.51	0.71	32.30	0.00	32.30	4.000	No	Yes	2.00
837	54.96	45.78	90.12	2.84	0.51	0.71	30.93	0.00	30.93	4.000	No	Yes	2.00
838	55.04	43.34	91.17	2.85	0.52	0.70	28.76	0.00	28.76	4.000	No	Yes	2.00
839	55.11	41.07	91.64	2.86	0.52	0.70	27.07	0.00	27.07	4.000	No	Yes	2.00
840	55.15	38.67	92.57	2.87	0.53	0.70	26.07	0.00	26.07	4.000	No	Yes	2.00
841	55.23	37.28	92.37	2.87	0.54	0.69	23.68	0.00	23.68	4.000	No	Yes	2.00
842	55.30	36.11	91.86	2.86	0.53	0.69	24.13	0.00	24.13	4.000	No	Yes	2.00
843	55.35	35.57	90.45	2.84	0.54	0.69	23.58	0.00	23.58	4.000	No	Yes	2.00
844	55.43	34.37	90.39	2.84	0.54	0.69	22.52	0.00	22.52	4.000	No	Yes	2.00
845	55.50	33.23	90.44	2.84	0.54	0.69	21.60	0.00	21.60	4.000	No	Yes	2.00
846	55.54	32.28	90.71	2.85	0.54	0.69	21.21	0.00	21.21	4.000	No	Yes	2.00
847	55.62	31.74	90.56	2.84	0.55	0.69	20.55	0.00	20.55	4.000	No	Yes	2.00
848	55.70	31.36	90.21	2.84	0.55	0.69	20.46	0.00	20.46	4.000	No	Yes	2.00
849	55.74	31.20	89.80	2.84	0.55	0.69	20.40	0.00	20.40	4.000	No	Yes	2.00
850	55.82	31.08	89.77	2.83	0.55	0.69	20.19	0.00	20.19	4.000	No	Yes	2.00
851	55.89	30.98	89.94	2.84	0.55	0.68	20.18	0.00	20.18	4.000	No	Yes	2.00
852	55.94	31.11	89.75	2.83	0.55	0.68	20.17	0.00	20.17	4.000	No	Yes	2.00
853	56.01	31.49	89.15	2.83	0.55	0.68	20.41	0.00	20.41	4.000	No	Yes	2.00
854	56.09	32.02	88.19	2.81	0.55	0.68	20.91	0.00	20.91	4.000	No	Yes	2.00
855	56.14	32.69	87.08	2.80	0.54	0.69	21.23	0.00	21.23	4.000	No	Yes	2.00
856	56.22	33.16	86.30	2.79	0.54	0.69	21.73	0.00	21.73	4.000	No	Yes	2.00
857	56.29	33.44	86.00	2.79	0.54	0.69	21.84	0.00	21.84	4.000	No	Yes	2.00
858	56.33	33.29	86.88	2.80	0.54	0.69	21.78	0.00	21.78	4.000	No	Yes	2.00
859	56.41	33.04	88.19	2.81	0.54	0.68	21.38	0.00	21.38	4.000	No	Yes	2.00
860	56.49	32.88	89.46	2.83	0.54	0.68	21.32	0.00	21.32	4.000	No	Yes	2.00
861	56.53	33.35	89.75	2.83	0.54	0.68	21.44	0.00	21.44	4.000	No	Yes	2.00
862	56.61	34.90	88.50	2.82	0.54	0.68	22.32	0.00	22.32	4.000	No	Yes	2.00
863	56.69	36.98	84.46	2.77	0.53	0.69	24.43	0.00	24.43	4.000	No	Yes	2.00
864	56.73	39.26	77.42	2.68	0.53	0.69	25.62	0.00	25.62	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
865	56.81	40.40	72.28	2.62	0.53	0.69	26.88	0.00	26.88	4.000	No	Yes	2.00
866	56.85	40.24	72.79	2.62	0.53	0.69	26.68	0.00	26.68	4.000	No	Yes	2.00
867	56.93	38.60	78.53	2.69	0.53	0.69	25.27	0.00	25.27	4.000	No	Yes	2.00
868	57.01	36.80	83.57	2.76	0.54	0.68	23.53	0.00	23.53	4.000	No	Yes	2.00
869	57.05	35.67	86.43	2.79	0.54	0.68	23.02	0.00	23.02	4.000	No	Yes	2.00
870	57.12	35.39	88.33	2.82	0.54	0.68	22.98	0.00	22.98	4.000	No	Yes	2.00
871	57.21	35.52	90.52	2.84	0.54	0.68	22.95	0.00	22.95	4.000	No	Yes	2.00
872	57.25	36.07	94.36	2.89	0.54	0.68	23.28	0.00	23.28	4.000	No	Yes	2.00
873	57.33	39.74	94.80	2.90	0.53	0.69	24.11	0.00	24.11	4.000	No	Yes	2.00
874	57.41	47.99	89.41	2.83	0.51	0.69	30.52	0.00	30.52	4.000	No	Yes	2.00
875	57.45	74.03	69.41	2.58	0.49	0.70	40.45	62.28	102.73	4.000	No	No	2.00
876	57.53	109.37	50.73	2.35	0.40	0.75	81.79	68.02	149.80	4.000	No	No	2.00
877	57.57	156.75	35.20	2.15	0.36	0.77	111.21	64.23	175.44	4.000	No	No	2.00
878	57.65	191.43	29.35	2.08	0.30	0.80	154.24	65.47	219.72	4.000	No	No	2.00
879	57.73	208.88	29.54	2.08	0.28	0.82	169.38	68.84	238.22	4.000	No	No	2.00
880	57.78	198.51	36.31	2.17	0.29	0.81	157.53	76.00	233.53	4.000	No	No	2.00
881	57.85	171.77	46.33	2.29	0.32	0.79	128.97	77.91	206.88	4.000	No	No	2.00
882	57.92	144.12	56.44	2.42	0.36	0.77	101.45	75.81	177.27	4.000	No	No	2.00
883	57.97	120.60	64.88	2.52	0.38	0.76	87.41	74.73	162.14	4.000	No	No	2.00
884	58.03	102.29	70.73	2.60	0.42	0.74	70.84	71.42	142.26	4.000	No	No	2.00
885	58.10	85.32	76.27	2.67	0.44	0.73	57.77	0.00	57.77	4.000	No	Yes	2.00
886	58.18	70.94	81.60	2.73	0.47	0.71	47.84	0.00	47.84	4.000	No	Yes	2.00
887	58.26	66.56	81.99	2.74	0.49	0.70	38.41	0.00	38.41	4.000	No	Yes	2.00
888	58.30	61.79	85.72	2.78	0.47	0.71	47.95	0.00	47.95	4.000	No	Yes	2.00
889	58.38	66.18	82.80	2.75	0.50	0.70	37.36	0.00	37.36	4.000	No	Yes	2.00
890	58.46	71.89	78.54	2.69	0.47	0.71	47.92	0.00	47.92	4.000	No	Yes	2.00
891	58.50	99.20	59.32	2.45	0.45	0.72	60.28	65.41	125.68	4.000	No	No	2.00
892	58.58	141.55	38.22	2.19	0.38	0.76	99.17	64.37	163.54	4.000	No	No	2.00
893	58.64	194.72	19.28	1.95	0.35	0.78	145.34	41.02	186.36	4.000	No	No	2.00
894	58.69	242.90	5.89	1.79	0.36	0.77	180.50	0.69	181.19	4.000	No	No	2.00
895	58.76	269.48	0.00	1.69	0.31	0.79	212.63	0.00	212.63	4.000	No	No	2.00
896	58.83	273.34	0.00	1.65	0.32	0.79	207.86	0.00	207.86	4.000	No	No	2.00
897	58.89	261.61	0.00	1.66	0.34	0.78	190.54	0.00	190.54	4.000	No	No	2.00
898	58.96	245.33	0.00	1.70	0.36	0.77	180.19	0.00	180.19	4.000	No	No	2.00
899	59.03	227.25	3.69	1.76	0.38	0.75	163.57	0.01	163.58	4.000	No	No	2.00
900	59.10	203.04	9.66	1.83	0.40	0.74	144.35	7.90	152.25	4.000	No	No	2.00
901	59.15	168.04	21.34	1.98	0.37	0.76	125.89	43.98	169.87	4.000	No	No	2.00
902	59.23	131.73	37.32	2.18	0.41	0.74	86.95	60.72	147.67	4.000	No	No	2.00
903	59.29	97.43	57.40	2.43	0.43	0.73	65.88	66.35	132.22	4.000	No	No	2.00
904	59.35	79.76	70.62	2.60	0.47	0.71	48.31	64.82	113.13	4.000	No	No	2.00
905	59.41	71.10	76.90	2.67	0.47	0.71	47.54	0.00	47.54	4.000	No	Yes	2.00
906	59.48	68.13	77.12	2.68	0.47	0.70	46.69	0.00	46.69	4.000	No	Yes	2.00
907	59.55	62.06	79.15	2.70	0.48	0.70	41.87	0.00	41.87	4.000	No	Yes	2.00
908	59.62	53.50	82.10	2.74	0.50	0.69	34.46	0.00	34.46	4.000	No	Yes	2.00
909	59.69	45.69	83.43	2.76	0.52	0.68	28.46	0.00	28.46	4.000	No	Yes	2.00
910	59.75	40.79	81.29	2.73	0.53	0.67	25.47	0.00	25.47	4.000	No	Yes	2.00
911	59.82	38.30	80.63	2.72	0.54	0.67	24.29	0.00	24.29	4.000	No	Yes	2.00
912	59.90	37.09	82.62	2.75	0.54	0.67	23.34	0.00	23.34	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
913	59.94	36.34	84.40	2.77	0.54	0.67	23.02	0.00	23.02	4.000	No	Yes	2.00
914	60.01	37.15	85.05	2.78	0.54	0.67	22.77	0.00	22.77	4.000	No	Yes	2.00
915	60.07	38.80	85.97	2.79	0.53	0.67	24.99	0.00	24.99	4.000	No	Yes	2.00
916	60.15	40.51	86.73	2.80	0.53	0.67	26.33	0.00	26.33	4.000	No	Yes	2.00
917	60.23	41.20	87.62	2.81	0.53	0.67	26.19	0.00	26.19	4.000	No	Yes	2.00
918	60.27	41.61	87.42	2.81	0.53	0.67	26.37	0.00	26.37	4.000	No	Yes	2.00
919	60.35	42.72	85.86	2.79	0.53	0.67	27.12	0.00	27.12	4.000	No	Yes	2.00
920	60.43	43.82	84.43	2.77	0.52	0.67	28.39	0.00	28.39	4.000	No	Yes	2.00
921	60.47	44.99	83.30	2.75	0.52	0.67	28.57	0.00	28.57	4.000	No	Yes	2.00
922	60.55	45.81	82.86	2.75	0.52	0.68	29.46	0.00	29.46	4.000	No	Yes	2.00
923	60.59	46.57	82.87	2.75	0.52	0.68	30.03	0.00	30.03	4.000	No	Yes	2.00
924	60.67	46.70	83.78	2.76	0.52	0.68	30.09	0.00	30.09	4.000	No	Yes	2.00
925	60.75	46.42	85.14	2.78	0.52	0.68	29.69	0.00	29.69	4.000	No	Yes	2.00
926	60.79	45.59	86.99	2.80	0.52	0.67	29.43	0.00	29.43	4.000	No	Yes	2.00
927	60.87	44.42	88.88	2.82	0.52	0.67	28.39	0.00	28.39	4.000	No	Yes	2.00
928	60.95	43.19	90.43	2.84	0.52	0.67	27.29	0.00	27.29	4.000	No	Yes	2.00
929	60.99	42.08	91.00	2.85	0.53	0.67	26.90	0.00	26.90	4.000	No	Yes	2.00
930	61.07	41.85	89.84	2.84	0.53	0.67	26.10	0.00	26.10	4.000	No	Yes	2.00
931	61.15	41.21	89.23	2.83	0.53	0.67	26.76	0.00	26.76	4.000	No	Yes	2.00
932	61.19	41.50	88.01	2.81	0.53	0.67	25.56	0.00	25.56	4.000	No	Yes	2.00
933	61.27	41.86	87.49	2.81	0.53	0.67	26.63	0.00	26.63	4.000	No	Yes	2.00
934	61.31	43.31	85.99	2.79	0.52	0.67	27.45	0.00	27.45	4.000	No	Yes	2.00
935	61.39	44.29	85.58	2.78	0.52	0.67	28.45	0.00	28.45	4.000	No	Yes	2.00
936	61.47	44.67	85.87	2.79	0.52	0.67	28.57	0.00	28.57	4.000	No	Yes	2.00
937	61.51	44.54	86.51	2.79	0.52	0.67	28.18	0.00	28.18	4.000	No	Yes	2.00
938	61.59	44.35	86.93	2.80	0.52	0.67	28.16	0.00	28.16	4.000	No	Yes	2.00
939	61.67	44.35	87.16	2.80	0.52	0.67	28.15	0.00	28.15	4.000	No	Yes	2.00
940	61.71	44.35	87.24	2.80	0.52	0.67	28.14	0.00	28.14	4.000	No	Yes	2.00
941	61.79	44.48	87.03	2.80	0.52	0.67	28.12	0.00	28.12	4.000	No	Yes	2.00
942	61.87	44.58	86.75	2.80	0.52	0.67	28.36	0.00	28.36	4.000	No	Yes	2.00
943	61.91	43.41	88.40	2.82	0.52	0.67	28.30	0.00	28.30	4.000	No	Yes	2.00
944	61.98	42.75	89.89	2.84	0.53	0.66	25.75	0.00	25.75	4.000	No	Yes	2.00
945	62.05	41.77	92.07	2.86	0.52	0.67	27.02	0.00	27.02	4.000	No	Yes	2.00
946	62.13	41.89	92.66	2.87	0.53	0.66	26.30	0.00	26.30	4.000	No	Yes	2.00
947	62.17	41.26	95.42	2.91	0.53	0.66	25.99	0.00	25.99	4.000	No	Yes	2.00
948	62.25	41.83	98.40	2.94	0.53	0.66	25.74	0.00	25.74	4.000	No	Yes	2.00
949	62.33	44.68	99.26	2.95	0.52	0.67	27.45	0.00	27.45	4.000	No	Yes	2.00
950	62.37	55.08	92.39	2.87	0.51	0.67	31.74	0.00	31.74	4.000	No	Yes	2.00
951	62.45	75.62	78.28	2.69	0.47	0.69	47.28	0.00	47.28	4.000	No	Yes	2.00
952	62.52	100.82	64.36	2.52	0.42	0.72	71.73	70.10	141.83	4.000	No	No	2.00
953	62.57	133.18	51.01	2.35	0.39	0.74	87.27	69.61	156.88	4.000	No	No	2.00
954	62.64	166.40	41.25	2.23	0.34	0.77	123.00	72.66	195.66	4.000	No	No	2.00
955	62.70	202.00	33.18	2.13	0.30	0.79	153.08	71.06	224.14	4.000	No	No	2.00
956	62.76	227.32	28.80	2.07	0.27	0.81	177.03	69.01	246.04	4.000	No	No	2.00
957	62.82	240.59	27.67	2.06	0.26	0.81	188.36	68.99	257.35	4.000	No	No	2.00
958	62.89	238.44	30.22	2.09	0.26	0.81	187.88	73.78	261.66	4.000	No	No	2.00
959	62.95	226.72	34.95	2.15	0.27	0.81	172.65	77.75	250.40	4.000	No	No	2.00
960	63.02	205.16	42.05	2.24	0.28	0.80	159.32	82.27	241.60	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
961	63.09	180.22	50.26	2.34	0.31	0.78	133.01	81.38	214.40	4.000	No	No	2.00
962	63.17	156.42	58.60	2.45	0.35	0.76	108.38	78.58	186.96	4.000	No	No	2.00
963	63.24	140.17	64.82	2.52	0.36	0.75	98.29	77.83	176.12	4.000	No	No	2.00
964	63.28	129.87	68.42	2.57	0.37	0.74	92.30	77.11	169.41	4.000	No	No	2.00
965	63.36	122.28	69.96	2.59	0.39	0.73	83.24	74.86	158.10	4.000	No	No	2.00
966	63.43	115.26	70.82	2.60	0.40	0.73	79.89	74.08	153.97	4.000	No	No	2.00
967	63.48	109.16	71.22	2.60	0.41	0.72	75.39	0.00	75.39	4.000	No	Yes	2.00
968	63.56	102.87	73.00	2.62	0.42	0.71	68.77	0.00	68.77	4.000	No	Yes	2.00
969	63.64	97.31	75.02	2.65	0.43	0.71	65.15	0.00	65.15	4.000	No	Yes	2.00
970	63.68	94.73	75.59	2.66	0.43	0.71	62.49	0.00	62.49	4.000	No	Yes	2.00
971	63.76	93.73	74.70	2.65	0.43	0.71	62.83	0.00	62.83	4.000	No	Yes	2.00
972	63.81	94.08	72.27	2.62	0.43	0.71	62.75	0.00	62.75	4.000	No	Yes	2.00
973	63.89	93.56	71.04	2.60	0.43	0.71	63.09	0.00	63.09	4.000	No	Yes	2.00
974	63.94	93.23	70.74	2.60	0.44	0.70	61.49	68.69	130.18	4.000	No	No	2.00
975	64.00	92.00	71.14	2.60	0.44	0.70	61.90	0.00	61.90	4.000	No	Yes	2.00
976	64.07	91.98	70.26	2.59	0.44	0.70	60.22	68.22	128.43	4.000	No	No	2.00
977	64.14	91.57	70.47	2.59	0.44	0.70	61.36	68.59	129.95	4.000	No	No	2.00
978	64.22	96.00	69.65	2.58	0.44	0.70	60.85	68.27	129.11	4.000	No	No	2.00
979	64.27	108.78	66.85	2.55	0.42	0.71	70.09	70.29	140.38	4.000	No	No	2.00
980	64.35	122.15	63.97	2.51	0.38	0.74	91.12	75.53	166.65	4.000	No	No	2.00
981	64.41	128.29	63.73	2.51	0.38	0.74	92.00	75.71	167.71	4.000	No	No	2.00
982	64.48	119.25	68.17	2.56	0.39	0.73	84.53	74.79	159.32	4.000	No	No	2.00
983	64.53	103.28	74.97	2.65	0.42	0.71	69.80	0.00	69.80	4.000	No	Yes	2.00
984	64.61	87.04	81.97	2.74	0.45	0.69	55.13	0.00	55.13	4.000	No	Yes	2.00
985	64.69	75.66	86.20	2.79	0.47	0.68	47.71	0.00	47.71	4.000	No	Yes	2.00
986	64.73	68.73	87.37	2.80	0.47	0.68	44.66	0.00	44.66	4.000	No	Yes	2.00
987	64.81	64.12	86.90	2.80	0.49	0.67	40.22	0.00	40.22	4.000	No	Yes	2.00
988	64.89	60.51	86.17	2.79	0.49	0.67	37.87	0.00	37.87	4.000	No	Yes	2.00
989	64.93	58.52	85.45	2.78	0.50	0.67	37.01	0.00	37.01	4.000	No	Yes	2.00
990	65.01	57.61	84.74	2.77	0.50	0.66	36.01	0.00	36.01	4.000	No	Yes	2.00
991	65.06	56.94	83.93	2.76	0.50	0.66	35.92	0.00	35.92	4.000	No	Yes	2.00
992	65.14	57.01	83.50	2.76	0.50	0.66	35.58	0.00	35.58	4.000	No	Yes	2.00
993	65.21	57.36	83.34	2.75	0.50	0.66	36.08	0.00	36.08	4.000	No	Yes	2.00
994	65.26	58.08	83.66	2.76	0.50	0.66	36.59	0.00	36.59	4.000	No	Yes	2.00
995	65.33	57.10	85.51	2.78	0.50	0.66	37.03	0.00	37.03	4.000	No	Yes	2.00
996	65.38	60.14	84.44	2.77	0.50	0.66	34.05	0.00	34.05	4.000	No	Yes	2.00
997	65.45	64.28	82.68	2.75	0.48	0.67	42.85	0.00	42.85	4.000	No	Yes	2.00
998	65.53	70.95	79.45	2.71	0.47	0.68	45.60	0.00	45.60	4.000	No	Yes	2.00
999	65.61	74.23	78.74	2.70	0.47	0.68	47.86	0.00	47.86	4.000	No	Yes	2.00
1000	65.65	76.92	77.65	2.68	0.46	0.68	49.73	0.00	49.73	4.000	No	Yes	2.00
1001	65.73	77.77	76.36	2.67	0.46	0.68	51.25	0.00	51.25	4.000	No	Yes	2.00
1002	65.81	76.67	75.84	2.66	0.47	0.68	49.58	0.00	49.58	4.000	No	Yes	2.00
1003	65.85	72.78	77.52	2.68	0.47	0.68	47.28	0.00	47.28	4.000	No	Yes	2.00
1004	65.93	68.76	80.55	2.72	0.48	0.67	42.94	0.00	42.94	4.000	No	Yes	2.00
1005	66.00	65.82	82.66	2.75	0.49	0.67	41.09	0.00	41.09	4.000	No	Yes	2.00
1006	66.05	66.36	81.89	2.74	0.49	0.67	41.07	0.00	41.07	4.000	No	Yes	2.00
1007	66.13	68.35	80.02	2.71	0.48	0.67	44.01	0.00	44.01	4.000	No	Yes	2.00
1008	66.17	71.96	78.05	2.69	0.48	0.67	45.17	0.00	45.17	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1009	66.25	76.13	76.98	2.67	0.47	0.68	48.56	0.00	48.56	4.000	No	Yes	2.00
1010	66.32	80.62	76.46	2.67	0.46	0.68	52.82	0.00	52.82	4.000	No	Yes	2.00
1011	66.37	84.35	76.33	2.67	0.45	0.68	54.73	0.00	54.73	4.000	No	Yes	2.00
1012	66.44	86.94	76.09	2.66	0.45	0.69	56.56	0.00	56.56	4.000	No	Yes	2.00
1013	66.52	89.21	75.37	2.65	0.44	0.69	58.40	0.00	58.40	4.000	No	Yes	2.00
1014	66.57	91.36	74.07	2.64	0.44	0.69	59.62	0.00	59.62	4.000	No	Yes	2.00
1015	66.64	92.91	73.33	2.63	0.44	0.69	61.19	0.00	61.19	4.000	No	Yes	2.00
1016	66.72	93.67	73.20	2.63	0.44	0.69	61.71	0.00	61.71	4.000	No	Yes	2.00
1017	66.77	92.47	74.29	2.64	0.44	0.69	61.23	0.00	61.23	4.000	No	Yes	2.00
1018	66.85	88.27	76.99	2.67	0.44	0.69	58.51	0.00	58.51	4.000	No	Yes	2.00
1019	66.92	82.93	80.20	2.71	0.46	0.68	52.52	0.00	52.52	4.000	No	Yes	2.00
1020	66.97	79.77	81.40	2.73	0.46	0.68	49.59	0.00	49.59	4.000	No	Yes	2.00
1021	67.02	76.89	81.80	2.73	0.46	0.68	51.62	0.00	51.62	4.000	No	Yes	2.00
1022	67.12	74.01	81.89	2.74	0.47	0.67	46.31	0.00	46.31	4.000	No	Yes	2.00
1023	67.16	68.64	83.15	2.75	0.48	0.67	43.45	0.00	43.45	4.000	No	Yes	2.00
1024	67.24	65.13	83.63	2.76	0.49	0.66	40.20	0.00	40.20	4.000	No	Yes	2.00
1025	67.29	61.90	83.75	2.76	0.49	0.66	38.93	0.00	38.93	4.000	No	Yes	2.00
1026	67.37	59.57	83.83	2.76	0.50	0.65	36.73	0.00	36.73	4.000	No	Yes	2.00
1027	67.44	57.48	83.66	2.76	0.50	0.65	35.37	0.00	35.37	4.000	No	Yes	2.00
1028	67.49	56.25	82.75	2.75	0.50	0.65	34.65	0.00	34.65	4.000	No	Yes	2.00
1029	67.56	55.39	81.65	2.73	0.51	0.65	34.18	0.00	34.18	4.000	No	Yes	2.00
1030	67.64	54.45	80.80	2.72	0.51	0.65	33.59	0.00	33.59	4.000	No	Yes	2.00
1031	67.69	53.31	80.30	2.72	0.51	0.65	32.69	0.00	32.69	4.000	No	Yes	2.00
1032	67.77	51.85	80.43	2.72	0.51	0.64	31.83	0.00	31.83	4.000	No	Yes	2.00
1033	67.81	50.05	81.06	2.73	0.52	0.64	30.63	0.00	30.63	4.000	No	Yes	2.00
1034	67.89	48.12	82.57	2.74	0.52	0.64	29.07	0.00	29.07	4.000	No	Yes	2.00
1035	67.97	46.73	83.86	2.76	0.52	0.64	28.01	0.00	28.01	4.000	No	Yes	2.00
1036	68.02	46.18	84.66	2.77	0.52	0.64	27.89	0.00	27.89	4.000	No	Yes	2.00
1037	68.09	46.15	85.06	2.78	0.52	0.64	27.97	0.00	27.97	4.000	No	Yes	2.00
1038	68.14	46.53	84.99	2.77	0.52	0.64	27.93	0.00	27.93	4.000	No	Yes	2.00
1039	68.21	47.37	84.64	2.77	0.52	0.64	28.59	0.00	28.59	4.000	No	Yes	2.00
1040	68.29	48.50	84.21	2.77	0.52	0.64	29.57	0.00	29.57	4.000	No	Yes	2.00
1041	68.34	49.77	84.08	2.76	0.52	0.64	30.12	0.00	30.12	4.000	No	Yes	2.00
1042	68.42	50.97	84.00	2.76	0.51	0.64	31.04	0.00	31.04	4.000	No	Yes	2.00
1043	68.49	52.14	83.79	2.76	0.51	0.64	31.90	0.00	31.90	4.000	No	Yes	2.00
1044	68.54	52.86	83.34	2.75	0.51	0.64	32.41	0.00	32.41	4.000	No	Yes	2.00
1045	68.61	53.40	83.47	2.76	0.51	0.64	32.46	0.00	32.46	4.000	No	Yes	2.00
1046	68.69	53.65	84.35	2.77	0.51	0.64	32.95	0.00	32.95	4.000	No	Yes	2.00
1047	68.74	53.75	85.52	2.78	0.51	0.64	32.89	0.00	32.89	4.000	No	Yes	2.00
1048	68.81	53.50	86.28	2.79	0.51	0.64	32.63	0.00	32.63	4.000	No	Yes	2.00
1049	68.86	53.27	86.28	2.79	0.51	0.64	32.43	0.00	32.43	4.000	No	Yes	2.00
1050	68.94	53.18	86.00	2.79	0.51	0.64	32.41	0.00	32.41	4.000	No	Yes	2.00
1051	68.99	53.18	85.50	2.78	0.51	0.64	32.39	0.00	32.39	4.000	No	Yes	2.00
1052	69.08	53.18	84.89	2.77	0.51	0.64	32.37	0.00	32.37	4.000	No	Yes	2.00
1053	69.14	53.27	84.03	2.76	0.51	0.64	32.35	0.00	32.35	4.000	No	Yes	2.00
1054	69.19	53.43	83.21	2.75	0.51	0.64	32.52	0.00	32.52	4.000	No	Yes	2.00
1055	69.27	53.53	83.00	2.75	0.51	0.64	32.63	0.00	32.63	4.000	No	Yes	2.00
1056	69.34	53.78	83.03	2.75	0.51	0.64	32.49	0.00	32.49	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1057	69.39	54.23	82.91	2.75	0.51	0.64	32.98	0.00	32.98	4.000	No	Yes	2.00
1058	69.46	55.27	82.00	2.74	0.51	0.64	33.45	0.00	33.45	4.000	No	Yes	2.00
1059	69.54	56.06	81.15	2.73	0.50	0.64	34.49	0.00	34.49	4.000	No	Yes	2.00
1060	69.58	56.41	80.92	2.72	0.50	0.64	34.48	0.00	34.48	4.000	No	Yes	2.00
1061	69.66	56.06	81.41	2.73	0.51	0.64	34.09	0.00	34.09	4.000	No	Yes	2.00
1062	69.74	55.93	81.83	2.74	0.51	0.64	33.76	0.00	33.76	4.000	No	Yes	2.00
1063	69.78	56.21	81.99	2.74	0.51	0.64	34.19	0.00	34.19	4.000	No	Yes	2.00
1064	69.86	56.75	82.16	2.74	0.50	0.64	34.61	0.00	34.61	4.000	No	Yes	2.00
1065	69.94	57.10	82.51	2.74	0.50	0.64	34.79	0.00	34.79	4.000	No	Yes	2.00
1066	69.99	56.09	83.94	2.76	0.50	0.64	34.85	0.00	34.85	4.000	No	Yes	2.00
1067	70.04	56.44	83.98	2.76	0.51	0.64	32.59	0.00	32.59	4.000	No	Yes	2.00
1068	70.11	56.85	84.00	2.76	0.50	0.64	35.45	0.00	35.45	4.000	No	Yes	2.00
1069	70.18	59.00	82.33	2.74	0.50	0.64	35.60	0.00	35.60	4.000	No	Yes	2.00
1070	70.25	59.79	81.53	2.73	0.50	0.64	36.78	0.00	36.78	4.000	No	Yes	2.00
1071	70.33	60.46	80.47	2.72	0.50	0.64	36.94	0.00	36.94	4.000	No	Yes	2.00
1072	70.40	60.33	79.94	2.71	0.50	0.64	36.86	0.00	36.86	4.000	No	Yes	2.00
1073	70.44	60.01	79.60	2.71	0.50	0.64	36.46	0.00	36.46	4.000	No	Yes	2.00
1074	70.52	59.89	79.28	2.70	0.50	0.64	36.25	0.00	36.25	4.000	No	Yes	2.00
1075	70.59	59.95	78.94	2.70	0.50	0.64	36.55	0.00	36.55	4.000	No	Yes	2.00
1076	70.64	60.14	78.68	2.70	0.50	0.64	36.53	0.00	36.53	4.000	No	Yes	2.00
1077	70.72	60.30	78.71	2.70	0.50	0.64	36.58	0.00	36.58	4.000	No	Yes	2.00
1078	70.80	60.64	78.62	2.70	0.50	0.64	36.81	0.00	36.81	4.000	No	Yes	2.00
1079	70.84	61.56	78.03	2.69	0.50	0.64	37.17	0.00	37.17	4.000	No	Yes	2.00
1080	70.92	62.54	77.39	2.68	0.50	0.64	38.34	0.00	38.34	4.000	No	Yes	2.00
1081	70.96	63.65	76.77	2.67	0.49	0.64	38.70	0.00	38.70	4.000	No	Yes	2.00
1082	71.05	64.22	76.31	2.67	0.49	0.64	39.31	0.00	39.31	4.000	No	Yes	2.00
1083	71.12	64.47	76.17	2.66	0.49	0.64	39.41	0.00	39.41	4.000	No	Yes	2.00
1084	71.17	64.00	77.00	2.68	0.49	0.64	39.16	0.00	39.16	4.000	No	Yes	2.00
1085	71.25	63.24	78.48	2.69	0.50	0.64	38.34	0.00	38.34	4.000	No	Yes	2.00
1086	71.29	62.32	79.73	2.71	0.50	0.64	37.89	0.00	37.89	4.000	No	Yes	2.00
1087	71.38	61.78	80.03	2.71	0.50	0.64	37.31	0.00	37.31	4.000	No	Yes	2.00
1088	71.42	60.11	80.70	2.72	0.50	0.64	37.24	0.00	37.24	4.000	No	Yes	2.00
1089	71.49	59.28	80.65	2.72	0.50	0.64	34.54	0.00	34.54	4.000	No	Yes	2.00
1090	71.56	58.30	80.91	2.72	0.50	0.64	35.65	0.00	35.65	4.000	No	Yes	2.00
1091	71.63	58.24	80.70	2.72	0.50	0.64	35.26	0.00	35.26	4.000	No	Yes	2.00
1092	71.70	58.09	80.63	2.72	0.50	0.63	34.37	0.00	34.37	4.000	No	Yes	2.00
1093	71.75	57.80	80.50	2.72	0.50	0.64	35.29	0.00	35.29	4.000	No	Yes	2.00
1094	71.82	58.31	79.70	2.71	0.50	0.63	34.65	0.00	34.65	4.000	No	Yes	2.00
1095	71.88	59.16	78.64	2.70	0.50	0.63	35.30	0.00	35.30	4.000	No	Yes	2.00
1096	71.95	60.90	76.97	2.67	0.50	0.64	36.89	0.00	36.89	4.000	No	Yes	2.00
1097	72.02	62.61	75.70	2.66	0.50	0.64	37.99	0.00	37.99	4.000	No	Yes	2.00
1098	72.08	63.56	75.45	2.66	0.50	0.64	38.60	0.00	38.60	4.000	No	Yes	2.00
1099	72.15	63.84	75.92	2.66	0.49	0.64	38.72	0.00	38.72	4.000	No	Yes	2.00
1100	72.22	63.72	76.83	2.67	0.50	0.64	38.52	0.00	38.52	4.000	No	Yes	2.00
1101	72.28	63.53	77.77	2.68	0.50	0.64	38.33	0.00	38.33	4.000	No	Yes	2.00
1102	72.35	63.68	78.16	2.69	0.50	0.64	38.32	0.00	38.32	4.000	No	Yes	2.00
1103	72.42	64.28	77.82	2.69	0.49	0.64	38.79	0.00	38.79	4.000	No	Yes	2.00
1104	72.50	64.76	77.50	2.68	0.49	0.64	39.47	0.00	39.47	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1105	72.54	64.73	77.84	2.69	0.49	0.64	39.21	0.00	39.21	4.000	No	Yes	2.00
1106	72.62	64.16	78.91	2.70	0.49	0.64	38.70	0.00	38.70	4.000	No	Yes	2.00
1107	72.70	63.75	79.82	2.71	0.49	0.64	38.31	0.00	38.31	4.000	No	Yes	2.00
1108	72.74	63.65	80.30	2.72	0.49	0.64	38.37	0.00	38.37	4.000	No	Yes	2.00
1109	72.82	63.53	80.47	2.72	0.49	0.64	38.48	0.00	38.48	4.000	No	Yes	2.00
1110	72.86	62.61	80.89	2.72	0.50	0.64	38.03	0.00	38.03	4.000	No	Yes	2.00
1111	72.94	61.22	80.97	2.72	0.50	0.63	36.52	0.00	36.52	4.000	No	Yes	2.00
1112	73.02	60.05	81.06	2.73	0.50	0.63	35.69	0.00	35.69	4.000	No	Yes	2.00
1113	73.07	60.14	80.55	2.72	0.50	0.63	35.67	0.00	35.67	4.000	No	Yes	2.00
1114	73.15	60.90	80.25	2.72	0.50	0.63	36.65	0.00	36.65	4.000	No	Yes	2.00
1115	73.19	62.13	79.44	2.71	0.50	0.63	37.13	0.00	37.13	4.000	No	Yes	2.00
1116	73.28	63.24	78.53	2.69	0.50	0.63	38.03	0.00	38.03	4.000	No	Yes	2.00
1117	73.32	63.84	78.07	2.69	0.49	0.63	38.77	0.00	38.77	4.000	No	Yes	2.00
1118	73.39	64.00	77.94	2.69	0.50	0.63	38.25	0.00	38.25	4.000	No	Yes	2.00
1119	73.45	63.75	78.27	2.69	0.50	0.63	38.30	0.00	38.30	4.000	No	Yes	2.00
1120	73.53	63.62	78.46	2.69	0.50	0.63	38.22	0.00	38.22	4.000	No	Yes	2.00
1121	73.59	63.30	78.85	2.70	0.50	0.63	37.96	0.00	37.96	4.000	No	Yes	2.00
1122	73.66	63.11	78.86	2.70	0.50	0.63	37.63	0.00	37.63	4.000	No	Yes	2.00
1123	73.72	63.30	78.45	2.69	0.50	0.63	37.80	0.00	37.80	4.000	No	Yes	2.00
1124	73.78	63.65	78.02	2.69	0.50	0.63	38.28	0.00	38.28	4.000	No	Yes	2.00
1125	73.86	63.87	78.06	2.69	0.50	0.63	38.26	0.00	38.26	4.000	No	Yes	2.00
1126	73.93	64.26	78.24	2.69	0.50	0.63	38.19	0.00	38.19	4.000	No	Yes	2.00
1127	74.00	64.62	78.37	2.69	0.49	0.63	38.98	0.00	38.98	4.000	No	Yes	2.00
1128	74.04	65.01	78.43	2.69	0.49	0.63	38.94	0.00	38.94	4.000	No	Yes	2.00
1129	74.12	64.98	78.85	2.70	0.49	0.63	38.92	0.00	38.92	4.000	No	Yes	2.00
1130	74.19	65.03	79.24	2.70	0.49	0.63	38.88	0.00	38.88	4.000	No	Yes	2.00
1131	74.24	65.00	79.43	2.71	0.49	0.63	38.99	0.00	38.99	4.000	No	Yes	2.00
1132	74.31	64.74	79.37	2.70	0.49	0.63	38.82	0.00	38.82	4.000	No	Yes	2.00
1133	74.38	64.65	78.90	2.70	0.50	0.63	38.33	0.00	38.33	4.000	No	Yes	2.00
1134	74.45	64.47	78.50	2.69	0.49	0.63	38.75	0.00	38.75	4.000	No	Yes	2.00
1135	74.50	64.54	78.06	2.69	0.50	0.63	38.41	0.00	38.41	4.000	No	Yes	2.00
1136	74.59	64.35	78.09	2.69	0.50	0.63	38.39	0.00	38.39	4.000	No	Yes	2.00
1137	74.65	64.35	78.10	2.69	0.50	0.63	38.32	0.00	38.32	4.000	No	Yes	2.00
1138	74.71	64.19	78.36	2.69	0.50	0.63	38.37	0.00	38.37	4.000	No	Yes	2.00
1139	74.77	64.22	78.38	2.69	0.50	0.63	38.05	0.00	38.05	4.000	No	Yes	2.00
1140	74.83	64.41	78.29	2.69	0.50	0.63	38.34	0.00	38.34	4.000	No	Yes	2.00
1141	74.92	65.11	77.85	2.69	0.49	0.63	38.68	0.00	38.68	4.000	No	Yes	2.00
1142	74.96	65.90	77.52	2.68	0.49	0.63	39.36	0.00	39.36	4.000	No	Yes	2.00
1143	75.04	65.90	77.97	2.69	0.49	0.63	39.84	0.00	39.84	4.000	No	Yes	2.00
1144	75.11	65.55	78.66	2.70	0.49	0.63	38.65	0.00	38.65	4.000	No	Yes	2.00
1145	75.17	65.17	79.29	2.70	0.49	0.63	38.64	0.00	38.64	4.000	No	Yes	2.00
1146	75.24	65.20	79.57	2.71	0.49	0.63	39.07	0.00	39.07	4.000	No	Yes	2.00
1147	75.29	65.39	79.61	2.71	0.49	0.63	38.68	0.00	38.68	4.000	No	Yes	2.00
1148	75.36	65.80	79.25	2.70	0.49	0.63	38.97	0.00	38.97	4.000	No	Yes	2.00
1149	75.42	66.66	78.35	2.69	0.49	0.63	39.81	0.00	39.81	4.000	No	Yes	2.00
1150	75.50	67.35	77.65	2.68	0.49	0.63	40.28	0.00	40.28	4.000	No	Yes	2.00
1151	75.55	67.61	77.38	2.68	0.49	0.63	40.27	0.00	40.27	4.000	No	Yes	2.00
1152	75.63	67.61	77.42	2.68	0.49	0.63	40.25	0.00	40.25	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1153	75.69	67.89	77.20	2.68	0.49	0.63	40.23	0.00	40.23	4.000	No	Yes	2.00
1154	75.77	68.49	76.80	2.67	0.49	0.63	40.81	0.00	40.81	4.000	No	Yes	2.00
1155	75.83	69.34	76.24	2.67	0.49	0.63	41.42	0.00	41.42	4.000	No	Yes	2.00
1156	75.89	70.01	75.74	2.66	0.49	0.63	41.90	0.00	41.90	4.000	No	Yes	2.00
1157	75.95	70.70	75.01	2.65	0.49	0.63	42.06	0.00	42.06	4.000	No	Yes	2.00
1158	76.02	71.65	73.92	2.64	0.48	0.63	42.73	0.00	42.73	4.000	No	Yes	2.00
1159	76.08	73.20	72.52	2.62	0.48	0.63	43.70	0.00	43.70	4.000	No	Yes	2.00
1160	76.15	74.84	71.34	2.60	0.48	0.63	45.07	0.00	45.07	4.000	No	Yes	2.00
1161	76.21	75.86	70.84	2.60	0.48	0.63	45.94	64.17	110.11	4.000	No	No	2.00
1162	76.28	75.73	70.93	2.60	0.48	0.63	45.66	64.11	109.77	4.000	No	No	2.00
1163	76.34	74.56	71.70	2.61	0.48	0.63	44.76	0.00	44.76	4.000	No	Yes	2.00
1164	76.41	72.95	72.69	2.62	0.48	0.63	43.55	0.00	43.55	4.000	No	Yes	2.00
1165	76.47	71.24	73.94	2.64	0.49	0.63	42.41	0.00	42.41	4.000	No	Yes	2.00
1166	76.54	70.35	74.40	2.64	0.49	0.63	41.33	0.00	41.33	4.000	No	Yes	2.00
1167	76.62	69.88	74.43	2.64	0.49	0.63	41.75	0.00	41.75	4.000	No	Yes	2.00
1168	76.69	70.01	73.73	2.63	0.49	0.63	41.41	0.00	41.41	4.000	No	Yes	2.00
1169	76.77	69.88	73.14	2.63	0.49	0.63	41.51	0.00	41.51	4.000	No	Yes	2.00
1170	76.81	69.91	72.68	2.62	0.49	0.63	41.42	0.00	41.42	4.000	No	Yes	2.00
1171	76.89	69.98	72.69	2.62	0.49	0.63	41.40	0.00	41.40	4.000	No	Yes	2.00
1172	76.94	70.04	72.83	2.62	0.49	0.63	41.58	0.00	41.58	4.000	No	Yes	2.00
1173	77.02	70.01	72.91	2.62	0.49	0.63	41.50	0.00	41.50	4.000	No	Yes	2.00
1174	77.06	69.38	73.06	2.63	0.49	0.62	41.30	0.00	41.30	4.000	No	Yes	2.00
1175	77.14	68.40	73.58	2.63	0.49	0.62	40.25	0.00	40.25	4.000	No	Yes	2.00
1176	77.20	67.83	73.89	2.64	0.49	0.62	39.50	0.00	39.50	4.000	No	Yes	2.00
1177	77.27	68.02	73.96	2.64	0.49	0.62	40.11	0.00	40.11	4.000	No	Yes	2.00
1178	77.34	69.54	73.02	2.63	0.49	0.62	40.57	0.00	40.57	4.000	No	Yes	2.00
1179	77.40	70.99	72.33	2.62	0.49	0.63	42.47	0.00	42.47	4.000	No	Yes	2.00
1180	77.47	72.57	71.91	2.61	0.48	0.63	42.94	0.00	42.94	4.000	No	Yes	2.00
1181	77.54	73.77	72.28	2.62	0.48	0.63	43.69	0.00	43.69	4.000	No	Yes	2.00
1182	77.62	75.00	72.61	2.62	0.48	0.63	44.82	0.00	44.82	4.000	No	Yes	2.00
1183	77.66	76.58	72.56	2.62	0.48	0.63	45.38	0.00	45.38	4.000	No	Yes	2.00
1184	77.74	77.61	72.49	2.62	0.47	0.63	46.83	0.00	46.83	4.000	No	Yes	2.00
1185	77.79	78.31	72.55	2.62	0.47	0.63	46.85	0.00	46.85	4.000	No	Yes	2.00
1186	77.87	78.34	72.94	2.62	0.47	0.63	46.74	0.00	46.74	4.000	No	Yes	2.00
1187	77.95	78.55	73.10	2.63	0.47	0.63	46.85	0.00	46.85	4.000	No	Yes	2.00
1188	77.99	79.21	72.53	2.62	0.47	0.63	47.21	0.00	47.21	4.000	No	Yes	2.00
1189	78.07	79.84	71.87	2.61	0.47	0.63	48.00	0.00	48.00	4.000	No	Yes	2.00
1190	78.12	80.03	71.68	2.61	0.47	0.63	48.06	0.00	48.06	4.000	No	Yes	2.00
1191	78.20	80.16	71.77	2.61	0.47	0.63	47.52	0.00	47.52	4.000	No	Yes	2.00
1192	78.28	80.41	71.83	2.61	0.47	0.63	48.20	0.00	48.20	4.000	No	Yes	2.00
1193	78.32	82.34	70.56	2.59	0.47	0.63	48.48	64.85	113.34	4.000	No	No	2.00
1194	78.40	82.59	70.48	2.59	0.46	0.64	51.37	65.68	117.06	4.000	No	No	2.00
1195	78.44	80.95	71.64	2.61	0.47	0.63	48.67	0.00	48.67	4.000	No	Yes	2.00
1196	78.52	77.90	74.01	2.64	0.48	0.63	45.17	0.00	45.17	4.000	No	Yes	2.00
1197	78.60	76.17	75.49	2.66	0.48	0.63	45.21	0.00	45.21	4.000	No	Yes	2.00
1198	78.65	76.21	75.51	2.66	0.48	0.63	45.19	0.00	45.19	4.000	No	Yes	2.00
1199	78.73	76.19	75.52	2.66	0.48	0.63	45.20	0.00	45.20	4.000	No	Yes	2.00
1200	78.77	76.40	75.91	2.66	0.48	0.63	45.13	0.00	45.13	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1201	78.85	77.09	76.45	2.67	0.48	0.63	45.57	0.00	45.57	4.000	No	Yes	2.00
1202	78.90	82.53	74.39	2.64	0.47	0.63	46.53	0.00	46.53	4.000	No	Yes	2.00
1203	78.98	84.74	74.77	2.65	0.45	0.64	56.22	0.00	56.22	4.000	No	Yes	2.00
1204	79.03	91.10	72.13	2.61	0.47	0.63	49.92	0.00	49.92	4.000	No	Yes	2.00
1205	79.11	92.96	71.60	2.61	0.44	0.65	59.57	0.00	59.57	4.000	No	Yes	2.00
1206	79.17	96.15	69.58	2.58	0.44	0.65	59.96	67.99	127.96	4.000	No	No	2.00
1207	79.24	92.55	71.52	2.61	0.45	0.64	56.45	0.00	56.45	4.000	No	Yes	2.00
1208	79.30	85.56	75.80	2.66	0.46	0.63	52.05	0.00	52.05	4.000	No	Yes	2.00
1209	79.38	80.12	78.72	2.70	0.47	0.63	45.65	0.00	45.65	4.000	No	Yes	2.00
1210	79.44	77.15	79.63	2.71	0.48	0.62	45.39	0.00	45.39	4.000	No	Yes	2.00
1211	79.50	77.56	77.76	2.68	0.47	0.63	45.98	0.00	45.98	4.000	No	Yes	2.00
1212	79.56	78.10	75.63	2.66	0.47	0.63	46.37	0.00	46.37	4.000	No	Yes	2.00
1213	79.64	78.42	74.17	2.64	0.47	0.62	46.32	0.00	46.32	4.000	No	Yes	2.00
1214	79.70	78.67	73.87	2.64	0.47	0.62	46.49	0.00	46.49	4.000	No	Yes	2.00
1215	79.76	78.92	74.53	2.64	0.47	0.62	46.80	0.00	46.80	4.000	No	Yes	2.00
1216	79.82	78.76	75.65	2.66	0.47	0.62	46.80	0.00	46.80	4.000	No	Yes	2.00
1217	79.91	78.16	76.67	2.67	0.47	0.62	46.16	0.00	46.16	4.000	No	Yes	2.00
1218	79.97	77.31	77.39	2.68	0.48	0.62	45.59	0.00	45.59	4.000	No	Yes	2.00
1219	80.02	76.43	77.87	2.69	0.48	0.62	45.07	0.00	45.07	4.000	No	Yes	2.00
1220	80.08	75.83	78.05	2.69	0.48	0.62	44.37	0.00	44.37	4.000	No	Yes	2.00
1221	80.16	75.42	78.09	2.69	0.48	0.62	44.35	0.00	44.35	4.000	No	Yes	2.00
1222	80.21	75.35	77.95	2.69	0.48	0.62	44.21	0.00	44.21	4.000	No	Yes	2.00
1223	80.28	75.61	77.68	2.68	0.48	0.62	44.18	0.00	44.18	4.000	No	Yes	2.00
1224	80.34	76.24	77.23	2.68	0.48	0.62	44.79	0.00	44.79	4.000	No	Yes	2.00
1225	80.42	77.06	76.66	2.67	0.48	0.62	45.39	0.00	45.39	4.000	No	Yes	2.00
1226	80.48	77.41	76.46	2.67	0.48	0.62	45.75	0.00	45.75	4.000	No	Yes	2.00
1227	80.54	77.12	76.59	2.67	0.48	0.62	45.42	0.00	45.42	4.000	No	Yes	2.00
1228	80.62	76.65	76.79	2.67	0.48	0.62	44.77	0.00	44.77	4.000	No	Yes	2.00
1229	80.68	76.14	76.90	2.67	0.48	0.62	44.75	0.00	44.75	4.000	No	Yes	2.00
1230	80.74	75.82	76.78	2.67	0.48	0.62	44.35	0.00	44.35	4.000	No	Yes	2.00
1231	80.81	75.51	76.56	2.67	0.48	0.62	44.08	0.00	44.08	4.000	No	Yes	2.00
1232	80.87	75.22	76.26	2.67	0.48	0.62	44.06	0.00	44.06	4.000	No	Yes	2.00
1233	80.94	74.59	76.14	2.66	0.48	0.62	43.73	0.00	43.73	4.000	No	Yes	2.00
1234	81.01	73.68	76.28	2.67	0.48	0.61	42.78	0.00	42.78	4.000	No	Yes	2.00
1235	81.07	72.92	76.46	2.67	0.48	0.61	42.20	0.00	42.20	4.000	No	Yes	2.00
1236	81.14	72.44	76.63	2.67	0.48	0.61	42.19	0.00	42.19	4.000	No	Yes	2.00
1237	81.21	72.03	76.50	2.67	0.49	0.61	41.80	0.00	41.80	4.000	No	Yes	2.00
1238	81.28	71.31	76.32	2.67	0.49	0.61	41.35	0.00	41.35	4.000	No	Yes	2.00
1239	81.34	70.45	76.33	2.67	0.49	0.61	40.71	0.00	40.71	4.000	No	Yes	2.00
1240	81.39	69.66	76.88	2.67	0.49	0.61	40.06	0.00	40.06	4.000	No	Yes	2.00
1241	81.46	69.16	77.75	2.68	0.49	0.61	39.75	0.00	39.75	4.000	No	Yes	2.00
1242	81.53	69.03	78.30	2.69	0.49	0.61	39.68	0.00	39.68	4.000	No	Yes	2.00
1243	81.60	68.18	79.25	2.70	0.49	0.61	39.80	0.00	39.80	4.000	No	Yes	2.00
1244	81.66	68.12	79.44	2.71	0.50	0.60	38.10	0.00	38.10	4.000	No	Yes	2.00
1245	81.73	67.87	79.80	2.71	0.49	0.61	39.53	0.00	39.53	4.000	No	Yes	2.00
1246	81.79	68.88	79.20	2.70	0.49	0.61	39.27	0.00	39.27	4.000	No	Yes	2.00
1247	81.86	69.24	78.99	2.70	0.49	0.61	39.98	0.00	39.98	4.000	No	Yes	2.00
1248	81.92	69.84	78.51	2.69	0.49	0.61	40.17	0.00	40.17	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1249	81.98	70.25	78.11	2.69	0.49	0.61	40.36	0.00	40.36	4.000	No	Yes	2.00
1250	82.06	70.43	77.94	2.69	0.49	0.61	40.75	0.00	40.75	4.000	No	Yes	2.00
1251	82.11	71.00	77.51	2.68	0.49	0.61	40.44	0.00	40.44	4.000	No	Yes	2.00
1252	82.18	71.44	77.25	2.68	0.49	0.61	41.45	0.00	41.45	4.000	No	Yes	2.00
1253	82.25	72.17	76.04	2.66	0.49	0.61	41.54	0.00	41.54	4.000	No	Yes	2.00
1254	82.31	72.39	73.72	2.63	0.49	0.61	41.79	0.00	41.79	4.000	No	Yes	2.00
1255	82.38	72.64	71.53	2.61	0.49	0.61	41.73	0.00	41.73	4.000	No	Yes	2.00
1256	82.44	72.95	70.70	2.60	0.49	0.61	41.88	62.96	104.84	4.000	No	No	2.00
1257	82.51	73.40	71.76	2.61	0.49	0.61	42.32	0.00	42.32	4.000	No	Yes	2.00
1258	82.58	73.81	72.42	2.62	0.49	0.61	42.57	0.00	42.57	4.000	No	Yes	2.00
1259	82.64	73.94	73.08	2.63	0.48	0.61	42.69	0.00	42.69	4.000	No	Yes	2.00
1260	82.71	73.88	73.75	2.63	0.48	0.61	42.56	0.00	42.56	4.000	No	Yes	2.00
1261	82.77	74.13	74.20	2.64	0.48	0.61	42.43	0.00	42.43	4.000	No	Yes	2.00
1262	82.84	74.70	74.54	2.64	0.48	0.61	43.16	0.00	43.16	4.000	No	Yes	2.00
1263	82.91	75.33	74.75	2.65	0.48	0.61	43.64	0.00	43.64	4.000	No	Yes	2.00
1264	82.97	75.70	74.83	2.65	0.48	0.61	43.63	0.00	43.63	4.000	No	Yes	2.00
1265	83.04	74.76	75.41	2.66	0.48	0.61	43.87	0.00	43.87	4.000	No	Yes	2.00
1266	83.10	73.02	76.29	2.67	0.49	0.61	41.77	0.00	41.77	4.000	No	Yes	2.00
1267	83.17	70.62	77.62	2.68	0.49	0.60	40.20	0.00	40.20	4.000	No	Yes	2.00
1268	83.23	68.66	78.77	2.70	0.49	0.60	39.18	0.00	39.18	4.000	No	Yes	2.00
1269	83.30	67.30	79.66	2.71	0.50	0.60	37.97	0.00	37.97	4.000	No	Yes	2.00
1270	83.36	66.13	80.35	2.72	0.50	0.60	37.61	0.00	37.61	4.000	No	Yes	2.00
1271	83.43	65.47	80.68	2.72	0.50	0.60	36.95	0.00	36.95	4.000	No	Yes	2.00
1272	83.50	65.20	80.57	2.72	0.50	0.60	36.69	0.00	36.69	4.000	No	Yes	2.00
1273	83.56	65.35	80.20	2.71	0.50	0.60	37.06	0.00	37.06	4.000	No	Yes	2.00
1274	83.62	66.18	79.69	2.71	0.50	0.60	37.19	0.00	37.19	4.000	No	Yes	2.00
1275	83.69	68.03	78.55	2.69	0.50	0.60	38.17	0.00	38.17	4.000	No	Yes	2.00
1276	83.76	69.64	77.86	2.69	0.49	0.60	40.53	0.00	40.53	4.000	No	Yes	2.00
1277	83.82	71.00	77.47	2.68	0.49	0.60	40.17	0.00	40.17	4.000	No	Yes	2.00
1278	83.89	71.57	79.33	2.70	0.49	0.60	40.77	0.00	40.77	4.000	No	Yes	2.00
1279	83.95	73.18	82.45	2.74	0.48	0.60	41.66	0.00	41.66	4.000	No	Yes	2.00
1280	84.02	77.48	84.58	2.77	0.48	0.61	43.40	0.00	43.40	4.000	No	Yes	2.00
1281	84.08	86.43	83.46	2.76	0.46	0.62	49.26	0.00	49.26	4.000	No	Yes	2.00
1282	84.15	100.91	78.18	2.69	0.44	0.63	59.59	0.00	59.59	4.000	No	Yes	2.00
1283	84.22	114.97	70.02	2.59	0.41	0.65	73.24	71.96	145.20	4.000	No	No	2.00
1284	84.28	125.15	60.75	2.47	0.40	0.66	78.53	70.97	149.50	4.000	No	No	2.00
1285	84.34	130.20	55.80	2.41	0.40	0.66	80.92	69.91	150.83	4.000	No	No	2.00
1286	84.41	134.47	56.82	2.42	0.40	0.66	83.89	71.12	155.02	4.000	No	No	2.00
1287	84.48	138.33	61.24	2.48	0.38	0.67	88.20	73.85	162.05	4.000	No	No	2.00
1288	84.55	140.74	64.34	2.52	0.38	0.67	90.17	75.37	165.54	4.000	No	No	2.00
1289	84.61	141.39	63.61	2.51	0.38	0.67	89.77	75.04	164.80	4.000	No	No	2.00
1290	84.68	141.11	58.16	2.44	0.38	0.67	89.42	73.14	162.56	4.000	No	No	2.00
1291	84.74	148.39	48.42	2.32	0.39	0.66	88.30	68.59	156.89	4.000	No	No	2.00
1292	84.81	167.00	36.45	2.17	0.38	0.67	104.05	63.87	167.93	4.000	No	No	2.00
1293	84.87	199.30	22.75	2.00	0.37	0.68	126.88	47.49	174.37	4.000	No	No	2.00
1294	84.94	236.04	7.02	1.80	0.41	0.65	146.67	1.85	148.52	4.000	No	No	2.00
1295	85.01	269.29	0.00	1.64	0.36	0.68	176.20	0.00	176.20	4.000	No	No	2.00
1296	85.07	300.87	0.00	1.56	0.34	0.70	197.19	0.00	197.19	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1297	85.13	331.15	0.00	1.48	0.29	0.74	231.51	0.00	231.51	4.000	No	No	2.00
1298	85.20	357.14	0.00	1.42	0.26	0.76	260.77	0.00	260.77	4.000	No	No	2.00
1299	85.27	377.40	0.00	1.38	0.26	0.76	268.32	0.00	268.32	4.000	No	No	2.00
1300	85.33	389.58	0.00	1.39	0.26	0.76	281.50	0.00	281.50	4.000	No	No	2.00
1301	85.39	400.26	0.00	1.40	0.26	0.76	286.74	0.00	286.74	4.000	No	No	2.00
1302	85.46	404.72	0.00	1.42	0.26	0.76	291.10	0.00	291.10	4.000	No	No	2.00
1303	85.53	406.65	0.00	1.45	0.26	0.76	290.90	0.00	290.90	4.000	No	No	2.00
1304	85.60	408.14	0.00	1.48	0.26	0.76	290.70	0.00	290.70	4.000	No	No	2.00
1305	85.66	410.76	0.00	1.48	0.26	0.76	294.12	0.00	294.12	4.000	No	No	2.00
1306	85.73	412.46	0.00	1.35	0.26	0.76	296.36	0.00	296.36	4.000	No	No	2.00
1307	85.79	412.62	0.00	1.17	0.26	0.76	294.18	0.00	294.18	4.000	No	No	2.00
1308	85.86	414.30	100.00	4.06	0.26	0.76	294.33	0.00	294.33	4.000	No	Yes	2.00
1309	85.93	328.97	100.00	4.06	0.26	0.76	299.86	0.00	299.86	4.000	No	Yes	2.00
1310	85.99	322.81	100.00	4.06	0.35	0.69	101.78	0.00	101.78	4.000	No	Yes	2.00
1311	86.05	325.00	100.00	4.06	0.26	0.76	281.05	0.00	281.05	4.000	No	Yes	2.00
1312	86.12	415.19	100.00	4.06	0.26	0.76	304.47	0.00	304.47	4.000	No	Yes	2.00

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
q_t: Total cone resistance
FC: Fines content (%)
I_c: Soil behavior type index
m: Stress exponent
C_N: Overburden correction factor
q_{c1N}: Normalized and adjusted cone resistance
Δq_{c1N}: Cone resistance correction factor due to fines
$q_{c1N,cs}$: Normalized and adjusted cone resistance
$CRR_{7.5}$: Cyclic resistance ratio for M_w=7.5
FS: Factor of safety against soil liquefaction

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
0.07	2.00	0.00	0.00	0.07	0.00	0.13	2.00	0.00	0.00	0.07	0.00
0.20	2.00	0.00	0.00	0.07	0.00	0.27	2.00	0.00	0.00	0.07	0.00
0.33	2.00	0.00	0.00	0.07	0.00	0.40	2.00	0.00	0.00	0.07	0.00
0.47	2.00	0.00	0.00	0.07	0.00	0.54	2.00	0.00	0.00	0.07	0.00
0.60	2.00	0.00	0.00	0.07	0.00	0.66	2.00	0.00	0.00	0.05	0.00
0.72	2.00	0.00	0.00	0.06	0.00	0.80	2.00	0.00	0.00	0.08	0.00
0.87	2.00	0.00	0.00	0.06	0.00	0.93	2.00	0.00	0.00	0.06	0.00
0.99	2.00	0.00	0.00	0.06	0.00	1.06	2.00	0.00	0.00	0.07	0.00
1.13	2.00	0.00	0.00	0.06	0.00	1.19	2.00	0.00	0.00	0.06	0.00
1.25	2.00	0.00	0.00	0.06	0.00	1.32	2.00	0.00	0.00	0.07	0.00
1.38	2.00	0.00	0.00	0.06	0.00	1.46	2.00	0.00	0.00	0.08	0.00
1.52	2.00	0.00	0.00	0.06	0.00	1.58	2.00	0.00	0.00	0.06	0.00
1.64	2.00	0.00	0.00	0.06	0.00	1.71	2.00	0.00	0.00	0.06	0.00
1.77	2.00	0.00	0.00	0.06	0.00	1.86	2.00	0.00	0.00	0.09	0.00
1.92	2.00	0.00	0.00	0.06	0.00	1.98	2.00	0.00	0.00	0.06	0.00
2.05	2.00	0.00	0.00	0.07	0.00	2.11	2.00	0.00	0.00	0.06	0.00
2.17	2.00	0.00	0.00	0.06	0.00	2.23	2.00	0.00	0.00	0.06	0.00
2.30	2.00	0.00	0.00	0.06	0.00	2.38	2.00	0.00	0.00	0.08	0.00
2.44	2.00	0.00	0.00	0.06	0.00	2.50	2.00	0.00	0.00	0.06	0.00
2.57	2.00	0.00	0.00	0.07	0.00	2.63	2.00	0.00	0.00	0.06	0.00
2.70	2.00	0.00	0.00	0.07	0.00	2.76	2.00	0.00	0.00	0.06	0.00
2.84	2.00	0.00	0.00	0.08	0.00	2.90	2.00	0.00	0.00	0.06	0.00
2.96	2.00	0.00	0.00	0.06	0.00	3.03	2.00	0.00	0.00	0.06	0.00
3.09	2.00	0.00	0.00	0.07	0.00	3.15	2.00	0.00	0.00	0.06	0.00
3.21	2.00	0.00	0.00	0.06	0.00	3.30	2.00	0.00	0.00	0.09	0.00
3.37	2.00	0.00	0.00	0.06	0.00	3.43	2.00	0.00	0.00	0.06	0.00
3.50	2.00	0.00	0.00	0.06	0.00	3.56	2.00	0.00	0.00	0.06	0.00
3.62	2.00	0.00	0.00	0.06	0.00	3.68	2.00	0.00	0.00	0.06	0.00
3.74	2.00	0.00	0.00	0.07	0.00	3.81	2.00	0.00	0.00	0.06	0.00
3.89	2.00	0.00	0.00	0.08	0.00	3.95	2.00	0.00	0.00	0.06	0.00
4.02	2.00	0.00	0.00	0.06	0.00	4.08	2.00	0.00	0.00	0.07	0.00
4.15	2.00	0.00	0.00	0.07	0.00	4.21	2.00	0.00	0.00	0.06	0.00
4.28	2.00	0.00	0.00	0.06	0.00	4.34	2.00	0.00	0.00	0.06	0.00
4.40	2.00	0.00	0.00	0.06	0.00	4.47	2.00	0.00	0.00	0.06	0.00
4.53	2.00	0.00	0.00	0.06	0.00	4.61	2.00	0.00	0.00	0.08	0.00
4.68	2.00	0.00	0.00	0.06	0.00	4.74	2.00	0.00	0.00	0.06	0.00
4.80	2.00	0.00	0.00	0.06	0.00	4.86	2.00	0.00	0.00	0.06	0.00
4.92	2.00	0.00	0.00	0.06	0.00	4.99	2.00	0.00	0.00	0.07	0.00
5.07	2.00	0.00	0.00	0.08	0.00	5.13	2.00	0.00	0.00	0.06	0.00
5.19	2.00	0.00	0.00	0.06	0.00	5.26	2.00	0.00	0.00	0.07	0.00
5.32	2.00	0.00	0.00	0.05	0.00	5.41	2.00	0.00	0.00	0.09	0.00
5.48	2.00	0.00	0.00	0.07	0.00	5.54	2.00	0.00	0.00	0.07	0.00
5.58	2.00	0.00	0.00	0.03	0.00	5.68	2.00	0.00	0.00	0.10	0.00
5.74	2.00	0.00	0.00	0.06	0.00	5.78	2.00	0.00	0.00	0.04	0.00
5.85	2.00	0.00	0.00	0.07	0.00	5.92	2.00	0.00	0.00	0.07	0.00
5.99	2.00	0.00	0.00	0.07	0.00	6.05	2.00	0.00	0.00	0.07	0.00
6.13	2.00	0.00	0.00	0.07	0.00	6.19	2.00	0.00	0.00	0.07	0.00
6.26	2.00	0.00	0.00	0.07	0.00	6.33	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
6.37	2.00	0.00	0.00	0.04	0.00	6.44	2.00	0.00	0.00	0.07	0.00
6.51	2.00	0.00	0.00	0.07	0.00	6.57	2.00	0.00	0.00	0.07	0.00
6.64	2.00	0.00	0.00	0.07	0.00	6.71	2.00	0.00	0.00	0.07	0.00
6.78	2.00	0.00	0.00	0.07	0.00	6.86	2.00	0.00	0.00	0.07	0.00
6.89	2.00	0.00	0.00	0.04	0.00	6.97	2.00	0.00	0.00	0.07	0.00
7.03	2.00	0.00	0.00	0.07	0.00	7.10	2.00	0.00	0.00	0.07	0.00
7.17	2.00	0.00	0.00	0.07	0.00	7.24	2.00	0.00	0.00	0.07	0.00
7.31	2.00	0.00	0.00	0.07	0.00	7.38	2.00	0.00	0.00	0.07	0.00
7.45	2.00	0.00	0.00	0.07	0.00	7.48	2.00	0.00	0.00	0.04	0.00
7.55	2.00	0.00	0.00	0.07	0.00	7.64	2.00	0.00	0.00	0.10	0.00
7.68	2.00	0.00	0.00	0.04	0.00	7.75	2.00	0.00	0.00	0.07	0.00
7.81	2.00	0.00	0.00	0.07	0.00	7.88	2.00	0.00	0.00	0.07	0.00
7.95	2.00	0.00	0.00	0.07	0.00	8.02	2.00	0.00	0.00	0.07	0.00
8.08	2.00	0.00	0.00	0.07	0.00	8.15	2.00	0.00	0.00	0.07	0.00
8.23	2.00	0.00	0.00	0.07	0.00	8.29	2.00	0.00	0.00	0.07	0.00
8.36	2.00	0.00	0.00	0.07	0.00	8.43	2.00	0.00	0.00	0.07	0.00
8.50	2.00	0.00	0.00	0.07	0.00	8.53	2.00	0.00	0.00	0.04	0.00
8.60	2.00	0.00	0.00	0.07	0.00	8.68	2.00	0.00	0.00	0.07	0.00
8.74	2.00	0.00	0.00	0.07	0.00	8.81	2.00	0.00	0.00	0.07	0.00
8.88	2.00	0.00	0.00	0.07	0.00	8.96	2.00	0.00	0.00	0.07	0.00
9.02	2.00	0.00	0.00	0.07	0.00	9.06	2.00	0.00	0.00	0.03	0.00
9.13	2.00	0.00	0.00	0.07	0.00	9.20	2.00	0.00	0.00	0.07	0.00
9.27	2.00	0.00	0.00	0.07	0.00	9.34	2.00	0.00	0.00	0.07	0.00
9.41	2.00	0.00	0.00	0.07	0.00	9.48	2.00	0.00	0.00	0.07	0.00
9.52	2.00	0.00	0.00	0.04	0.00	9.59	2.00	0.00	0.00	0.07	0.00
9.65	2.00	0.00	0.00	0.06	0.00	9.72	2.00	0.00	0.00	0.07	0.00
9.79	2.00	0.00	0.00	0.07	0.00	9.86	2.00	0.00	0.00	0.07	0.00
9.93	2.00	0.00	0.00	0.07	0.00	10.00	2.00	0.00	0.00	0.07	0.00
10.08	2.00	0.00	0.00	0.08	0.00	10.15	2.00	0.00	0.00	0.07	0.00
10.22	2.00	0.00	0.00	0.07	0.00	10.29	2.00	0.00	0.00	0.07	0.00
10.33	2.00	0.00	0.00	0.04	0.00	10.40	2.00	0.00	0.00	0.07	0.00
10.47	2.00	0.00	0.00	0.07	0.00	10.54	2.00	0.00	0.00	0.07	0.00
10.62	2.00	0.00	0.00	0.07	0.00	10.69	2.00	0.00	0.00	0.07	0.00
10.72	2.00	0.00	0.00	0.04	0.00	10.79	2.00	0.00	0.00	0.07	0.00
10.87	2.00	0.00	0.00	0.07	0.00	10.94	2.00	0.00	0.00	0.08	0.00
10.99	2.00	0.00	0.00	0.04	0.00	11.07	2.00	0.00	0.00	0.08	0.00
11.14	2.00	0.00	0.00	0.07	0.00	11.21	2.00	0.00	0.00	0.07	0.00
11.25	2.00	0.00	0.00	0.04	0.00	11.32	2.00	0.00	0.00	0.07	0.00
11.39	2.00	0.00	0.00	0.07	0.00	11.47	2.00	0.00	0.00	0.07	0.00
11.54	2.00	0.00	0.00	0.07	0.00	11.57	2.00	0.00	0.00	0.04	0.00
11.64	2.00	0.00	0.00	0.07	0.00	11.72	2.00	0.00	0.00	0.07	0.00
11.79	2.00	0.00	0.00	0.07	0.00	11.86	2.00	0.00	0.00	0.07	0.00
11.93	2.00	0.00	0.00	0.07	0.00	11.97	2.00	0.00	0.00	0.04	0.00
12.04	2.00	0.00	0.00	0.07	0.00	12.12	2.00	0.00	0.00	0.07	0.00
12.19	2.00	0.00	0.00	0.07	0.00	12.26	2.00	0.00	0.00	0.07	0.00
12.30	2.00	0.00	0.00	0.04	0.00	12.38	2.00	0.00	0.00	0.07	0.00
12.45	2.00	0.00	0.00	0.07	0.00	12.51	2.00	0.00	0.00	0.06	0.00
12.57	2.00	0.00	0.00	0.06	0.00	12.64	2.00	0.00	0.00	0.08	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
12.70	2.00	0.00	0.00	0.05	0.00	12.77	2.00	0.00	0.00	0.07	0.00
12.83	2.00	0.00	0.00	0.07	0.00	12.90	2.00	0.00	0.00	0.07	0.00
12.97	2.00	0.00	0.00	0.07	0.00	13.04	2.00	0.00	0.00	0.07	0.00
13.11	2.00	0.00	0.00	0.07	0.00	13.15	2.00	0.00	0.00	0.04	0.00
13.22	2.00	0.00	0.00	0.07	0.00	13.29	2.00	0.00	0.00	0.07	0.00
13.37	2.00	0.00	0.00	0.07	0.00	13.44	2.00	0.00	0.00	0.07	0.00
13.48	2.00	0.00	0.00	0.04	0.00	13.55	2.00	0.00	0.00	0.07	0.00
13.63	2.00	0.00	0.00	0.07	0.00	13.70	2.00	0.00	0.00	0.07	0.00
13.77	2.00	0.00	0.00	0.07	0.00	13.80	2.00	0.00	0.00	0.04	0.00
13.88	2.00	0.00	0.00	0.07	0.00	13.95	2.00	0.00	0.00	0.07	0.00
14.03	2.00	0.00	0.00	0.07	0.00	14.10	2.00	0.00	0.00	0.07	0.00
14.14	2.00	0.00	0.00	0.04	0.00	14.21	2.00	0.00	0.00	0.07	0.00
14.28	2.00	0.00	0.00	0.07	0.00	14.35	2.00	0.00	0.00	0.07	0.00
14.43	2.00	0.00	0.00	0.07	0.00	14.47	2.00	0.00	0.00	0.04	0.00
14.54	2.00	0.00	0.00	0.07	0.00	14.61	2.00	0.00	0.00	0.07	0.00
14.68	2.00	0.00	0.00	0.07	0.00	14.76	2.00	0.00	0.00	0.07	0.00
14.79	2.00	0.00	0.00	0.04	0.00	14.87	2.00	0.00	0.00	0.08	0.00
14.94	2.00	0.00	0.00	0.07	0.00	15.01	1.13	0.00	0.00	0.07	0.00
15.05	1.06	0.00	0.00	0.04	0.00	15.13	0.96	0.00	0.00	0.07	0.01
15.20	0.97	0.00	0.00	0.08	0.01	15.28	0.90	0.00	0.00	0.07	0.02
15.35	0.96	0.00	0.00	0.07	0.01	15.38	0.92	0.00	0.00	0.04	0.01
15.46	0.76	0.00	0.00	0.07	0.04	15.53	0.88	0.00	0.00	0.07	0.02
15.61	1.74	0.00	0.00	0.08	0.00	15.68	2.00	0.00	0.00	0.07	0.00
15.71	2.00	0.00	0.00	0.04	0.00	15.79	2.00	0.00	0.00	0.07	0.00
15.86	2.00	0.00	0.00	0.07	0.00	15.93	2.00	0.00	0.00	0.07	0.00
16.00	2.00	0.00	0.00	0.07	0.00	16.04	2.00	0.00	0.00	0.04	0.00
16.11	2.00	0.00	0.00	0.07	0.00	16.19	1.63	0.00	0.00	0.07	0.00
16.26	0.81	0.00	0.00	0.07	0.03	16.30	0.63	0.00	0.00	0.04	0.03
16.37	0.40	0.60	0.39	0.07	0.10	16.45	0.35	0.65	0.35	0.07	0.11
16.52	0.32	0.68	0.34	0.07	0.11	16.59	0.32	0.68	0.33	0.07	0.11
16.63	0.31	0.69	0.33	0.04	0.06	16.70	0.31	0.69	0.33	0.07	0.12
16.78	0.30	0.70	0.32	0.07	0.11	16.85	0.30	0.70	0.33	0.07	0.11
16.92	0.30	0.70	0.33	0.07	0.11	16.96	0.31	0.69	0.33	0.04	0.06
17.03	0.31	0.69	0.33	0.07	0.11	17.11	0.32	0.68	0.33	0.07	0.11
17.18	0.33	0.67	0.34	0.07	0.11	17.22	0.33	0.67	0.34	0.04	0.06
17.29	0.34	0.66	0.34	0.07	0.11	17.36	0.36	0.64	0.35	0.07	0.11
17.43	0.36	0.64	0.36	0.07	0.10	17.51	0.38	0.62	0.37	0.08	0.10
17.55	0.39	0.61	0.38	0.04	0.05	17.62	0.42	0.58	0.40	0.07	0.09
17.69	0.42	0.58	0.40	0.07	0.09	17.76	0.41	0.59	0.39	0.07	0.10
17.84	0.40	0.60	0.39	0.07	0.10	17.88	0.40	0.60	0.38	0.04	0.05
17.95	0.41	0.59	0.39	0.07	0.10	18.02	0.42	0.58	0.40	0.07	0.09
18.09	0.44	0.56	0.42	0.07	0.09	18.15	0.41	0.59	0.40	0.06	0.07
18.23	0.41	0.59	0.39	0.08	0.10	18.29	0.40	0.60	0.38	0.07	0.09
18.37	0.41	0.59	0.39	0.07	0.10	18.41	0.45	0.55	0.43	0.04	0.05
18.48	0.50	0.50	0.48	0.07	0.08	18.55	0.56	0.44	0.56	0.07	0.07
18.62	0.60	0.00	0.00	0.07	0.06	18.69	0.62	0.00	0.00	0.07	0.06
18.73	0.63	0.00	0.00	0.04	0.03	18.80	0.62	0.00	0.00	0.07	0.06
18.88	0.63	0.00	0.00	0.07	0.06	18.95	0.62	0.00	0.00	0.07	0.06

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
19.02	0.62	0.00	0.00	0.07	0.06	19.06	0.63	0.00	0.00	0.04	0.03
19.13	0.63	0.00	0.00	0.07	0.06	19.21	0.64	0.00	0.00	0.07	0.06
19.28	0.65	0.00	0.00	0.07	0.05	19.32	0.65	0.00	0.00	0.04	0.03
19.39	0.66	0.00	0.00	0.07	0.05	19.46	0.65	0.00	0.00	0.07	0.06
19.54	0.64	0.00	0.00	0.07	0.06	19.61	0.64	0.00	0.00	0.07	0.06
19.64	0.55	0.45	0.54	0.04	0.04	19.72	0.45	0.55	0.42	0.07	0.09
19.79	0.38	0.62	0.37	0.07	0.10	19.87	0.39	0.61	0.38	0.07	0.10
19.94	0.44	0.56	0.42	0.07	0.09	19.98	0.49	0.51	0.47	0.04	0.04
20.04	0.42	0.58	0.40	0.06	0.08	20.14	0.56	0.44	0.57	0.10	0.09
20.18	0.49	0.51	0.46	0.04	0.04	20.25	0.52	0.48	0.50	0.07	0.07
20.32	0.55	0.45	0.55	0.07	0.07	20.39	0.61	0.00	0.00	0.07	0.06
20.47	0.72	0.00	0.00	0.07	0.04	20.50	0.78	0.00	0.00	0.04	0.02
20.58	1.10	0.00	0.00	0.07	0.00	20.65	1.95	0.00	0.00	0.07	0.00
20.72	2.00	0.00	0.00	0.07	0.00	20.76	2.00	0.00	0.00	0.04	0.00
20.83	2.00	0.00	0.00	0.07	0.00	20.91	2.00	0.00	0.00	0.07	0.00
20.98	2.00	0.00	0.00	0.07	0.00	21.05	2.00	0.00	0.00	0.07	0.00
21.09	2.00	0.00	0.00	0.04	0.00	21.16	2.00	0.00	0.00	0.07	0.00
21.23	2.00	0.00	0.00	0.07	0.00	21.31	2.00	0.00	0.00	0.07	0.00
21.38	2.00	0.00	0.00	0.07	0.00	21.42	2.00	0.00	0.00	0.04	0.00
21.49	2.00	0.00	0.00	0.07	0.00	21.56	2.00	0.00	0.00	0.07	0.00
21.64	2.00	0.00	0.00	0.07	0.00	21.71	2.00	0.00	0.00	0.07	0.00
21.75	2.00	0.00	0.00	0.04	0.00	21.82	2.00	0.00	0.00	0.07	0.00
21.89	1.09	0.00	0.00	0.07	0.00	21.96	0.72	0.00	0.00	0.07	0.04
22.04	0.55	0.45	0.55	0.07	0.07	22.07	0.64	0.00	0.00	0.04	0.03
22.15	0.61	0.00	0.00	0.07	0.06	22.22	0.70	0.00	0.00	0.07	0.04
22.30	0.80	0.00	0.00	0.07	0.03	22.37	0.78	0.00	0.00	0.07	0.03
22.40	0.86	0.00	0.00	0.04	0.01	22.47	0.77	0.00	0.00	0.07	0.03
22.55	0.77	0.00	0.00	0.07	0.03	22.61	1.33	0.00	0.00	0.07	0.00
22.69	2.00	0.00	0.00	0.07	0.00	22.76	2.00	0.00	0.00	0.07	0.00
22.80	2.00	0.00	0.00	0.04	0.00	22.87	1.74	0.00	0.00	0.07	0.00
22.94	1.34	0.00	0.00	0.07	0.00	23.01	1.10	0.00	0.00	0.07	0.00
23.09	1.00	0.00	0.00	0.07	0.00	23.13	0.98	0.00	0.00	0.04	0.00
23.20	0.95	0.00	0.00	0.07	0.01	23.27	0.91	0.00	0.00	0.07	0.01
23.35	0.89	0.00	0.00	0.07	0.02	23.39	0.88	0.00	0.00	0.04	0.01
23.46	0.88	0.00	0.00	0.07	0.02	23.53	0.84	0.00	0.00	0.07	0.02
23.60	0.77	0.00	0.00	0.07	0.03	23.68	0.69	0.00	0.00	0.07	0.04
23.71	0.65	0.00	0.00	0.04	0.03	23.79	0.59	0.00	0.00	0.07	0.06
23.86	0.56	0.44	0.56	0.07	0.06	23.93	0.52	0.48	0.51	0.07	0.07
24.01	0.51	0.49	0.49	0.07	0.07	24.04	0.50	0.50	0.47	0.04	0.04
24.12	0.48	0.52	0.46	0.07	0.07	24.19	0.46	0.54	0.44	0.07	0.08
24.26	0.45	0.55	0.43	0.07	0.08	24.34	0.44	0.56	0.42	0.07	0.08
24.37	0.45	0.55	0.42	0.04	0.04	24.45	0.45	0.55	0.43	0.07	0.08
24.52	0.46	0.54	0.43	0.07	0.07	24.59	0.46	0.54	0.44	0.08	0.08
24.66	0.46	0.54	0.44	0.07	0.07	24.70	0.45	0.55	0.43	0.04	0.04
24.78	0.45	0.55	0.42	0.07	0.08	24.85	0.45	0.55	0.42	0.07	0.08
24.92	0.45	0.55	0.42	0.07	0.08	24.97	0.39	0.61	0.38	0.05	0.06
25.05	0.41	0.59	0.40	0.07	0.08	25.12	0.42	0.58	0.40	0.07	0.08
25.16	0.42	0.58	0.40	0.04	0.04	25.23	0.45	0.55	0.43	0.07	0.07

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
25.30	0.48	0.52	0.46	0.07	0.06	25.37	0.52	0.48	0.50	0.07	0.07
25.45	0.56	0.44	0.55	0.08	0.06	25.52	0.62	0.00	0.00	0.07	0.05
25.56	0.66	0.00	0.00	0.04	0.02	25.63	0.83	0.00	0.00	0.07	0.02
25.70	1.24	0.00	0.00	0.07	0.00	25.78	2.00	0.00	0.00	0.07	0.00
25.82	2.00	0.00	0.00	0.04	0.00	25.89	2.00	0.00	0.00	0.07	0.00
25.97	2.00	0.00	0.00	0.07	0.00	26.04	2.00	0.00	0.00	0.08	0.00
26.08	2.00	0.00	0.00	0.04	0.00	26.15	2.00	0.00	0.00	0.07	0.00
26.23	2.00	0.00	0.00	0.08	0.00	26.30	2.00	0.00	0.00	0.07	0.00
26.34	2.00	0.00	0.00	0.04	0.00	26.41	2.00	0.00	0.00	0.07	0.00
26.49	2.00	0.00	0.00	0.09	0.00	26.55	2.00	0.00	0.00	0.06	0.00
26.60	2.00	0.00	0.00	0.05	0.00	26.69	2.00	0.00	0.00	0.09	0.00
26.77	2.00	0.00	0.00	0.07	0.00	26.80	2.00	0.00	0.00	0.04	0.00
26.88	2.00	0.00	0.00	0.08	0.00	26.95	2.00	0.00	0.00	0.07	0.00
27.03	2.00	0.00	0.00	0.07	0.00	27.07	2.00	0.00	0.00	0.04	0.00
27.14	2.00	0.00	0.00	0.07	0.00	27.21	2.00	0.00	0.00	0.08	0.00
27.28	2.00	0.00	0.00	0.07	0.00	27.32	2.00	0.00	0.00	0.04	0.00
27.40	2.00	0.00	0.00	0.08	0.00	27.47	2.00	0.00	0.00	0.07	0.00
27.53	2.00	0.00	0.00	0.06	0.00	27.59	2.00	0.00	0.00	0.06	0.00
27.66	2.00	0.00	0.00	0.07	0.00	27.73	2.00	0.00	0.00	0.07	0.00
27.81	2.00	0.00	0.00	0.07	0.00	27.88	2.00	0.00	0.00	0.08	0.00
27.92	2.00	0.00	0.00	0.04	0.00	28.00	2.00	0.00	0.00	0.08	0.00
28.07	2.00	0.00	0.00	0.08	0.00	28.11	2.00	0.00	0.00	0.04	0.00
28.19	2.00	0.00	0.00	0.08	0.00	28.26	2.00	0.00	0.00	0.07	0.00
28.34	2.00	0.00	0.00	0.07	0.00	28.37	2.00	0.00	0.00	0.04	0.00
28.45	2.00	0.00	0.00	0.08	0.00	28.52	2.00	0.00	0.00	0.07	0.00
28.60	2.00	0.00	0.00	0.07	0.00	28.64	2.00	0.00	0.00	0.04	0.00
28.71	2.00	0.00	0.00	0.07	0.00	28.79	2.00	0.00	0.00	0.08	0.00
28.86	2.00	0.00	0.00	0.07	0.00	28.90	2.00	0.00	0.00	0.04	0.00
28.98	2.00	0.00	0.00	0.07	0.00	29.05	2.00	0.00	0.00	0.07	0.00
29.12	2.00	0.00	0.00	0.07	0.00	29.16	2.00	0.00	0.00	0.04	0.00
29.24	2.00	0.00	0.00	0.08	0.00	29.31	2.00	0.00	0.00	0.07	0.00
29.39	2.00	0.00	0.00	0.07	0.00	29.43	2.00	0.00	0.00	0.04	0.00
29.50	2.00	0.00	0.00	0.07	0.00	29.57	2.00	0.00	0.00	0.08	0.00
29.62	2.00	0.00	0.00	0.04	0.00	29.69	2.00	0.00	0.00	0.07	0.00
29.75	2.00	0.00	0.00	0.06	0.00	29.82	2.00	0.00	0.00	0.07	0.00
29.89	2.00	0.00	0.00	0.07	0.00	29.96	2.00	0.00	0.00	0.07	0.00
30.02	2.00	0.00	0.00	0.05	0.00	30.08	2.00	0.00	0.00	0.07	0.00
30.18	2.00	0.00	0.00	0.09	0.00	30.22	2.00	0.00	0.00	0.04	0.00
30.29	2.00	0.00	0.00	0.08	0.00	30.37	2.00	0.00	0.00	0.07	0.00
30.44	2.00	0.00	0.00	0.08	0.00	30.48	2.00	0.00	0.00	0.04	0.00
30.56	2.00	0.00	0.00	0.07	0.00	30.63	2.00	0.00	0.00	0.07	0.00
30.70	2.00	0.00	0.00	0.07	0.00	30.74	2.00	0.00	0.00	0.04	0.00
30.82	2.00	0.00	0.00	0.07	0.00	30.89	2.00	0.00	0.00	0.07	0.00
30.96	2.00	0.00	0.00	0.07	0.00	31.00	2.00	0.00	0.00	0.04	0.00
31.07	2.00	0.00	0.00	0.07	0.00	31.14	2.00	0.00	0.00	0.07	0.00
31.21	2.00	0.00	0.00	0.07	0.00	31.28	2.00	0.00	0.00	0.07	0.00
31.36	2.00	0.00	0.00	0.07	0.00	31.39	2.00	0.00	0.00	0.04	0.00
31.47	2.00	0.00	0.00	0.07	0.00	31.54	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
31.61	2.00	0.00	0.00	0.07	0.00	31.68	2.00	0.00	0.00	0.07	0.00
31.75	2.00	0.00	0.00	0.07	0.00	31.79	2.00	0.00	0.00	0.04	0.00
31.86	2.00	0.00	0.00	0.07	0.00	31.93	2.00	0.00	0.00	0.07	0.00
32.01	2.00	0.00	0.00	0.07	0.00	32.08	2.00	0.00	0.00	0.07	0.00
32.12	2.00	0.00	0.00	0.04	0.00	32.18	2.00	0.00	0.00	0.06	0.00
32.25	2.00	0.00	0.00	0.07	0.00	32.32	2.00	0.00	0.00	0.07	0.00
32.40	2.00	0.00	0.00	0.08	0.00	32.48	2.00	0.00	0.00	0.08	0.00
32.51	2.00	0.00	0.00	0.04	0.00	32.59	2.00	0.00	0.00	0.08	0.00
32.66	2.00	0.00	0.00	0.07	0.00	32.70	2.00	0.00	0.00	0.04	0.00
32.78	2.00	0.00	0.00	0.07	0.00	32.85	2.00	0.00	0.00	0.08	0.00
32.93	2.00	0.00	0.00	0.08	0.00	32.97	2.00	0.00	0.00	0.04	0.00
33.04	2.00	0.00	0.00	0.07	0.00	33.12	2.00	0.00	0.00	0.08	0.00
33.19	2.00	0.00	0.00	0.08	0.00	33.23	2.00	0.00	0.00	0.04	0.00
33.31	2.00	0.00	0.00	0.08	0.00	33.38	2.00	0.00	0.00	0.07	0.00
33.46	2.00	0.00	0.00	0.07	0.00	33.49	2.00	0.00	0.00	0.04	0.00
33.57	2.00	0.00	0.00	0.08	0.00	33.65	2.00	0.00	0.00	0.08	0.00
33.72	2.00	0.00	0.00	0.07	0.00	33.76	2.00	0.00	0.00	0.04	0.00
33.83	2.00	0.00	0.00	0.07	0.00	33.91	2.00	0.00	0.00	0.08	0.00
33.98	2.00	0.00	0.00	0.07	0.00	34.02	2.00	0.00	0.00	0.04	0.00
34.10	2.00	0.00	0.00	0.08	0.00	34.17	2.00	0.00	0.00	0.08	0.00
34.21	2.00	0.00	0.00	0.04	0.00	34.29	2.00	0.00	0.00	0.07	0.00
34.35	2.00	0.00	0.00	0.06	0.00	34.43	2.00	0.00	0.00	0.08	0.00
34.50	2.00	0.00	0.00	0.07	0.00	34.54	2.00	0.00	0.00	0.04	0.00
34.61	2.00	0.00	0.00	0.07	0.00	34.69	2.00	0.00	0.00	0.08	0.00
34.76	2.00	0.00	0.00	0.08	0.00	34.80	2.00	0.00	0.00	0.04	0.00
34.88	2.00	0.00	0.00	0.08	0.00	34.95	2.00	0.00	0.00	0.07	0.00
35.03	2.00	0.00	0.00	0.08	0.00	35.07	2.00	0.00	0.00	0.04	0.00
35.14	2.00	0.00	0.00	0.08	0.00	35.22	2.00	0.00	0.00	0.07	0.00
35.29	2.00	0.00	0.00	0.08	0.00	35.33	2.00	0.00	0.00	0.04	0.00
35.41	2.00	0.00	0.00	0.07	0.00	35.48	2.00	0.00	0.00	0.08	0.00
35.56	2.00	0.00	0.00	0.08	0.00	35.60	2.00	0.00	0.00	0.04	0.00
35.67	2.00	0.00	0.00	0.07	0.00	35.74	2.00	0.00	0.00	0.07	0.00
35.82	2.00	0.00	0.00	0.08	0.00	35.86	2.00	0.00	0.00	0.04	0.00
35.94	2.00	0.00	0.00	0.08	0.00	36.01	2.00	0.00	0.00	0.07	0.00
36.05	2.00	0.00	0.00	0.04	0.00	36.13	2.00	0.00	0.00	0.08	0.00
36.20	2.00	0.00	0.00	0.07	0.00	36.28	2.00	0.00	0.00	0.08	0.00
36.32	2.00	0.00	0.00	0.04	0.00	36.39	2.00	0.00	0.00	0.07	0.00
36.47	2.00	0.00	0.00	0.08	0.00	36.54	2.00	0.00	0.00	0.07	0.00
36.58	2.00	0.00	0.00	0.04	0.00	36.66	2.00	0.00	0.00	0.07	0.00
36.73	2.00	0.00	0.00	0.08	0.00	36.77	2.00	0.00	0.00	0.04	0.00
36.85	2.00	0.00	0.00	0.08	0.00	36.91	2.00	0.00	0.00	0.06	0.00
36.98	2.00	0.00	0.00	0.07	0.00	37.05	2.00	0.00	0.00	0.07	0.00
37.12	2.00	0.00	0.00	0.07	0.00	37.20	2.00	0.00	0.00	0.08	0.00
37.24	2.00	0.00	0.00	0.04	0.00	37.31	2.00	0.00	0.00	0.08	0.00
37.39	2.00	0.00	0.00	0.07	0.00	37.46	2.00	0.00	0.00	0.07	0.00
37.50	2.00	0.00	0.00	0.04	0.00	37.58	2.00	0.00	0.00	0.08	0.00
37.65	2.00	0.00	0.00	0.08	0.00	37.69	2.00	0.00	0.00	0.04	0.00
37.77	2.00	0.00	0.00	0.07	0.00	37.84	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
37.91	2.00	0.00	0.00	0.07	0.00	37.95	2.00	0.00	0.00	0.04	0.00
38.03	2.00	0.00	0.00	0.07	0.00	38.10	2.00	0.00	0.00	0.07	0.00
38.17	2.00	0.00	0.00	0.07	0.00	38.25	2.00	0.00	0.00	0.08	0.00
38.29	2.00	0.00	0.00	0.04	0.00	38.37	2.00	0.00	0.00	0.08	0.00
38.44	2.00	0.00	0.00	0.07	0.00	38.48	2.00	0.00	0.00	0.04	0.00
38.56	2.00	0.00	0.00	0.07	0.00	38.63	2.00	0.00	0.00	0.08	0.00
38.67	2.00	0.00	0.00	0.04	0.00	38.75	2.00	0.00	0.00	0.08	0.00
38.83	2.00	0.00	0.00	0.07	0.00	38.90	2.00	0.00	0.00	0.08	0.00
38.94	2.00	0.00	0.00	0.04	0.00	39.02	2.00	0.00	0.00	0.08	0.00
39.10	2.00	0.00	0.00	0.08	0.00	39.14	2.00	0.00	0.00	0.04	0.00
39.21	2.00	0.00	0.00	0.08	0.00	39.29	2.00	0.00	0.00	0.07	0.00
39.33	2.00	0.00	0.00	0.05	0.00	39.40	2.00	0.00	0.00	0.06	0.00
39.48	2.00	0.00	0.00	0.08	0.00	39.54	2.00	0.00	0.00	0.07	0.00
39.61	2.00	0.00	0.00	0.07	0.00	39.68	2.00	0.00	0.00	0.07	0.00
39.76	2.00	0.00	0.00	0.07	0.00	39.80	2.00	0.00	0.00	0.04	0.00
39.87	2.00	0.00	0.00	0.08	0.00	39.94	2.00	0.00	0.00	0.07	0.00
40.02	2.00	0.00	0.00	0.07	0.00	40.07	2.00	0.00	0.00	0.05	0.00
40.14	2.00	0.00	0.00	0.07	0.00	40.22	2.00	0.00	0.00	0.08	0.00
40.26	2.00	0.00	0.00	0.04	0.00	40.33	2.00	0.00	0.00	0.07	0.00
40.40	2.00	0.00	0.00	0.07	0.00	40.48	2.00	0.00	0.00	0.07	0.00
40.52	2.00	0.00	0.00	0.04	0.00	40.59	2.00	0.00	0.00	0.07	0.00
40.67	2.00	0.00	0.00	0.08	0.00	40.74	2.00	0.00	0.00	0.08	0.00
40.78	2.00	0.00	0.00	0.04	0.00	40.86	2.00	0.00	0.00	0.08	0.00
40.94	2.00	0.00	0.00	0.08	0.00	40.98	2.00	0.00	0.00	0.04	0.00
41.05	2.00	0.00	0.00	0.07	0.00	41.12	2.00	0.00	0.00	0.07	0.00
41.20	2.00	0.00	0.00	0.07	0.00	41.24	2.00	0.00	0.00	0.04	0.00
41.31	2.00	0.00	0.00	0.07	0.00	41.39	2.00	0.00	0.00	0.07	0.00
41.46	2.00	0.00	0.00	0.08	0.00	41.50	2.00	0.00	0.00	0.04	0.00
41.58	2.00	0.00	0.00	0.08	0.00	41.66	2.00	0.00	0.00	0.08	0.00
41.70	2.00	0.00	0.00	0.04	0.00	41.77	2.00	0.00	0.00	0.08	0.00
41.85	2.00	0.00	0.00	0.07	0.00	41.92	2.00	0.00	0.00	0.08	0.00
41.96	2.00	0.00	0.00	0.04	0.00	42.04	2.00	0.00	0.00	0.08	0.00
42.11	2.00	0.00	0.00	0.08	0.00	42.15	2.00	0.00	0.00	0.04	0.00
42.23	2.00	0.00	0.00	0.08	0.00	42.30	2.00	0.00	0.00	0.07	0.00
42.38	2.00	0.00	0.00	0.08	0.00	42.42	2.00	0.00	0.00	0.04	0.00
42.50	2.00	0.00	0.00	0.08	0.00	42.58	2.00	0.00	0.00	0.08	0.00
42.62	2.00	0.00	0.00	0.04	0.00	42.68	2.00	0.00	0.00	0.06	0.00
42.75	2.00	0.00	0.00	0.08	0.00	42.83	2.00	0.00	0.00	0.08	0.00
42.91	2.00	0.00	0.00	0.08	0.00	42.95	2.00	0.00	0.00	0.04	0.00
43.02	2.00	0.00	0.00	0.08	0.00	43.10	2.00	0.00	0.00	0.07	0.00
43.14	2.00	0.00	0.00	0.04	0.00	43.21	2.00	0.00	0.00	0.07	0.00
43.29	2.00	0.00	0.00	0.08	0.00	43.36	2.00	0.00	0.00	0.07	0.00
43.40	2.00	0.00	0.00	0.04	0.00	43.48	2.00	0.00	0.00	0.08	0.00
43.56	2.00	0.00	0.00	0.08	0.00	43.60	2.00	0.00	0.00	0.04	0.00
43.68	2.00	0.00	0.00	0.08	0.00	43.76	2.00	0.00	0.00	0.08	0.00
43.79	2.00	0.00	0.00	0.04	0.00	43.87	2.00	0.00	0.00	0.08	0.00
43.93	2.00	0.00	0.00	0.06	0.00	43.99	2.00	0.00	0.00	0.06	0.00
44.06	2.00	0.00	0.00	0.06	0.00	44.12	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
44.19	2.00	0.00	0.00	0.06	0.00	44.28	2.00	0.00	0.00	0.09	0.00
44.34	2.00	0.00	0.00	0.06	0.00	44.41	2.00	0.00	0.00	0.06	0.00
44.47	2.00	0.00	0.00	0.06	0.00	44.53	2.00	0.00	0.00	0.06	0.00
44.60	2.00	0.00	0.00	0.06	0.00	44.66	2.00	0.00	0.00	0.06	0.00
44.72	2.00	0.00	0.00	0.06	0.00	44.78	2.00	0.00	0.00	0.06	0.00
44.85	2.00	0.00	0.00	0.06	0.00	44.91	2.00	0.00	0.00	0.06	0.00
44.98	2.00	0.00	0.00	0.06	0.00	45.04	2.00	0.00	0.00	0.06	0.00
45.12	2.00	0.00	0.00	0.08	0.00	45.17	2.00	0.00	0.00	0.05	0.00
45.25	2.00	0.00	0.00	0.08	0.00	45.30	2.00	0.00	0.00	0.06	0.00
45.37	2.00	0.00	0.00	0.06	0.00	45.44	2.00	0.00	0.00	0.07	0.00
45.50	2.00	0.00	0.00	0.06	0.00	45.57	2.00	0.00	0.00	0.07	0.00
45.63	2.00	0.00	0.00	0.06	0.00	45.70	2.00	0.00	0.00	0.07	0.00
45.77	2.00	0.00	0.00	0.07	0.00	45.84	2.00	0.00	0.00	0.07	0.00
45.90	2.00	0.00	0.00	0.06	0.00	45.96	2.00	0.00	0.00	0.06	0.00
46.04	2.00	0.00	0.00	0.08	0.00	46.11	2.00	0.00	0.00	0.08	0.00
46.15	2.00	0.00	0.00	0.04	0.00	46.23	2.00	0.00	0.00	0.08	0.00
46.31	2.00	0.00	0.00	0.08	0.00	46.38	2.00	0.00	0.00	0.08	0.00
46.42	2.00	0.00	0.00	0.04	0.00	46.50	2.00	0.00	0.00	0.08	0.00
46.58	2.00	0.00	0.00	0.08	0.00	46.62	2.00	0.00	0.00	0.04	0.00
46.70	2.00	0.00	0.00	0.08	0.00	46.77	2.00	0.00	0.00	0.08	0.00
46.82	2.00	0.00	0.00	0.05	0.00	46.91	2.00	0.00	0.00	0.08	0.00
46.95	2.00	0.00	0.00	0.04	0.00	47.02	2.00	0.00	0.00	0.08	0.00
47.10	2.00	0.00	0.00	0.08	0.00	47.14	2.00	0.00	0.00	0.04	0.00
47.22	2.00	0.00	0.00	0.08	0.00	47.29	2.00	0.00	0.00	0.08	0.00
47.37	2.00	0.00	0.00	0.08	0.00	47.41	2.00	0.00	0.00	0.04	0.00
47.49	2.00	0.00	0.00	0.08	0.00	47.56	2.00	0.00	0.00	0.07	0.00
47.60	2.00	0.00	0.00	0.04	0.00	47.68	2.00	0.00	0.00	0.08	0.00
47.76	2.00	0.00	0.00	0.08	0.00	47.80	2.00	0.00	0.00	0.04	0.00
47.88	2.00	0.00	0.00	0.08	0.00	47.95	2.00	0.00	0.00	0.08	0.00
47.99	2.00	0.00	0.00	0.04	0.00	48.07	2.00	0.00	0.00	0.08	0.00
48.15	2.00	0.00	0.00	0.08	0.00	48.22	2.00	0.00	0.00	0.08	0.00
48.27	2.00	0.00	0.00	0.05	0.00	48.34	2.00	0.00	0.00	0.08	0.00
48.38	2.00	0.00	0.00	0.04	0.00	48.46	2.00	0.00	0.00	0.08	0.00
48.54	2.00	0.00	0.00	0.08	0.00	48.58	2.00	0.00	0.00	0.04	0.00
48.66	2.00	0.00	0.00	0.08	0.00	48.73	2.00	0.00	0.00	0.07	0.00
48.78	2.00	0.00	0.00	0.05	0.00	48.86	2.00	0.00	0.00	0.08	0.00
48.94	2.00	0.00	0.00	0.08	0.00	48.98	2.00	0.00	0.00	0.04	0.00
49.05	2.00	0.00	0.00	0.08	0.00	49.13	2.00	0.00	0.00	0.08	0.00
49.21	2.00	0.00	0.00	0.08	0.00	49.25	2.00	0.00	0.00	0.04	0.00
49.33	2.00	0.00	0.00	0.08	0.00	49.38	2.00	0.00	0.00	0.05	0.00
49.45	2.00	0.00	0.00	0.07	0.00	49.52	2.00	0.00	0.00	0.07	0.00
49.57	2.00	0.00	0.00	0.05	0.00	49.65	2.00	0.00	0.00	0.08	0.00
49.70	2.00	0.00	0.00	0.05	0.00	49.77	2.00	0.00	0.00	0.06	0.00
49.83	2.00	0.00	0.00	0.06	0.00	49.90	2.00	0.00	0.00	0.07	0.00
49.97	2.00	0.00	0.00	0.07	0.00	50.04	2.00	0.00	0.00	0.07	0.00
50.12	2.00	0.00	0.00	0.08	0.00	50.19	2.00	0.00	0.00	0.07	0.00
50.23	2.00	0.00	0.00	0.04	0.00	50.31	2.00	0.00	0.00	0.08	0.00
50.39	2.00	0.00	0.00	0.08	0.00	50.43	2.00	0.00	0.00	0.04	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
50.50	2.00	0.00	0.00	0.08	0.00	50.58	2.00	0.00	0.00	0.07	0.00
50.62	2.00	0.00	0.00	0.04	0.00	50.70	2.00	0.00	0.00	0.08	0.00
50.77	2.00	0.00	0.00	0.08	0.00	50.81	2.00	0.00	0.00	0.04	0.00
50.89	2.00	0.00	0.00	0.08	0.00	50.97	2.00	0.00	0.00	0.08	0.00
51.05	2.00	0.00	0.00	0.08	0.00	51.09	2.00	0.00	0.00	0.04	0.00
51.16	2.00	0.00	0.00	0.08	0.00	51.24	2.00	0.00	0.00	0.07	0.00
51.28	2.00	0.00	0.00	0.04	0.00	51.36	2.00	0.00	0.00	0.08	0.00
51.43	2.00	0.00	0.00	0.08	0.00	51.48	2.00	0.00	0.00	0.04	0.00
51.55	2.00	0.00	0.00	0.08	0.00	51.63	2.00	0.00	0.00	0.07	0.00
51.68	2.00	0.00	0.00	0.05	0.00	51.73	2.00	0.00	0.00	0.06	0.00
51.80	2.00	0.00	0.00	0.07	0.00	51.87	2.00	0.00	0.00	0.07	0.00
51.95	2.00	0.00	0.00	0.07	0.00	52.01	2.00	0.00	0.00	0.07	0.00
52.07	2.00	0.00	0.00	0.05	0.00	52.13	2.00	0.00	0.00	0.07	0.00
52.19	2.00	0.00	0.00	0.06	0.00	52.27	2.00	0.00	0.00	0.08	0.00
52.34	2.00	0.00	0.00	0.07	0.00	52.42	2.00	0.00	0.00	0.08	0.00
52.46	2.00	0.00	0.00	0.04	0.00	52.54	2.00	0.00	0.00	0.08	0.00
52.61	2.00	0.00	0.00	0.08	0.00	52.66	2.00	0.00	0.00	0.04	0.00
52.73	2.00	0.00	0.00	0.08	0.00	52.81	2.00	0.00	0.00	0.08	0.00
52.85	2.00	0.00	0.00	0.04	0.00	52.93	2.00	0.00	0.00	0.08	0.00
53.01	2.00	0.00	0.00	0.07	0.00	53.05	2.00	0.00	0.00	0.04	0.00
53.12	2.00	0.00	0.00	0.08	0.00	53.20	2.00	0.00	0.00	0.08	0.00
53.24	2.00	0.00	0.00	0.04	0.00	53.32	2.00	0.00	0.00	0.08	0.00
53.39	2.00	0.00	0.00	0.08	0.00	53.47	2.00	0.00	0.00	0.08	0.00
53.51	2.00	0.00	0.00	0.04	0.00	53.59	2.00	0.00	0.00	0.08	0.00
53.64	2.00	0.00	0.00	0.04	0.00	53.72	2.00	0.00	0.00	0.08	0.00
53.78	2.00	0.00	0.00	0.06	0.00	53.84	2.00	0.00	0.00	0.06	0.00
53.90	2.00	0.00	0.00	0.06	0.00	53.98	2.00	0.00	0.00	0.08	0.00
54.06	2.00	0.00	0.00	0.08	0.00	54.10	2.00	0.00	0.00	0.04	0.00
54.17	2.00	0.00	0.00	0.08	0.00	54.25	2.00	0.00	0.00	0.08	0.00
54.29	2.00	0.00	0.00	0.04	0.00	54.37	2.00	0.00	0.00	0.08	0.00
54.45	2.00	0.00	0.00	0.08	0.00	54.52	2.00	0.00	0.00	0.08	0.00
54.56	2.00	0.00	0.00	0.04	0.00	54.64	2.00	0.00	0.00	0.08	0.00
54.72	2.00	0.00	0.00	0.08	0.00	54.76	2.00	0.00	0.00	0.04	0.00
54.84	2.00	0.00	0.00	0.08	0.00	54.91	2.00	0.00	0.00	0.08	0.00
54.96	2.00	0.00	0.00	0.04	0.00	55.04	2.00	0.00	0.00	0.08	0.00
55.11	2.00	0.00	0.00	0.08	0.00	55.15	2.00	0.00	0.00	0.04	0.00
55.23	2.00	0.00	0.00	0.07	0.00	55.30	2.00	0.00	0.00	0.08	0.00
55.35	2.00	0.00	0.00	0.04	0.00	55.43	2.00	0.00	0.00	0.08	0.00
55.50	2.00	0.00	0.00	0.08	0.00	55.54	2.00	0.00	0.00	0.04	0.00
55.62	2.00	0.00	0.00	0.08	0.00	55.70	2.00	0.00	0.00	0.08	0.00
55.74	2.00	0.00	0.00	0.04	0.00	55.82	2.00	0.00	0.00	0.08	0.00
55.89	2.00	0.00	0.00	0.08	0.00	55.94	2.00	0.00	0.00	0.04	0.00
56.01	2.00	0.00	0.00	0.08	0.00	56.09	2.00	0.00	0.00	0.08	0.00
56.14	2.00	0.00	0.00	0.04	0.00	56.22	2.00	0.00	0.00	0.08	0.00
56.29	2.00	0.00	0.00	0.08	0.00	56.33	2.00	0.00	0.00	0.04	0.00
56.41	2.00	0.00	0.00	0.08	0.00	56.49	2.00	0.00	0.00	0.08	0.00
56.53	2.00	0.00	0.00	0.04	0.00	56.61	2.00	0.00	0.00	0.08	0.00
56.69	2.00	0.00	0.00	0.08	0.00	56.73	2.00	0.00	0.00	0.04	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
56.81	2.00	0.00	0.00	0.08	0.00	56.85	2.00	0.00	0.00	0.04	0.00
56.93	2.00	0.00	0.00	0.08	0.00	57.01	2.00	0.00	0.00	0.08	0.00
57.05	2.00	0.00	0.00	0.04	0.00	57.12	2.00	0.00	0.00	0.07	0.00
57.21	2.00	0.00	0.00	0.09	0.00	57.25	2.00	0.00	0.00	0.04	0.00
57.33	2.00	0.00	0.00	0.08	0.00	57.41	2.00	0.00	0.00	0.07	0.00
57.45	2.00	0.00	0.00	0.04	0.00	57.53	2.00	0.00	0.00	0.08	0.00
57.57	2.00	0.00	0.00	0.04	0.00	57.65	2.00	0.00	0.00	0.07	0.00
57.73	2.00	0.00	0.00	0.08	0.00	57.78	2.00	0.00	0.00	0.05	0.00
57.85	2.00	0.00	0.00	0.07	0.00	57.92	2.00	0.00	0.00	0.07	0.00
57.97	2.00	0.00	0.00	0.05	0.00	58.03	2.00	0.00	0.00	0.06	0.00
58.10	2.00	0.00	0.00	0.07	0.00	58.18	2.00	0.00	0.00	0.07	0.00
58.26	2.00	0.00	0.00	0.08	0.00	58.30	2.00	0.00	0.00	0.04	0.00
58.38	2.00	0.00	0.00	0.08	0.00	58.46	2.00	0.00	0.00	0.08	0.00
58.50	2.00	0.00	0.00	0.04	0.00	58.58	2.00	0.00	0.00	0.08	0.00
58.64	2.00	0.00	0.00	0.07	0.00	58.69	2.00	0.00	0.00	0.05	0.00
58.76	2.00	0.00	0.00	0.07	0.00	58.83	2.00	0.00	0.00	0.07	0.00
58.89	2.00	0.00	0.00	0.06	0.00	58.96	2.00	0.00	0.00	0.07	0.00
59.03	2.00	0.00	0.00	0.07	0.00	59.10	2.00	0.00	0.00	0.07	0.00
59.15	2.00	0.00	0.00	0.05	0.00	59.23	2.00	0.00	0.00	0.08	0.00
59.29	2.00	0.00	0.00	0.06	0.00	59.35	2.00	0.00	0.00	0.06	0.00
59.41	2.00	0.00	0.00	0.06	0.00	59.48	2.00	0.00	0.00	0.07	0.00
59.55	2.00	0.00	0.00	0.07	0.00	59.62	2.00	0.00	0.00	0.07	0.00
59.69	2.00	0.00	0.00	0.07	0.00	59.75	2.00	0.00	0.00	0.06	0.00
59.82	2.00	0.00	0.00	0.07	0.00	59.90	2.00	0.00	0.00	0.07	0.00
59.94	2.00	0.00	0.00	0.04	0.00	60.01	2.00	0.00	0.00	0.07	0.00
60.07	2.00	0.00	0.00	0.07	0.00	60.15	2.00	0.00	0.00	0.08	0.00
60.23	2.00	0.00	0.00	0.08	0.00	60.27	2.00	0.00	0.00	0.04	0.00
60.35	2.00	0.00	0.00	0.08	0.00	60.43	2.00	0.00	0.00	0.08	0.00
60.47	2.00	0.00	0.00	0.04	0.00	60.55	2.00	0.00	0.00	0.08	0.00
60.59	2.00	0.00	0.00	0.04	0.00	60.67	2.00	0.00	0.00	0.08	0.00
60.75	2.00	0.00	0.00	0.08	0.00	60.79	2.00	0.00	0.00	0.04	0.00
60.87	2.00	0.00	0.00	0.08	0.00	60.95	2.00	0.00	0.00	0.08	0.00
60.99	2.00	0.00	0.00	0.04	0.00	61.07	2.00	0.00	0.00	0.08	0.00
61.15	2.00	0.00	0.00	0.08	0.00	61.19	2.00	0.00	0.00	0.04	0.00
61.27	2.00	0.00	0.00	0.08	0.00	61.31	2.00	0.00	0.00	0.04	0.00
61.39	2.00	0.00	0.00	0.08	0.00	61.47	2.00	0.00	0.00	0.08	0.00
61.51	2.00	0.00	0.00	0.04	0.00	61.59	2.00	0.00	0.00	0.08	0.00
61.67	2.00	0.00	0.00	0.08	0.00	61.71	2.00	0.00	0.00	0.04	0.00
61.79	2.00	0.00	0.00	0.08	0.00	61.87	2.00	0.00	0.00	0.08	0.00
61.91	2.00	0.00	0.00	0.04	0.00	61.98	2.00	0.00	0.00	0.07	0.00
62.05	2.00	0.00	0.00	0.07	0.00	62.13	2.00	0.00	0.00	0.08	0.00
62.17	2.00	0.00	0.00	0.04	0.00	62.25	2.00	0.00	0.00	0.08	0.00
62.33	2.00	0.00	0.00	0.08	0.00	62.37	2.00	0.00	0.00	0.04	0.00
62.45	2.00	0.00	0.00	0.08	0.00	62.52	2.00	0.00	0.00	0.08	0.00
62.57	2.00	0.00	0.00	0.04	0.00	62.64	2.00	0.00	0.00	0.08	0.00
62.70	2.00	0.00	0.00	0.06	0.00	62.76	2.00	0.00	0.00	0.06	0.00
62.82	2.00	0.00	0.00	0.06	0.00	62.89	2.00	0.00	0.00	0.06	0.00
62.95	2.00	0.00	0.00	0.07	0.00	63.02	2.00	0.00	0.00	0.06	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
63.09	2.00	0.00	0.00	0.07	0.00	63.17	2.00	0.00	0.00	0.08	0.00
63.24	2.00	0.00	0.00	0.07	0.00	63.28	2.00	0.00	0.00	0.04	0.00
63.36	2.00	0.00	0.00	0.08	0.00	63.43	2.00	0.00	0.00	0.08	0.00
63.48	2.00	0.00	0.00	0.04	0.00	63.56	2.00	0.00	0.00	0.08	0.00
63.64	2.00	0.00	0.00	0.08	0.00	63.68	2.00	0.00	0.00	0.04	0.00
63.76	2.00	0.00	0.00	0.08	0.00	63.81	2.00	0.00	0.00	0.06	0.00
63.89	2.00	0.00	0.00	0.07	0.00	63.94	2.00	0.00	0.00	0.05	0.00
64.00	2.00	0.00	0.00	0.06	0.00	64.07	2.00	0.00	0.00	0.07	0.00
64.14	2.00	0.00	0.00	0.07	0.00	64.22	2.00	0.00	0.00	0.08	0.00
64.27	2.00	0.00	0.00	0.05	0.00	64.35	2.00	0.00	0.00	0.08	0.00
64.41	2.00	0.00	0.00	0.07	0.00	64.48	2.00	0.00	0.00	0.07	0.00
64.53	2.00	0.00	0.00	0.05	0.00	64.61	2.00	0.00	0.00	0.08	0.00
64.69	2.00	0.00	0.00	0.08	0.00	64.73	2.00	0.00	0.00	0.04	0.00
64.81	2.00	0.00	0.00	0.08	0.00	64.89	2.00	0.00	0.00	0.08	0.00
64.93	2.00	0.00	0.00	0.04	0.00	65.01	2.00	0.00	0.00	0.08	0.00
65.06	2.00	0.00	0.00	0.04	0.00	65.14	2.00	0.00	0.00	0.08	0.00
65.21	2.00	0.00	0.00	0.08	0.00	65.26	2.00	0.00	0.00	0.04	0.00
65.33	2.00	0.00	0.00	0.08	0.00	65.38	2.00	0.00	0.00	0.05	0.00
65.45	2.00	0.00	0.00	0.07	0.00	65.53	2.00	0.00	0.00	0.08	0.00
65.61	2.00	0.00	0.00	0.08	0.00	65.65	2.00	0.00	0.00	0.04	0.00
65.73	2.00	0.00	0.00	0.08	0.00	65.81	2.00	0.00	0.00	0.08	0.00
65.85	2.00	0.00	0.00	0.04	0.00	65.93	2.00	0.00	0.00	0.08	0.00
66.00	2.00	0.00	0.00	0.08	0.00	66.05	2.00	0.00	0.00	0.04	0.00
66.13	2.00	0.00	0.00	0.08	0.00	66.17	2.00	0.00	0.00	0.04	0.00
66.25	2.00	0.00	0.00	0.08	0.00	66.32	2.00	0.00	0.00	0.08	0.00
66.37	2.00	0.00	0.00	0.04	0.00	66.44	2.00	0.00	0.00	0.08	0.00
66.52	2.00	0.00	0.00	0.08	0.00	66.57	2.00	0.00	0.00	0.04	0.00
66.64	2.00	0.00	0.00	0.08	0.00	66.72	2.00	0.00	0.00	0.08	0.00
66.77	2.00	0.00	0.00	0.04	0.00	66.85	2.00	0.00	0.00	0.08	0.00
66.92	2.00	0.00	0.00	0.08	0.00	66.97	2.00	0.00	0.00	0.04	0.00
67.02	2.00	0.00	0.00	0.06	0.00	67.12	2.00	0.00	0.00	0.09	0.00
67.16	2.00	0.00	0.00	0.04	0.00	67.24	2.00	0.00	0.00	0.08	0.00
67.29	2.00	0.00	0.00	0.05	0.00	67.37	2.00	0.00	0.00	0.08	0.00
67.44	2.00	0.00	0.00	0.08	0.00	67.49	2.00	0.00	0.00	0.04	0.00
67.56	2.00	0.00	0.00	0.08	0.00	67.64	2.00	0.00	0.00	0.08	0.00
67.69	2.00	0.00	0.00	0.04	0.00	67.77	2.00	0.00	0.00	0.08	0.00
67.81	2.00	0.00	0.00	0.04	0.00	67.89	2.00	0.00	0.00	0.08	0.00
67.97	2.00	0.00	0.00	0.08	0.00	68.02	2.00	0.00	0.00	0.05	0.00
68.09	2.00	0.00	0.00	0.08	0.00	68.14	2.00	0.00	0.00	0.04	0.00
68.21	2.00	0.00	0.00	0.08	0.00	68.29	2.00	0.00	0.00	0.08	0.00
68.34	2.00	0.00	0.00	0.04	0.00	68.42	2.00	0.00	0.00	0.08	0.00
68.49	2.00	0.00	0.00	0.08	0.00	68.54	2.00	0.00	0.00	0.04	0.00
68.61	2.00	0.00	0.00	0.08	0.00	68.69	2.00	0.00	0.00	0.08	0.00
68.74	2.00	0.00	0.00	0.05	0.00	68.81	2.00	0.00	0.00	0.08	0.00
68.86	2.00	0.00	0.00	0.04	0.00	68.94	2.00	0.00	0.00	0.08	0.00
68.99	2.00	0.00	0.00	0.06	0.00	69.08	2.00	0.00	0.00	0.08	0.00
69.14	2.00	0.00	0.00	0.07	0.00	69.19	2.00	0.00	0.00	0.04	0.00
69.27	2.00	0.00	0.00	0.08	0.00	69.34	2.00	0.00	0.00	0.08	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
69.39	2.00	0.00	0.00	0.04	0.00	69.46	2.00	0.00	0.00	0.08	0.00
69.54	2.00	0.00	0.00	0.08	0.00	69.58	2.00	0.00	0.00	0.04	0.00
69.66	2.00	0.00	0.00	0.08	0.00	69.74	2.00	0.00	0.00	0.08	0.00
69.78	2.00	0.00	0.00	0.04	0.00	69.86	2.00	0.00	0.00	0.08	0.00
69.94	2.00	0.00	0.00	0.08	0.00	69.99	2.00	0.00	0.00	0.05	0.00
70.04	2.00	0.00	0.00	0.05	0.00	70.11	2.00	0.00	0.00	0.08	0.00
70.18	2.00	0.00	0.00	0.07	0.00	70.25	2.00	0.00	0.00	0.07	0.00
70.33	2.00	0.00	0.00	0.08	0.00	70.40	2.00	0.00	0.00	0.07	0.00
70.44	2.00	0.00	0.00	0.04	0.00	70.52	2.00	0.00	0.00	0.08	0.00
70.59	2.00	0.00	0.00	0.08	0.00	70.64	2.00	0.00	0.00	0.04	0.00
70.72	2.00	0.00	0.00	0.08	0.00	70.80	2.00	0.00	0.00	0.08	0.00
70.84	2.00	0.00	0.00	0.05	0.00	70.92	2.00	0.00	0.00	0.08	0.00
70.96	2.00	0.00	0.00	0.04	0.00	71.05	2.00	0.00	0.00	0.08	0.00
71.12	2.00	0.00	0.00	0.08	0.00	71.17	2.00	0.00	0.00	0.04	0.00
71.25	2.00	0.00	0.00	0.08	0.00	71.29	2.00	0.00	0.00	0.04	0.00
71.38	2.00	0.00	0.00	0.08	0.00	71.42	2.00	0.00	0.00	0.04	0.00
71.49	2.00	0.00	0.00	0.07	0.00	71.56	2.00	0.00	0.00	0.07	0.00
71.63	2.00	0.00	0.00	0.07	0.00	71.70	2.00	0.00	0.00	0.07	0.00
71.75	2.00	0.00	0.00	0.05	0.00	71.82	2.00	0.00	0.00	0.07	0.00
71.88	2.00	0.00	0.00	0.06	0.00	71.95	2.00	0.00	0.00	0.07	0.00
72.02	2.00	0.00	0.00	0.07	0.00	72.08	2.00	0.00	0.00	0.07	0.00
72.15	2.00	0.00	0.00	0.07	0.00	72.22	2.00	0.00	0.00	0.06	0.00
72.28	2.00	0.00	0.00	0.07	0.00	72.35	2.00	0.00	0.00	0.07	0.00
72.42	2.00	0.00	0.00	0.07	0.00	72.50	2.00	0.00	0.00	0.08	0.00
72.54	2.00	0.00	0.00	0.04	0.00	72.62	2.00	0.00	0.00	0.08	0.00
72.70	2.00	0.00	0.00	0.08	0.00	72.74	2.00	0.00	0.00	0.04	0.00
72.82	2.00	0.00	0.00	0.08	0.00	72.86	2.00	0.00	0.00	0.04	0.00
72.94	2.00	0.00	0.00	0.08	0.00	73.02	2.00	0.00	0.00	0.08	0.00
73.07	2.00	0.00	0.00	0.05	0.00	73.15	2.00	0.00	0.00	0.08	0.00
73.19	2.00	0.00	0.00	0.04	0.00	73.28	2.00	0.00	0.00	0.08	0.00
73.32	2.00	0.00	0.00	0.04	0.00	73.39	2.00	0.00	0.00	0.07	0.00
73.45	2.00	0.00	0.00	0.07	0.00	73.53	2.00	0.00	0.00	0.08	0.00
73.59	2.00	0.00	0.00	0.06	0.00	73.66	2.00	0.00	0.00	0.07	0.00
73.72	2.00	0.00	0.00	0.06	0.00	73.78	2.00	0.00	0.00	0.06	0.00
73.86	2.00	0.00	0.00	0.07	0.00	73.93	2.00	0.00	0.00	0.07	0.00
74.00	2.00	0.00	0.00	0.08	0.00	74.04	2.00	0.00	0.00	0.04	0.00
74.12	2.00	0.00	0.00	0.08	0.00	74.19	2.00	0.00	0.00	0.07	0.00
74.24	2.00	0.00	0.00	0.05	0.00	74.31	2.00	0.00	0.00	0.07	0.00
74.38	2.00	0.00	0.00	0.07	0.00	74.45	2.00	0.00	0.00	0.07	0.00
74.50	2.00	0.00	0.00	0.05	0.00	74.59	2.00	0.00	0.00	0.09	0.00
74.65	2.00	0.00	0.00	0.06	0.00	74.71	2.00	0.00	0.00	0.06	0.00
74.77	2.00	0.00	0.00	0.06	0.00	74.83	2.00	0.00	0.00	0.06	0.00
74.92	2.00	0.00	0.00	0.09	0.00	74.96	2.00	0.00	0.00	0.04	0.00
75.04	2.00	0.00	0.00	0.08	0.00	75.11	2.00	0.00	0.00	0.06	0.00
75.17	2.00	0.00	0.00	0.06	0.00	75.24	2.00	0.00	0.00	0.07	0.00
75.29	2.00	0.00	0.00	0.05	0.00	75.36	2.00	0.00	0.00	0.07	0.00
75.42	2.00	0.00	0.00	0.06	0.00	75.50	2.00	0.00	0.00	0.08	0.00
75.55	2.00	0.00	0.00	0.05	0.00	75.63	2.00	0.00	0.00	0.08	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
75.69	2.00	0.00	0.00	0.06	0.00	75.77	2.00	0.00	0.00	0.08	0.00
75.83	2.00	0.00	0.00	0.06	0.00	75.89	2.00	0.00	0.00	0.06	0.00
75.95	2.00	0.00	0.00	0.07	0.00	76.02	2.00	0.00	0.00	0.06	0.00
76.08	2.00	0.00	0.00	0.07	0.00	76.15	2.00	0.00	0.00	0.06	0.00
76.21	2.00	0.00	0.00	0.06	0.00	76.28	2.00	0.00	0.00	0.06	0.00
76.34	2.00	0.00	0.00	0.07	0.00	76.41	2.00	0.00	0.00	0.06	0.00
76.47	2.00	0.00	0.00	0.06	0.00	76.54	2.00	0.00	0.00	0.07	0.00
76.62	2.00	0.00	0.00	0.08	0.00	76.69	2.00	0.00	0.00	0.07	0.00
76.77	2.00	0.00	0.00	0.08	0.00	76.81	2.00	0.00	0.00	0.05	0.00
76.89	2.00	0.00	0.00	0.08	0.00	76.94	2.00	0.00	0.00	0.04	0.00
77.02	2.00	0.00	0.00	0.08	0.00	77.06	2.00	0.00	0.00	0.04	0.00
77.14	2.00	0.00	0.00	0.08	0.00	77.20	2.00	0.00	0.00	0.06	0.00
77.27	2.00	0.00	0.00	0.07	0.00	77.34	2.00	0.00	0.00	0.07	0.00
77.40	2.00	0.00	0.00	0.06	0.00	77.47	2.00	0.00	0.00	0.06	0.00
77.54	2.00	0.00	0.00	0.07	0.00	77.62	2.00	0.00	0.00	0.08	0.00
77.66	2.00	0.00	0.00	0.04	0.00	77.74	2.00	0.00	0.00	0.08	0.00
77.79	2.00	0.00	0.00	0.04	0.00	77.87	2.00	0.00	0.00	0.08	0.00
77.95	2.00	0.00	0.00	0.08	0.00	77.99	2.00	0.00	0.00	0.04	0.00
78.07	2.00	0.00	0.00	0.08	0.00	78.12	2.00	0.00	0.00	0.05	0.00
78.20	2.00	0.00	0.00	0.08	0.00	78.28	2.00	0.00	0.00	0.08	0.00
78.32	2.00	0.00	0.00	0.04	0.00	78.40	2.00	0.00	0.00	0.08	0.00
78.44	2.00	0.00	0.00	0.04	0.00	78.52	2.00	0.00	0.00	0.08	0.00
78.60	2.00	0.00	0.00	0.08	0.00	78.65	2.00	0.00	0.00	0.05	0.00
78.73	2.00	0.00	0.00	0.08	0.00	78.77	2.00	0.00	0.00	0.05	0.00
78.85	2.00	0.00	0.00	0.08	0.00	78.90	2.00	0.00	0.00	0.05	0.00
78.98	2.00	0.00	0.00	0.08	0.00	79.03	2.00	0.00	0.00	0.05	0.00
79.11	2.00	0.00	0.00	0.08	0.00	79.17	2.00	0.00	0.00	0.06	0.00
79.24	2.00	0.00	0.00	0.07	0.00	79.30	2.00	0.00	0.00	0.05	0.00
79.38	2.00	0.00	0.00	0.08	0.00	79.44	2.00	0.00	0.00	0.06	0.00
79.50	2.00	0.00	0.00	0.06	0.00	79.56	2.00	0.00	0.00	0.06	0.00
79.64	2.00	0.00	0.00	0.09	0.00	79.70	2.00	0.00	0.00	0.06	0.00
79.76	2.00	0.00	0.00	0.06	0.00	79.82	2.00	0.00	0.00	0.06	0.00
79.91	2.00	0.00	0.00	0.09	0.00	79.97	2.00	0.00	0.00	0.06	0.00
80.02	2.00	0.00	0.00	0.05	0.00	80.08	2.00	0.00	0.00	0.06	0.00
80.16	2.00	0.00	0.00	0.07	0.00	80.21	2.00	0.00	0.00	0.05	0.00
80.28	2.00	0.00	0.00	0.07	0.00	80.34	2.00	0.00	0.00	0.06	0.00
80.42	2.00	0.00	0.00	0.08	0.00	80.48	2.00	0.00	0.00	0.06	0.00
80.54	2.00	0.00	0.00	0.06	0.00	80.62	2.00	0.00	0.00	0.08	0.00
80.68	2.00	0.00	0.00	0.06	0.00	80.74	2.00	0.00	0.00	0.06	0.00
80.81	2.00	0.00	0.00	0.06	0.00	80.87	2.00	0.00	0.00	0.07	0.00
80.94	2.00	0.00	0.00	0.07	0.00	81.01	2.00	0.00	0.00	0.07	0.00
81.07	2.00	0.00	0.00	0.07	0.00	81.14	2.00	0.00	0.00	0.07	0.00
81.21	2.00	0.00	0.00	0.07	0.00	81.28	2.00	0.00	0.00	0.07	0.00
81.34	2.00	0.00	0.00	0.07	0.00	81.39	2.00	0.00	0.00	0.05	0.00
81.46	2.00	0.00	0.00	0.07	0.00	81.53	2.00	0.00	0.00	0.07	0.00
81.60	2.00	0.00	0.00	0.07	0.00	81.66	2.00	0.00	0.00	0.05	0.00
81.73	2.00	0.00	0.00	0.07	0.00	81.79	2.00	0.00	0.00	0.06	0.00
81.86	2.00	0.00	0.00	0.06	0.00	81.92	2.00	0.00	0.00	0.06	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
81.98	2.00	0.00	0.00	0.06	0.00	82.06	2.00	0.00	0.00	0.07	0.00
82.11	2.00	0.00	0.00	0.05	0.00	82.18	2.00	0.00	0.00	0.07	0.00
82.25	2.00	0.00	0.00	0.07	0.00	82.31	2.00	0.00	0.00	0.06	0.00
82.38	2.00	0.00	0.00	0.07	0.00	82.44	2.00	0.00	0.00	0.06	0.00
82.51	2.00	0.00	0.00	0.07	0.00	82.58	2.00	0.00	0.00	0.07	0.00
82.64	2.00	0.00	0.00	0.06	0.00	82.71	2.00	0.00	0.00	0.06	0.00
82.77	2.00	0.00	0.00	0.06	0.00	82.84	2.00	0.00	0.00	0.06	0.00
82.91	2.00	0.00	0.00	0.07	0.00	82.97	2.00	0.00	0.00	0.06	0.00
83.04	2.00	0.00	0.00	0.06	0.00	83.10	2.00	0.00	0.00	0.07	0.00
83.17	2.00	0.00	0.00	0.07	0.00	83.23	2.00	0.00	0.00	0.06	0.00
83.30	2.00	0.00	0.00	0.07	0.00	83.36	2.00	0.00	0.00	0.06	0.00
83.43	2.00	0.00	0.00	0.07	0.00	83.50	2.00	0.00	0.00	0.07	0.00
83.56	2.00	0.00	0.00	0.06	0.00	83.62	2.00	0.00	0.00	0.06	0.00
83.69	2.00	0.00	0.00	0.07	0.00	83.76	2.00	0.00	0.00	0.07	0.00
83.82	2.00	0.00	0.00	0.06	0.00	83.89	2.00	0.00	0.00	0.06	0.00
83.95	2.00	0.00	0.00	0.07	0.00	84.02	2.00	0.00	0.00	0.07	0.00
84.08	2.00	0.00	0.00	0.06	0.00	84.15	2.00	0.00	0.00	0.06	0.00
84.22	2.00	0.00	0.00	0.07	0.00	84.28	2.00	0.00	0.00	0.06	0.00
84.34	2.00	0.00	0.00	0.07	0.00	84.41	2.00	0.00	0.00	0.07	0.00
84.48	2.00	0.00	0.00	0.06	0.00	84.55	2.00	0.00	0.00	0.07	0.00
84.61	2.00	0.00	0.00	0.06	0.00	84.68	2.00	0.00	0.00	0.07	0.00
84.74	2.00	0.00	0.00	0.06	0.00	84.81	2.00	0.00	0.00	0.06	0.00
84.87	2.00	0.00	0.00	0.07	0.00	84.94	2.00	0.00	0.00	0.07	0.00
85.01	2.00	0.00	0.00	0.06	0.00	85.07	2.00	0.00	0.00	0.06	0.00
85.13	2.00	0.00	0.00	0.07	0.00	85.20	2.00	0.00	0.00	0.07	0.00
85.27	2.00	0.00	0.00	0.07	0.00	85.33	2.00	0.00	0.00	0.06	0.00
85.39	2.00	0.00	0.00	0.06	0.00	85.46	2.00	0.00	0.00	0.06	0.00
85.53	2.00	0.00	0.00	0.07	0.00	85.60	2.00	0.00	0.00	0.07	0.00
85.66	2.00	0.00	0.00	0.06	0.00	85.73	2.00	0.00	0.00	0.07	0.00
85.79	2.00	0.00	0.00	0.06	0.00	85.86	2.00	0.00	0.00	0.07	0.00
85.93	2.00	0.00	0.00	0.07	0.00	85.99	2.00	0.00	0.00	0.06	0.00
86.05	2.00	0.00	0.00	0.06	0.00	86.12	2.00	0.00	0.00	0.07	0.00

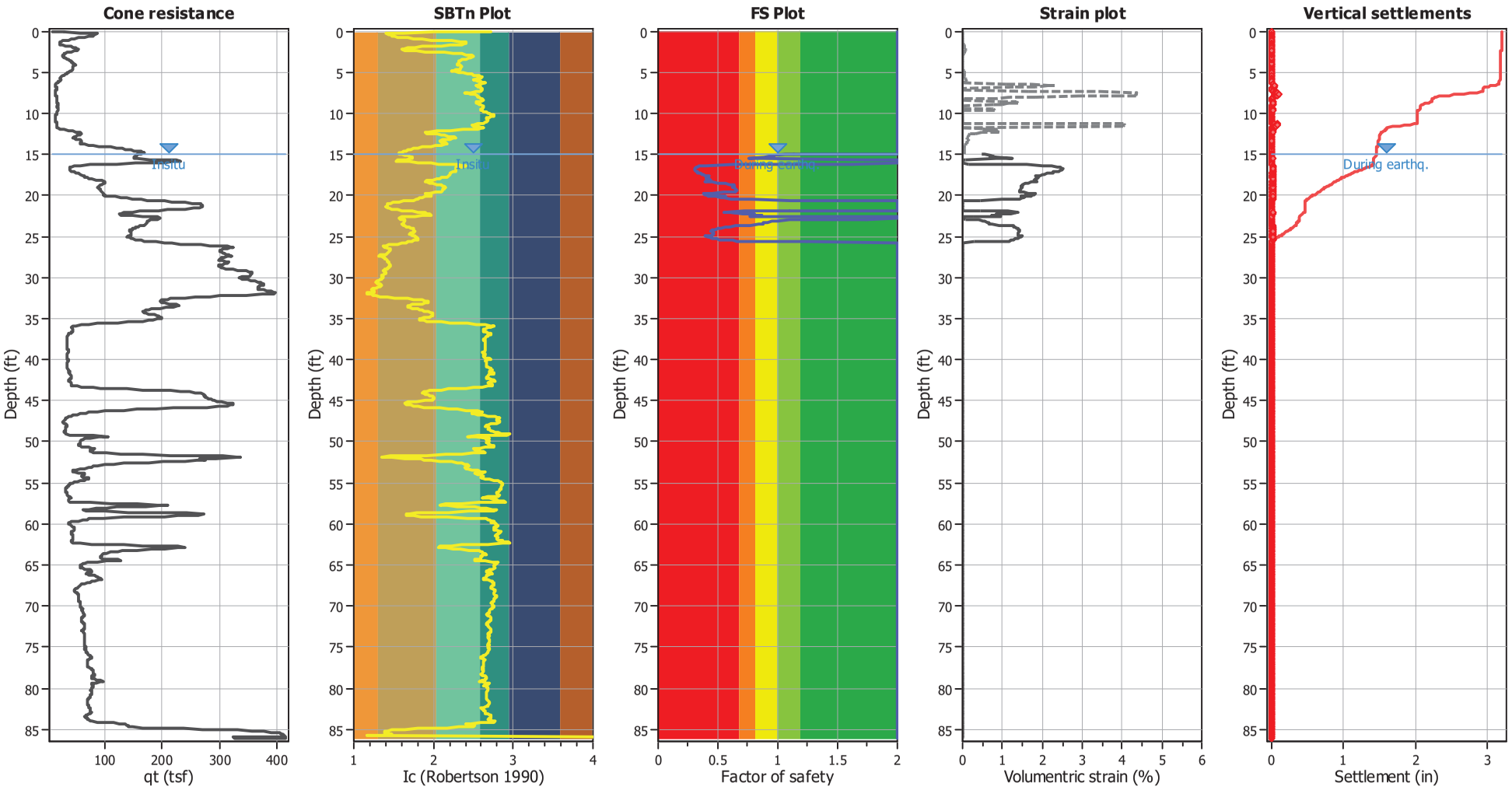
Overall liquefaction potential: 7.46

LPI_{ISH} > 5.0 - Liquefaction manifestation is expected

Abbreviations

FS: Calculated factor of safety for test point
d_z: Layer thickness (ft)
LPI: Liquefaction potential index value for test point

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
0.07	2.72	14.99	4.97	74.59	0	0	0.43	0.000	0.00	0.00	0.00	0.000
0.13	2.00	52.34	1.31	68.61	14	315	0.43	0.001	0.00	10.00	0.00	0.000
0.20	1.61	106.96	1.00	106.96	19	393	0.42	0.001	0.00	10.00	0.00	0.000
0.27	1.42	156.32	1.00	156.32	27	447	0.39	0.002	0.00	10.00	0.00	0.000
0.33	1.40	163.30	1.00	163.30	28	460	0.39	0.002	0.00	10.00	0.00	0.000
0.40	1.44	155.17	1.00	155.17	27	459	0.41	0.003	0.00	10.00	0.00	0.000
0.47	1.47	148.88	1.00	148.88	26	459	0.40	0.003	0.00	10.00	0.00	0.000
0.54	1.48	148.70	1.00	148.70	26	459	0.40	0.004	0.00	10.00	0.00	0.000
0.60	1.49	143.31	1.00	143.31	25	450	0.41	0.005	0.00	10.00	0.00	0.000
0.66	1.51	133.80	1.00	133.80	23	433	0.41	0.006	0.00	10.00	0.00	0.000
0.72	1.55	122.74	1.00	122.74	22	415	0.42	0.007	0.01	10.00	0.01	0.000
0.80	1.60	111.13	1.00	111.13	20	403	0.42	0.008	0.01	10.00	0.01	0.000
0.87	1.67	99.72	1.00	99.72	18	394	0.42	0.010	0.01	10.00	0.01	0.000
0.93	1.75	89.01	1.00	89.01	17	387	0.43	0.011	0.01	10.00	0.01	0.000
0.99	1.85	76.21	1.20	91.69	18	379	0.43	0.013	0.01	10.00	0.01	0.000
1.06	1.98	65.68	1.29	84.71	17	383	0.42	0.014	0.02	10.00	0.01	0.000
1.13	2.11	57.01	1.44	81.99	18	394	0.42	0.015	0.02	10.00	0.01	0.000
1.19	2.23	50.02	1.71	85.36	20	403	0.42	0.015	0.02	10.00	0.01	0.000
1.25	2.33	44.75	2.04	91.52	22	408	0.42	0.016	0.01	10.00	0.01	0.000
1.32	2.41	40.45	2.41	97.38	24	406	0.42	0.018	0.01	10.00	0.01	0.000
1.38	2.41	40.11	2.44	98.01	24	406	0.42	0.019	0.02	10.00	0.01	0.000
1.46	2.41	39.59	2.43	96.29	24	399	0.42	0.022	0.02	10.00	0.01	0.000
1.52	2.39	39.52	2.35	92.75	23	391	0.42	0.025	0.02	10.00	0.02	0.000
1.58	2.36	40.62	2.18	88.42	21	384	0.42	0.028	0.03	10.00	0.02	0.000
1.64	2.30	43.51	1.93	83.94	20	382	0.42	0.031	0.03	10.00	0.03	0.000
1.71	2.21	48.76	1.65	80.58	18	384	0.42	0.033	0.04	10.00	0.03	0.000
1.77	2.10	56.71	1.42	80.34	17	385	0.42	0.035	0.04	10.00	0.03	0.001
1.86	1.98	65.96	1.29	85.18	18	385	0.42	0.038	0.04	10.00	0.04	0.001
1.92	1.87	75.76	1.21	91.89	18	383	0.43	0.041	0.05	10.00	0.04	0.001
1.98	1.77	84.54	1.00	84.54	16	378	0.43	0.046	0.06	10.00	0.05	0.001
2.05	1.68	92.06	1.00	92.06	17	370	0.43	0.053	0.06	10.00	0.05	0.001
2.11	1.63	97.55	1.00	97.55	18	364	0.42	0.059	0.07	10.00	0.05	0.001
2.17	1.60	100.47	1.00	100.47	18	363	0.42	0.063	0.07	10.00	0.06	0.001
2.23	1.60	100.65	1.00	100.65	18	364	0.42	0.066	0.07	10.00	0.06	0.001
2.30	1.63	97.71	1.00	97.71	18	368	0.42	0.068	0.08	10.00	0.06	0.001
2.38	1.70	92.44	1.00	92.44	17	377	0.43	0.066	0.08	10.00	0.06	0.001
2.44	1.79	85.27	1.00	85.27	16	390	0.43	0.062	0.08	10.00	0.06	0.001
2.50	1.89	77.43	1.23	95.24	19	404	0.42	0.058	0.06	10.00	0.05	0.001
2.57	2.01	69.42	1.32	91.42	19	422	0.42	0.052	0.06	10.00	0.04	0.001
2.63	2.14	62.60	1.48	92.62	20	446	0.42	0.046	0.04	10.00	0.04	0.001
2.70	2.25	58.05	1.74	100.99	23	475	0.42	0.039	0.03	10.00	0.03	0.000
2.76	2.35	53.74	2.11	113.34	27	499	0.41	0.036	0.02	10.00	0.02	0.000
2.84	2.41	50.98	2.45	125.08	31	517	0.42	0.034	0.02	10.00	0.02	0.000
2.90	2.47	48.76	2.77	135.02	34	529	0.42	0.033	0.02	10.00	0.01	0.000
2.96	2.49	48.34	2.90	140.17	36	538	0.42	0.033	0.02	10.00	0.01	0.000
3.03	2.50	48.16	2.99	144.15	37	545	0.42	0.033	0.02	10.00	0.01	0.000
3.09	2.51	48.75	3.01	146.90	38	554	0.42	0.033	0.02	10.00	0.01	0.000
3.15	2.49	50.72	2.92	148.07	38	566	0.42	0.032	0.01	10.00	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
3.21	2.47	53.75	2.76	148.09	38	581	0.41	0.031	0.01	10.00	0.01	0.000
3.30	2.44	57.20	2.59	147.88	37	597	0.41	0.030	0.01	10.00	0.01	0.000
3.37	2.41	60.84	2.44	148.20	37	614	0.41	0.029	0.01	10.00	0.01	0.000
3.43	2.39	64.77	2.30	148.89	36	632	0.41	0.028	0.01	10.00	0.01	0.000
3.50	2.36	68.77	2.18	150.16	36	652	0.41	0.027	0.01	10.00	0.01	0.000
3.56	2.34	72.39	2.10	152.10	36	670	0.40	0.026	0.01	10.00	0.01	0.000
3.62	2.33	75.25	2.05	154.48	37	687	0.40	0.025	0.01	10.00	0.01	0.000
3.68	2.32	77.63	2.02	157.04	37	702	0.40	0.025	0.01	10.00	0.01	0.000
3.74	2.32	79.53	2.01	159.77	38	716	0.40	0.024	0.01	10.00	0.01	0.000
3.81	2.32	81.66	1.99	162.91	39	732	0.40	0.024	0.01	10.00	0.01	0.000
3.89	2.31	84.22	1.97	165.91	39	749	0.39	0.024	0.01	10.00	0.01	0.000
3.95	2.30	86.83	1.94	168.67	40	765	0.39	0.023	0.01	10.00	0.01	0.000
4.02	2.30	88.74	1.93	170.97	40	778	0.39	0.023	0.01	10.00	0.01	0.000
4.08	2.30	89.38	1.94	173.42	41	787	0.39	0.023	0.01	10.00	0.01	0.000
4.15	2.32	88.59	1.99	175.96	42	792	0.39	0.023	0.01	10.00	0.01	0.000
4.21	2.33	86.48	2.06	178.22	43	791	0.39	0.024	0.01	10.00	0.01	0.000
4.28	2.35	84.08	2.13	178.76	43	784	0.39	0.025	0.01	10.00	0.01	0.000
4.34	2.35	82.54	2.15	177.23	43	774	0.39	0.026	0.01	10.00	0.01	0.000
4.40	2.35	81.81	2.13	174.53	42	764	0.39	0.028	0.01	10.00	0.01	0.000
4.47	2.34	81.73	2.10	171.80	41	757	0.40	0.029	0.01	10.00	0.01	0.000
4.53	2.33	82.05	2.06	169.18	40	751	0.40	0.030	0.01	10.00	0.01	0.000
4.61	2.33	82.45	2.03	167.37	40	747	0.39	0.031	0.01	10.00	0.01	0.000
4.68	2.31	81.95	1.98	162.24	38	731	0.39	0.034	0.02	10.00	0.01	0.000
4.74	2.28	80.28	1.85	148.12	35	684	0.40	0.040	0.02	10.00	0.02	0.000
4.80	2.24	78.18	1.72	134.76	31	635	0.40	0.051	0.03	10.00	0.02	0.000
4.86	2.23	75.19	1.68	126.59	29	600	0.40	0.061	0.04	10.00	0.03	0.000
4.92	2.27	71.83	1.81	130.29	30	605	0.40	0.061	0.04	10.00	0.03	0.000
4.99	2.32	67.59	2.02	136.69	33	611	0.40	0.061	0.03	10.00	0.03	0.000
5.07	2.38	63.82	2.26	144.51	35	618	0.41	0.061	0.03	10.00	0.02	0.000
5.13	2.42	60.83	2.50	152.16	38	623	0.41	0.060	0.03	10.00	0.02	0.000
5.19	2.45	59.16	2.66	157.59	40	628	0.41	0.060	0.03	10.00	0.02	0.000
5.26	2.48	57.41	2.83	162.19	41	630	0.41	0.061	0.03	10.00	0.02	0.000
5.32	2.51	54.42	3.03	164.82	43	620	0.41	0.066	0.03	10.00	0.02	0.000
5.41	2.54	50.71	3.27	165.80	44	602	0.41	0.074	0.03	10.00	0.02	0.000
5.48	2.57	46.94	3.51	164.85	44	580	0.41	0.086	0.03	10.00	0.03	0.000
5.54	2.59	44.24	3.70	163.55	44	562	0.41	0.098	0.04	10.00	0.03	0.000
5.58	2.60	41.85	3.78	158.37	0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.68	2.60	40.40	3.74	151.24	41	517	0.42	0.142	0.06	10.00	0.05	0.001
5.74	2.58	39.62	3.62	143.35	38	498	0.42	0.169	0.08	10.00	0.06	0.001
5.78	2.56	40.63	3.39	137.57	36	492	0.42	0.180	0.09	10.00	0.07	0.001
5.85	2.52	42.78	3.10	132.43	34	493	0.41	0.183	0.10	10.00	0.07	0.001
5.92	2.50	43.43	2.99	129.70	33	491	0.41	0.192	0.10	10.00	0.08	0.001
5.99	2.52	41.47	3.14	130.28	34	482	0.41	0.214	0.11	10.00	0.09	0.001
6.05	2.56	38.33	3.41	130.73	35	466	0.42	0.256	0.13	10.00	0.10	0.002
6.13	2.59	35.06	3.69	129.25	35	445	0.42	0.328	0.17	10.00	0.13	0.002
6.19	2.61	32.32	3.88	125.25	0	0	0.42	0.000	0.00	0.00	0.00	0.000
6.26	2.64	29.33	4.10	120.13	0	0	0.42	0.000	0.00	0.00	0.00	0.000
6.33	2.64	27.66	4.10	113.27	0	0	0.42	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
6.37	2.62	26.52	3.95	104.80	0	0	0.42	0.000	0.00	0.00	0.00	0.000
6.44	2.60	25.92	3.75	97.12	26	332	0.42	2.037	1.47	10.00	1.09	0.019
6.51	2.57	25.67	3.51	90.22	24	317	0.42	2.866	2.30	10.00	1.71	0.029
6.57	2.55	25.78	3.36	86.66	23	311	0.42	3.412	2.90	10.00	2.15	0.034
6.64	2.55	25.95	3.31	85.78	23	310	0.42	3.596	3.11	10.00	2.30	0.039
6.71	2.55	26.06	3.34	87.09	23	313	0.42	3.454	2.92	10.00	2.16	0.036
6.78	2.56	26.17	3.45	90.19	24	320	0.42	3.072	2.47	10.00	1.83	0.031
6.86	2.58	26.28	3.56	93.60	25	327	0.42	2.716	2.07	10.00	1.53	0.026
6.89	2.59	26.33	3.68	97.01	26	334	0.42	2.398	1.74	10.00	1.28	0.012
6.97	2.60	26.39	3.76	99.10	0	0	0.42	0.000	0.00	0.00	0.00	0.000
7.03	2.61	26.44	3.81	100.69	0	0	0.42	0.000	0.00	0.00	0.00	0.000
7.10	2.61	26.50	3.81	101.01	0	0	0.42	0.000	0.00	0.00	0.00	0.000
7.17	2.61	26.31	3.82	100.57	0	0	0.42	0.000	0.00	0.00	0.00	0.000
7.24	2.61	26.06	3.80	99.03	0	0	0.42	0.000	0.00	0.00	0.00	0.000
7.31	2.60	25.82	3.74	96.61	26	330	0.42	3.112	2.26	10.00	1.65	0.027
7.38	2.54	25.88	3.27	84.71	22	308	0.42	5.373	4.72	10.00	3.45	0.055
7.45	2.46	25.99	2.75	71.40	18	281	0.42	11.427	12.88	10.00	4.38	0.073
7.48	2.40	26.16	2.35	61.47	15	259	0.42	23.274	32.63	10.00	4.38	0.038
7.55	2.43	26.09	2.52	65.64	16	268	0.42	17.518	22.33	10.00	4.37	0.069
7.64	2.47	25.96	2.79	72.47	18	283	0.42	11.735	12.95	10.00	4.36	0.103
7.68	2.50	25.78	3.01	77.53	20	293	0.42	9.048	9.04	10.00	4.36	0.037
7.75	2.53	25.45	3.16	80.49	21	297	0.42	8.286	7.81	10.00	4.35	0.068
7.81	2.55	24.90	3.38	84.13	22	301	0.42	7.627	6.71	10.00	4.35	0.071
7.88	2.56	25.25	3.45	87.00	23	309	0.42	6.477	5.44	10.00	3.94	0.063
7.95	2.56	26.41	3.40	89.85	24	321	0.42	5.005	4.06	10.00	2.94	0.048
8.02	2.55	28.20	3.37	94.99	25	341	0.42	3.329	2.53	10.00	1.83	0.029
8.08	2.57	29.27	3.47	101.67	27	359	0.42	2.360	1.64	10.00	1.18	0.020
8.15	2.59	29.67	3.64	108.04	29	374	0.42	1.866	1.19	10.00	0.86	0.014
8.23	2.60	29.53	3.78	111.76	0	0	0.42	0.000	0.00	0.00	0.00	0.000
8.29	2.62	29.45	3.89	114.61	0	0	0.42	0.000	0.00	0.00	0.00	0.000
8.36	2.63	28.96	4.05	117.27	0	0	0.42	0.000	0.00	0.00	0.00	0.000
8.43	2.62	29.25	3.92	114.76	0	0	0.42	0.000	0.00	0.00	0.00	0.000
8.50	2.59	29.36	3.68	108.17	29	377	0.42	2.003	1.27	10.00	0.91	0.016
8.53	2.55	29.87	3.33	99.48	26	369	0.42	2.343	1.69	10.00	1.21	0.010
8.60	2.54	29.67	3.27	97.04	25	366	0.42	2.533	1.89	10.00	1.35	0.022
8.68	2.54	29.50	3.27	96.54	25	366	0.42	2.580	1.94	10.00	1.38	0.025
8.74	2.56	29.16	3.39	98.96	26	370	0.42	2.471	1.79	10.00	1.27	0.020
8.81	2.56	29.38	3.41	100.26	27	376	0.42	2.271	1.61	10.00	1.15	0.019
8.88	2.57	29.47	3.50	103.22	28	384	0.42	2.031	1.39	10.00	0.98	0.017
8.96	2.58	29.67	3.56	105.67	28	392	0.41	1.823	1.20	10.00	0.85	0.015
9.02	2.59	29.52	3.66	108.01	29	397	0.41	1.719	1.10	10.00	0.78	0.013
9.06	2.61	29.17	3.81	111.14	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.13	2.62	28.87	3.95	113.93	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.20	2.63	28.59	4.05	115.77	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.27	2.63	28.53	4.04	115.22	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.34	2.62	28.65	3.93	112.69	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.41	2.61	28.85	3.80	109.73	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.48	2.60	28.96	3.71	107.45	29	409	0.41	1.659	1.06	10.00	0.75	0.012

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
9.52	2.59	28.99	3.67	106.24	29	408	0.41	1.691	1.10	10.00	0.77	0.006
9.59	2.59	28.94	3.64	105.22	28	409	0.41	1.718	1.13	10.00	0.79	0.013
9.65	2.59	28.77	3.63	104.56	28	408	0.41	1.758	1.17	10.00	0.82	0.013
9.72	2.60	27.92	3.77	105.31	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.79	2.63	26.69	4.04	107.70	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.86	2.67	25.32	4.36	110.30	0	0	0.41	0.000	0.00	0.00	0.00	0.000
9.93	2.69	24.49	4.57	111.92	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.00	2.69	24.49	4.59	112.43	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.08	2.70	24.07	4.75	114.25	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.15	2.72	23.33	4.95	115.37	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.22	2.75	21.76	5.26	114.54	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.29	2.76	20.76	5.33	110.67	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.33	2.75	20.28	5.21	105.68	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.40	2.72	20.21	4.96	100.32	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.47	2.70	20.12	4.68	94.26	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.54	2.67	19.95	4.44	88.50	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.62	2.66	19.55	4.35	84.97	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.69	2.67	19.19	4.36	83.61	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.72	2.67	19.05	4.39	83.66	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.79	2.68	18.77	4.47	83.97	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.87	2.68	18.73	4.50	84.35	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.94	2.68	18.81	4.51	84.77	0	0	0.41	0.000	0.00	0.00	0.00	0.000
10.99	2.67	19.50	4.36	84.95	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.07	2.65	20.14	4.22	85.00	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.14	2.64	20.63	4.09	84.30	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.21	2.62	20.84	3.97	82.72	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.25	2.59	21.36	3.70	79.06	21	346	0.41	8.942	8.28	10.00	4.06	0.035
11.32	2.55	22.20	3.33	74.02	20	345	0.41	9.436	9.71	10.00	4.06	0.071
11.39	2.50	22.93	2.98	68.39	18	340	0.41	10.789	12.55	10.00	4.05	0.069
11.47	2.48	22.86	2.85	65.07	17	333	0.41	12.917	16.14	10.00	4.04	0.072
11.54	2.49	22.22	2.93	65.15	17	330	0.41	14.275	17.68	10.00	4.04	0.070
11.57	2.52	21.18	3.11	65.82	17	324	0.41	16.762	20.21	10.00	4.04	0.035
11.64	2.56	20.56	3.41	70.19	19	330	0.41	14.662	15.98	10.00	4.03	0.068
11.72	2.61	20.18	3.81	76.93	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.79	2.64	21.23	4.08	86.61	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.86	2.62	23.83	3.89	92.74	0	0	0.41	0.000	0.00	0.00	0.00	0.000
11.93	2.56	27.40	3.45	94.61	25	451	0.41	1.711	1.30	10.00	0.87	0.015
11.97	2.49	32.29	2.90	93.67	24	491	0.41	1.046	0.84	10.00	0.56	0.005
12.04	2.38	38.24	2.25	86.00	21	517	0.41	0.806	0.76	10.00	0.51	0.009
12.12	2.21	45.48	1.65	74.96	17	517	0.40	0.817	0.99	10.00	0.66	0.012
12.19	2.05	53.12	1.36	71.98	15	507	0.41	0.924	1.28	10.00	0.85	0.015
12.26	1.94	59.21	1.26	74.74	15	501	0.41	0.994	1.38	10.00	0.92	0.016
12.30	1.90	65.24	1.24	80.65	16	530	0.41	0.743	0.96	10.00	0.64	0.006
12.38	1.89	69.13	1.23	85.17	17	560	0.41	0.570	0.69	10.00	0.46	0.008
12.45	1.92	70.86	1.25	88.65	18	594	0.40	0.432	0.49	10.00	0.33	0.006
12.51	1.97	71.13	1.29	91.56	19	634	0.40	0.325	0.35	10.00	0.23	0.003
12.57	2.04	69.58	1.34	93.55	20	670	0.40	0.261	0.26	10.00	0.17	0.003
12.64	2.09	68.04	1.40	95.49	21	694	0.40	0.229	0.22	10.00	0.15	0.003

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
12.70	2.14	64.33	1.49	95.70	21	698	0.40	0.226	0.21	10.00	0.14	0.002
12.77	2.19	60.23	1.59	95.76	22	693	0.40	0.236	0.22	10.00	0.14	0.002
12.83	2.23	56.99	1.71	97.19	22	691	0.40	0.241	0.21	10.00	0.14	0.002
12.90	2.26	55.46	1.79	99.38	23	697	0.40	0.236	0.20	10.00	0.13	0.002
12.97	2.27	55.18	1.82	100.60	23	704	0.40	0.230	0.19	10.00	0.12	0.002
13.04	2.25	56.99	1.75	99.58	23	711	0.40	0.224	0.19	10.00	0.12	0.002
13.11	2.21	59.82	1.63	97.65	22	715	0.40	0.221	0.20	10.00	0.13	0.002
13.15	2.15	63.89	1.50	96.08	21	718	0.40	0.219	0.20	10.00	0.13	0.001
13.22	2.11	66.90	1.43	95.77	21	720	0.39	0.219	0.21	10.00	0.14	0.002
13.29	2.08	69.47	1.39	96.53	21	726	0.39	0.215	0.21	10.00	0.13	0.002
13.37	2.07	70.67	1.38	97.51	21	735	0.39	0.207	0.20	10.00	0.13	0.002
13.44	2.08	70.38	1.39	97.76	21	741	0.39	0.204	0.19	10.00	0.12	0.002
13.48	2.10	69.01	1.41	97.54	21	743	0.39	0.203	0.19	10.00	0.12	0.001
13.55	2.12	67.58	1.45	97.85	21	749	0.39	0.199	0.18	10.00	0.12	0.002
13.63	2.15	66.51	1.50	99.51	22	763	0.39	0.187	0.17	10.00	0.11	0.002
13.70	2.17	66.77	1.54	102.79	23	788	0.39	0.169	0.14	10.00	0.09	0.002
13.77	2.17	68.31	1.55	106.12	24	816	0.39	0.151	0.12	10.00	0.08	0.001
13.80	2.15	73.43	1.50	110.06	24	852	0.39	0.132	0.10	10.00	0.07	0.001
13.88	2.10	81.19	1.41	114.76	25	892	0.38	0.115	0.09	10.00	0.06	0.001
13.95	2.03	91.44	1.33	122.03	26	935	0.38	0.101	0.08	10.00	0.05	0.001
14.03	1.96	102.12	1.28	130.72	27	971	0.38	0.092	0.06	10.00	0.04	0.001
14.10	1.91	111.26	1.24	138.43	28	998	0.38	0.086	0.06	10.00	0.04	0.001
14.14	1.86	121.27	1.21	146.27	29	1024	0.38	0.081	0.05	10.00	0.03	0.000
14.21	1.81	131.12	1.16	151.93	29	1046	0.38	0.077	0.05	10.00	0.03	0.001
14.28	1.75	141.15	1.09	154.00	29	1064	0.38	0.075	0.05	10.00	0.03	0.001
14.35	1.72	148.09	1.02	151.26	28	1071	0.37	0.074	0.05	10.00	0.03	0.001
14.43	1.69	151.91	1.00	151.91	28	1073	0.37	0.074	0.05	10.00	0.03	0.001
14.47	1.67	155.74	1.00	155.74	29	1075	0.37	0.074	0.05	10.00	0.03	0.000
14.54	1.65	160.82	1.00	160.82	30	1087	0.36	0.073	0.05	10.00	0.03	0.001
14.61	1.63	167.60	1.00	167.60	31	1107	0.36	0.070	0.04	10.00	0.03	0.000
14.68	1.62	173.42	1.00	173.42	31	1129	0.35	0.067	0.04	10.00	0.02	0.000
14.76	1.60	176.58	1.00	176.58	32	1137	0.35	0.067	0.04	10.00	0.02	0.000
14.79	1.58	176.65	1.00	176.65	32	1112	0.35	0.071	0.04	10.00	0.03	0.000
14.87	1.57	174.07	1.00	174.07	31	1078	0.35	0.077	0.05	10.00	0.03	0.001
14.94	1.56	170.18	1.00	170.18	30	1049	0.35	0.084	0.05	10.00	0.03	0.001

Total estimated settlement: 1.74

Abbreviations

Q_{tn}: Normalized cone resistance
K_c: Fines correction factor
$Q_{tn,cs}$: Equivalent clean sand normalized cone resistance
G_{max}: Small strain shear modulus
CSR: Soil cyclic stress ratio
γ: Cyclic shear strain
$e_{vol(15)}$: Volumetric strain after 15 cycles
N_c: Equivalent number of cycles
e_v: Volumetric strain
Settle.: Calculated settlement

:: Post-earthquake settlement due to soil liquefaction ::

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
15.01	162.80	1.13	0.47	0.75	0.00	15.05	160.88	1.06	0.55	0.75	0.00
15.13	157.58	0.96	0.70	0.75	0.01	15.20	157.79	0.97	0.69	0.75	0.01
15.28	155.32	0.90	0.82	0.75	0.01	15.35	157.85	0.96	0.69	0.74	0.01
15.38	156.38	0.92	0.76	0.74	0.00	15.46	149.19	0.76	1.24	0.74	0.01
15.53	154.87	0.88	0.85	0.74	0.01	15.61	175.33	1.74	0.09	0.74	0.00
15.68	215.29	2.00	0.00	0.74	0.00	15.71	224.86	2.00	0.00	0.74	0.00
15.79	236.48	2.00	0.00	0.74	0.00	15.86	235.95	2.00	0.00	0.74	0.00
15.93	219.56	2.00	0.00	0.73	0.00	16.00	202.90	2.00	0.00	0.73	0.00
16.04	211.54	2.00	0.00	0.73	0.00	16.11	202.89	2.00	0.00	0.73	0.00
16.19	174.10	1.63	0.13	0.73	0.00	16.26	152.39	0.81	1.03	0.73	0.01
16.30	141.88	0.63	1.61	0.73	0.01	16.37	116.38	0.40	1.99	0.73	0.02
16.45	103.78	0.35	2.25	0.73	0.02	16.52	97.69	0.32	2.38	0.72	0.02
16.59	95.70	0.32	2.43	0.72	0.02	16.63	94.54	0.31	2.46	0.72	0.01
16.70	93.79	0.31	2.47	0.72	0.02	16.78	92.25	0.30	2.51	0.72	0.02
16.85	92.65	0.30	2.50	0.72	0.02	16.92	92.83	0.30	2.49	0.72	0.02
16.96	93.51	0.31	2.47	0.72	0.01	17.03	95.51	0.31	2.41	0.72	0.02
17.11	97.13	0.32	2.37	0.71	0.02	17.18	100.54	0.33	2.28	0.71	0.02
17.22	101.76	0.33	2.25	0.71	0.01	17.29	103.79	0.34	2.20	0.71	0.02
17.36	108.17	0.36	2.11	0.71	0.02	17.43	110.01	0.36	2.07	0.71	0.02
17.51	113.55	0.38	1.99	0.71	0.02	17.55	115.84	0.39	1.95	0.71	0.01
17.62	120.97	0.42	1.86	0.71	0.02	17.69	121.87	0.42	1.84	0.71	0.02
17.76	119.83	0.41	1.87	0.70	0.02	17.84	118.85	0.40	1.89	0.70	0.02
17.88	117.93	0.40	1.90	0.70	0.01	17.95	119.64	0.41	1.87	0.70	0.02
18.02	122.46	0.42	1.82	0.70	0.02	18.09	124.63	0.44	1.78	0.70	0.02
18.15	121.05	0.41	1.83	0.70	0.01	18.23	120.50	0.41	1.84	0.70	0.02
18.29	118.20	0.40	1.88	0.70	0.01	18.37	121.01	0.41	1.83	0.69	0.02
18.41	126.64	0.45	1.74	0.69	0.01	18.48	133.31	0.50	1.64	0.69	0.01
18.55	139.23	0.56	1.56	0.69	0.01	18.62	142.46	0.60	1.52	0.69	0.01
18.69	143.74	0.62	1.50	0.69	0.01	18.73	144.92	0.63	1.48	0.69	0.01
18.80	143.82	0.62	1.49	0.69	0.01	18.88	144.97	0.63	1.48	0.69	0.01
18.95	144.16	0.62	1.49	0.68	0.01	19.02	144.11	0.62	1.48	0.68	0.01
19.06	144.81	0.63	1.47	0.68	0.01	19.13	145.20	0.63	1.47	0.68	0.01
19.21	145.99	0.64	1.45	0.68	0.01	19.28	146.49	0.65	1.45	0.68	0.01
19.32	146.28	0.65	1.45	0.68	0.01	19.39	146.92	0.66	1.44	0.68	0.01
19.46	146.35	0.65	1.44	0.68	0.01	19.54	146.04	0.64	1.44	0.67	0.01
19.61	145.88	0.64	1.44	0.67	0.01	19.64	139.06	0.55	1.52	0.67	0.01
19.72	127.87	0.45	1.66	0.67	0.01	19.79	116.60	0.38	1.83	0.67	0.02
19.87	119.99	0.39	1.78	0.67	0.02	19.94	127.09	0.44	1.67	0.67	0.01
19.98	133.99	0.49	1.57	0.67	0.01	20.04	124.19	0.42	1.70	0.67	0.01
20.14	140.78	0.56	1.48	0.66	0.02	20.18	133.13	0.49	1.57	0.66	0.01
20.25	136.74	0.52	1.53	0.66	0.01	20.32	139.92	0.55	1.48	0.66	0.01
20.39	144.80	0.61	1.43	0.66	0.01	20.47	151.46	0.72	1.19	0.66	0.01
20.50	154.33	0.78	0.98	0.66	0.00	20.58	165.98	1.10	0.43	0.66	0.00
20.65	180.86	1.95	0.01	0.66	0.00	20.72	197.35	2.00	0.00	0.65	0.00
20.76	205.09	2.00	0.00	0.65	0.00	20.83	218.50	2.00	0.00	0.65	0.00
20.91	229.11	2.00	0.00	0.65	0.00	20.98	241.06	2.00	0.00	0.65	0.00
21.05	250.68	2.00	0.00	0.65	0.00	21.09	253.73	2.00	0.00	0.65	0.00
21.16	256.19	2.00	0.00	0.65	0.00	21.23	255.33	2.00	0.00	0.65	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
21.31	255.62	2.00	0.00	0.64	0.00	21.38	256.82	2.00	0.00	0.64	0.00
21.42	257.01	2.00	0.00	0.64	0.00	21.49	253.00	2.00	0.00	0.64	0.00
21.56	243.35	2.00	0.00	0.64	0.00	21.64	228.68	2.00	0.00	0.64	0.00
21.71	209.90	2.00	0.00	0.64	0.00	21.75	199.96	2.00	0.00	0.64	0.00
21.82	182.25	2.00	0.00	0.64	0.00	21.89	166.25	1.09	0.42	0.64	0.00
21.96	152.13	0.72	1.14	0.63	0.01	22.04	141.06	0.55	1.41	0.63	0.01
22.07	147.87	0.64	1.33	0.63	0.01	22.15	145.55	0.61	1.35	0.63	0.01
22.22	151.47	0.70	1.19	0.63	0.01	22.30	156.48	0.80	0.85	0.63	0.01
22.37	155.43	0.78	0.91	0.63	0.01	22.40	158.92	0.86	0.72	0.63	0.00
22.47	155.00	0.77	0.94	0.63	0.01	22.55	154.94	0.77	0.94	0.62	0.01
22.61	172.05	1.33	0.25	0.62	0.00	22.69	183.72	2.00	0.00	0.62	0.00
22.76	185.28	2.00	0.00	0.62	0.00	22.80	184.14	2.00	0.00	0.62	0.00
22.87	178.92	1.74	0.07	0.62	0.00	22.94	172.44	1.34	0.24	0.62	0.00
23.01	166.86	1.10	0.40	0.62	0.00	23.09	164.14	1.00	0.50	0.62	0.00
23.13	163.45	0.98	0.53	0.61	0.00	23.20	162.51	0.95	0.56	0.61	0.00
23.27	161.23	0.91	0.62	0.61	0.01	23.35	160.48	0.89	0.65	0.61	0.01
23.39	160.06	0.88	0.67	0.61	0.00	23.46	159.93	0.88	0.67	0.61	0.01
23.53	158.65	0.84	0.73	0.61	0.01	23.60	155.42	0.77	0.91	0.61	0.01
23.68	151.37	0.69	1.20	0.61	0.01	23.71	149.09	0.65	1.26	0.60	0.01
23.79	145.42	0.59	1.30	0.60	0.01	23.86	142.54	0.56	1.32	0.60	0.01
23.93	139.67	0.52	1.35	0.60	0.01	24.01	138.40	0.51	1.36	0.60	0.01
24.04	137.01	0.50	1.38	0.60	0.01	24.12	135.48	0.48	1.39	0.60	0.01
24.19	133.42	0.46	1.41	0.60	0.01	24.26	131.80	0.45	1.43	0.60	0.01
24.34	131.24	0.44	1.43	0.59	0.01	24.37	131.45	0.45	1.43	0.59	0.01
24.45	132.49	0.45	1.41	0.59	0.01	24.52	133.08	0.46	1.40	0.59	0.01
24.59	133.84	0.46	1.39	0.59	0.01	24.66	133.29	0.46	1.39	0.59	0.01
24.70	132.61	0.45	1.40	0.59	0.01	24.78	131.97	0.45	1.41	0.59	0.01
24.85	131.86	0.45	1.40	0.59	0.01	24.92	131.75	0.45	1.40	0.58	0.01
24.97	123.76	0.39	1.50	0.58	0.01	25.05	127.57	0.41	1.45	0.58	0.01
25.12	128.25	0.42	1.44	0.58	0.01	25.16	129.04	0.42	1.43	0.58	0.01
25.23	132.67	0.45	1.38	0.58	0.01	25.30	136.52	0.48	1.33	0.58	0.01
25.37	139.76	0.52	1.30	0.58	0.01	25.45	143.12	0.56	1.26	0.58	0.01
25.52	147.91	0.62	1.21	0.57	0.01	25.56	150.58	0.66	1.19	0.57	0.01
25.63	158.67	0.83	0.72	0.57	0.01	25.70	171.02	1.24	0.28	0.57	0.00
25.78	187.29	2.00	0.00	0.57	0.00	25.82	195.76	2.00	0.00	0.57	0.00
25.89	210.94	2.00	0.00	0.57	0.00	25.97	227.78	2.00	0.00	0.57	0.00
26.04	247.62	2.00	0.00	0.57	0.00	26.08	257.50	2.00	0.00	0.57	0.00
26.15	274.05	2.00	0.00	0.56	0.00	26.23	287.96	2.00	0.00	0.56	0.00
26.30	296.15	2.00	0.00	0.56	0.00	26.34	297.54	2.00	0.00	0.56	0.00
26.41	293.84	2.00	0.00	0.56	0.00	26.49	284.12	2.00	0.00	0.56	0.00
26.55	278.63	2.00	0.00	0.56	0.00	26.60	277.23	2.00	0.00	0.56	0.00
26.69	276.53	2.00	0.00	0.56	0.00	26.77	274.39	2.00	0.00	0.55	0.00
26.80	273.62	2.00	0.00	0.55	0.00	26.88	275.28	2.00	0.00	0.55	0.00
26.95	278.17	2.00	0.00	0.55	0.00	27.03	280.44	2.00	0.00	0.55	0.00
27.07	281.57	2.00	0.00	0.55	0.00	27.14	282.29	2.00	0.00	0.55	0.00
27.21	283.95	2.00	0.00	0.55	0.00	27.28	288.03	2.00	0.00	0.55	0.00
27.32	290.88	2.00	0.00	0.54	0.00	27.40	292.72	2.00	0.00	0.54	0.00
27.47	291.88	2.00	0.00	0.54	0.00	27.53	271.28	2.00	0.00	0.54	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
27.59	275.20	2.00	0.00	0.54	0.00	27.66	277.91	2.00	0.00	0.54	0.00
27.73	274.77	2.00	0.00	0.54	0.00	27.81	271.80	2.00	0.00	0.54	0.00
27.88	270.11	2.00	0.00	0.54	0.00	27.92	270.90	2.00	0.00	0.53	0.00
28.00	276.16	2.00	0.00	0.53	0.00	28.07	282.79	2.00	0.00	0.53	0.00
28.11	285.11	2.00	0.00	0.53	0.00	28.19	286.84	2.00	0.00	0.53	0.00
28.26	283.78	2.00	0.00	0.53	0.00	28.34	277.47	2.00	0.00	0.53	0.00
28.37	275.18	2.00	0.00	0.53	0.00	28.45	271.78	2.00	0.00	0.53	0.00
28.52	269.34	2.00	0.00	0.52	0.00	28.60	268.44	2.00	0.00	0.52	0.00
28.64	268.45	2.00	0.00	0.52	0.00	28.71	270.02	2.00	0.00	0.52	0.00
28.79	272.10	2.00	0.00	0.52	0.00	28.86	275.88	2.00	0.00	0.52	0.00
28.90	278.02	2.00	0.00	0.52	0.00	28.98	283.08	2.00	0.00	0.52	0.00
29.05	290.69	2.00	0.00	0.52	0.00	29.12	299.39	2.00	0.00	0.51	0.00
29.16	304.08	2.00	0.00	0.51	0.00	29.24	310.90	2.00	0.00	0.51	0.00
29.31	315.92	2.00	0.00	0.51	0.00	29.39	319.16	2.00	0.00	0.51	0.00
29.43	320.43	2.00	0.00	0.51	0.00	29.50	319.08	2.00	0.00	0.51	0.00
29.57	317.73	2.00	0.00	0.51	0.00	29.62	316.20	2.00	0.00	0.51	0.00
29.69	315.27	2.00	0.00	0.51	0.00	29.75	315.58	2.00	0.00	0.50	0.00
29.82	316.28	2.00	0.00	0.50	0.00	29.89	308.58	2.00	0.00	0.50	0.00
29.96	298.46	2.00	0.00	0.50	0.00	30.02	298.05	2.00	0.00	0.50	0.00
30.08	297.63	2.00	0.00	0.50	0.00	30.18	304.04	2.00	0.00	0.50	0.00
30.22	305.48	2.00	0.00	0.50	0.00	30.29	310.14	2.00	0.00	0.50	0.00
30.37	315.48	2.00	0.00	0.49	0.00	30.44	318.45	2.00	0.00	0.49	0.00
30.48	319.89	2.00	0.00	0.49	0.00	30.56	325.04	2.00	0.00	0.49	0.00
30.63	331.04	2.00	0.00	0.49	0.00	30.70	334.42	2.00	0.00	0.49	0.00
30.74	335.18	2.00	0.00	0.49	0.00	30.82	335.18	2.00	0.00	0.49	0.00
30.89	335.02	2.00	0.00	0.49	0.00	30.96	330.91	2.00	0.00	0.48	0.00
31.00	328.64	2.00	0.00	0.48	0.00	31.07	325.38	2.00	0.00	0.48	0.00
31.14	324.97	2.00	0.00	0.48	0.00	31.21	325.25	2.00	0.00	0.48	0.00
31.28	323.34	2.00	0.00	0.48	0.00	31.36	323.37	2.00	0.00	0.48	0.00
31.39	323.71	2.00	0.00	0.48	0.00	31.47	327.09	2.00	0.00	0.48	0.00
31.54	332.31	2.00	0.00	0.47	0.00	31.61	339.03	2.00	0.00	0.47	0.00
31.68	344.06	2.00	0.00	0.47	0.00	31.75	348.59	2.00	0.00	0.47	0.00
31.79	350.85	2.00	0.00	0.47	0.00	31.86	351.95	2.00	0.00	0.47	0.00
31.93	350.54	2.00	0.00	0.47	0.00	32.01	344.12	2.00	0.00	0.47	0.00
32.08	328.36	2.00	0.00	0.47	0.00	32.12	315.42	2.00	0.00	0.46	0.00
32.18	274.67	2.00	0.00	0.46	0.00	32.25	271.80	2.00	0.00	0.46	0.00
32.32	247.70	2.00	0.00	0.46	0.00	32.40	222.73	2.00	0.00	0.46	0.00
32.48	202.36	2.00	0.00	0.46	0.00	32.51	193.91	2.00	0.00	0.46	0.00
32.59	182.77	2.00	0.00	0.46	0.00	32.66	176.37	2.00	0.00	0.46	0.00
32.70	177.03	2.00	0.00	0.45	0.00	32.78	183.61	2.00	0.00	0.45	0.00
32.85	195.70	2.00	0.00	0.45	0.00	32.93	203.96	2.00	0.00	0.45	0.00
32.97	208.25	2.00	0.00	0.45	0.00	33.04	208.34	2.00	0.00	0.45	0.00
33.12	204.55	2.00	0.00	0.45	0.00	33.19	197.12	2.00	0.00	0.45	0.00
33.23	187.67	2.00	0.00	0.45	0.00	33.31	193.61	2.00	0.00	0.44	0.00
33.38	198.15	2.00	0.00	0.44	0.00	33.46	197.77	2.00	0.00	0.44	0.00
33.49	195.50	2.00	0.00	0.44	0.00	33.57	187.30	2.00	0.00	0.44	0.00
33.65	176.13	2.00	0.00	0.44	0.00	33.72	164.23	2.00	0.00	0.44	0.00
33.76	159.04	2.00	0.00	0.44	0.00	33.83	152.70	2.00	0.00	0.44	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
33.91	152.96	2.00	0.00	0.43	0.00	33.98	153.84	2.00	0.00	0.43	0.00
34.02	155.16	2.00	0.00	0.43	0.00	34.10	160.39	2.00	0.00	0.43	0.00
34.17	167.89	2.00	0.00	0.43	0.00	34.21	177.62	2.00	0.00	0.43	0.00
34.29	182.06	2.00	0.00	0.43	0.00	34.35	193.09	2.00	0.00	0.43	0.00
34.43	199.20	2.00	0.00	0.43	0.00	34.50	206.46	2.00	0.00	0.42	0.00
34.54	210.48	2.00	0.00	0.42	0.00	34.61	213.62	2.00	0.00	0.42	0.00
34.69	213.02	2.00	0.00	0.42	0.00	34.76	209.52	2.00	0.00	0.42	0.00
34.80	200.16	2.00	0.00	0.42	0.00	34.88	191.10	2.00	0.00	0.42	0.00
34.95	179.79	2.00	0.00	0.42	0.00	35.03	170.11	2.00	0.00	0.42	0.00
35.07	166.62	2.00	0.00	0.42	0.00	35.14	160.59	2.00	0.00	0.41	0.00
35.22	163.54	2.00	0.00	0.41	0.00	35.29	169.62	2.00	0.00	0.41	0.00
35.33	182.59	2.00	0.00	0.41	0.00	35.41	180.30	2.00	0.00	0.41	0.00
35.48	165.96	2.00	0.00	0.41	0.00	35.56	150.88	2.00	0.00	0.41	0.00
35.60	142.48	2.00	0.00	0.41	0.00	35.67	123.04	2.00	0.00	0.41	0.00
35.74	45.75	2.00	0.00	0.40	0.00	35.82	37.57	2.00	0.00	0.40	0.00
35.86	35.69	2.00	0.00	0.40	0.00	35.94	33.25	2.00	0.00	0.40	0.00
36.01	33.22	2.00	0.00	0.40	0.00	36.05	33.20	2.00	0.00	0.40	0.00
36.13	33.16	2.00	0.00	0.40	0.00	36.20	33.75	2.00	0.00	0.40	0.00
36.28	34.65	2.00	0.00	0.40	0.00	36.32	34.40	2.00	0.00	0.39	0.00
36.39	35.29	2.00	0.00	0.39	0.00	36.47	35.27	2.00	0.00	0.39	0.00
36.54	34.39	2.00	0.00	0.39	0.00	36.58	34.23	2.00	0.00	0.39	0.00
36.66	32.82	2.00	0.00	0.39	0.00	36.73	31.19	2.00	0.00	0.39	0.00
36.77	30.42	2.00	0.00	0.39	0.00	36.85	29.34	2.00	0.00	0.39	0.00
36.91	26.27	2.00	0.00	0.38	0.00	36.98	28.01	2.00	0.00	0.38	0.00
37.05	26.83	2.00	0.00	0.38	0.00	37.12	26.28	2.00	0.00	0.38	0.00
37.20	25.88	2.00	0.00	0.38	0.00	37.24	25.64	2.00	0.00	0.38	0.00
37.31	25.32	2.00	0.00	0.38	0.00	37.39	25.30	2.00	0.00	0.38	0.00
37.46	25.43	2.00	0.00	0.38	0.00	37.50	25.50	2.00	0.00	0.37	0.00
37.58	25.78	2.00	0.00	0.37	0.00	37.65	25.54	2.00	0.00	0.37	0.00
37.69	25.23	2.00	0.00	0.37	0.00	37.77	25.21	2.00	0.00	0.37	0.00
37.84	25.20	2.00	0.00	0.37	0.00	37.91	25.18	2.00	0.00	0.37	0.00
37.95	25.32	2.00	0.00	0.37	0.00	38.03	25.67	2.00	0.00	0.37	0.00
38.10	25.65	2.00	0.00	0.36	0.00	38.17	25.64	2.00	0.00	0.36	0.00
38.25	25.55	2.00	0.00	0.36	0.00	38.29	25.61	2.00	0.00	0.36	0.00
38.37	25.37	2.00	0.00	0.36	0.00	38.44	25.58	2.00	0.00	0.36	0.00
38.48	25.79	2.00	0.00	0.36	0.00	38.56	26.08	2.00	0.00	0.36	0.00
38.63	26.21	2.00	0.00	0.36	0.00	38.67	26.35	2.00	0.00	0.36	0.00
38.75	26.63	2.00	0.00	0.35	0.00	38.83	26.91	2.00	0.00	0.35	0.00
38.90	26.81	2.00	0.00	0.35	0.00	38.94	26.95	2.00	0.00	0.35	0.00
39.02	27.00	2.00	0.00	0.35	0.00	39.10	26.75	2.00	0.00	0.35	0.00
39.14	26.59	2.00	0.00	0.35	0.00	39.21	26.21	2.00	0.00	0.35	0.00
39.29	26.04	2.00	0.00	0.35	0.00	39.33	25.78	2.00	0.00	0.34	0.00
39.40	25.13	2.00	0.00	0.34	0.00	39.48	25.48	2.00	0.00	0.34	0.00
39.54	25.39	2.00	0.00	0.34	0.00	39.61	25.29	2.00	0.00	0.34	0.00
39.68	25.06	2.00	0.00	0.34	0.00	39.76	24.90	2.00	0.00	0.34	0.00
39.80	25.05	2.00	0.00	0.34	0.00	39.87	24.82	2.00	0.00	0.34	0.00
39.94	25.03	2.00	0.00	0.33	0.00	40.02	24.71	2.00	0.00	0.33	0.00
40.07	28.47	2.00	0.00	0.33	0.00	40.14	27.47	2.00	0.00	0.33	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
40.22	26.28	2.00	0.00	0.33	0.00	40.26	25.83	2.00	0.00	0.33	0.00
40.33	24.78	2.00	0.00	0.33	0.00	40.40	24.17	2.00	0.00	0.33	0.00
40.48	24.23	2.00	0.00	0.33	0.00	40.52	24.15	2.00	0.00	0.32	0.00
40.59	24.13	2.00	0.00	0.32	0.00	40.67	24.26	2.00	0.00	0.32	0.00
40.74	24.76	2.00	0.00	0.32	0.00	40.78	25.04	2.00	0.00	0.32	0.00
40.86	25.02	2.00	0.00	0.32	0.00	40.94	24.94	2.00	0.00	0.32	0.00
40.98	24.94	2.00	0.00	0.32	0.00	41.05	25.07	2.00	0.00	0.32	0.00
41.12	25.86	2.00	0.00	0.31	0.00	41.20	26.51	2.00	0.00	0.31	0.00
41.24	26.50	2.00	0.00	0.31	0.00	41.31	26.63	2.00	0.00	0.31	0.00
41.39	27.05	2.00	0.00	0.31	0.00	41.46	28.57	2.00	0.00	0.31	0.00
41.50	28.78	2.00	0.00	0.31	0.00	41.58	27.88	2.00	0.00	0.31	0.00
41.66	28.61	2.00	0.00	0.31	0.00	41.70	26.91	2.00	0.00	0.31	0.00
41.77	28.43	2.00	0.00	0.30	0.00	41.85	30.09	2.00	0.00	0.30	0.00
41.92	30.58	2.00	0.00	0.30	0.00	41.96	30.49	2.00	0.00	0.30	0.00
42.04	30.10	2.00	0.00	0.30	0.00	42.11	30.40	2.00	0.00	0.30	0.00
42.15	29.91	2.00	0.00	0.30	0.00	42.23	30.33	2.00	0.00	0.30	0.00
42.30	29.65	2.00	0.00	0.29	0.00	42.38	28.18	2.00	0.00	0.29	0.00
42.42	27.75	2.00	0.00	0.29	0.00	42.50	27.29	2.00	0.00	0.29	0.00
42.58	26.70	2.00	0.00	0.29	0.00	42.62	26.24	2.00	0.00	0.29	0.00
42.68	30.82	2.00	0.00	0.29	0.00	42.75	31.22	2.00	0.00	0.29	0.00
42.83	30.33	2.00	0.00	0.29	0.00	42.91	30.02	2.00	0.00	0.28	0.00
42.95	29.79	2.00	0.00	0.28	0.00	43.02	29.63	2.00	0.00	0.28	0.00
43.10	30.85	2.00	0.00	0.28	0.00	43.14	32.90	2.00	0.00	0.28	0.00
43.21	37.14	2.00	0.00	0.28	0.00	43.29	43.73	2.00	0.00	0.28	0.00
43.36	118.57	2.00	0.00	0.28	0.00	43.40	123.94	2.00	0.00	0.28	0.00
43.48	135.17	2.00	0.00	0.28	0.00	43.56	157.39	2.00	0.00	0.27	0.00
43.60	170.22	2.00	0.00	0.27	0.00	43.68	197.52	2.00	0.00	0.27	0.00
43.76	216.71	2.00	0.00	0.27	0.00	43.79	214.09	2.00	0.00	0.27	0.00
43.87	225.82	2.00	0.00	0.27	0.00	43.93	226.50	2.00	0.00	0.27	0.00
43.99	230.88	2.00	0.00	0.27	0.00	44.06	238.57	2.00	0.00	0.27	0.00
44.12	248.51	2.00	0.00	0.26	0.00	44.19	260.86	2.00	0.00	0.26	0.00
44.28	272.07	2.00	0.00	0.26	0.00	44.34	279.93	2.00	0.00	0.26	0.00
44.41	285.71	2.00	0.00	0.26	0.00	44.47	289.56	2.00	0.00	0.26	0.00
44.53	291.81	2.00	0.00	0.26	0.00	44.60	294.18	2.00	0.00	0.26	0.00
44.66	296.97	2.00	0.00	0.26	0.00	44.72	299.98	2.00	0.00	0.25	0.00
44.78	300.02	2.00	0.00	0.25	0.00	44.85	299.93	2.00	0.00	0.25	0.00
44.91	296.92	2.00	0.00	0.25	0.00	44.98	291.84	2.00	0.00	0.25	0.00
45.04	269.82	2.00	0.00	0.25	0.00	45.12	239.74	2.00	0.00	0.25	0.00
45.17	248.41	2.00	0.00	0.25	0.00	45.25	258.47	2.00	0.00	0.25	0.00
45.30	264.01	2.00	0.00	0.24	0.00	45.37	269.62	2.00	0.00	0.24	0.00
45.44	266.01	2.00	0.00	0.24	0.00	45.50	262.42	2.00	0.00	0.24	0.00
45.57	265.28	2.00	0.00	0.24	0.00	45.63	258.18	2.00	0.00	0.24	0.00
45.70	248.94	2.00	0.00	0.24	0.00	45.77	259.84	2.00	0.00	0.24	0.00
45.84	256.88	2.00	0.00	0.24	0.00	45.90	254.86	2.00	0.00	0.24	0.00
45.96	229.98	2.00	0.00	0.23	0.00	46.04	195.74	2.00	0.00	0.23	0.00
46.11	174.67	2.00	0.00	0.23	0.00	46.15	164.29	2.00	0.00	0.23	0.00
46.23	145.35	2.00	0.00	0.23	0.00	46.31	135.12	2.00	0.00	0.23	0.00
46.38	58.57	2.00	0.00	0.23	0.00	46.42	119.86	2.00	0.00	0.23	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
46.50	111.48	2.00	0.00	0.22	0.00	46.58	105.86	2.00	0.00	0.22	0.00
46.62	101.59	2.00	0.00	0.22	0.00	46.70	95.66	2.00	0.00	0.22	0.00
46.77	32.02	2.00	0.00	0.22	0.00	46.82	28.71	2.00	0.00	0.22	0.00
46.91	26.67	2.00	0.00	0.22	0.00	46.95	25.21	2.00	0.00	0.22	0.00
47.02	22.84	2.00	0.00	0.22	0.00	47.10	21.92	2.00	0.00	0.21	0.00
47.14	21.85	2.00	0.00	0.21	0.00	47.22	21.42	2.00	0.00	0.21	0.00
47.29	21.19	2.00	0.00	0.21	0.00	47.37	20.56	2.00	0.00	0.21	0.00
47.41	19.80	2.00	0.00	0.21	0.00	47.49	18.84	2.00	0.00	0.21	0.00
47.56	18.22	2.00	0.00	0.21	0.00	47.60	18.01	2.00	0.00	0.21	0.00
47.68	18.06	2.00	0.00	0.21	0.00	47.76	19.27	2.00	0.00	0.20	0.00
47.80	20.21	2.00	0.00	0.20	0.00	47.88	21.83	2.00	0.00	0.20	0.00
47.95	22.83	2.00	0.00	0.20	0.00	47.99	23.36	2.00	0.00	0.20	0.00
48.07	23.48	2.00	0.00	0.20	0.00	48.15	23.06	2.00	0.00	0.20	0.00
48.22	22.10	2.00	0.00	0.20	0.00	48.27	21.48	2.00	0.00	0.20	0.00
48.34	21.47	2.00	0.00	0.19	0.00	48.38	21.46	2.00	0.00	0.19	0.00
48.46	22.33	2.00	0.00	0.19	0.00	48.54	21.84	2.00	0.00	0.19	0.00
48.58	21.42	2.00	0.00	0.19	0.00	48.66	20.46	2.00	0.00	0.19	0.00
48.73	19.99	2.00	0.00	0.19	0.00	48.78	19.92	2.00	0.00	0.19	0.00
48.86	20.87	2.00	0.00	0.19	0.00	48.94	21.06	2.00	0.00	0.18	0.00
48.98	21.14	2.00	0.00	0.18	0.00	49.05	21.42	2.00	0.00	0.18	0.00
49.13	22.22	2.00	0.00	0.18	0.00	49.21	38.19	2.00	0.00	0.18	0.00
49.25	113.58	2.00	0.00	0.18	0.00	49.33	161.57	2.00	0.00	0.18	0.00
49.38	160.70	2.00	0.00	0.18	0.00	49.45	121.63	2.00	0.00	0.18	0.00
49.52	56.65	2.00	0.00	0.17	0.00	49.57	49.45	2.00	0.00	0.17	0.00
49.65	42.94	2.00	0.00	0.17	0.00	49.70	43.91	2.00	0.00	0.17	0.00
49.77	42.51	2.00	0.00	0.17	0.00	49.83	41.06	2.00	0.00	0.17	0.00
49.90	39.81	2.00	0.00	0.17	0.00	49.97	39.82	2.00	0.00	0.17	0.00
50.04	39.79	2.00	0.00	0.17	0.00	50.12	39.79	2.00	0.00	0.16	0.00
50.19	40.12	2.00	0.00	0.16	0.00	50.23	39.84	2.00	0.00	0.16	0.00
50.31	38.62	2.00	0.00	0.16	0.00	50.39	37.68	2.00	0.00	0.16	0.00
50.43	37.32	2.00	0.00	0.16	0.00	50.50	38.01	2.00	0.00	0.16	0.00
50.58	41.13	2.00	0.00	0.16	0.00	50.62	43.60	2.00	0.00	0.16	0.00
50.70	50.13	2.00	0.00	0.16	0.00	50.77	124.20	2.00	0.00	0.15	0.00
50.81	126.00	2.00	0.00	0.15	0.00	50.89	126.40	2.00	0.00	0.15	0.00
50.97	123.31	2.00	0.00	0.15	0.00	51.05	118.28	2.00	0.00	0.15	0.00
51.09	115.85	2.00	0.00	0.15	0.00	51.16	53.16	2.00	0.00	0.15	0.00
51.24	53.41	2.00	0.00	0.15	0.00	51.28	55.46	2.00	0.00	0.15	0.00
51.36	130.10	2.00	0.00	0.14	0.00	51.43	146.31	2.00	0.00	0.14	0.00
51.48	158.26	2.00	0.00	0.14	0.00	51.55	184.81	2.00	0.00	0.14	0.00
51.63	202.35	2.00	0.00	0.14	0.00	51.68	206.62	2.00	0.00	0.14	0.00
51.73	249.71	2.00	0.00	0.14	0.00	51.80	270.19	2.00	0.00	0.14	0.00
51.87	274.29	2.00	0.00	0.14	0.00	51.95	265.25	2.00	0.00	0.13	0.00
52.01	253.85	2.00	0.00	0.13	0.00	52.07	171.70	2.00	0.00	0.13	0.00
52.13	238.27	2.00	0.00	0.13	0.00	52.19	243.88	2.00	0.00	0.13	0.00
52.27	259.36	2.00	0.00	0.13	0.00	52.34	265.49	2.00	0.00	0.13	0.00
52.42	255.38	2.00	0.00	0.13	0.00	52.46	245.82	2.00	0.00	0.13	0.00
52.54	216.84	2.00	0.00	0.12	0.00	52.61	188.36	2.00	0.00	0.12	0.00
52.66	175.87	2.00	0.00	0.12	0.00	52.73	151.92	2.00	0.00	0.12	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
52.81	135.99	2.00	0.00	0.12	0.00	52.85	129.16	2.00	0.00	0.12	0.00
52.93	119.79	2.00	0.00	0.12	0.00	53.01	117.48	2.00	0.00	0.12	0.00
53.05	117.24	2.00	0.00	0.12	0.00	53.12	116.49	2.00	0.00	0.11	0.00
53.20	108.27	2.00	0.00	0.11	0.00	53.24	103.77	2.00	0.00	0.11	0.00
53.32	97.16	2.00	0.00	0.11	0.00	53.39	91.52	2.00	0.00	0.11	0.00
53.47	87.63	2.00	0.00	0.11	0.00	53.51	86.68	2.00	0.00	0.11	0.00
53.59	87.04	2.00	0.00	0.11	0.00	53.64	29.04	2.00	0.00	0.11	0.00
53.72	32.63	2.00	0.00	0.10	0.00	53.78	33.48	2.00	0.00	0.10	0.00
53.84	106.98	2.00	0.00	0.10	0.00	53.90	108.01	2.00	0.00	0.10	0.00
53.98	106.42	2.00	0.00	0.10	0.00	54.06	103.76	2.00	0.00	0.10	0.00
54.10	39.32	2.00	0.00	0.10	0.00	54.17	41.31	2.00	0.00	0.10	0.00
54.25	38.39	2.00	0.00	0.10	0.00	54.29	41.43	2.00	0.00	0.10	0.00
54.37	113.25	2.00	0.00	0.09	0.00	54.45	116.13	2.00	0.00	0.09	0.00
54.52	48.73	2.00	0.00	0.09	0.00	54.56	47.06	2.00	0.00	0.09	0.00
54.64	42.90	2.00	0.00	0.09	0.00	54.72	39.54	2.00	0.00	0.09	0.00
54.76	37.94	2.00	0.00	0.09	0.00	54.84	34.97	2.00	0.00	0.09	0.00
54.91	32.30	2.00	0.00	0.08	0.00	54.96	30.93	2.00	0.00	0.08	0.00
55.04	28.76	2.00	0.00	0.08	0.00	55.11	27.07	2.00	0.00	0.08	0.00
55.15	26.07	2.00	0.00	0.08	0.00	55.23	23.68	2.00	0.00	0.08	0.00
55.30	24.13	2.00	0.00	0.08	0.00	55.35	23.58	2.00	0.00	0.08	0.00
55.43	22.52	2.00	0.00	0.08	0.00	55.50	21.60	2.00	0.00	0.07	0.00
55.54	21.21	2.00	0.00	0.07	0.00	55.62	20.55	2.00	0.00	0.07	0.00
55.70	20.46	2.00	0.00	0.07	0.00	55.74	20.40	2.00	0.00	0.07	0.00
55.82	20.19	2.00	0.00	0.07	0.00	55.89	20.18	2.00	0.00	0.07	0.00
55.94	20.17	2.00	0.00	0.07	0.00	56.01	20.41	2.00	0.00	0.07	0.00
56.09	20.91	2.00	0.00	0.07	0.00	56.14	21.23	2.00	0.00	0.06	0.00
56.22	21.73	2.00	0.00	0.06	0.00	56.29	21.84	2.00	0.00	0.06	0.00
56.33	21.78	2.00	0.00	0.06	0.00	56.41	21.38	2.00	0.00	0.06	0.00
56.49	21.32	2.00	0.00	0.06	0.00	56.53	21.44	2.00	0.00	0.06	0.00
56.61	22.32	2.00	0.00	0.06	0.00	56.69	24.43	2.00	0.00	0.06	0.00
56.73	25.62	2.00	0.00	0.05	0.00	56.81	26.88	2.00	0.00	0.05	0.00
56.85	26.68	2.00	0.00	0.05	0.00	56.93	25.27	2.00	0.00	0.05	0.00
57.01	23.53	2.00	0.00	0.05	0.00	57.05	23.02	2.00	0.00	0.05	0.00
57.12	22.98	2.00	0.00	0.05	0.00	57.21	22.95	2.00	0.00	0.05	0.00
57.25	23.28	2.00	0.00	0.05	0.00	57.33	24.11	2.00	0.00	0.04	0.00
57.41	30.52	2.00	0.00	0.04	0.00	57.45	102.73	2.00	0.00	0.04	0.00
57.53	149.80	2.00	0.00	0.04	0.00	57.57	175.44	2.00	0.00	0.04	0.00
57.65	219.72	2.00	0.00	0.04	0.00	57.73	238.22	2.00	0.00	0.04	0.00
57.78	233.53	2.00	0.00	0.04	0.00	57.85	206.88	2.00	0.00	0.04	0.00
57.92	177.27	2.00	0.00	0.03	0.00	57.97	162.14	2.00	0.00	0.03	0.00
58.03	142.26	2.00	0.00	0.03	0.00	58.10	57.77	2.00	0.00	0.03	0.00
58.18	47.84	2.00	0.00	0.03	0.00	58.26	38.41	2.00	0.00	0.03	0.00
58.30	47.95	2.00	0.00	0.03	0.00	58.38	37.36	2.00	0.00	0.03	0.00
58.46	47.92	2.00	0.00	0.03	0.00	58.50	125.68	2.00	0.00	0.03	0.00
58.58	163.54	2.00	0.00	0.02	0.00	58.64	186.36	2.00	0.00	0.02	0.00
58.69	181.19	2.00	0.00	0.02	0.00	58.76	212.63	2.00	0.00	0.02	0.00
58.83	207.86	2.00	0.00	0.02	0.00	58.89	190.54	2.00	0.00	0.02	0.00
58.96	180.19	2.00	0.00	0.02	0.00	59.03	163.58	2.00	0.00	0.02	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
59.10	152.25	2.00	0.00	0.02	0.00	59.15	169.87	2.00	0.00	0.01	0.00
59.23	147.67	2.00	0.00	0.01	0.00	59.29	132.22	2.00	0.00	0.01	0.00
59.35	113.13	2.00	0.00	0.01	0.00	59.41	47.54	2.00	0.00	0.01	0.00
59.48	46.69	2.00	0.00	0.01	0.00	59.55	41.87	2.00	0.00	0.01	0.00
59.62	34.46	2.00	0.00	0.01	0.00	59.69	28.46	2.00	0.00	0.01	0.00
59.75	25.47	2.00	0.00	0.00	0.00	59.82	24.29	2.00	0.00	0.00	0.00
59.90	23.34	2.00	0.00	0.00	0.00	59.94	23.02	2.00	0.00	0.00	0.00
60.01	22.77	2.00	0.00	0.00	0.00	60.07	24.99	2.00	0.00	0.00	0.00
60.15	26.33	2.00	0.00	0.00	0.00	60.23	26.19	2.00	0.00	0.00	0.00
60.27	26.37	2.00	0.00	0.00	0.00	60.35	27.12	2.00	0.00	0.00	0.00
60.43	28.39	2.00	0.00	0.00	0.00	60.47	28.57	2.00	0.00	0.00	0.00
60.55	29.46	2.00	0.00	0.00	0.00	60.59	30.03	2.00	0.00	0.00	0.00
60.67	30.09	2.00	0.00	0.00	0.00	60.75	29.69	2.00	0.00	0.00	0.00
60.79	29.43	2.00	0.00	0.00	0.00	60.87	28.39	2.00	0.00	0.00	0.00
60.95	27.29	2.00	0.00	0.00	0.00	60.99	26.90	2.00	0.00	0.00	0.00
61.07	26.10	2.00	0.00	0.00	0.00	61.15	26.76	2.00	0.00	0.00	0.00
61.19	25.56	2.00	0.00	0.00	0.00	61.27	26.63	2.00	0.00	0.00	0.00
61.31	27.45	2.00	0.00	0.00	0.00	61.39	28.45	2.00	0.00	0.00	0.00
61.47	28.57	2.00	0.00	0.00	0.00	61.51	28.18	2.00	0.00	0.00	0.00
61.59	28.16	2.00	0.00	0.00	0.00	61.67	28.15	2.00	0.00	0.00	0.00
61.71	28.14	2.00	0.00	0.00	0.00	61.79	28.12	2.00	0.00	0.00	0.00
61.87	28.36	2.00	0.00	0.00	0.00	61.91	28.30	2.00	0.00	0.00	0.00
61.98	25.75	2.00	0.00	0.00	0.00	62.05	27.02	2.00	0.00	0.00	0.00
62.13	26.30	2.00	0.00	0.00	0.00	62.17	25.99	2.00	0.00	0.00	0.00
62.25	25.74	2.00	0.00	0.00	0.00	62.33	27.45	2.00	0.00	0.00	0.00
62.37	31.74	2.00	0.00	0.00	0.00	62.45	47.28	2.00	0.00	0.00	0.00
62.52	141.83	2.00	0.00	0.00	0.00	62.57	156.88	2.00	0.00	0.00	0.00
62.64	195.66	2.00	0.00	0.00	0.00	62.70	224.14	2.00	0.00	0.00	0.00
62.76	246.04	2.00	0.00	0.00	0.00	62.82	257.35	2.00	0.00	0.00	0.00
62.89	261.66	2.00	0.00	0.00	0.00	62.95	250.40	2.00	0.00	0.00	0.00
63.02	241.60	2.00	0.00	0.00	0.00	63.09	214.40	2.00	0.00	0.00	0.00
63.17	186.96	2.00	0.00	0.00	0.00	63.24	176.12	2.00	0.00	0.00	0.00
63.28	169.41	2.00	0.00	0.00	0.00	63.36	158.10	2.00	0.00	0.00	0.00
63.43	153.97	2.00	0.00	0.00	0.00	63.48	75.39	2.00	0.00	0.00	0.00
63.56	68.77	2.00	0.00	0.00	0.00	63.64	65.15	2.00	0.00	0.00	0.00
63.68	62.49	2.00	0.00	0.00	0.00	63.76	62.83	2.00	0.00	0.00	0.00
63.81	62.75	2.00	0.00	0.00	0.00	63.89	63.09	2.00	0.00	0.00	0.00
63.94	130.18	2.00	0.00	0.00	0.00	64.00	61.90	2.00	0.00	0.00	0.00
64.07	128.43	2.00	0.00	0.00	0.00	64.14	129.95	2.00	0.00	0.00	0.00
64.22	129.11	2.00	0.00	0.00	0.00	64.27	140.38	2.00	0.00	0.00	0.00
64.35	166.65	2.00	0.00	0.00	0.00	64.41	167.71	2.00	0.00	0.00	0.00
64.48	159.32	2.00	0.00	0.00	0.00	64.53	69.80	2.00	0.00	0.00	0.00
64.61	55.13	2.00	0.00	0.00	0.00	64.69	47.71	2.00	0.00	0.00	0.00
64.73	44.66	2.00	0.00	0.00	0.00	64.81	40.22	2.00	0.00	0.00	0.00
64.89	37.87	2.00	0.00	0.00	0.00	64.93	37.01	2.00	0.00	0.00	0.00
65.01	36.01	2.00	0.00	0.00	0.00	65.06	35.92	2.00	0.00	0.00	0.00
65.14	35.58	2.00	0.00	0.00	0.00	65.21	36.08	2.00	0.00	0.00	0.00
65.26	36.59	2.00	0.00	0.00	0.00	65.33	37.03	2.00	0.00	0.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
65.38	34.05	2.00	0.00	0.00	0.00	65.45	42.85	2.00	0.00	0.00	0.00
65.53	45.60	2.00	0.00	0.00	0.00	65.61	47.86	2.00	0.00	0.00	0.00
65.65	49.73	2.00	0.00	0.00	0.00	65.73	51.25	2.00	0.00	0.00	0.00
65.81	49.58	2.00	0.00	0.00	0.00	65.85	47.28	2.00	0.00	0.00	0.00
65.93	42.94	2.00	0.00	0.00	0.00	66.00	41.09	2.00	0.00	0.00	0.00
66.05	41.07	2.00	0.00	0.00	0.00	66.13	44.01	2.00	0.00	0.00	0.00
66.17	45.17	2.00	0.00	0.00	0.00	66.25	48.56	2.00	0.00	0.00	0.00
66.32	52.82	2.00	0.00	0.00	0.00	66.37	54.73	2.00	0.00	0.00	0.00
66.44	56.56	2.00	0.00	0.00	0.00	66.52	58.40	2.00	0.00	0.00	0.00
66.57	59.62	2.00	0.00	0.00	0.00	66.64	61.19	2.00	0.00	0.00	0.00
66.72	61.71	2.00	0.00	0.00	0.00	66.77	61.23	2.00	0.00	0.00	0.00
66.85	58.51	2.00	0.00	0.00	0.00	66.92	52.52	2.00	0.00	0.00	0.00
66.97	49.59	2.00	0.00	0.00	0.00	67.02	51.62	2.00	0.00	0.00	0.00
67.12	46.31	2.00	0.00	0.00	0.00	67.16	43.45	2.00	0.00	0.00	0.00
67.24	40.20	2.00	0.00	0.00	0.00	67.29	38.93	2.00	0.00	0.00	0.00
67.37	36.73	2.00	0.00	0.00	0.00	67.44	35.37	2.00	0.00	0.00	0.00
67.49	34.65	2.00	0.00	0.00	0.00	67.56	34.18	2.00	0.00	0.00	0.00
67.64	33.59	2.00	0.00	0.00	0.00	67.69	32.69	2.00	0.00	0.00	0.00
67.77	31.83	2.00	0.00	0.00	0.00	67.81	30.63	2.00	0.00	0.00	0.00
67.89	29.07	2.00	0.00	0.00	0.00	67.97	28.01	2.00	0.00	0.00	0.00
68.02	27.89	2.00	0.00	0.00	0.00	68.09	27.97	2.00	0.00	0.00	0.00
68.14	27.93	2.00	0.00	0.00	0.00	68.21	28.59	2.00	0.00	0.00	0.00
68.29	29.57	2.00	0.00	0.00	0.00	68.34	30.12	2.00	0.00	0.00	0.00
68.42	31.04	2.00	0.00	0.00	0.00	68.49	31.90	2.00	0.00	0.00	0.00
68.54	32.41	2.00	0.00	0.00	0.00	68.61	32.46	2.00	0.00	0.00	0.00
68.69	32.95	2.00	0.00	0.00	0.00	68.74	32.89	2.00	0.00	0.00	0.00
68.81	32.63	2.00	0.00	0.00	0.00	68.86	32.43	2.00	0.00	0.00	0.00
68.94	32.41	2.00	0.00	0.00	0.00	68.99	32.39	2.00	0.00	0.00	0.00
69.08	32.37	2.00	0.00	0.00	0.00	69.14	32.35	2.00	0.00	0.00	0.00
69.19	32.52	2.00	0.00	0.00	0.00	69.27	32.63	2.00	0.00	0.00	0.00
69.34	32.49	2.00	0.00	0.00	0.00	69.39	32.98	2.00	0.00	0.00	0.00
69.46	33.45	2.00	0.00	0.00	0.00	69.54	34.49	2.00	0.00	0.00	0.00
69.58	34.48	2.00	0.00	0.00	0.00	69.66	34.09	2.00	0.00	0.00	0.00
69.74	33.76	2.00	0.00	0.00	0.00	69.78	34.19	2.00	0.00	0.00	0.00
69.86	34.61	2.00	0.00	0.00	0.00	69.94	34.79	2.00	0.00	0.00	0.00
69.99	34.85	2.00	0.00	0.00	0.00	70.04	32.59	2.00	0.00	0.00	0.00
70.11	35.45	2.00	0.00	0.00	0.00	70.18	35.60	2.00	0.00	0.00	0.00
70.25	36.78	2.00	0.00	0.00	0.00	70.33	36.94	2.00	0.00	0.00	0.00
70.40	36.86	2.00	0.00	0.00	0.00	70.44	36.46	2.00	0.00	0.00	0.00
70.52	36.25	2.00	0.00	0.00	0.00	70.59	36.55	2.00	0.00	0.00	0.00
70.64	36.53	2.00	0.00	0.00	0.00	70.72	36.58	2.00	0.00	0.00	0.00
70.80	36.81	2.00	0.00	0.00	0.00	70.84	37.17	2.00	0.00	0.00	0.00
70.92	38.34	2.00	0.00	0.00	0.00	70.96	38.70	2.00	0.00	0.00	0.00
71.05	39.31	2.00	0.00	0.00	0.00	71.12	39.41	2.00	0.00	0.00	0.00
71.17	39.16	2.00	0.00	0.00	0.00	71.25	38.34	2.00	0.00	0.00	0.00
71.29	37.89	2.00	0.00	0.00	0.00	71.38	37.31	2.00	0.00	0.00	0.00
71.42	37.24	2.00	0.00	0.00	0.00	71.49	34.54	2.00	0.00	0.00	0.00
71.56	35.65	2.00	0.00	0.00	0.00	71.63	35.26	2.00	0.00	0.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
71.70	34.37	2.00	0.00	0.00	0.00	71.75	35.29	2.00	0.00	0.00	0.00
71.82	34.65	2.00	0.00	0.00	0.00	71.88	35.30	2.00	0.00	0.00	0.00
71.95	36.89	2.00	0.00	0.00	0.00	72.02	37.99	2.00	0.00	0.00	0.00
72.08	38.60	2.00	0.00	0.00	0.00	72.15	38.72	2.00	0.00	0.00	0.00
72.22	38.52	2.00	0.00	0.00	0.00	72.28	38.33	2.00	0.00	0.00	0.00
72.35	38.32	2.00	0.00	0.00	0.00	72.42	38.79	2.00	0.00	0.00	0.00
72.50	39.47	2.00	0.00	0.00	0.00	72.54	39.21	2.00	0.00	0.00	0.00
72.62	38.70	2.00	0.00	0.00	0.00	72.70	38.31	2.00	0.00	0.00	0.00
72.74	38.37	2.00	0.00	0.00	0.00	72.82	38.48	2.00	0.00	0.00	0.00
72.86	38.03	2.00	0.00	0.00	0.00	72.94	36.52	2.00	0.00	0.00	0.00
73.02	35.69	2.00	0.00	0.00	0.00	73.07	35.67	2.00	0.00	0.00	0.00
73.15	36.65	2.00	0.00	0.00	0.00	73.19	37.13	2.00	0.00	0.00	0.00
73.28	38.03	2.00	0.00	0.00	0.00	73.32	38.77	2.00	0.00	0.00	0.00
73.39	38.25	2.00	0.00	0.00	0.00	73.45	38.30	2.00	0.00	0.00	0.00
73.53	38.22	2.00	0.00	0.00	0.00	73.59	37.96	2.00	0.00	0.00	0.00
73.66	37.63	2.00	0.00	0.00	0.00	73.72	37.80	2.00	0.00	0.00	0.00
73.78	38.28	2.00	0.00	0.00	0.00	73.86	38.26	2.00	0.00	0.00	0.00
73.93	38.19	2.00	0.00	0.00	0.00	74.00	38.98	2.00	0.00	0.00	0.00
74.04	38.94	2.00	0.00	0.00	0.00	74.12	38.92	2.00	0.00	0.00	0.00
74.19	38.88	2.00	0.00	0.00	0.00	74.24	38.99	2.00	0.00	0.00	0.00
74.31	38.82	2.00	0.00	0.00	0.00	74.38	38.33	2.00	0.00	0.00	0.00
74.45	38.75	2.00	0.00	0.00	0.00	74.50	38.41	2.00	0.00	0.00	0.00
74.59	38.39	2.00	0.00	0.00	0.00	74.65	38.32	2.00	0.00	0.00	0.00
74.71	38.37	2.00	0.00	0.00	0.00	74.77	38.05	2.00	0.00	0.00	0.00
74.83	38.34	2.00	0.00	0.00	0.00	74.92	38.68	2.00	0.00	0.00	0.00
74.96	39.36	2.00	0.00	0.00	0.00	75.04	39.84	2.00	0.00	0.00	0.00
75.11	38.65	2.00	0.00	0.00	0.00	75.17	38.64	2.00	0.00	0.00	0.00
75.24	39.07	2.00	0.00	0.00	0.00	75.29	38.68	2.00	0.00	0.00	0.00
75.36	38.97	2.00	0.00	0.00	0.00	75.42	39.81	2.00	0.00	0.00	0.00
75.50	40.28	2.00	0.00	0.00	0.00	75.55	40.27	2.00	0.00	0.00	0.00
75.63	40.25	2.00	0.00	0.00	0.00	75.69	40.23	2.00	0.00	0.00	0.00
75.77	40.81	2.00	0.00	0.00	0.00	75.83	41.42	2.00	0.00	0.00	0.00
75.89	41.90	2.00	0.00	0.00	0.00	75.95	42.06	2.00	0.00	0.00	0.00
76.02	42.73	2.00	0.00	0.00	0.00	76.08	43.70	2.00	0.00	0.00	0.00
76.15	45.07	2.00	0.00	0.00	0.00	76.21	110.11	2.00	0.00	0.00	0.00
76.28	109.77	2.00	0.00	0.00	0.00	76.34	44.76	2.00	0.00	0.00	0.00
76.41	43.55	2.00	0.00	0.00	0.00	76.47	42.41	2.00	0.00	0.00	0.00
76.54	41.33	2.00	0.00	0.00	0.00	76.62	41.75	2.00	0.00	0.00	0.00
76.69	41.41	2.00	0.00	0.00	0.00	76.77	41.51	2.00	0.00	0.00	0.00
76.81	41.42	2.00	0.00	0.00	0.00	76.89	41.40	2.00	0.00	0.00	0.00
76.94	41.58	2.00	0.00	0.00	0.00	77.02	41.50	2.00	0.00	0.00	0.00
77.06	41.30	2.00	0.00	0.00	0.00	77.14	40.25	2.00	0.00	0.00	0.00
77.20	39.50	2.00	0.00	0.00	0.00	77.27	40.11	2.00	0.00	0.00	0.00
77.34	40.57	2.00	0.00	0.00	0.00	77.40	42.47	2.00	0.00	0.00	0.00
77.47	42.94	2.00	0.00	0.00	0.00	77.54	43.69	2.00	0.00	0.00	0.00
77.62	44.82	2.00	0.00	0.00	0.00	77.66	45.38	2.00	0.00	0.00	0.00
77.74	46.83	2.00	0.00	0.00	0.00	77.79	46.85	2.00	0.00	0.00	0.00
77.87	46.74	2.00	0.00	0.00	0.00	77.95	46.85	2.00	0.00	0.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
77.99	47.21	2.00	0.00	0.00	0.00	78.07	48.00	2.00	0.00	0.00	0.00
78.12	48.06	2.00	0.00	0.00	0.00	78.20	47.52	2.00	0.00	0.00	0.00
78.28	48.20	2.00	0.00	0.00	0.00	78.32	113.34	2.00	0.00	0.00	0.00
78.40	117.06	2.00	0.00	0.00	0.00	78.44	48.67	2.00	0.00	0.00	0.00
78.52	45.17	2.00	0.00	0.00	0.00	78.60	45.21	2.00	0.00	0.00	0.00
78.65	45.19	2.00	0.00	0.00	0.00	78.73	45.20	2.00	0.00	0.00	0.00
78.77	45.13	2.00	0.00	0.00	0.00	78.85	45.57	2.00	0.00	0.00	0.00
78.90	46.53	2.00	0.00	0.00	0.00	78.98	56.22	2.00	0.00	0.00	0.00
79.03	49.92	2.00	0.00	0.00	0.00	79.11	59.57	2.00	0.00	0.00	0.00
79.17	127.96	2.00	0.00	0.00	0.00	79.24	56.45	2.00	0.00	0.00	0.00
79.30	52.05	2.00	0.00	0.00	0.00	79.38	45.65	2.00	0.00	0.00	0.00
79.44	45.39	2.00	0.00	0.00	0.00	79.50	45.98	2.00	0.00	0.00	0.00
79.56	46.37	2.00	0.00	0.00	0.00	79.64	46.32	2.00	0.00	0.00	0.00
79.70	46.49	2.00	0.00	0.00	0.00	79.76	46.80	2.00	0.00	0.00	0.00
79.82	46.80	2.00	0.00	0.00	0.00	79.91	46.16	2.00	0.00	0.00	0.00
79.97	45.59	2.00	0.00	0.00	0.00	80.02	45.07	2.00	0.00	0.00	0.00
80.08	44.37	2.00	0.00	0.00	0.00	80.16	44.35	2.00	0.00	0.00	0.00
80.21	44.21	2.00	0.00	0.00	0.00	80.28	44.18	2.00	0.00	0.00	0.00
80.34	44.79	2.00	0.00	0.00	0.00	80.42	45.39	2.00	0.00	0.00	0.00
80.48	45.75	2.00	0.00	0.00	0.00	80.54	45.42	2.00	0.00	0.00	0.00
80.62	44.77	2.00	0.00	0.00	0.00	80.68	44.75	2.00	0.00	0.00	0.00
80.74	44.35	2.00	0.00	0.00	0.00	80.81	44.08	2.00	0.00	0.00	0.00
80.87	44.06	2.00	0.00	0.00	0.00	80.94	43.73	2.00	0.00	0.00	0.00
81.01	42.78	2.00	0.00	0.00	0.00	81.07	42.20	2.00	0.00	0.00	0.00
81.14	42.19	2.00	0.00	0.00	0.00	81.21	41.80	2.00	0.00	0.00	0.00
81.28	41.35	2.00	0.00	0.00	0.00	81.34	40.71	2.00	0.00	0.00	0.00
81.39	40.06	2.00	0.00	0.00	0.00	81.46	39.75	2.00	0.00	0.00	0.00
81.53	39.68	2.00	0.00	0.00	0.00	81.60	39.80	2.00	0.00	0.00	0.00
81.66	38.10	2.00	0.00	0.00	0.00	81.73	39.53	2.00	0.00	0.00	0.00
81.79	39.27	2.00	0.00	0.00	0.00	81.86	39.98	2.00	0.00	0.00	0.00
81.92	40.17	2.00	0.00	0.00	0.00	81.98	40.36	2.00	0.00	0.00	0.00
82.06	40.75	2.00	0.00	0.00	0.00	82.11	40.44	2.00	0.00	0.00	0.00
82.18	41.45	2.00	0.00	0.00	0.00	82.25	41.54	2.00	0.00	0.00	0.00
82.31	41.79	2.00	0.00	0.00	0.00	82.38	41.73	2.00	0.00	0.00	0.00
82.44	104.84	2.00	0.00	0.00	0.00	82.51	42.32	2.00	0.00	0.00	0.00
82.58	42.57	2.00	0.00	0.00	0.00	82.64	42.69	2.00	0.00	0.00	0.00
82.71	42.56	2.00	0.00	0.00	0.00	82.77	42.43	2.00	0.00	0.00	0.00
82.84	43.16	2.00	0.00	0.00	0.00	82.91	43.64	2.00	0.00	0.00	0.00
82.97	43.63	2.00	0.00	0.00	0.00	83.04	43.87	2.00	0.00	0.00	0.00
83.10	41.77	2.00	0.00	0.00	0.00	83.17	40.20	2.00	0.00	0.00	0.00
83.23	39.18	2.00	0.00	0.00	0.00	83.30	37.97	2.00	0.00	0.00	0.00
83.36	37.61	2.00	0.00	0.00	0.00	83.43	36.95	2.00	0.00	0.00	0.00
83.50	36.69	2.00	0.00	0.00	0.00	83.56	37.06	2.00	0.00	0.00	0.00
83.62	37.19	2.00	0.00	0.00	0.00	83.69	38.17	2.00	0.00	0.00	0.00
83.76	40.53	2.00	0.00	0.00	0.00	83.82	40.17	2.00	0.00	0.00	0.00
83.89	40.77	2.00	0.00	0.00	0.00	83.95	41.66	2.00	0.00	0.00	0.00
84.02	43.40	2.00	0.00	0.00	0.00	84.08	49.26	2.00	0.00	0.00	0.00
84.15	59.59	2.00	0.00	0.00	0.00	84.22	145.20	2.00	0.00	0.00	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
84.28	149.50	2.00	0.00	0.00	0.00	84.34	150.83	2.00	0.00	0.00	0.00
84.41	155.02	2.00	0.00	0.00	0.00	84.48	162.05	2.00	0.00	0.00	0.00
84.55	165.54	2.00	0.00	0.00	0.00	84.61	164.80	2.00	0.00	0.00	0.00
84.68	162.56	2.00	0.00	0.00	0.00	84.74	156.89	2.00	0.00	0.00	0.00
84.81	167.93	2.00	0.00	0.00	0.00	84.87	174.37	2.00	0.00	0.00	0.00
84.94	148.52	2.00	0.00	0.00	0.00	85.01	176.20	2.00	0.00	0.00	0.00
85.07	197.19	2.00	0.00	0.00	0.00	85.13	231.51	2.00	0.00	0.00	0.00
85.20	260.77	2.00	0.00	0.00	0.00	85.27	268.32	2.00	0.00	0.00	0.00
85.33	281.50	2.00	0.00	0.00	0.00	85.39	286.74	2.00	0.00	0.00	0.00
85.46	291.10	2.00	0.00	0.00	0.00	85.53	290.90	2.00	0.00	0.00	0.00
85.60	290.70	2.00	0.00	0.00	0.00	85.66	294.12	2.00	0.00	0.00	0.00
85.73	296.36	2.00	0.00	0.00	0.00	85.79	294.18	2.00	0.00	0.00	0.00
85.86	294.33	2.00	0.00	0.00	0.00	85.93	299.86	2.00	0.00	0.00	0.00
85.99	101.78	2.00	0.00	0.00	0.00	86.05	281.05	2.00	0.00	0.00	0.00
86.12	304.47	2.00	0.00	0.00	0.00						

Total estimated settlement: 1.46

Abbreviations

$Q_{tn,cs}$: Equivalent clean sand normalized cone resistance
FS: Factor of safety against liquefaction
e_v (%): Post-liquefaction volumentric strain
DF: e_v depth weighting factor
Settlement: Calculated settlement

:: Strength loss calculation Idriss & Boulanger (2008) ::

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
0.07	7.94	14.99	4.97	74.59	2.72	0.07	0.62
0.13	27.70	52.34	1.31	68.61	2.00	0.04	0.63
0.20	56.60	106.96	1.00	106.96	1.61	0.14	0.76
0.27	82.71	156.32	1.00	156.32	1.42	0.28	0.83
0.33	86.41	163.30	1.00	163.30	1.40	0.25	0.82
0.40	82.11	155.17	1.00	155.17	1.44	0.18	0.79
0.47	78.79	148.88	1.00	148.88	1.47	0.19	0.80
0.54	78.70	148.70	1.00	148.70	1.48	0.19	0.80
0.60	75.85	143.31	1.00	143.31	1.49	0.17	0.79
0.66	70.82	133.80	1.00	133.80	1.51	0.16	0.77
0.72	64.97	122.74	1.00	122.74	1.55	0.14	0.76
0.80	58.84	111.13	1.00	111.13	1.60	0.12	0.74
0.87	52.80	99.72	1.00	99.72	1.67	0.10	0.72
0.93	47.14	89.01	1.00	89.01	1.75	0.09	0.70
0.99	40.38	76.21	1.20	91.69	1.85	0.09	0.70
1.06	34.81	65.68	1.29	84.71	1.98	0.08	0.72
1.13	30.23	57.01	1.44	81.99	2.11	0.09	0.74
1.19	26.53	50.02	1.71	85.36	2.23	0.10	0.75
1.25	23.75	44.75	2.04	91.52	2.33	0.09	0.73
1.32	21.47	40.45	2.41	97.38	2.41	0.09	0.73
1.38	21.30	40.11	2.44	98.01	2.41	0.09	0.73
1.46	21.03	39.59	2.43	96.29	2.41	0.09	0.73
1.52	20.99	39.52	2.35	92.75	2.39	0.09	0.73
1.58	21.58	40.62	2.18	88.42	2.36	0.09	0.73
1.64	23.11	43.51	1.93	83.94	2.30	0.09	0.73
1.71	25.89	48.76	1.65	80.58	2.21	0.09	0.73
1.77	30.10	56.71	1.42	80.34	2.10	0.09	0.73
1.86	35.00	65.96	1.29	85.18	1.98	0.09	0.73
1.92	40.19	75.76	1.21	91.89	1.87	0.09	0.70
1.98	44.83	84.54	1.00	84.54	1.77	0.09	0.69
2.05	48.82	92.06	1.00	92.06	1.68	0.10	0.71
2.11	51.72	97.55	1.00	97.55	1.63	0.10	0.72
2.17	53.27	100.47	1.00	100.47	1.60	0.11	0.72
2.23	53.37	100.65	1.00	100.65	1.60	0.11	0.72
2.30	51.82	97.71	1.00	97.71	1.63	0.10	0.72
2.38	49.04	92.44	1.00	92.44	1.70	0.10	0.70
2.44	45.24	85.27	1.00	85.27	1.79	0.09	0.69
2.50	41.10	77.43	1.23	95.24	1.89	0.09	0.72
2.57	36.87	69.42	1.32	91.42	2.01	0.09	0.74
2.63	33.26	62.60	1.48	92.62	2.14	0.10	0.75
2.70	30.86	58.05	1.74	100.99	2.25	0.10	0.76
2.76	28.58	53.74	2.11	113.34	2.35	0.11	0.76
2.84	27.13	50.98	2.45	125.08	2.41	0.10	0.75
2.90	25.96	48.76	2.77	135.02	2.47	0.11	0.75
2.96	25.74	48.34	2.90	140.17	2.49	0.11	0.75
3.03	25.64	48.16	2.99	144.15	2.50	0.11	0.75
3.09	25.96	48.75	3.01	146.90	2.51	0.11	0.75
3.15	27.00	50.72	2.92	148.07	2.49	0.11	0.76

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
3.21	28.61	53.75	2.76	148.09	2.47	0.11	0.76
3.30	30.45	57.20	2.59	147.88	2.44	0.12	0.77
3.37	32.37	60.84	2.44	148.20	2.41	0.12	0.77
3.43	34.46	64.77	2.30	148.89	2.39	0.12	0.78
3.50	36.58	68.77	2.18	150.16	2.36	0.13	0.79
3.56	38.50	72.39	2.10	152.10	2.34	0.13	0.79
3.62	40.01	75.25	2.05	154.48	2.33	0.14	0.79
3.68	41.27	77.63	2.02	157.04	2.32	0.14	0.80
3.74	42.28	79.53	2.01	159.77	2.32	0.14	0.80
3.81	43.42	81.66	1.99	162.91	2.32	0.14	0.80
3.89	44.77	84.22	1.97	165.91	2.31	0.15	0.81
3.95	46.16	86.83	1.94	168.67	2.30	0.15	0.81
4.02	47.17	88.74	1.93	170.97	2.30	0.16	0.81
4.08	47.51	89.38	1.94	173.42	2.30	0.16	0.82
4.15	47.10	88.59	1.99	175.96	2.32	0.16	0.82
4.21	45.99	86.48	2.06	178.22	2.33	0.15	0.81
4.28	44.72	84.08	2.13	178.76	2.35	0.15	0.81
4.34	43.91	82.54	2.15	177.23	2.35	0.15	0.81
4.40	43.53	81.81	2.13	174.53	2.35	0.15	0.81
4.47	43.49	81.73	2.10	171.80	2.34	0.15	0.80
4.53	43.66	82.05	2.06	169.18	2.33	0.15	0.81
4.61	43.88	82.45	2.03	167.37	2.33	0.15	0.81
4.68	43.62	81.95	1.98	162.24	2.31	0.15	0.81
4.74	42.74	80.28	1.85	148.12	2.28	0.14	0.80
4.80	41.63	78.18	1.72	134.76	2.24	0.13	0.79
4.86	40.06	75.19	1.68	126.59	2.23	0.13	0.79
4.92	38.28	71.83	1.81	130.29	2.27	0.12	0.78
4.99	36.04	67.59	2.02	136.69	2.32	0.12	0.78
5.07	34.06	63.82	2.26	144.51	2.38	0.12	0.78
5.13	32.48	60.83	2.50	152.16	2.42	0.12	0.77
5.19	31.59	59.16	2.66	157.59	2.45	0.12	0.77
5.26	30.67	57.41	2.83	162.19	2.48	0.12	0.77
5.32	29.10	54.42	3.03	164.82	2.51	0.12	0.77
5.41	27.14	50.71	3.27	165.80	2.54	0.11	0.76
5.48	25.15	46.94	3.51	164.85	2.57	0.11	0.75
5.54	23.72	44.24	3.70	163.55	2.59	0.11	0.75
5.58	22.46	41.85	3.78	158.37	2.60	0.10	0.62
5.68	21.70	40.40	3.74	151.24	2.60	0.10	0.74
5.74	21.29	39.62	3.62	143.35	2.58	0.10	0.74
5.78	21.83	40.63	3.39	137.57	2.56	0.10	0.74
5.85	22.97	42.78	3.10	132.43	2.52	0.10	0.74
5.92	23.32	43.43	2.99	129.70	2.50	0.10	0.75
5.99	22.28	41.47	3.14	130.28	2.52	0.10	0.74
6.05	20.62	38.33	3.41	130.73	2.56	0.10	0.73
6.13	18.90	35.06	3.69	129.25	2.59	0.10	0.73
6.19	17.45	32.32	3.88	125.25	2.61	0.09	0.62
6.26	15.88	29.33	4.10	120.13	2.64	0.09	0.62
6.33	15.00	27.66	4.10	113.27	2.64	0.09	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
6.37	14.40	26.52	3.95	104.80	2.62	0.09	0.62
6.44	14.08	25.92	3.75	97.12	2.60	0.09	0.71
6.51	13.95	25.67	3.51	90.22	2.57	0.08	0.71
6.57	14.02	25.78	3.36	86.66	2.55	0.08	0.71
6.64	14.11	25.95	3.31	85.78	2.55	0.08	0.71
6.71	14.17	26.06	3.34	87.09	2.55	0.08	0.71
6.78	14.23	26.17	3.45	90.19	2.56	0.08	0.71
6.86	14.29	26.28	3.56	93.60	2.58	0.09	0.71
6.89	14.32	26.33	3.68	97.01	2.59	0.09	0.71
6.97	14.36	26.39	3.76	99.10	2.60	0.09	0.62
7.03	14.39	26.44	3.81	100.69	2.61	0.09	0.62
7.10	14.42	26.50	3.81	101.01	2.61	0.09	0.62
7.17	14.33	26.31	3.82	100.57	2.61	0.09	0.62
7.24	14.20	26.06	3.80	99.03	2.61	0.09	0.62
7.31	14.07	25.82	3.74	96.61	2.60	0.08	0.71
7.38	14.11	25.88	3.27	84.71	2.54	0.08	0.70
7.45	14.17	25.99	2.75	71.40	2.46	0.08	0.70
7.48	14.27	26.16	2.35	61.47	2.40	0.08	0.70
7.55	14.23	26.09	2.52	65.64	2.43	0.08	0.70
7.64	14.17	25.96	2.79	72.47	2.47	0.08	0.70
7.68	14.08	25.78	3.01	77.53	2.50	0.08	0.70
7.75	13.90	25.45	3.16	80.49	2.53	0.08	0.70
7.81	13.62	24.90	3.38	84.13	2.55	0.08	0.70
7.88	13.81	25.25	3.45	87.00	2.56	0.08	0.70
7.95	14.42	26.41	3.40	89.85	2.56	0.08	0.70
8.02	15.37	28.20	3.37	94.99	2.55	0.08	0.71
8.08	15.94	29.27	3.47	101.67	2.57	0.09	0.71
8.15	16.16	29.67	3.64	108.04	2.59	0.09	0.71
8.23	16.09	29.53	3.78	111.76	2.60	0.09	0.62
8.29	16.05	29.45	3.89	114.61	2.62	0.09	0.62
8.36	15.79	28.96	4.05	117.27	2.63	0.09	0.62
8.43	15.95	29.25	3.92	114.76	2.62	0.09	0.62
8.50	16.21	29.36	3.68	108.17	2.59	0.09	0.71
8.53	16.75	29.87	3.33	99.48	2.55	0.09	0.71
8.60	16.78	29.67	3.27	97.04	2.54	0.09	0.71
8.68	16.80	29.50	3.27	96.54	2.54	0.08	0.71
8.74	16.64	29.16	3.39	98.96	2.56	0.09	0.71
8.81	16.86	29.38	3.41	100.26	2.56	0.09	0.71
8.88	16.97	29.47	3.50	103.22	2.57	0.09	0.71
8.96	17.16	29.67	3.56	105.67	2.58	0.09	0.71
9.02	17.13	29.52	3.66	108.01	2.59	0.09	0.71
9.06	16.91	29.17	3.81	111.14	2.61	0.09	0.62
9.13	16.78	28.87	3.95	113.93	2.62	0.09	0.62
9.20	16.69	28.59	4.05	115.77	2.63	0.09	0.62
9.27	16.78	28.53	4.04	115.22	2.63	0.09	0.62
9.34	17.01	28.65	3.93	112.69	2.62	0.09	0.62
9.41	17.30	28.85	3.80	109.73	2.61	0.09	0.62
9.48	17.52	28.96	3.71	107.45	2.60	0.09	0.71

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
9.52	17.61	28.99	3.67	106.24	2.59	0.09	0.71
9.59	17.70	28.94	3.64	105.22	2.59	0.09	0.71
9.65	17.70	28.77	3.63	104.56	2.59	0.09	0.71
9.72	17.23	27.92	3.77	105.31	2.60	0.09	0.62
9.79	16.47	26.69	4.04	107.70	2.63	0.09	0.62
9.86	15.62	25.32	4.36	110.30	2.67	0.09	0.62
9.93	15.15	24.49	4.57	111.92	2.69	0.08	0.62
10.00	15.24	24.49	4.59	112.43	2.69	0.08	0.62
10.08	15.04	24.07	4.75	114.25	2.70	0.09	0.62
10.15	14.62	23.33	4.95	115.37	2.72	0.08	0.62
10.22	13.67	21.76	5.26	114.54	2.75	0.08	0.62
10.29	13.14	20.76	5.33	110.67	2.76	0.08	0.62
10.33	12.92	20.28	5.21	105.68	2.75	0.08	0.62
10.40	13.01	20.21	4.96	100.32	2.72	0.08	0.62
10.47	13.11	20.12	4.68	94.26	2.70	0.08	0.62
10.54	13.14	19.95	4.44	88.50	2.67	0.08	0.62
10.62	12.99	19.55	4.35	84.97	2.66	0.08	0.62
10.69	12.83	19.19	4.36	83.61	2.67	0.08	0.62
10.72	12.77	19.05	4.39	83.66	2.67	0.08	0.62
10.79	12.64	18.77	4.47	83.97	2.68	0.08	0.62
10.87	12.67	18.73	4.50	84.35	2.68	0.08	0.62
10.94	12.80	18.81	4.51	84.77	2.68	0.08	0.62
10.99	13.34	19.50	4.36	84.95	2.67	0.08	0.62
11.07	13.87	20.14	4.22	85.00	2.65	0.08	0.62
11.14	14.31	20.63	4.09	84.30	2.64	0.08	0.62
11.21	14.57	20.84	3.97	82.72	2.62	0.08	0.62
11.25	15.04	21.36	3.70	79.06	2.59	0.08	0.70
11.32	15.83	22.20	3.33	74.02	2.55	0.08	0.70
11.39	16.56	22.93	2.98	68.39	2.50	0.08	0.70
11.47	16.66	22.86	2.85	65.07	2.48	0.08	0.70
11.54	16.25	22.22	2.93	65.15	2.49	0.08	0.70
11.57	15.49	21.18	3.11	65.82	2.52	0.08	0.69
11.64	15.01	20.56	3.41	70.19	2.56	0.08	0.69
11.72	14.70	20.18	3.81	76.93	2.61	0.08	0.62
11.79	15.42	21.23	4.08	86.61	2.64	0.08	0.62
11.86	17.39	23.83	3.89	92.74	2.62	0.08	0.62
11.93	20.17	27.40	3.45	94.61	2.56	0.09	0.71
11.97	24.03	32.29	2.90	93.67	2.49	0.09	0.72
12.04	29.02	38.24	2.25	86.00	2.38	0.09	0.73
12.12	35.50	45.48	1.65	74.96	2.21	0.09	0.74
12.19	42.66	53.12	1.36	71.98	2.05	0.09	0.73
12.26	48.53	59.21	1.26	74.74	1.94	0.09	0.72
12.30	53.86	65.24	1.24	80.65	1.90	0.09	0.71
12.38	57.29	69.13	1.23	85.17	1.89	0.09	0.72
12.45	58.63	70.86	1.25	88.65	1.92	0.10	0.74
12.51	58.54	71.13	1.29	91.56	1.97	0.10	0.75
12.57	56.88	69.58	1.34	93.55	2.04	0.11	0.77
12.64	55.45	68.04	1.40	95.49	2.09	0.11	0.77

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
12.70	52.22	64.33	1.49	95.70	2.14	0.11	0.77
12.77	48.77	60.23	1.59	95.76	2.19	0.11	0.77
12.83	46.07	56.99	1.71	97.19	2.23	0.11	0.76
12.90	44.86	55.46	1.79	99.38	2.26	0.11	0.76
12.97	44.76	55.18	1.82	100.60	2.27	0.11	0.76
13.04	46.54	56.99	1.75	99.58	2.25	0.11	0.76
13.11	49.31	59.82	1.63	97.65	2.21	0.11	0.77
13.15	53.13	63.89	1.50	96.08	2.15	0.11	0.77
13.22	56.13	66.90	1.43	95.77	2.11	0.11	0.77
13.29	58.72	69.47	1.39	96.53	2.08	0.11	0.77
13.37	60.02	70.67	1.38	97.51	2.07	0.11	0.77
13.44	59.95	70.38	1.39	97.76	2.08	0.11	0.77
13.48	58.78	69.01	1.41	97.54	2.10	0.11	0.77
13.55	57.64	67.58	1.45	97.85	2.12	0.11	0.77
13.63	56.77	66.51	1.50	99.51	2.15	0.11	0.77
13.70	57.06	66.77	1.54	102.79	2.17	0.12	0.78
13.77	58.55	68.31	1.55	106.12	2.17	0.12	0.78
13.80	63.20	73.43	1.50	110.06	2.15	0.12	0.78
13.88	70.49	81.19	1.41	114.76	2.10	0.13	0.79
13.95	80.19	91.44	1.33	122.03	2.03	0.14	0.80
14.03	90.45	102.12	1.28	130.72	1.96	0.15	0.80
14.10	99.40	111.26	1.24	138.43	1.91	0.17	0.81
14.14	109.10	121.27	1.21	146.27	1.86	0.17	0.79
14.21	118.93	131.12	1.16	151.93	1.81	0.20	0.80
14.28	129.06	141.15	1.09	154.00	1.75	0.23	0.81
14.35	136.30	148.09	1.02	151.26	1.72	0.25	0.82
14.43	140.53	151.91	1.00	151.91	1.69	0.27	0.82
14.47	144.57	155.74	1.00	155.74	1.67	0.28	0.83
14.54	149.98	160.82	1.00	160.82	1.65	0.32	0.84
14.61	157.03	167.60	1.00	167.60	1.63	0.38	0.84
14.68	163.12	173.42	1.00	173.42	1.62	0.44	0.85
14.76	166.68	176.58	1.00	176.58	1.60	0.48	0.86
14.79	167.28	176.65	1.00	176.65	1.58	0.48	0.86
14.87	165.52	174.07	1.00	174.07	1.57	0.46	0.85
14.94	162.34	170.18	1.00	170.18	1.56	0.41	0.85
15.01	159.09	166.60	1.00	166.60	1.58	0.37	0.84
15.05	156.03	163.66	1.00	163.66	1.61	0.35	0.84
15.13	154.45	162.27	1.00	162.27	1.64	0.33	0.84
15.20	152.71	160.77	1.00	160.77	1.69	0.33	0.84
15.28	152.96	161.15	1.01	163.21	1.71	0.31	0.83
15.35	152.61	160.75	1.05	168.12	1.73	0.33	0.84
15.38	150.65	158.66	1.06	168.51	1.74	0.32	0.84
15.46	149.76	157.46	1.06	166.40	1.73	0.28	0.83
15.53	156.43	164.04	1.02	167.13	1.71	0.31	0.83
15.61	179.44	187.14	1.00	187.14	1.65	0.51	0.86
15.68	203.84	211.60	1.00	211.60	1.60	0.94	0.90
15.71	225.30	232.95	1.00	232.95	1.55	0.95	0.91
15.79	232.70	240.06	1.00	240.06	1.54	0.96	0.92

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
15.86	231.03	238.78	1.00	238.78	1.58	0.96	0.92
15.93	218.82	227.54	1.00	227.54	1.69	0.95	0.91
16.00	202.32	211.60	1.15	243.51	1.80	0.94	0.89
16.04	181.84	191.02	1.22	233.88	1.88	0.92	0.90
16.11	153.86	162.08	1.28	207.08	1.96	0.48	0.89
16.19	121.18	128.14	1.38	176.31	2.07	0.23	0.86
16.26	93.81	99.59	1.59	158.27	2.19	0.17	0.83
16.30	72.88	77.62	1.91	148.37	2.30	0.16	0.82
16.37	57.53	61.21	2.21	135.41	2.37	0.12	0.78
16.45	45.30	48.01	2.42	115.98	2.41	0.11	0.76
16.52	40.44	42.54	2.18	92.72	2.36	0.10	0.74
16.59	39.18	40.98	1.95	80.07	2.31	0.10	0.74
16.63	38.97	40.63	1.83	74.35	2.27	0.09	0.74
16.70	38.37	39.93	1.83	73.13	2.27	0.09	0.74
16.78	37.80	39.27	1.85	72.60	2.28	0.09	0.73
16.85	37.49	38.88	1.87	72.65	2.28	0.09	0.73
16.92	37.81	39.16	1.87	73.14	2.28	0.09	0.73
16.96	38.63	40.00	1.87	74.64	2.28	0.09	0.74
17.03	40.03	41.40	1.86	76.87	2.28	0.09	0.74
17.11	42.43	43.83	1.80	78.75	2.26	0.10	0.74
17.18	44.93	46.33	1.72	79.78	2.24	0.10	0.75
17.22	47.55	48.99	1.65	80.89	2.21	0.10	0.75
17.29	50.17	51.62	1.62	83.39	2.20	0.10	0.76
17.36	52.61	54.09	1.62	87.42	2.20	0.11	0.76
17.43	55.26	56.78	1.62	92.20	2.20	0.11	0.77
17.51	57.53	59.06	1.62	95.93	2.20	0.11	0.77
17.55	60.75	62.33	1.59	99.39	2.19	0.12	0.78
17.62	63.24	64.81	1.60	103.40	2.19	0.12	0.78
17.69	64.68	66.20	1.60	105.78	2.19	0.12	0.79
17.76	65.11	66.47	1.55	103.32	2.17	0.12	0.78
17.84	65.92	67.09	1.48	99.60	2.14	0.12	0.78
17.88	68.08	69.14	1.42	98.21	2.10	0.12	0.78
17.95	71.99	72.96	1.39	101.24	2.08	0.12	0.78
18.02	77.91	78.77	1.34	105.59	2.04	0.12	0.79
18.09	84.41	85.12	1.30	110.47	1.99	0.13	0.79
18.15	90.85	91.38	1.26	115.33	1.94	0.13	0.78
18.23	95.23	95.56	1.24	118.56	1.91	0.14	0.78
18.29	98.50	98.68	1.23	121.30	1.89	0.14	0.78
18.37	99.81	99.88	1.23	123.07	1.89	0.14	0.78
18.41	100.19	100.28	1.25	125.03	1.91	0.15	0.79
18.48	99.33	99.41	1.27	126.35	1.95	0.15	0.80
18.55	97.49	97.57	1.30	127.25	2.00	0.15	0.81
18.62	95.24	95.31	1.34	128.01	2.04	0.16	0.82
18.69	93.15	93.16	1.38	128.63	2.07	0.16	0.82
18.73	91.16	91.16	1.42	129.30	2.10	0.16	0.82
18.80	89.89	89.79	1.45	129.82	2.12	0.16	0.82
18.88	88.72	88.51	1.47	130.34	2.13	0.16	0.82
18.95	88.24	87.90	1.49	130.69	2.14	0.16	0.82

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
19.02	88.08	87.60	1.49	130.79	2.14	0.16	0.82
19.06	88.56	87.99	1.49	130.84	2.14	0.16	0.82
19.13	89.41	88.67	1.48	131.07	2.14	0.16	0.82
19.21	90.19	89.29	1.47	131.57	2.13	0.16	0.82
19.28	90.85	89.80	1.47	131.98	2.13	0.16	0.82
19.32	91.64	90.49	1.46	131.90	2.12	0.16	0.82
19.39	92.27	90.94	1.44	131.22	2.12	0.16	0.82
19.46	92.84	91.33	1.43	130.72	2.11	0.16	0.82
19.54	93.47	91.80	1.42	130.75	2.10	0.16	0.82
19.61	94.19	92.33	1.40	129.12	2.09	0.16	0.82
19.64	95.33	93.23	1.33	123.99	2.03	0.15	0.81
19.72	96.18	93.76	1.27	119.10	1.95	0.14	0.80
19.79	97.13	94.43	1.23	116.61	1.90	0.13	0.78
19.87	98.18	95.35	1.24	118.47	1.91	0.14	0.78
19.94	98.96	96.04	1.26	120.83	1.93	0.14	0.79
19.98	96.85	93.97	1.28	120.45	1.97	0.15	0.80
20.04	100.32	97.25	1.28	124.27	1.96	0.13	0.79
20.14	105.38	101.98	1.27	129.18	1.95	0.17	0.81
20.18	117.11	113.24	1.23	139.52	1.89	0.17	0.80
20.25	126.40	122.07	1.21	147.58	1.86	0.19	0.81
20.32	137.11	132.25	1.18	156.44	1.83	0.22	0.81
20.39	146.69	141.33	1.16	164.56	1.81	0.25	0.82
20.47	154.02	148.22	1.15	170.81	1.80	0.29	0.83
20.50	162.69	156.47	1.13	177.18	1.78	0.31	0.83
20.58	173.75	166.87	1.08	180.50	1.75	0.40	0.85
20.65	189.18	181.39	1.00	181.39	1.69	0.60	0.87
20.72	203.05	194.38	1.00	194.38	1.63	0.93	0.88
20.76	216.43	206.96	1.00	206.96	1.57	0.93	0.89
20.83	227.74	217.48	1.00	217.48	1.53	0.94	0.91
20.91	240.57	229.44	1.00	229.44	1.49	0.95	0.92
20.98	252.08	240.13	1.00	240.13	1.46	0.96	0.93
21.05	260.90	248.26	1.00	248.26	1.44	0.96	0.94
21.09	266.36	253.32	1.00	253.32	1.42	0.97	0.94
21.16	268.13	254.74	1.00	254.74	1.42	0.97	0.94
21.23	268.96	255.27	1.00	255.27	1.41	0.97	0.94
21.31	269.34	255.37	1.00	255.37	1.41	0.97	0.94
21.38	270.06	255.80	1.00	255.80	1.41	0.97	0.94
21.42	269.27	254.93	1.00	254.93	1.41	0.97	0.94
21.49	264.66	250.30	1.00	250.30	1.42	0.97	0.94
21.56	254.83	240.74	1.00	240.74	1.44	0.96	0.93
21.64	239.78	226.25	1.00	226.25	1.47	0.95	0.92
21.71	224.61	211.65	1.00	211.65	1.51	0.94	0.90
21.75	208.36	196.17	1.00	196.17	1.55	0.93	0.89
21.82	193.10	181.52	1.00	181.52	1.60	0.63	0.87
21.89	176.37	165.51	1.00	165.51	1.66	0.40	0.85
21.96	161.14	150.93	1.06	159.80	1.74	0.29	0.83
22.04	149.06	139.34	1.16	161.43	1.81	0.24	0.81
22.07	138.41	129.19	1.21	156.71	1.87	0.23	0.82

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
22.15	132.12	123.08	1.23	151.94	1.90	0.20	0.82
22.22	127.88	118.92	1.25	148.95	1.92	0.20	0.83
22.30	125.89	116.87	1.27	148.47	1.95	0.21	0.84
22.37	126.97	117.70	1.28	150.72	1.97	0.20	0.83
22.40	133.61	123.85	1.26	156.60	1.94	0.22	0.84
22.47	147.58	136.81	1.21	166.19	1.87	0.25	0.83
22.55	164.96	152.97	1.12	170.63	1.77	0.32	0.83
22.61	181.34	168.20	1.00	168.20	1.67	0.47	0.86
22.69	192.24	178.30	1.00	178.30	1.60	0.66	0.87
22.76	196.63	182.27	1.00	182.27	1.57	0.69	0.87
22.80	195.05	180.70	1.00	180.70	1.57	0.67	0.87
22.87	190.63	176.36	1.00	176.36	1.58	0.57	0.86
22.94	184.66	170.56	1.00	170.56	1.61	0.47	0.86
23.01	179.57	165.60	1.00	165.60	1.63	0.41	0.85
23.09	176.50	162.54	1.00	162.54	1.64	0.38	0.85
23.13	175.08	161.13	1.00	161.13	1.64	0.38	0.84
23.20	174.16	160.13	1.00	160.13	1.63	0.37	0.84
23.27	173.24	159.12	1.00	159.12	1.62	0.36	0.84
23.35	172.49	158.25	1.00	158.25	1.62	0.35	0.84
23.39	172.14	157.85	1.00	157.85	1.62	0.35	0.84
23.46	171.61	157.20	1.00	157.20	1.61	0.35	0.84
23.53	170.09	155.64	1.00	155.64	1.61	0.34	0.84
23.60	167.18	152.78	1.00	152.78	1.62	0.31	0.83
23.68	163.89	149.56	1.00	149.56	1.63	0.29	0.83
23.71	160.44	146.26	1.00	146.26	1.64	0.28	0.83
23.79	157.41	143.26	1.00	143.26	1.66	0.26	0.82
23.86	154.18	140.07	1.00	140.07	1.69	0.24	0.82
23.93	151.81	137.67	1.01	139.66	1.71	0.23	0.81
24.01	149.95	135.74	1.06	143.30	1.73	0.23	0.81
24.04	148.56	134.35	1.08	144.91	1.75	0.22	0.81
24.12	146.88	132.65	1.09	144.11	1.75	0.22	0.81
24.19	145.14	130.92	1.09	142.36	1.75	0.21	0.80
24.26	143.75	129.50	1.09	140.57	1.75	0.20	0.80
24.34	143.15	128.81	1.09	139.78	1.75	0.20	0.80
24.37	143.50	129.03	1.09	140.87	1.75	0.20	0.80
24.45	144.26	129.55	1.10	142.60	1.76	0.21	0.80
24.52	145.24	130.33	1.08	141.25	1.75	0.21	0.80
24.59	145.65	130.66	1.03	134.72	1.72	0.21	0.80
24.66	145.58	130.57	1.00	130.57	1.69	0.21	0.80
24.70	145.01	129.96	1.00	129.96	1.70	0.21	0.80
24.78	144.60	129.36	1.03	133.11	1.72	0.20	0.80
24.85	144.42	128.97	1.06	137.26	1.74	0.20	0.80
24.92	141.57	126.20	1.09	137.72	1.75	0.20	0.80
24.97	140.12	124.77	1.10	137.18	1.76	0.18	0.79
25.05	138.95	123.54	1.11	137.34	1.77	0.19	0.79
25.12	140.78	125.04	1.11	139.09	1.77	0.19	0.80
25.16	142.11	126.09	1.13	142.87	1.78	0.20	0.80
25.23	144.13	127.68	1.15	147.18	1.80	0.21	0.80

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
25.30	147.61	130.60	1.16	151.85	1.81	0.22	0.81
25.37	152.04	134.44	1.15	155.04	1.80	0.23	0.81
25.45	157.32	139.11	1.12	156.23	1.78	0.25	0.82
25.52	161.96	143.23	1.08	155.32	1.75	0.27	0.82
25.56	167.72	148.40	1.05	155.12	1.73	0.28	0.83
25.63	176.09	155.81	1.01	157.44	1.71	0.34	0.84
25.70	189.34	167.63	1.00	167.63	1.68	0.46	0.85
25.78	202.68	179.57	1.00	179.57	1.65	0.74	0.87
25.82	217.00	192.60	1.00	192.60	1.60	0.92	0.88
25.89	231.48	205.78	1.00	205.78	1.55	0.93	0.90
25.97	249.97	222.72	1.00	222.72	1.48	0.95	0.92
26.04	266.56	237.89	1.00	237.89	1.43	0.96	0.93
26.08	283.22	253.16	1.00	253.16	1.39	0.97	0.94
26.15	297.95	266.36	1.00	266.36	1.38	0.98	0.96
26.23	312.17	278.95	1.00	278.95	1.37	0.98	0.97
26.30	320.87	286.42	1.00	286.42	1.38	0.99	0.97
26.34	323.14	288.15	1.00	288.15	1.39	0.99	0.98
26.41	318.91	283.85	1.00	283.85	1.41	0.99	0.97
26.49	312.17	277.23	1.00	277.23	1.43	0.98	0.97
26.55	306.27	271.54	1.00	271.54	1.45	0.98	0.96
26.60	303.64	268.96	1.00	268.96	1.45	0.98	0.96
26.69	302.25	267.43	1.00	267.43	1.45	0.98	0.96
26.77	301.08	266.16	1.00	266.16	1.45	0.98	0.96
26.80	300.77	265.79	1.00	265.79	1.45	0.97	0.96
26.88	302.28	266.97	1.00	266.97	1.44	0.98	0.96
26.95	304.94	269.23	1.00	269.23	1.43	0.98	0.96
27.03	307.37	271.26	1.00	271.26	1.42	0.98	0.96
27.07	309.02	272.63	1.00	272.63	1.42	0.98	0.96
27.14	310.44	273.86	1.00	273.86	1.40	0.98	0.96
27.21	312.97	276.35	1.00	276.35	1.37	0.98	0.96
27.28	316.25	279.64	1.00	279.64	1.33	0.98	0.97
27.32	319.61	282.84	1.00	282.84	1.31	0.98	0.97
27.40	321.16	283.88	1.00	283.88	1.32	0.99	0.97
27.47	314.11	276.99	1.00	276.99	1.34	0.98	0.97
27.53	307.82	270.92	1.00	270.92	1.36	0.98	0.95
27.59	302.82	266.09	1.00	266.09	1.38	0.98	0.96
27.66	304.24	267.12	1.00	267.12	1.38	0.98	0.96
27.73	303.14	265.77	1.00	265.77	1.39	0.97	0.96
27.81	300.43	262.90	1.00	262.90	1.40	0.97	0.95
27.88	299.13	261.34	1.00	261.34	1.41	0.97	0.95
27.92	300.87	262.64	1.00	262.64	1.42	0.97	0.95
28.00	305.68	266.57	1.00	266.57	1.42	0.98	0.96
28.07	311.05	271.01	1.00	271.01	1.42	0.98	0.96
28.11	315.13	274.40	1.00	274.40	1.43	0.98	0.97
28.19	315.63	274.47	1.00	274.47	1.43	0.98	0.97
28.26	312.98	271.75	1.00	271.75	1.44	0.98	0.96
28.34	308.81	267.73	1.00	267.73	1.45	0.98	0.96
28.37	304.51	263.80	1.00	263.80	1.45	0.97	0.96

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
28.45	301.63	261.04	1.00	261.04	1.45	0.97	0.95
28.52	299.29	258.78	1.00	258.78	1.45	0.97	0.95
28.60	298.19	257.60	1.00	257.60	1.45	0.97	0.95
28.64	298.57	257.86	1.00	257.86	1.45	0.97	0.95
28.71	300.05	259.02	1.00	259.02	1.44	0.97	0.95
28.79	302.96	261.47	1.00	261.47	1.43	0.97	0.96
28.86	306.06	264.08	1.00	264.08	1.42	0.97	0.96
28.90	310.26	267.78	1.00	267.78	1.41	0.98	0.96
28.98	315.89	272.64	1.00	272.64	1.40	0.98	0.96
29.05	323.98	279.68	1.00	279.68	1.39	0.98	0.97
29.12	331.92	286.55	1.00	286.55	1.38	0.99	0.98
29.16	339.57	293.18	1.00	293.18	1.37	0.99	0.98
29.24	345.86	298.31	1.00	298.31	1.37	0.99	0.99
29.31	351.65	302.87	1.00	302.87	1.38	1.00	0.99
29.39	355.34	305.58	1.00	305.58	1.39	1.00	0.99
29.43	356.67	306.33	1.00	306.33	1.40	1.00	0.99
29.50	356.29	305.80	1.00	305.80	1.40	1.00	0.99
29.57	354.87	304.65	1.00	304.65	1.39	1.00	0.99
29.62	353.61	303.84	1.00	303.84	1.37	1.00	0.99
29.69	352.94	303.27	1.00	303.27	1.36	1.00	0.99
29.75	353.13	303.30	1.00	303.30	1.35	1.00	0.99
29.82	350.79	301.16	1.00	301.16	1.35	1.00	0.99
29.89	344.56	295.46	1.00	295.46	1.35	0.99	0.98
29.96	337.91	289.37	1.00	289.37	1.36	0.99	0.98
30.02	333.96	285.76	1.00	285.76	1.36	0.99	0.98
30.08	336.21	287.62	1.00	287.62	1.35	0.99	0.98
30.18	339.13	289.93	1.00	289.93	1.35	0.99	0.98
30.22	343.97	294.22	1.00	294.22	1.34	0.99	0.98
30.29	348.39	298.17	1.00	298.17	1.32	0.99	0.99
30.37	353.42	302.70	1.00	302.70	1.31	1.00	0.99
30.44	357.21	306.02	1.00	306.02	1.30	1.00	0.99
30.48	360.94	309.32	1.00	309.32	1.29	1.00	0.99
30.56	365.81	313.40	1.00	313.40	1.28	1.00	1.00
30.63	371.44	317.91	1.00	317.91	1.29	1.00	1.00
30.70	375.39	320.76	1.00	320.76	1.30	1.01	1.00
30.74	377.10	321.63	1.00	321.63	1.31	1.01	1.00
30.82	377.48	321.27	1.00	321.27	1.33	1.01	1.00
30.89	376.05	319.40	1.00	319.40	1.34	1.01	1.00
30.96	373.74	316.95	1.00	316.95	1.35	1.00	1.00
31.00	370.26	313.95	1.00	313.95	1.35	1.00	1.00
31.07	368.18	312.32	1.00	312.32	1.33	1.00	1.00
31.14	367.07	311.84	1.00	311.84	1.31	1.00	1.00
31.21	366.47	311.87	1.00	311.87	1.28	1.00	1.00
31.28	366.03	312.05	1.00	312.05	1.25	1.00	1.00
31.36	365.58	312.06	1.00	312.06	1.23	1.00	1.00
31.39	367.13	313.73	1.00	313.73	1.22	1.00	1.00
31.47	370.64	316.62	1.00	316.62	1.22	1.00	1.00
31.54	376.58	321.33	1.00	321.33	1.22	1.01	1.00

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
31.61	383.16	326.26	1.00	326.26	1.24	1.01	1.01
31.68	389.48	330.73	1.00	330.73	1.26	1.01	1.01
31.75	394.10	334.45	1.00	334.45	1.26	1.01	1.01
31.79	397.22	338.33	1.00	338.33	1.22	1.01	1.02
31.86	398.11	340.41	1.00	340.41	1.17	1.02	1.02
31.93	395.74	338.49	1.00	338.49	1.16	1.01	1.02
32.01	386.98	329.59	1.00	329.59	1.20	1.01	1.01
32.08	373.83	317.23	1.00	317.23	1.22	1.00	1.00
32.12	347.66	294.14	1.00	294.14	1.25	0.99	0.99
32.18	326.35	275.69	1.00	275.69	1.25	0.98	0.96
32.25	301.00	253.16	1.00	253.16	1.28	0.97	0.95
32.32	282.28	236.24	1.00	236.24	1.32	0.96	0.93
32.40	257.40	212.96	1.00	212.96	1.42	0.94	0.91
32.48	238.44	195.15	1.00	195.15	1.51	0.93	0.89
32.51	224.28	181.44	1.00	181.44	1.61	0.91	0.88
32.59	215.05	172.25	1.00	172.25	1.69	0.64	0.87
32.66	207.78	164.99	1.09	179.99	1.75	0.54	0.86
32.70	202.53	159.73	1.16	185.79	1.81	0.53	0.86
32.78	198.86	155.87	1.20	187.69	1.85	0.51	0.87
32.85	196.23	152.90	1.23	188.76	1.90	0.54	0.88
32.93	195.54	151.73	1.25	189.91	1.92	0.58	0.89
32.97	196.13	151.86	1.26	191.51	1.94	0.60	0.90
33.04	198.85	153.89	1.26	193.50	1.93	0.62	0.90
33.12	204.69	158.82	1.24	196.41	1.90	0.67	0.89
33.19	211.74	165.01	1.20	198.41	1.85	0.76	0.88
33.23	219.30	172.02	1.14	196.65	1.79	0.77	0.87
33.31	225.40	177.70	1.07	189.29	1.74	0.91	0.88
33.38	229.60	181.78	1.00	181.78	1.69	0.91	0.88
33.46	230.39	182.65	1.00	182.65	1.67	0.92	0.88
33.49	226.60	179.58	1.00	179.58	1.67	0.91	0.88
33.57	218.92	173.13	1.00	173.13	1.68	0.74	0.87
33.65	207.73	163.63	1.00	163.63	1.70	0.52	0.86
33.72	197.55	154.88	1.04	161.34	1.73	0.38	0.85
33.76	188.42	146.89	1.11	162.80	1.77	0.35	0.84
33.83	181.84	141.01	1.15	162.32	1.80	0.30	0.83
33.91	176.21	136.00	1.18	160.49	1.83	0.28	0.83
33.98	172.83	132.99	1.19	158.59	1.84	0.28	0.83
34.02	170.49	130.91	1.20	157.36	1.85	0.27	0.83
34.10	168.68	129.00	1.22	157.37	1.88	0.27	0.84
34.17	167.39	127.41	1.24	157.90	1.90	0.28	0.85
34.21	166.34	125.98	1.26	159.13	1.94	0.30	0.86
34.29	167.92	126.67	1.28	162.02	1.96	0.30	0.87
34.35	171.24	128.80	1.29	166.40	1.98	0.36	0.88
34.43	176.99	132.91	1.30	172.31	1.99	0.41	0.89
34.50	181.67	136.21	1.30	177.09	1.99	0.47	0.89
34.54	186.19	139.51	1.30	181.60	1.99	0.52	0.90
34.61	189.95	142.28	1.30	184.61	1.99	0.57	0.90
34.69	193.65	145.23	1.28	186.45	1.97	0.60	0.90

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
34.76	196.30	147.52	1.27	186.84	1.94	0.60	0.90
34.80	198.33	149.60	1.24	186.15	1.91	0.56	0.89
34.88	198.99	150.53	1.22	184.07	1.88	0.53	0.88
34.95	197.91	150.12	1.20	180.09	1.85	0.47	0.86
35.03	195.44	148.42	1.18	175.64	1.83	0.41	0.85
35.07	190.55	144.67	1.18	170.55	1.83	0.38	0.85
35.14	184.10	139.45	1.18	165.21	1.83	0.33	0.84
35.22	174.87	131.59	1.22	159.92	1.87	0.30	0.84
35.29	166.18	123.95	1.25	155.19	1.92	0.27	0.85
35.33	155.18	114.33	1.31	149.98	2.01	0.28	0.87
35.41	140.32	101.80	1.42	144.75	2.10	0.25	0.86
35.48	121.38	86.43	1.65	142.85	2.22	0.21	0.85
35.56	104.03	72.73	2.00	145.46	2.32	0.17	0.83
35.60	87.40	59.98	2.50	149.99	2.42	0.16	0.82
35.67	72.61	48.79	3.20	156.11	2.53	0.13	0.79
35.74	58.20	38.13	4.22	161.02	2.65	0.12	0.62
35.82	49.72	31.99	4.99	159.72	2.73	0.11	0.62
35.86	44.70	28.46	5.35	152.27	2.76	0.11	0.62
35.94	42.96	27.30	5.21	142.26	2.75	0.10	0.62
36.01	41.98	26.68	4.96	132.42	2.72	0.10	0.62
36.05	41.98	26.76	4.67	125.00	2.70	0.10	0.62
36.13	42.23	26.97	4.45	120.02	2.68	0.10	0.62
36.20	42.86	27.44	4.24	116.22	2.65	0.10	0.62
36.28	43.40	27.80	4.12	114.52	2.64	0.10	0.62
36.32	44.07	28.27	4.02	113.69	2.63	0.10	0.62
36.39	44.35	28.44	3.98	113.29	2.63	0.10	0.62
36.47	44.38	28.44	3.93	111.85	2.62	0.10	0.62
36.54	43.97	28.11	3.95	110.93	2.62	0.10	0.62
36.58	42.99	27.38	4.07	111.40	2.64	0.10	0.62
36.66	41.69	26.38	4.29	113.23	2.66	0.10	0.62
36.73	40.14	25.22	4.56	114.87	2.69	0.10	0.62
36.77	38.72	24.21	4.69	113.63	2.70	0.10	0.62
36.85	36.70	22.76	4.92	111.89	2.72	0.10	0.62
36.91	35.72	22.10	4.88	107.82	2.72	0.09	0.62
36.98	34.71	21.41	4.86	104.00	2.71	0.10	0.62
37.05	34.74	21.48	4.59	98.55	2.69	0.09	0.62
37.12	33.89	20.92	4.49	93.86	2.68	0.09	0.62
37.20	33.41	20.61	4.36	89.89	2.67	0.09	0.62
37.24	33.03	20.38	4.26	86.85	2.66	0.09	0.62
37.31	32.81	20.22	4.21	85.10	2.65	0.09	0.62
37.39	32.75	20.16	4.16	83.89	2.65	0.09	0.62
37.46	32.85	20.21	4.12	83.34	2.64	0.09	0.62
37.50	33.07	20.36	4.06	82.74	2.63	0.09	0.62
37.58	33.13	20.38	4.05	82.52	2.63	0.09	0.62
37.65	33.03	20.28	4.08	82.68	2.64	0.09	0.62
37.69	32.81	20.09	4.16	83.64	2.65	0.09	0.62
37.77	32.68	19.96	4.23	84.44	2.65	0.09	0.62
37.84	32.68	19.93	4.25	84.78	2.66	0.09	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
37.91	32.75	19.95	4.23	84.47	2.65	0.09	0.62
37.95	32.97	20.10	4.17	83.83	2.65	0.09	0.62
38.03	33.19	20.23	4.14	83.66	2.64	0.09	0.62
38.10	33.34	20.30	4.14	84.02	2.64	0.09	0.62
38.17	33.31	20.24	4.18	84.52	2.65	0.09	0.62
38.25	33.31	20.21	4.19	84.65	2.65	0.09	0.62
38.29	33.22	20.13	4.20	84.48	2.65	0.09	0.62
38.37	33.25	20.12	4.20	84.52	2.65	0.09	0.62
38.44	33.35	20.16	4.21	84.80	2.65	0.09	0.62
38.48	33.66	20.36	4.18	85.11	2.65	0.09	0.62
38.56	33.95	20.52	4.17	85.54	2.65	0.09	0.62
38.63	34.20	20.66	4.17	86.07	2.65	0.09	0.62
38.67	34.46	20.79	4.20	87.24	2.65	0.09	0.62
38.75	34.77	20.96	4.21	88.31	2.65	0.09	0.62
38.83	34.99	21.06	4.25	89.54	2.65	0.09	0.62
38.90	35.15	21.14	4.24	89.67	2.65	0.09	0.62
38.94	35.21	21.22	4.09	86.72	2.64	0.09	0.62
39.02	35.21	21.25	3.92	83.35	2.62	0.09	0.62
39.10	35.09	21.18	3.80	80.51	2.61	0.09	0.62
39.14	34.77	20.93	3.88	81.24	2.61	0.09	0.62
39.21	34.49	20.69	3.97	82.08	2.62	0.09	0.62
39.29	34.16	20.42	4.07	83.01	2.64	0.09	0.62
39.33	33.71	20.08	4.17	83.67	2.65	0.09	0.62
39.40	33.49	19.91	4.20	83.58	2.65	0.09	0.62
39.48	33.35	19.79	4.18	82.75	2.65	0.09	0.62
39.54	33.44	19.87	4.06	80.76	2.63	0.09	0.62
39.61	33.28	19.78	3.97	78.47	2.62	0.09	0.62
39.68	33.09	19.61	4.03	78.94	2.63	0.09	0.62
39.76	33.00	19.47	4.20	81.85	2.65	0.09	0.62
39.80	32.91	19.30	4.50	86.87	2.68	0.09	0.62
39.87	32.97	19.26	4.68	90.21	2.70	0.09	0.62
39.94	32.85	19.11	4.84	92.54	2.71	0.09	0.62
40.02	34.43	20.16	4.57	92.10	2.69	0.09	0.62
40.07	35.50	20.88	4.37	91.28	2.67	0.10	0.62
40.14	36.20	21.36	4.19	89.44	2.65	0.09	0.62
40.22	35.10	20.59	4.30	88.52	2.66	0.09	0.62
40.26	33.96	19.85	4.35	86.33	2.66	0.09	0.62
40.33	33.07	19.26	4.35	83.84	2.67	0.09	0.62
40.40	32.41	18.82	4.35	81.87	2.66	0.09	0.62
40.48	32.16	18.64	4.36	81.20	2.67	0.09	0.62
40.52	32.16	18.62	4.37	81.38	2.67	0.09	0.62
40.59	32.19	18.61	4.38	81.48	2.67	0.09	0.62
40.67	32.47	18.78	4.35	81.62	2.66	0.09	0.62
40.74	32.88	19.02	4.30	81.87	2.66	0.09	0.62
40.78	33.23	19.23	4.29	82.45	2.66	0.09	0.62
40.86	33.32	19.24	4.36	83.83	2.67	0.09	0.62
40.94	33.29	19.15	4.49	86.02	2.68	0.09	0.62
40.98	33.33	19.08	4.73	90.34	2.70	0.09	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
41.05	33.74	19.28	4.85	93.49	2.71	0.09	0.62
41.12	34.43	19.66	4.92	96.63	2.72	0.09	0.62
41.20	35.07	20.02	4.90	98.19	2.72	0.09	0.62
41.24	35.42	20.20	4.99	100.82	2.73	0.09	0.62
41.31	35.67	20.30	5.06	102.69	2.73	0.09	0.62
41.39	36.58	20.86	4.95	103.38	2.72	0.09	0.62
41.46	37.53	21.46	4.81	103.27	2.71	0.10	0.62
41.50	37.91	21.69	4.79	103.86	2.71	0.10	0.62
41.58	37.94	21.62	4.94	106.86	2.72	0.10	0.62
41.66	37.15	21.00	5.29	111.12	2.75	0.10	0.62
41.70	37.41	21.11	5.36	113.19	2.76	0.10	0.62
41.77	38.07	21.54	5.19	111.82	2.74	0.10	0.62
41.85	39.68	22.62	4.79	108.38	2.71	0.10	0.62
41.92	40.60	23.24	4.57	106.16	2.69	0.10	0.62
41.96	40.63	23.25	4.54	105.62	2.68	0.10	0.62
42.04	40.58	23.21	4.49	104.28	2.68	0.10	0.62
42.11	40.36	23.06	4.44	102.47	2.67	0.10	0.62
42.15	40.49	23.17	4.32	100.02	2.66	0.10	0.62
42.23	40.19	22.97	4.28	98.33	2.66	0.10	0.62
42.30	39.46	22.43	4.45	99.90	2.68	0.10	0.62
42.38	38.36	21.61	4.78	103.24	2.71	0.10	0.62
42.42	37.35	20.85	5.17	107.80	2.74	0.10	0.62
42.50	36.71	20.37	5.38	109.55	2.76	0.10	0.62
42.58	36.08	19.91	5.56	110.81	2.78	0.10	0.62
42.62	37.63	20.91	5.27	110.18	2.75	0.09	0.62
42.68	39.62	22.20	4.90	108.77	2.72	0.10	0.62
42.75	41.43	23.38	4.58	107.15	2.69	0.10	0.62
42.83	41.11	23.14	4.63	107.03	2.69	0.10	0.62
42.91	40.51	22.68	4.78	108.45	2.71	0.10	0.62
42.95	40.22	22.42	4.99	111.80	2.73	0.10	0.62
43.02	40.60	22.55	5.15	116.12	2.74	0.10	0.62
43.10	41.96	23.32	5.15	120.07	2.74	0.10	0.62
43.14	45.22	25.34	4.90	124.10	2.72	0.10	0.62
43.21	50.75	28.80	4.46	128.50	2.68	0.11	0.62
43.29	59.28	34.23	3.89	133.25	2.62	0.12	0.62
43.36	68.10	39.91	3.42	136.52	2.56	0.13	0.78
43.40	78.41	46.66	2.98	139.24	2.50	0.14	0.79
43.48	92.95	56.42	2.45	138.50	2.42	0.15	0.81
43.56	111.57	69.23	1.99	137.70	2.32	0.19	0.84
43.60	137.62	87.66	1.60	140.65	2.20	0.22	0.85
43.68	165.72	107.84	1.41	151.78	2.09	0.34	0.88
43.76	191.86	126.85	1.32	167.17	2.01	0.58	0.90
43.79	214.87	143.88	1.27	182.69	1.95	0.67	0.90
43.87	232.26	156.77	1.24	194.54	1.91	0.89	0.91
43.93	248.25	168.59	1.22	205.36	1.87	0.90	0.91
43.99	257.51	175.11	1.21	212.03	1.86	0.91	0.92
44.06	263.71	179.03	1.21	217.49	1.87	0.91	0.93
44.12	268.23	181.50	1.22	222.21	1.88	0.91	0.93

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
44.19	271.68	182.86	1.24	226.80	1.91	0.92	0.95
44.28	273.45	182.87	1.26	230.03	1.93	0.92	0.96
44.34	274.03	182.13	1.28	232.46	1.96	0.92	0.96
44.41	273.83	181.06	1.29	233.90	1.98	0.91	0.97
44.47	273.79	180.31	1.30	235.12	2.00	0.91	0.97
44.53	274.25	180.08	1.31	236.33	2.01	0.91	0.97
44.60	275.62	180.65	1.32	237.81	2.01	0.91	0.97
44.66	278.18	182.13	1.32	239.91	2.01	0.92	0.98
44.72	280.81	183.72	1.32	241.82	2.01	0.92	0.98
44.78	283.34	185.43	1.31	243.10	2.00	0.92	0.98
44.85	284.98	186.67	1.30	243.26	2.00	0.92	0.98
44.91	286.66	188.12	1.29	243.05	1.98	0.92	0.98
44.98	288.17	189.79	1.28	242.05	1.96	0.92	0.97
45.04	290.29	193.63	1.23	238.06	1.89	0.92	0.95
45.12	295.10	200.87	1.13	227.15	1.78	0.93	0.93
45.17	303.01	210.73	1.00	210.73	1.67	0.94	0.93
45.25	312.30	218.71	1.00	218.71	1.63	0.94	0.94
45.30	320.64	224.39	1.00	224.39	1.63	0.95	0.95
45.37	323.80	226.16	1.00	226.16	1.64	0.95	0.95
45.44	323.26	224.82	1.00	224.82	1.66	0.95	0.95
45.50	321.62	222.47	1.00	222.47	1.68	0.95	0.95
45.57	318.56	218.85	1.01	220.45	1.71	0.94	0.95
45.63	312.26	212.68	1.08	229.78	1.75	0.94	0.94
45.70	298.70	200.85	1.16	232.56	1.80	0.93	0.93
45.77	276.48	182.62	1.23	223.91	1.88	0.92	0.94
45.84	251.04	162.52	1.29	209.02	1.97	0.90	0.94
45.90	220.15	139.16	1.39	193.14	2.08	0.87	0.94
45.96	188.13	115.89	1.59	183.78	2.19	0.68	0.92
46.04	156.30	93.58	1.95	182.31	2.31	0.33	0.88
46.11	132.05	77.05	2.41	185.86	2.41	0.24	0.86
46.15	114.16	65.27	2.89	188.34	2.49	0.21	0.85
46.23	100.44	56.44	3.32	187.40	2.55	0.17	0.82
46.31	87.86	48.62	3.71	180.19	2.59	0.15	0.81
46.38	79.61	43.72	3.82	167.10	2.61	0.14	0.65
46.42	72.44	39.90	3.52	140.62	2.57	0.13	0.78
46.50	66.56	36.83	3.16	116.55	2.53	0.12	0.77
46.58	60.97	33.91	2.81	95.42	2.48	0.11	0.76
46.62	55.47	30.47	3.04	92.61	2.51	0.11	0.75
46.70	50.03	27.00	3.42	92.30	2.56	0.10	0.74
46.77	44.78	23.65	3.96	93.62	2.62	0.10	0.62
46.82	40.95	21.22	4.52	95.83	2.68	0.10	0.62
46.91	37.88	19.27	5.07	97.78	2.73	0.09	0.62
46.95	35.23	17.64	5.56	98.14	2.78	0.09	0.62
47.02	33.08	16.40	5.93	97.19	2.81	0.09	0.62
47.10	31.56	15.56	6.13	95.43	2.82	0.09	0.62
47.14	30.93	15.20	6.08	92.45	2.82	0.09	0.62
47.22	30.61	15.01	5.95	89.33	2.81	0.09	0.62
47.29	30.04	14.69	5.84	85.75	2.80	0.09	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
47.37	29.32	14.28	5.84	83.35	2.80	0.09	0.62
47.41	28.24	13.69	5.96	81.60	2.81	0.09	0.62
47.49	27.17	13.09	6.15	80.50	2.82	0.09	0.62
47.56	26.35	12.63	6.30	79.54	2.83	0.09	0.62
47.60	26.00	12.44	6.33	78.79	2.84	0.09	0.62
47.68	26.50	12.69	6.16	78.18	2.82	0.09	0.62
47.76	27.54	13.24	5.87	77.64	2.80	0.09	0.62
47.80	29.31	14.25	5.39	76.85	2.76	0.09	0.62
47.88	30.99	15.27	4.94	75.39	2.72	0.09	0.62
47.95	32.48	16.19	4.53	73.41	2.68	0.09	0.62
47.99	33.27	16.71	4.28	71.49	2.66	0.09	0.62
48.07	33.39	16.78	4.23	70.97	2.65	0.09	0.62
48.15	32.82	16.39	4.38	71.73	2.67	0.09	0.62
48.22	31.91	15.79	4.61	72.83	2.69	0.09	0.62
48.27	31.18	15.33	4.76	73.03	2.71	0.09	0.62
48.34	30.90	15.16	4.78	72.49	2.71	0.09	0.62
48.38	31.31	15.41	4.64	71.48	2.69	0.09	0.62
48.46	31.50	15.53	4.54	70.55	2.68	0.09	0.62
48.54	31.50	15.53	4.47	69.50	2.68	0.09	0.62
48.58	30.64	15.00	4.65	69.74	2.69	0.09	0.62
48.66	29.79	14.46	4.87	70.37	2.72	0.09	0.62
48.73	29.09	13.99	5.15	72.07	2.74	0.09	0.62
48.78	29.28	13.98	5.51	77.09	2.77	0.09	0.62
48.86	29.79	14.19	5.96	84.65	2.81	0.09	0.62
48.94	30.36	14.48	6.01	86.97	2.81	0.09	0.62
48.98	30.61	14.60	6.56	95.72	2.85	0.09	0.62
49.05	31.15	14.87	8.23	122.31	2.97	0.09	0.62
49.13	38.89	18.92	7.55	142.92	2.92	0.09	0.62
49.21	51.41	25.48	6.01	153.09	2.81	0.11	0.62
49.25	79.98	42.61	3.36	143.03	2.55	0.12	0.77
49.33	101.00	55.67	2.53	140.98	2.43	0.20	0.84
49.38	103.84	57.16	2.56	146.59	2.43	0.20	0.84
49.45	90.57	48.51	3.20	155.32	2.53	0.13	0.79
49.52	74.53	38.47	4.29	164.98	2.66	0.14	0.65
49.57	68.97	35.25	4.53	159.77	2.68	0.13	0.62
49.65	63.53	32.21	4.66	150.05	2.70	0.12	0.62
49.70	60.56	30.70	4.50	138.23	2.68	0.12	0.62
49.77	59.77	30.34	4.36	132.29	2.67	0.12	0.62
49.83	58.00	29.27	4.50	131.70	2.68	0.11	0.62
49.90	56.84	28.54	4.64	132.32	2.69	0.11	0.62
49.97	56.32	28.23	4.63	130.59	2.69	0.11	0.62
50.04	56.36	28.30	4.50	127.21	2.68	0.11	0.62
50.12	56.53	28.40	4.42	125.41	2.67	0.11	0.62
50.19	56.58	28.36	4.46	126.48	2.68	0.11	0.62
50.23	56.07	27.98	4.61	128.90	2.69	0.11	0.62
50.31	55.00	27.27	4.79	130.70	2.71	0.11	0.62
50.39	53.89	26.55	4.97	131.97	2.72	0.11	0.62
50.43	53.64	26.29	5.18	136.03	2.74	0.11	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
50.50	55.18	26.99	5.27	142.35	2.75	0.11	0.62
50.58	58.00	28.42	5.25	149.18	2.75	0.12	0.62
50.62	63.37	31.45	4.85	152.54	2.71	0.12	0.62
50.70	70.39	35.59	4.19	149.02	2.65	0.13	0.63
50.77	77.31	39.84	3.57	142.11	2.58	0.14	0.79
50.81	81.65	42.72	3.11	132.83	2.52	0.14	0.79
50.89	81.84	42.95	2.98	128.04	2.50	0.14	0.79
50.97	79.09	41.27	3.07	126.88	2.51	0.13	0.79
51.05	75.04	38.68	3.36	129.92	2.55	0.13	0.78
51.09	73.22	37.39	3.62	135.19	2.58	0.13	0.78
51.16	73.45	37.20	3.87	143.99	2.61	0.13	0.64
51.24	75.56	38.10	4.04	153.93	2.63	0.13	0.64
51.28	79.18	39.89	4.13	164.60	2.64	0.14	0.64
51.36	88.57	45.31	3.66	165.66	2.59	0.15	0.80
51.43	102.48	53.72	2.98	160.25	2.50	0.17	0.82
51.48	126.37	69.07	2.12	146.39	2.35	0.19	0.84
51.55	164.81	94.95	1.50	142.06	2.15	0.27	0.87
51.63	214.19	130.74	1.25	163.24	1.92	0.57	0.89
51.68	266.12	172.71	1.00	172.71	1.67	0.91	0.89
51.73	305.82	208.83	1.00	208.83	1.46	0.94	0.94
51.80	330.92	232.63	1.00	232.63	1.34	0.95	0.95
51.87	337.12	234.92	1.00	234.92	1.38	0.95	0.96
51.95	330.48	225.02	1.00	225.02	1.47	0.95	0.95
52.01	292.77	191.32	1.00	191.32	1.63	0.92	0.94
52.07	278.45	177.06	1.07	188.94	1.74	0.47	0.85
52.13	265.11	164.54	1.19	195.36	1.83	0.90	0.93
52.19	274.47	168.66	1.22	205.59	1.87	0.90	0.93
52.27	258.92	155.14	1.28	199.28	1.97	0.89	0.94
52.34	239.95	139.96	1.38	193.44	2.07	0.88	0.95
52.42	222.60	126.97	1.51	192.35	2.16	0.86	0.94
52.46	200.82	112.19	1.70	190.55	2.23	0.84	0.93
52.54	176.89	97.09	1.89	183.35	2.29	0.50	0.90
52.61	153.78	83.18	2.06	171.16	2.33	0.29	0.87
52.66	132.57	70.94	2.18	154.54	2.36	0.24	0.86
52.73	115.06	60.92	2.29	139.52	2.38	0.18	0.83
52.81	99.26	51.79	2.47	127.98	2.42	0.15	0.81
52.85	88.07	45.44	2.62	118.85	2.44	0.14	0.80
52.93	81.75	41.96	2.64	110.80	2.45	0.13	0.78
53.01	78.11	40.08	2.57	103.19	2.44	0.12	0.78
53.05	77.55	40.04	2.42	97.04	2.41	0.12	0.78
53.12	74.89	38.70	2.35	90.88	2.40	0.12	0.78
53.20	70.34	36.27	2.31	83.91	2.39	0.11	0.76
53.24	63.26	32.30	2.39	77.15	2.40	0.11	0.76
53.32	56.55	28.46	2.55	72.59	2.43	0.10	0.74
53.39	49.82	24.57	2.81	68.97	2.47	0.09	0.73
53.47	45.08	21.80	3.11	67.86	2.52	0.09	0.72
53.51	42.65	20.30	3.45	69.99	2.56	0.09	0.72
53.59	42.40	19.97	3.73	74.56	2.60	0.09	0.72

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
53.64	44.45	20.88	3.94	82.35	2.62	0.09	0.62
53.72	46.98	22.00	4.18	91.85	2.65	0.10	0.62
53.78	53.81	25.64	3.84	98.53	2.61	0.10	0.62
53.84	59.62	28.84	3.51	101.23	2.57	0.11	0.76
53.90	64.33	31.57	3.17	100.13	2.53	0.11	0.76
53.98	63.13	30.74	3.34	102.55	2.55	0.11	0.76
54.06	60.44	29.02	3.67	106.60	2.59	0.11	0.76
54.10	59.35	28.27	3.88	109.82	2.62	0.11	0.62
54.17	58.12	27.47	4.08	112.01	2.64	0.11	0.62
54.25	59.10	27.95	4.04	112.92	2.63	0.11	0.62
54.29	62.34	29.67	3.90	115.73	2.62	0.11	0.62
54.37	67.84	32.60	3.68	120.04	2.59	0.12	0.77
54.45	71.12	34.15	3.75	128.03	2.60	0.13	0.78
54.52	70.50	33.47	4.09	136.92	2.64	0.13	0.62
54.56	67.05	31.28	4.64	145.15	2.69	0.12	0.62
54.64	62.91	28.80	5.23	150.64	2.75	0.12	0.62
54.72	58.80	26.70	5.79	154.50	2.79	0.12	0.62
54.76	55.20	24.94	6.08	151.66	2.82	0.11	0.62
54.84	51.88	23.32	6.16	143.60	2.82	0.11	0.62
54.91	48.65	21.74	6.23	135.39	2.83	0.10	0.62
54.96	45.78	20.35	6.35	129.30	2.84	0.10	0.62
55.04	43.34	19.16	6.53	125.13	2.85	0.10	0.62
55.11	41.07	18.05	6.61	119.30	2.86	0.10	0.62
55.15	38.67	16.89	6.77	114.34	2.87	0.10	0.62
55.23	37.28	16.20	6.74	109.15	2.87	0.09	0.62
55.30	36.11	15.63	6.65	103.89	2.86	0.09	0.62
55.35	35.57	15.36	6.41	98.45	2.84	0.09	0.62
55.43	34.37	14.77	6.40	94.51	2.84	0.09	0.62
55.50	33.23	14.21	6.41	91.08	2.84	0.09	0.62
55.54	32.28	13.75	6.45	88.76	2.85	0.09	0.62
55.62	31.74	13.48	6.43	86.65	2.84	0.09	0.62
55.70	31.36	13.28	6.37	84.62	2.84	0.09	0.62
55.74	31.20	13.20	6.30	83.19	2.84	0.09	0.62
55.82	31.08	13.12	6.30	82.64	2.83	0.09	0.62
55.89	30.98	13.06	6.32	82.63	2.84	0.09	0.62
55.94	31.11	13.12	6.29	82.54	2.83	0.09	0.62
56.01	31.49	13.28	6.20	82.28	2.83	0.09	0.62
56.09	32.02	13.52	6.04	81.67	2.81	0.09	0.62
56.14	32.69	13.82	5.86	81.07	2.80	0.09	0.62
56.22	33.16	14.03	5.74	80.60	2.79	0.09	0.62
56.29	33.44	14.15	5.70	80.62	2.79	0.09	0.62
56.33	33.29	14.07	5.83	82.08	2.80	0.09	0.62
56.41	33.04	13.93	6.04	84.17	2.81	0.09	0.62
56.49	32.88	13.84	6.25	86.47	2.83	0.09	0.62
56.53	33.35	14.06	6.29	88.47	2.83	0.09	0.62
56.61	34.90	14.77	6.09	89.94	2.82	0.09	0.62
56.69	36.98	15.73	5.47	85.98	2.77	0.09	0.62
56.73	39.26	17.11	4.50	77.07	2.68	0.09	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
56.81	40.40	17.94	3.89	69.84	2.62	0.09	0.62
56.85	40.24	17.82	3.95	70.41	2.62	0.09	0.62
56.93	38.60	16.69	4.65	77.52	2.69	0.09	0.62
57.01	36.80	15.57	5.34	83.09	2.76	0.09	0.62
57.05	35.67	15.03	5.76	86.66	2.79	0.09	0.62
57.12	35.39	14.89	6.06	90.26	2.82	0.09	0.62
57.21	35.52	14.93	6.42	95.85	2.84	0.09	0.62
57.25	36.07	15.17	7.09	107.56	2.89	0.09	0.62
57.33	39.74	16.86	7.17	120.86	2.90	0.09	0.62
57.41	47.99	20.67	6.24	128.95	2.83	0.10	0.62
57.45	74.03	34.29	3.59	122.92	2.58	0.11	0.75
57.53	109.37	54.77	2.12	115.88	2.35	0.17	0.83
57.57	156.75	83.52	1.51	126.00	2.15	0.23	0.86
57.65	191.43	104.36	1.39	145.08	2.08	0.56	0.91
57.73	208.88	113.85	1.39	158.63	2.08	0.85	0.93
57.78	198.51	105.56	1.54	162.24	2.17	0.75	0.92
57.85	171.77	87.93	1.89	166.51	2.29	0.41	0.89
57.92	144.12	70.87	2.47	175.10	2.42	0.25	0.86
57.97	120.60	57.29	3.14	180.15	2.52	0.21	0.84
58.03	102.29	47.33	3.72	176.21	2.60	0.17	0.82
58.10	85.32	38.42	4.36	167.48	2.67	0.14	0.65
58.18	70.94	31.04	5.06	156.98	2.73	0.13	0.62
58.26	66.56	28.95	5.11	148.01	2.74	0.11	0.62
58.30	61.79	26.67	5.66	150.84	2.78	0.13	0.62
58.38	66.18	28.65	5.23	149.71	2.75	0.11	0.62
58.46	71.89	31.67	4.65	147.16	2.69	0.13	0.62
58.50	99.20	47.33	2.68	126.85	2.45	0.14	0.79
58.58	141.55	73.42	1.59	116.77	2.19	0.20	0.84
58.64	194.72	108.53	1.27	138.09	1.95	0.34	0.87
58.69	242.90	142.27	1.14	161.68	1.79	0.63	0.87
58.76	269.48	162.10	1.00	162.10	1.69	0.90	0.90
58.83	273.34	166.23	1.00	166.23	1.65	0.90	0.90
58.89	261.61	158.44	1.00	158.44	1.66	0.82	0.88
58.96	245.33	146.80	1.00	146.80	1.70	0.59	0.86
59.03	227.25	133.50	1.10	146.62	1.76	0.38	0.84
59.10	203.04	116.50	1.19	138.21	1.83	0.27	0.83
59.15	168.04	92.14	1.29	118.95	1.98	0.24	0.85
59.23	131.73	67.81	1.56	106.08	2.18	0.16	0.82
59.29	97.43	46.20	2.54	117.28	2.43	0.15	0.80
59.35	79.76	35.78	3.71	132.80	2.60	0.12	0.77
59.41	71.10	30.99	4.44	137.53	2.67	0.12	0.62
59.48	68.13	29.57	4.47	132.03	2.68	0.12	0.62
59.55	62.06	26.57	4.73	125.56	2.70	0.12	0.62
59.62	53.50	22.41	5.13	114.91	2.74	0.11	0.62
59.69	45.69	18.87	5.32	100.34	2.76	0.10	0.62
59.75	40.79	16.71	5.01	83.82	2.73	0.09	0.62
59.82	38.30	15.61	4.92	76.86	2.72	0.09	0.62
59.90	37.09	14.97	5.20	77.86	2.75	0.09	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
59.94	36.34	14.62	5.46	79.81	2.77	0.09	0.62
60.01	37.15	14.97	5.56	83.19	2.78	0.09	0.62
60.07	38.80	15.70	5.69	89.37	2.79	0.09	0.62
60.15	40.51	16.44	5.81	95.52	2.80	0.10	0.62
60.23	41.20	16.73	5.95	99.54	2.81	0.10	0.62
60.27	41.61	16.90	5.92	100.05	2.81	0.10	0.62
60.35	42.72	17.37	5.68	98.63	2.79	0.10	0.62
60.43	43.82	17.85	5.46	97.50	2.77	0.10	0.62
60.47	44.99	18.36	5.30	97.24	2.75	0.10	0.62
60.55	45.81	18.70	5.24	97.90	2.75	0.10	0.62
60.59	46.57	19.03	5.24	99.63	2.75	0.10	0.62
60.67	46.70	19.06	5.37	102.30	2.76	0.10	0.62
60.75	46.42	18.91	5.57	105.31	2.78	0.10	0.62
60.79	45.59	18.54	5.85	108.46	2.80	0.10	0.62
60.87	44.42	18.00	6.15	110.73	2.82	0.10	0.62
60.95	43.19	17.43	6.41	111.68	2.84	0.10	0.62
60.99	42.08	16.93	6.50	110.10	2.85	0.10	0.62
61.07	41.85	16.81	6.31	106.04	2.84	0.10	0.62
61.15	41.21	16.51	6.21	102.51	2.83	0.10	0.62
61.19	41.50	16.63	6.01	99.95	2.81	0.10	0.62
61.27	41.86	16.77	5.93	99.42	2.81	0.10	0.62
61.31	43.31	17.40	5.70	99.09	2.79	0.10	0.62
61.39	44.29	17.81	5.64	100.34	2.78	0.10	0.62
61.47	44.67	17.95	5.68	101.95	2.79	0.10	0.62
61.51	44.54	17.89	5.78	103.32	2.79	0.10	0.62
61.59	44.35	17.78	5.84	103.88	2.80	0.10	0.62
61.67	44.35	17.76	5.88	104.39	2.80	0.10	0.62
61.71	44.35	17.75	5.89	104.56	2.80	0.10	0.62
61.79	44.48	17.79	5.86	104.19	2.80	0.10	0.62
61.87	44.58	17.81	5.81	103.52	2.80	0.10	0.62
61.91	43.41	17.29	6.07	105.01	2.82	0.10	0.62
61.98	42.75	16.98	6.32	107.28	2.84	0.10	0.62
62.05	41.77	16.54	6.69	110.58	2.86	0.10	0.62
62.13	41.89	16.58	6.79	112.51	2.87	0.10	0.62
62.17	41.26	16.29	7.28	118.64	2.91	0.10	0.62
62.25	41.83	16.52	7.85	129.65	2.94	0.10	0.62
62.33	44.68	17.73	8.02	142.18	2.95	0.10	0.62
62.37	55.08	22.23	6.74	149.82	2.87	0.10	0.62
62.45	75.62	31.47	4.61	145.21	2.69	0.12	0.62
62.52	100.82	44.70	3.10	138.47	2.52	0.16	0.82
62.57	133.18	62.64	2.13	133.50	2.35	0.19	0.84
62.64	166.40	81.55	1.69	137.70	2.23	0.33	0.88
62.70	202.00	102.35	1.46	149.66	2.13	0.60	0.91
62.76	227.32	117.25	1.38	161.95	2.07	0.85	0.93
62.82	240.59	124.63	1.36	170.04	2.06	0.86	0.94
62.89	238.44	122.22	1.40	171.70	2.09	0.86	0.95
62.95	226.72	113.97	1.50	171.24	2.15	0.85	0.94
63.02	205.16	100.14	1.72	171.98	2.24	0.83	0.93

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
63.09	180.22	84.98	2.09	177.57	2.34	0.48	0.90
63.17	156.42	71.11	2.63	186.74	2.45	0.29	0.87
63.24	140.17	62.01	3.14	194.67	2.52	0.25	0.86
63.28	129.87	56.51	3.48	196.85	2.57	0.23	0.85
63.36	122.28	52.74	3.64	192.06	2.59	0.20	0.84
63.43	115.26	49.39	3.73	184.37	2.60	0.19	0.83
63.48	109.16	46.58	3.78	175.91	2.60	0.18	0.70
63.56	102.87	43.45	3.97	172.63	2.62	0.16	0.68
63.64	97.31	40.64	4.21	171.05	2.65	0.16	0.67
63.68	94.73	39.41	4.28	168.54	2.66	0.15	0.66
63.76	93.73	39.06	4.17	162.89	2.65	0.15	0.66
63.81	94.08	39.54	3.89	153.87	2.62	0.15	0.66
63.89	93.56	39.45	3.76	148.21	2.60	0.15	0.67
63.94	93.23	39.31	3.72	146.42	2.60	0.15	0.80
64.00	92.00	38.67	3.77	145.69	2.60	0.15	0.66
64.07	91.98	38.75	3.67	142.36	2.59	0.14	0.80
64.14	91.57	38.50	3.70	142.28	2.59	0.15	0.80
64.22	96.00	40.52	3.61	146.24	2.58	0.14	0.80
64.27	108.78	46.61	3.33	155.16	2.55	0.16	0.81
64.35	122.15	53.07	3.06	162.56	2.51	0.22	0.85
64.41	128.29	55.81	3.04	169.80	2.51	0.22	0.85
64.48	119.25	50.83	3.46	175.80	2.56	0.20	0.84
64.53	103.28	42.63	4.20	179.14	2.65	0.17	0.68
64.61	87.04	34.82	5.11	177.90	2.74	0.14	0.64
64.69	75.66	30.02	5.73	171.97	2.79	0.13	0.62
64.73	68.73	27.10	5.91	160.18	2.80	0.12	0.62
64.81	64.12	25.14	5.84	146.78	2.80	0.12	0.62
64.89	60.51	23.61	5.73	135.18	2.79	0.11	0.62
64.93	58.52	22.77	5.61	127.83	2.78	0.11	0.62
65.01	57.61	22.36	5.51	123.17	2.77	0.11	0.62
65.06	56.94	22.07	5.39	118.93	2.76	0.11	0.62
65.14	57.01	22.07	5.33	117.56	2.76	0.11	0.62
65.21	57.36	22.19	5.30	117.68	2.75	0.11	0.62
65.26	58.08	22.48	5.35	120.25	2.76	0.11	0.62
65.33	57.10	22.05	5.62	123.99	2.78	0.11	0.62
65.38	60.14	23.29	5.46	127.28	2.77	0.11	0.62
65.45	64.28	24.98	5.21	130.13	2.75	0.12	0.62
65.53	70.95	27.82	4.77	132.60	2.71	0.12	0.62
65.61	74.23	29.23	4.67	136.57	2.70	0.13	0.62
65.65	76.92	30.47	4.53	138.11	2.68	0.13	0.62
65.73	77.77	30.94	4.37	135.27	2.67	0.13	0.63
65.81	76.67	30.51	4.31	131.38	2.66	0.13	0.62
65.85	72.78	28.67	4.52	129.46	2.68	0.12	0.62
65.93	68.76	26.66	4.91	130.99	2.72	0.12	0.62
66.00	65.82	25.42	5.21	132.36	2.75	0.12	0.62
66.05	66.36	25.62	5.10	130.62	2.74	0.12	0.62
66.13	68.35	26.44	4.84	128.03	2.71	0.12	0.62
66.17	71.96	28.10	4.58	128.83	2.69	0.12	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
66.25	76.13	29.94	4.45	133.19	2.67	0.13	0.62
66.32	80.62	31.83	4.38	139.52	2.67	0.13	0.63
66.37	84.35	33.38	4.37	145.77	2.67	0.14	0.64
66.44	86.94	34.45	4.34	149.44	2.66	0.14	0.65
66.52	89.21	35.45	4.25	150.68	2.65	0.14	0.65
66.57	91.36	36.51	4.10	149.57	2.64	0.14	0.66
66.64	92.91	37.22	4.01	149.31	2.63	0.15	0.66
66.72	93.67	37.51	4.00	149.90	2.63	0.15	0.66
66.77	92.47	36.82	4.12	151.79	2.64	0.15	0.66
66.85	88.27	34.66	4.45	154.18	2.67	0.14	0.65
66.92	82.93	32.02	4.87	155.83	2.71	0.13	0.63
66.97	79.77	30.72	5.03	154.53	2.73	0.13	0.62
67.02	76.89	29.53	5.08	150.15	2.73	0.13	0.63
67.12	74.01	28.32	5.10	144.41	2.74	0.12	0.62
67.16	68.64	26.13	5.28	137.89	2.75	0.12	0.62
67.24	65.13	24.68	5.35	131.93	2.76	0.12	0.62
67.29	61.90	23.36	5.36	125.28	2.76	0.11	0.62
67.37	59.57	22.39	5.38	120.38	2.76	0.11	0.62
67.44	57.48	21.53	5.35	115.18	2.76	0.11	0.62
67.49	56.25	21.02	5.22	109.68	2.75	0.11	0.62
67.56	55.39	20.65	5.06	104.60	2.73	0.11	0.62
67.64	54.45	20.25	4.95	100.17	2.72	0.10	0.62
67.69	53.31	19.78	4.88	96.53	2.72	0.10	0.62
67.77	51.85	19.18	4.90	93.90	2.72	0.10	0.62
67.81	50.05	18.44	4.98	91.89	2.73	0.10	0.62
67.89	48.12	17.65	5.19	91.65	2.74	0.10	0.62
67.97	46.73	17.07	5.38	91.82	2.76	0.10	0.62
68.02	46.18	16.84	5.50	92.58	2.77	0.10	0.62
68.09	46.15	16.81	5.56	93.42	2.78	0.10	0.62
68.14	46.53	16.95	5.55	94.03	2.77	0.10	0.62
68.21	47.37	17.27	5.49	94.89	2.77	0.10	0.62
68.29	48.50	17.71	5.43	96.17	2.77	0.10	0.62
68.34	49.77	18.20	5.41	98.50	2.76	0.10	0.62
68.42	50.97	18.66	5.40	100.77	2.76	0.10	0.62
68.49	52.14	19.11	5.37	102.60	2.76	0.10	0.62
68.54	52.86	19.39	5.30	102.82	2.75	0.10	0.62
68.61	53.40	19.58	5.32	104.23	2.76	0.10	0.62
68.69	53.65	19.66	5.45	107.17	2.77	0.10	0.62
68.74	53.75	19.69	5.63	110.77	2.78	0.10	0.62
68.81	53.50	19.57	5.74	112.35	2.79	0.10	0.62
68.86	53.27	19.47	5.74	111.77	2.79	0.10	0.62
68.94	53.18	19.41	5.70	110.59	2.79	0.10	0.62
68.99	53.18	19.39	5.62	109.05	2.78	0.10	0.62
69.08	53.18	19.37	5.53	107.16	2.77	0.10	0.62
69.14	53.27	19.39	5.40	104.80	2.76	0.10	0.62
69.19	53.43	19.45	5.29	102.78	2.75	0.10	0.62
69.27	53.53	19.46	5.25	102.28	2.75	0.10	0.62
69.34	53.78	19.54	5.26	102.79	2.75	0.10	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
69.39	54.23	19.71	5.24	103.31	2.75	0.10	0.62
69.46	55.27	20.10	5.11	102.75	2.74	0.10	0.62
69.54	56.06	20.39	5.00	101.85	2.73	0.11	0.62
69.58	56.41	20.51	4.96	101.81	2.72	0.11	0.62
69.66	56.06	20.36	5.03	102.41	2.73	0.11	0.62
69.74	55.93	20.28	5.09	103.25	2.74	0.10	0.62
69.78	56.21	20.38	5.11	104.21	2.74	0.11	0.62
69.86	56.75	20.57	5.14	105.66	2.74	0.11	0.62
69.94	57.10	20.69	5.19	107.28	2.74	0.11	0.62
69.99	56.09	20.28	5.39	109.34	2.76	0.11	0.62
70.04	56.44	20.40	5.40	110.13	2.76	0.10	0.62
70.11	56.85	20.54	5.40	110.94	2.76	0.11	0.62
70.18	59.00	21.37	5.16	110.23	2.74	0.11	0.62
70.25	59.79	21.65	5.05	109.31	2.73	0.11	0.62
70.33	60.46	21.89	4.90	107.34	2.72	0.11	0.62
70.40	60.33	21.82	4.83	105.42	2.71	0.11	0.62
70.44	60.01	21.69	4.79	103.80	2.71	0.11	0.62
70.52	59.89	21.62	4.74	102.53	2.70	0.11	0.62
70.59	59.95	21.62	4.70	101.60	2.70	0.11	0.62
70.64	60.14	21.70	4.66	101.23	2.70	0.11	0.62
70.72	60.30	21.74	4.67	101.48	2.70	0.11	0.62
70.80	60.64	21.86	4.66	101.76	2.70	0.11	0.62
70.84	61.56	22.25	4.58	101.92	2.69	0.11	0.62
70.92	62.54	22.66	4.50	101.94	2.68	0.11	0.62
70.96	63.65	23.13	4.42	102.26	2.67	0.11	0.62
71.05	64.22	23.39	4.36	102.08	2.67	0.11	0.62
71.12	64.47	23.47	4.35	102.05	2.66	0.11	0.62
71.17	64.00	23.18	4.45	103.16	2.68	0.11	0.62
71.25	63.24	22.73	4.64	105.42	2.69	0.11	0.62
71.29	62.32	22.34	4.80	107.30	2.71	0.11	0.62
71.38	61.78	22.11	4.84	107.06	2.71	0.11	0.62
71.42	60.11	21.45	4.93	105.84	2.72	0.11	0.62
71.49	59.28	21.11	4.93	104.01	2.72	0.11	0.62
71.56	58.30	20.72	4.96	102.83	2.72	0.11	0.62
71.63	58.24	20.68	4.93	102.02	2.72	0.11	0.62
71.70	58.09	20.60	4.92	101.43	2.72	0.11	0.62
71.75	57.80	20.48	4.91	100.47	2.72	0.11	0.62
71.82	58.31	20.65	4.80	99.10	2.71	0.11	0.62
71.88	59.16	20.96	4.66	97.67	2.70	0.11	0.62
71.95	60.90	21.74	4.45	96.66	2.67	0.11	0.62
72.02	62.61	22.51	4.29	96.57	2.66	0.11	0.62
72.08	63.56	22.88	4.26	97.48	2.66	0.11	0.62
72.15	63.84	22.92	4.32	98.97	2.66	0.11	0.62
72.22	63.72	22.75	4.43	100.78	2.67	0.11	0.62
72.28	63.53	22.58	4.55	102.68	2.68	0.11	0.62
72.35	63.68	22.58	4.60	103.82	2.69	0.11	0.62
72.42	64.28	22.82	4.55	103.92	2.69	0.11	0.62
72.50	64.76	23.00	4.51	103.81	2.68	0.11	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
72.54	64.73	22.95	4.56	104.56	2.69	0.11	0.62
72.62	64.16	22.66	4.69	106.39	2.70	0.11	0.62
72.70	63.75	22.48	4.82	108.26	2.71	0.11	0.62
72.74	63.65	22.44	4.88	109.47	2.72	0.11	0.62
72.82	63.53	22.36	4.90	109.63	2.72	0.11	0.62
72.86	62.61	22.01	4.96	109.13	2.72	0.11	0.62
72.94	61.22	21.46	4.97	106.65	2.72	0.11	0.62
73.02	60.05	20.99	4.98	104.61	2.73	0.11	0.62
73.07	60.14	21.02	4.91	103.24	2.72	0.11	0.62
73.15	60.90	21.28	4.87	103.70	2.72	0.11	0.62
73.19	62.13	21.73	4.76	103.55	2.71	0.11	0.62
73.28	63.24	22.13	4.65	102.80	2.69	0.11	0.62
73.32	63.84	22.34	4.59	102.47	2.69	0.11	0.62
73.39	64.00	22.40	4.57	102.32	2.69	0.11	0.62
73.45	63.75	22.27	4.61	102.71	2.69	0.11	0.62
73.53	63.62	22.20	4.64	102.91	2.69	0.11	0.62
73.59	63.30	22.06	4.69	103.42	2.70	0.11	0.62
73.66	63.11	21.97	4.69	103.02	2.70	0.11	0.62
73.72	63.30	22.03	4.64	102.11	2.69	0.11	0.62
73.78	63.65	22.14	4.58	101.40	2.69	0.11	0.62
73.86	63.87	22.20	4.59	101.81	2.69	0.11	0.62
73.93	64.26	22.33	4.61	102.88	2.69	0.11	0.62
74.00	64.62	22.44	4.62	103.77	2.69	0.11	0.62
74.04	65.01	22.58	4.63	104.58	2.69	0.11	0.62
74.12	64.98	22.54	4.69	105.64	2.70	0.11	0.62
74.19	65.03	22.54	4.74	106.79	2.70	0.11	0.62
74.24	65.00	22.51	4.76	107.24	2.71	0.11	0.62
74.31	64.74	22.40	4.76	106.53	2.70	0.11	0.62
74.38	64.65	22.35	4.69	104.90	2.70	0.11	0.62
74.45	64.47	22.26	4.64	103.34	2.69	0.11	0.62
74.50	64.54	22.27	4.58	102.10	2.69	0.11	0.62
74.59	64.35	22.18	4.59	101.76	2.69	0.11	0.62
74.65	64.35	22.16	4.59	101.70	2.69	0.11	0.62
74.71	64.19	22.08	4.62	102.11	2.69	0.11	0.62
74.77	64.22	22.08	4.63	102.14	2.69	0.11	0.62
74.83	64.41	22.13	4.61	102.12	2.69	0.11	0.62
74.92	65.11	22.37	4.56	101.93	2.69	0.11	0.62
74.96	65.90	22.65	4.52	102.31	2.68	0.11	0.62
75.04	65.90	22.62	4.57	103.46	2.69	0.11	0.62
75.11	65.55	22.48	4.66	104.79	2.70	0.11	0.62
75.17	65.17	22.32	4.75	105.91	2.70	0.11	0.62
75.24	65.20	22.31	4.78	106.68	2.71	0.11	0.62
75.29	65.39	22.37	4.79	107.07	2.71	0.11	0.62
75.36	65.80	22.50	4.74	106.62	2.70	0.11	0.62
75.42	66.66	22.80	4.62	105.36	2.69	0.11	0.62
75.50	67.35	23.03	4.53	104.37	2.68	0.11	0.62
75.55	67.61	23.11	4.50	103.96	2.68	0.11	0.62
75.63	67.61	23.08	4.50	103.95	2.68	0.11	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
75.69	67.89	23.19	4.47	103.77	2.68	0.11	0.62
75.77	68.49	23.42	4.43	103.65	2.67	0.11	0.62
75.83	69.34	23.77	4.36	103.54	2.67	0.11	0.62
75.89	70.01	24.04	4.30	103.27	2.66	0.11	0.62
75.95	70.70	24.35	4.21	102.45	2.65	0.11	0.62
76.02	71.65	24.82	4.08	101.24	2.64	0.12	0.62
76.08	73.20	25.53	3.92	100.06	2.62	0.12	0.62
76.15	74.84	26.26	3.79	99.49	2.60	0.12	0.62
76.21	75.86	26.67	3.74	99.64	2.60	0.12	0.77
76.28	75.73	26.59	3.74	99.59	2.60	0.12	0.77
76.34	74.56	26.04	3.83	99.72	2.61	0.12	0.62
76.41	72.95	25.31	3.94	99.68	2.62	0.12	0.62
76.47	71.24	24.52	4.08	100.06	2.64	0.11	0.62
76.54	70.35	24.12	4.13	99.72	2.64	0.11	0.62
76.62	69.88	23.91	4.14	98.98	2.64	0.11	0.62
76.69	70.01	24.02	4.06	97.43	2.63	0.11	0.62
76.77	69.88	24.01	3.99	95.78	2.63	0.11	0.62
76.81	69.91	24.05	3.94	94.71	2.62	0.11	0.62
76.89	69.98	24.05	3.94	94.72	2.62	0.11	0.62
76.94	70.04	24.04	3.95	95.09	2.62	0.11	0.62
77.02	70.01	24.00	3.96	95.12	2.62	0.11	0.62
77.06	69.38	23.74	3.98	94.49	2.63	0.11	0.62
77.14	68.40	23.30	4.04	94.12	2.63	0.11	0.62
77.20	67.83	23.04	4.08	93.89	2.64	0.11	0.62
77.27	68.02	23.08	4.08	94.25	2.64	0.11	0.62
77.34	69.54	23.71	3.98	94.27	2.63	0.11	0.62
77.40	70.99	24.30	3.90	94.73	2.62	0.11	0.62
77.47	72.57	24.91	3.85	95.94	2.61	0.11	0.62
77.54	73.77	25.28	3.89	98.42	2.62	0.12	0.62
77.62	75.00	25.67	3.93	100.86	2.62	0.12	0.62
77.66	76.58	26.23	3.92	102.95	2.62	0.12	0.62
77.74	77.61	26.59	3.92	104.14	2.62	0.12	0.62
77.79	78.31	26.82	3.92	105.22	2.62	0.12	0.62
77.87	78.34	26.76	3.97	106.13	2.62	0.12	0.62
77.95	78.55	26.78	3.98	106.72	2.63	0.12	0.62
77.99	79.21	27.08	3.92	106.16	2.62	0.12	0.62
78.07	79.84	27.36	3.85	105.27	2.61	0.12	0.62
78.12	80.03	27.44	3.83	104.98	2.61	0.12	0.62
78.20	80.16	27.44	3.84	105.28	2.61	0.12	0.62
78.28	80.41	27.50	3.84	105.68	2.61	0.12	0.62
78.32	82.34	28.35	3.70	105.03	2.59	0.12	0.77
78.40	82.59	28.42	3.70	105.06	2.59	0.13	0.78
78.44	80.95	27.66	3.82	105.70	2.61	0.12	0.62
78.52	77.90	26.23	4.09	107.28	2.64	0.12	0.62
78.60	76.17	25.40	4.26	108.34	2.66	0.12	0.62
78.65	76.21	25.40	4.27	108.37	2.66	0.12	0.62
78.73	76.19	25.36	4.27	108.26	2.66	0.12	0.62
78.77	76.40	25.38	4.32	109.53	2.66	0.12	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
78.85	77.09	25.54	4.38	111.94	2.67	0.12	0.62
78.90	82.53	27.68	4.13	114.43	2.64	0.12	0.62
78.98	84.74	28.39	4.18	118.64	2.65	0.14	0.65
79.03	91.10	31.03	3.88	120.25	2.61	0.13	0.63
79.11	92.96	31.74	3.82	121.19	2.61	0.14	0.66
79.17	96.15	33.17	3.60	119.50	2.58	0.14	0.80
79.24	92.55	31.55	3.81	120.16	2.61	0.14	0.65
79.30	85.56	28.43	4.30	122.36	2.66	0.13	0.63
79.38	80.12	26.44	4.67	123.48	2.70	0.12	0.62
79.44	77.15	25.38	4.79	121.58	2.71	0.12	0.62
79.50	77.56	25.51	4.55	115.97	2.68	0.12	0.62
79.56	78.10	25.74	4.28	110.18	2.66	0.12	0.62
79.64	78.42	25.98	4.11	106.71	2.64	0.12	0.62
79.70	78.67	26.08	4.07	106.21	2.64	0.12	0.62
79.76	78.92	26.07	4.15	108.21	2.64	0.12	0.62
79.82	78.76	25.88	4.28	110.86	2.66	0.12	0.62
79.91	78.16	25.59	4.41	112.84	2.67	0.12	0.62
79.97	77.31	25.28	4.50	113.74	2.68	0.12	0.62
80.02	76.43	24.95	4.56	113.79	2.69	0.12	0.62
80.08	75.83	24.72	4.58	113.31	2.69	0.12	0.62
80.16	75.42	24.56	4.59	112.68	2.69	0.12	0.62
80.21	75.35	24.52	4.57	112.08	2.69	0.12	0.62
80.28	75.61	24.59	4.54	111.54	2.68	0.12	0.62
80.34	76.24	24.79	4.48	111.04	2.68	0.12	0.62
80.42	77.06	25.05	4.41	110.43	2.67	0.12	0.62
80.48	77.41	25.15	4.38	110.27	2.67	0.12	0.62
80.54	77.12	25.04	4.40	110.16	2.67	0.12	0.62
80.62	76.65	24.85	4.42	109.94	2.67	0.12	0.62
80.68	76.14	24.65	4.44	109.41	2.67	0.12	0.62
80.74	75.82	24.53	4.42	108.48	2.67	0.12	0.62
80.81	75.51	24.40	4.40	107.26	2.67	0.12	0.62
80.87	75.22	24.28	4.36	105.84	2.67	0.12	0.62
80.94	74.59	24.04	4.34	104.44	2.66	0.12	0.62
81.01	73.68	23.71	4.36	103.42	2.67	0.12	0.62
81.07	72.92	23.43	4.38	102.69	2.67	0.12	0.62
81.14	72.44	23.25	4.40	102.39	2.67	0.12	0.62
81.21	72.03	23.09	4.39	101.31	2.67	0.11	0.62
81.28	71.31	22.82	4.37	99.63	2.67	0.11	0.62
81.34	70.45	22.51	4.37	98.30	2.67	0.11	0.62
81.39	69.66	22.22	4.44	98.58	2.67	0.11	0.62
81.46	69.16	22.03	4.55	100.15	2.68	0.11	0.62
81.53	69.03	21.97	4.62	101.41	2.69	0.11	0.62
81.60	68.18	21.66	4.74	102.66	2.70	0.11	0.62
81.66	68.12	21.63	4.76	103.03	2.71	0.11	0.62
81.73	67.87	21.52	4.81	103.57	2.71	0.11	0.62
81.79	68.88	21.85	4.73	103.41	2.70	0.11	0.62
81.86	69.24	21.96	4.71	103.34	2.70	0.11	0.62
81.92	69.84	22.15	4.64	102.82	2.69	0.11	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
81.98	70.25	22.27	4.59	102.25	2.69	0.11	0.62
82.06	70.43	22.31	4.57	101.95	2.69	0.11	0.62
82.11	71.00	22.49	4.51	101.54	2.68	0.11	0.62
82.18	71.44	22.63	4.48	101.39	2.68	0.11	0.62
82.25	72.17	22.86	4.33	99.01	2.66	0.11	0.62
82.31	72.39	23.07	4.06	93.58	2.63	0.11	0.62
82.38	72.64	23.40	3.81	89.15	2.61	0.11	0.62
82.44	72.95	23.58	3.72	87.74	2.60	0.11	0.76
82.51	73.40	23.60	3.84	90.50	2.61	0.11	0.62
82.58	73.81	23.64	3.91	92.42	2.62	0.11	0.62
82.64	73.94	23.57	3.98	93.88	2.63	0.11	0.62
82.71	73.88	23.46	4.06	95.23	2.63	0.11	0.62
82.77	74.13	23.48	4.11	96.56	2.64	0.11	0.62
82.84	74.70	23.62	4.15	98.07	2.64	0.12	0.62
82.91	75.33	23.79	4.18	99.36	2.65	0.12	0.62
82.97	75.70	23.89	4.19	100.02	2.65	0.12	0.62
83.04	74.76	23.53	4.26	100.13	2.66	0.12	0.62
83.10	73.02	22.92	4.36	100.01	2.67	0.11	0.62
83.17	70.62	22.10	4.53	100.06	2.68	0.11	0.62
83.23	68.66	21.42	4.68	100.16	2.70	0.11	0.62
83.30	67.30	20.95	4.79	100.41	2.71	0.11	0.62
83.36	66.13	20.54	4.89	100.34	2.72	0.11	0.62
83.43	65.47	20.30	4.93	100.08	2.72	0.11	0.62
83.50	65.20	20.19	4.92	99.25	2.72	0.11	0.62
83.56	65.35	20.23	4.87	98.44	2.71	0.11	0.62
83.62	66.18	20.49	4.80	98.31	2.71	0.11	0.62
83.69	68.03	21.10	4.65	98.04	2.69	0.11	0.62
83.76	69.64	21.62	4.56	98.56	2.69	0.11	0.62
83.82	71.00	22.06	4.51	99.47	2.68	0.11	0.62
83.89	71.57	22.24	4.75	105.60	2.70	0.11	0.62
83.95	73.18	22.76	5.18	117.80	2.74	0.12	0.62
84.02	77.48	24.17	5.49	132.60	2.77	0.12	0.62
84.08	86.43	27.14	5.32	144.41	2.76	0.13	0.62
84.15	100.91	31.95	4.60	146.98	2.69	0.15	0.66
84.22	114.97	37.47	3.65	136.68	2.59	0.17	0.82
84.28	125.15	42.81	2.79	119.50	2.47	0.18	0.83
84.34	130.20	45.72	2.43	110.95	2.41	0.18	0.83
84.41	134.47	46.95	2.50	117.24	2.42	0.19	0.83
84.48	138.33	47.28	2.83	133.85	2.48	0.21	0.84
84.55	140.74	47.36	3.10	146.64	2.52	0.22	0.85
84.61	141.39	47.72	3.03	144.66	2.51	0.22	0.85
84.68	141.11	48.86	2.59	126.73	2.44	0.21	0.84
84.74	148.39	54.06	1.99	107.75	2.32	0.19	0.84
84.81	167.00	64.78	1.54	99.81	2.17	0.21	0.85
84.87	199.30	83.15	1.30	108.48	2.00	0.25	0.86
84.94	236.04	106.88	1.15	123.26	1.80	0.28	0.82
85.01	269.29	130.49	1.00	130.49	1.64	0.52	0.86
85.07	300.87	150.66	1.00	150.66	1.56	0.89	0.88

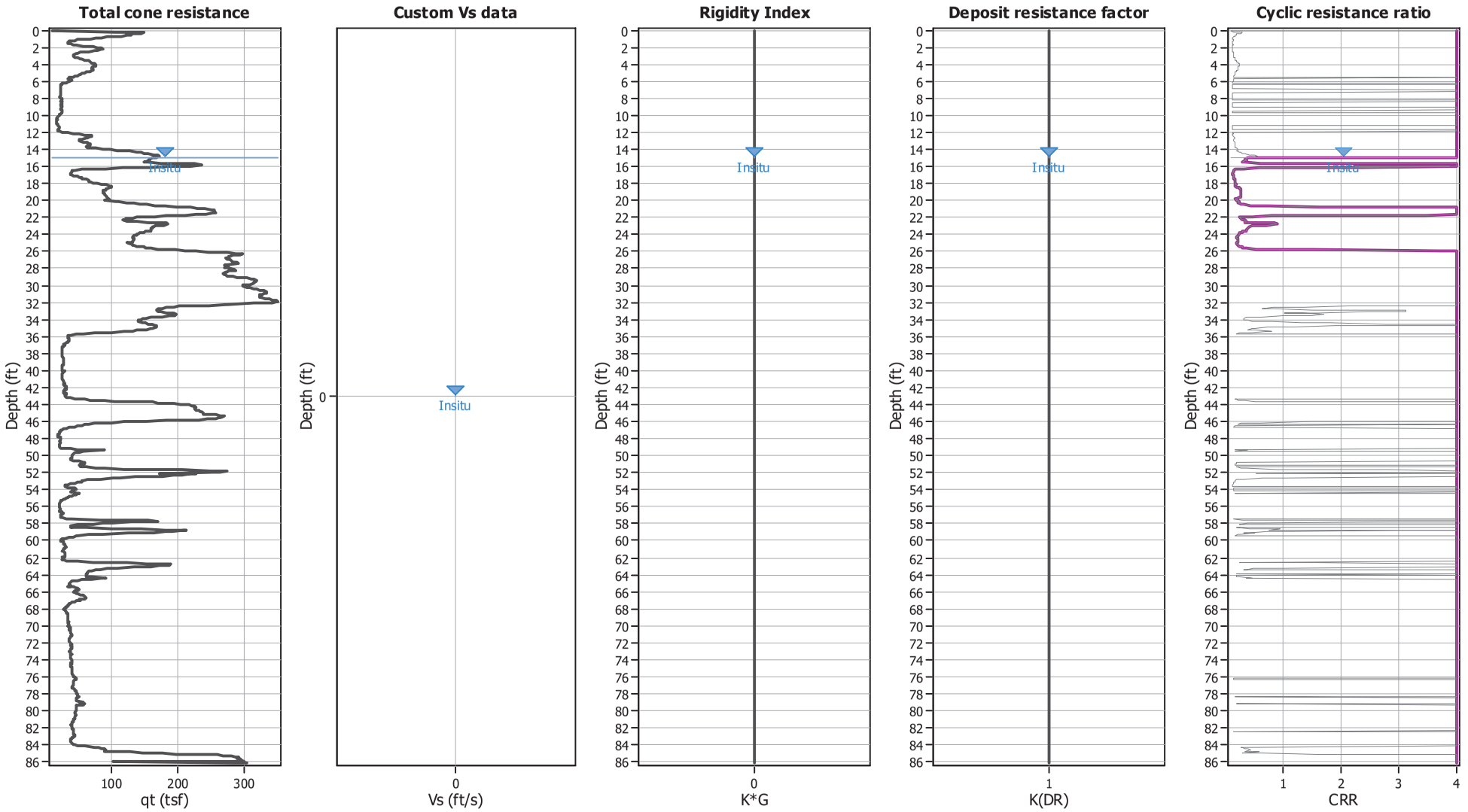
:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
85.13	331.15	171.07	1.00	171.07	1.48	0.91	0.92
85.20	357.14	189.09	1.00	189.09	1.42	0.92	0.95
85.27	377.40	202.94	1.00	202.94	1.38	0.93	0.95
85.33	389.58	209.19	1.00	209.19	1.39	0.94	0.96
85.39	400.26	213.77	1.00	213.77	1.40	0.94	0.97
85.46	404.72	214.29	1.00	214.29	1.42	0.94	0.97
85.53	406.65	212.81	1.00	212.81	1.45	0.94	0.97
85.60	408.14	211.21	1.00	211.21	1.48	0.94	0.97
85.66	410.76	212.17	1.00	212.17	1.48	0.94	0.97
85.73	412.46	224.10	1.00	224.10	1.35	0.95	0.97
85.79	412.62	241.17	1.00	241.17	1.17	0.96	0.97
85.86	414.30	134.02	54.25	7270.68	4.06	0.87	9.57
85.93	328.97	106.03	54.25	5752.20	4.06	0.84	7.57
85.99	322.81	103.99	54.25	5641.28	4.06	0.32	7.43
86.05	325.00	104.68	54.25	5678.64	4.06	0.83	7.48
86.12	415.19	134.17	54.25	7278.49	4.06	0.87	9.58

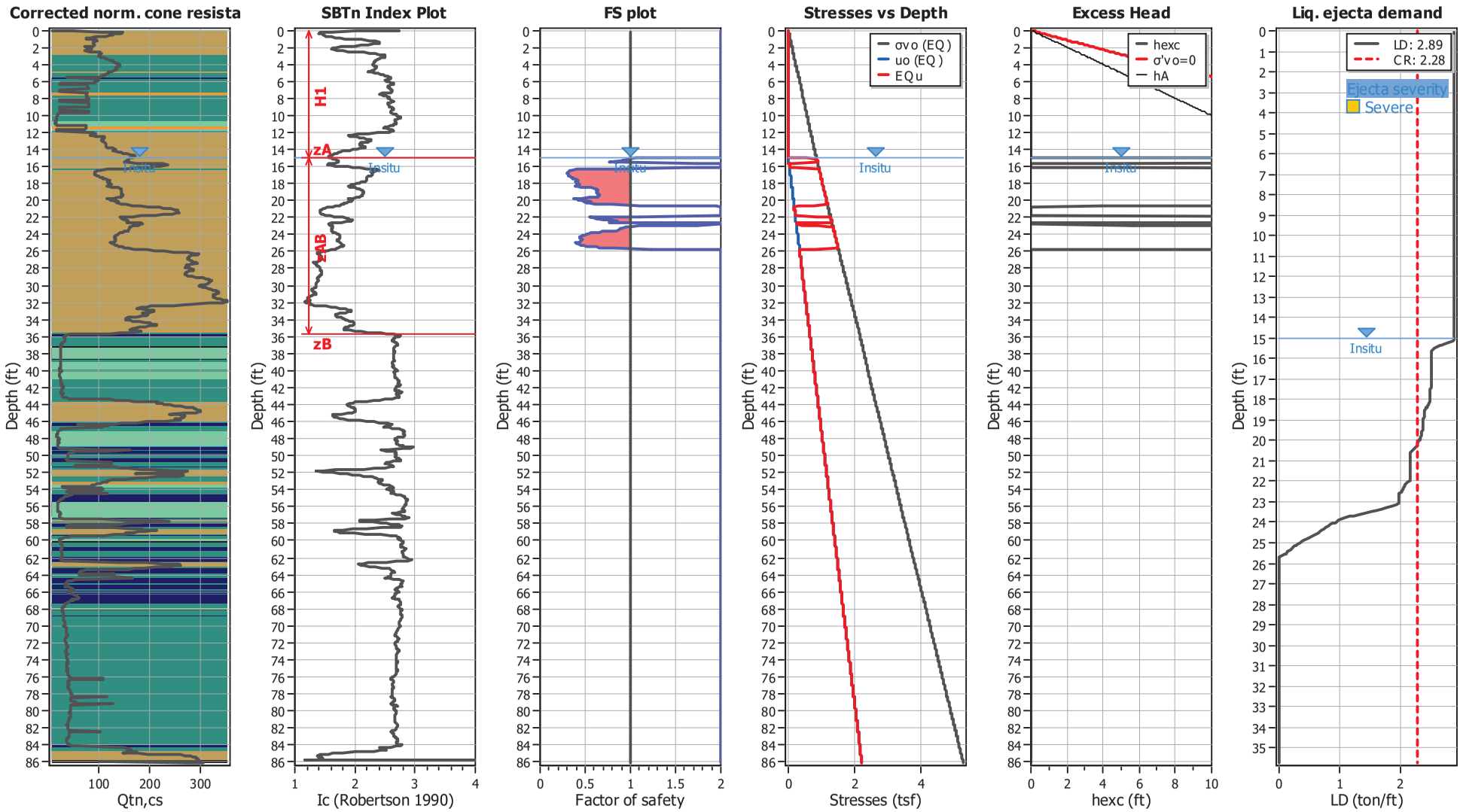
Abbreviations

q_t:	Total cone resistance
K_c:	Cone resistance correction factor due to fines
$Q_{tn,cs}$:	Adjusted and corrected cone resistance due to fines
I_c:	Soil behavior type index
$S_{u(liq)}/\sigma'_v$:	Calculated liquefied undrained strength ratio
$S_{u(peak)}/\sigma'_v$:	Calculated peak undrained strength ratio

Aging Calculation Estimation



Ejecta Severity Estimation



NOVA Services, Inc.
4373 Viewridge Avenue, Suite B
San Diego, CA

LIQUEFACTION ANALYSIS REPORT

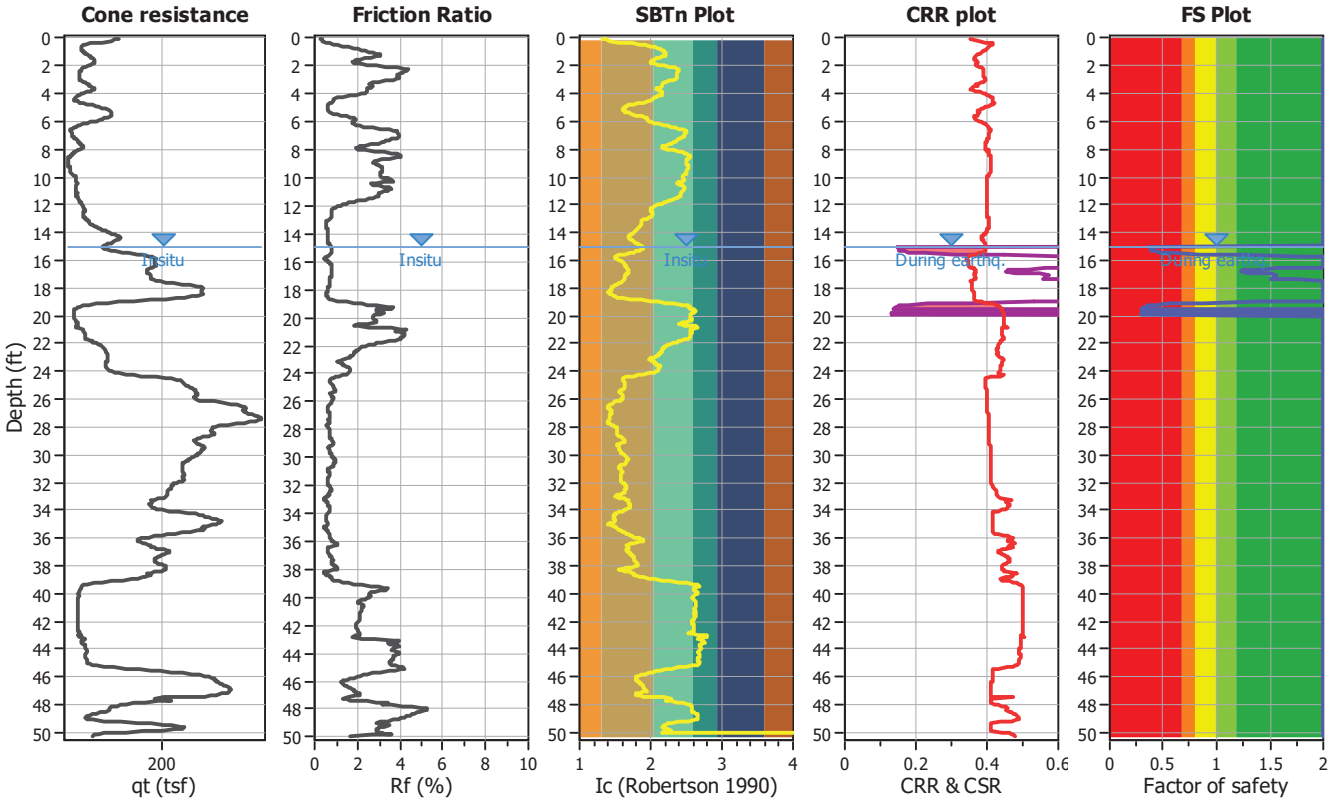
Project title : Bunker Hill Multi-Dwelling Units

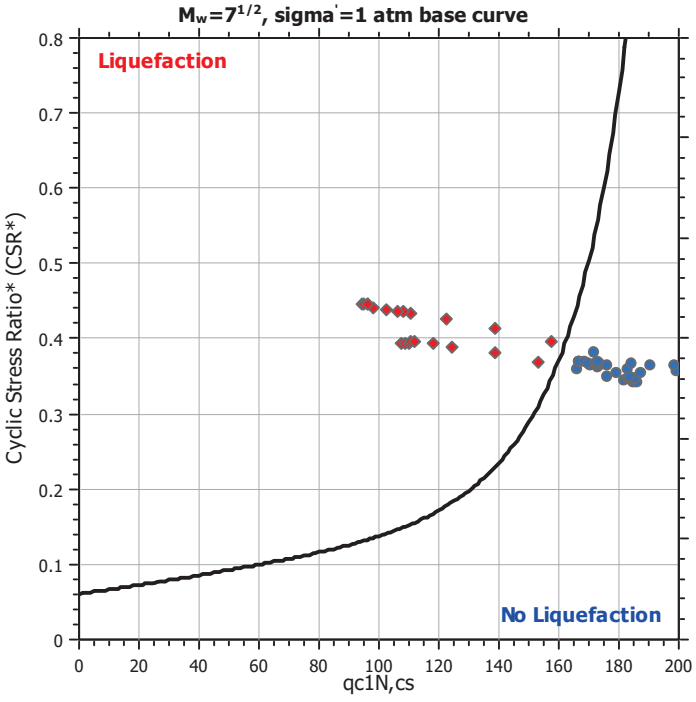
Location : Bunker Hill Street and Revere Avenue, San Diego, CA

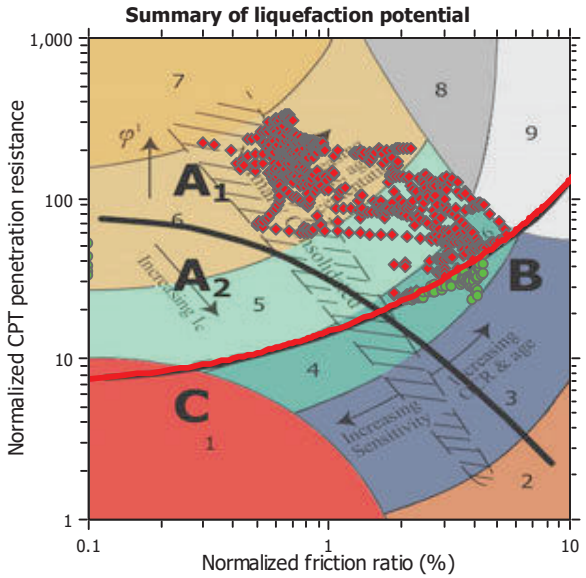
CPT file : CPT-2

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	15.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	15.00 ft	Fill height:	N/A	Limit depth applied:	Yes
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	20.00 ft
Earthquake magnitude M_w:	6.89	Ic cut-off value:	2.60	Trans. detect. applied:	No	MSF method:	Method
Peak ground acceleration:	0.68	Unit weight calculation:	Based on SBT	K_σ applied:	No		

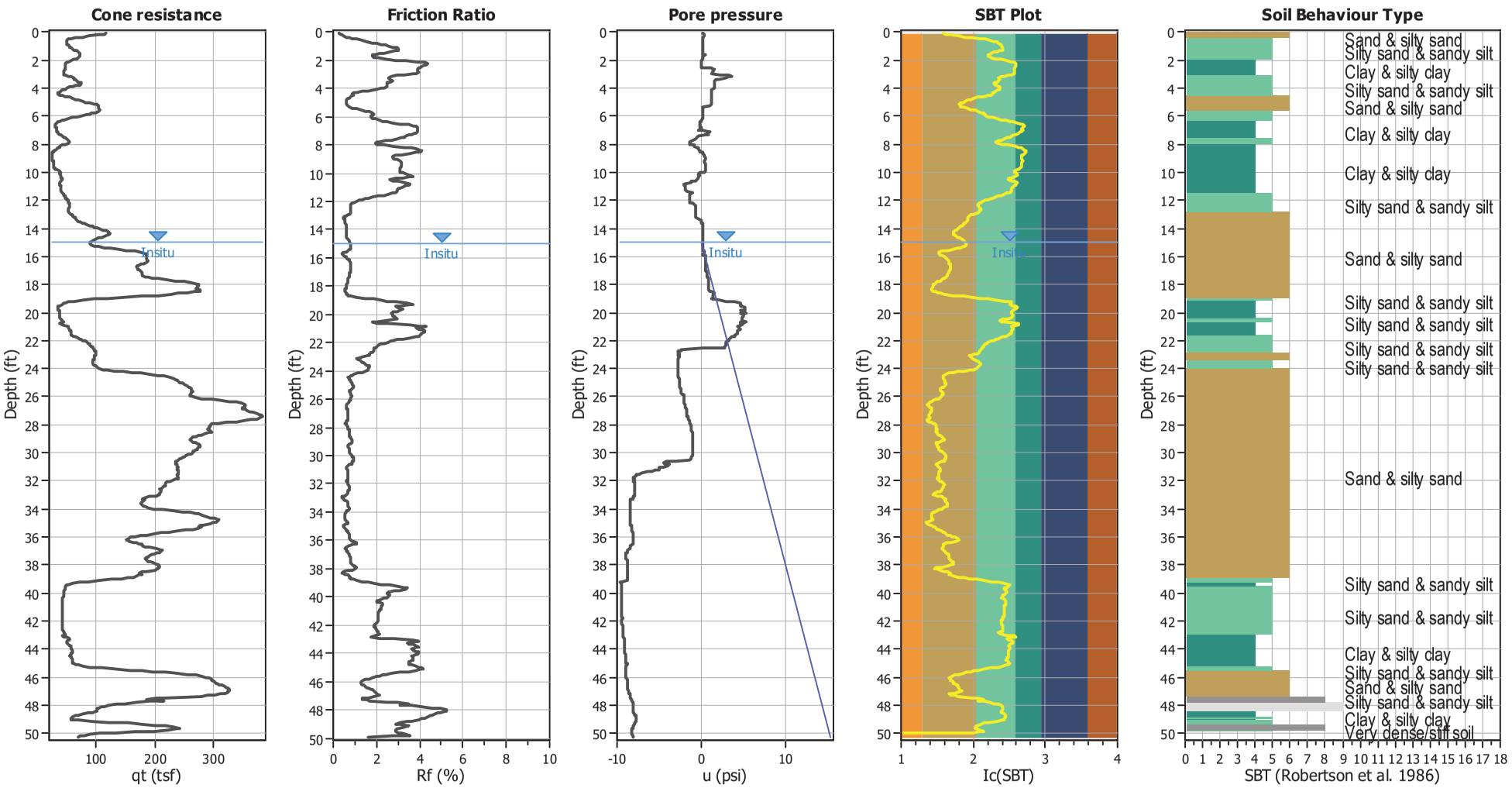






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



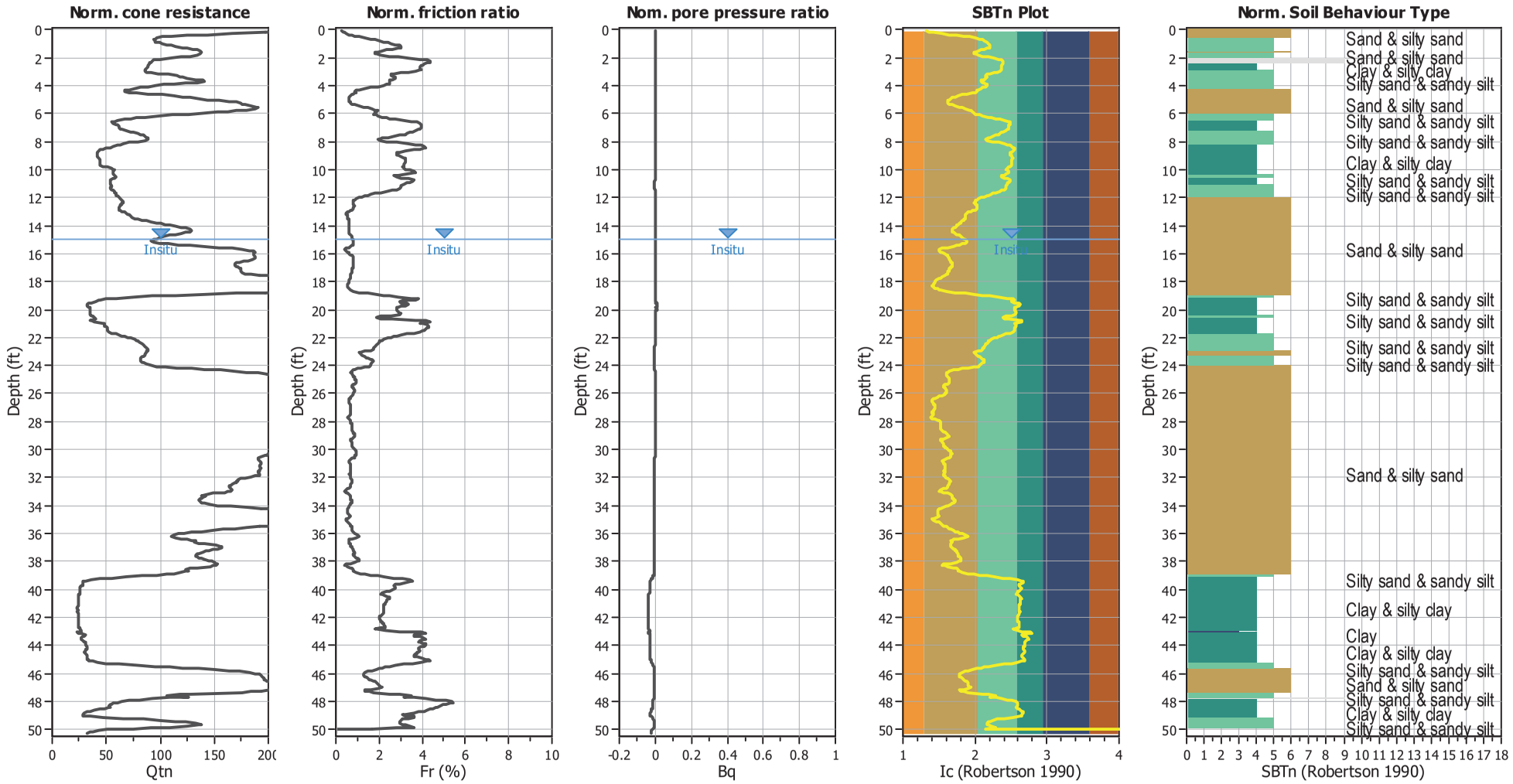
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	20.00 ft

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



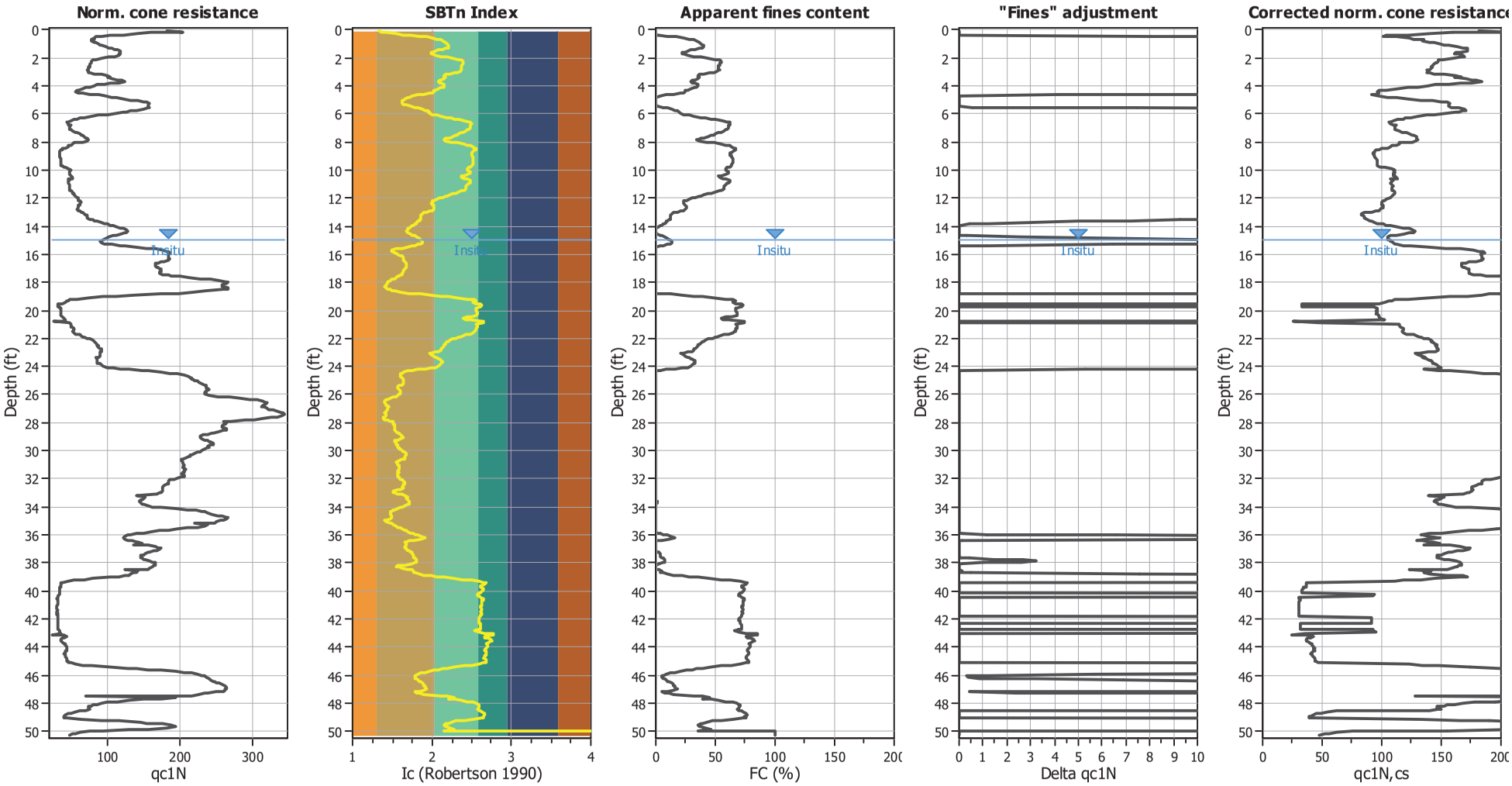
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	20.00 ft

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

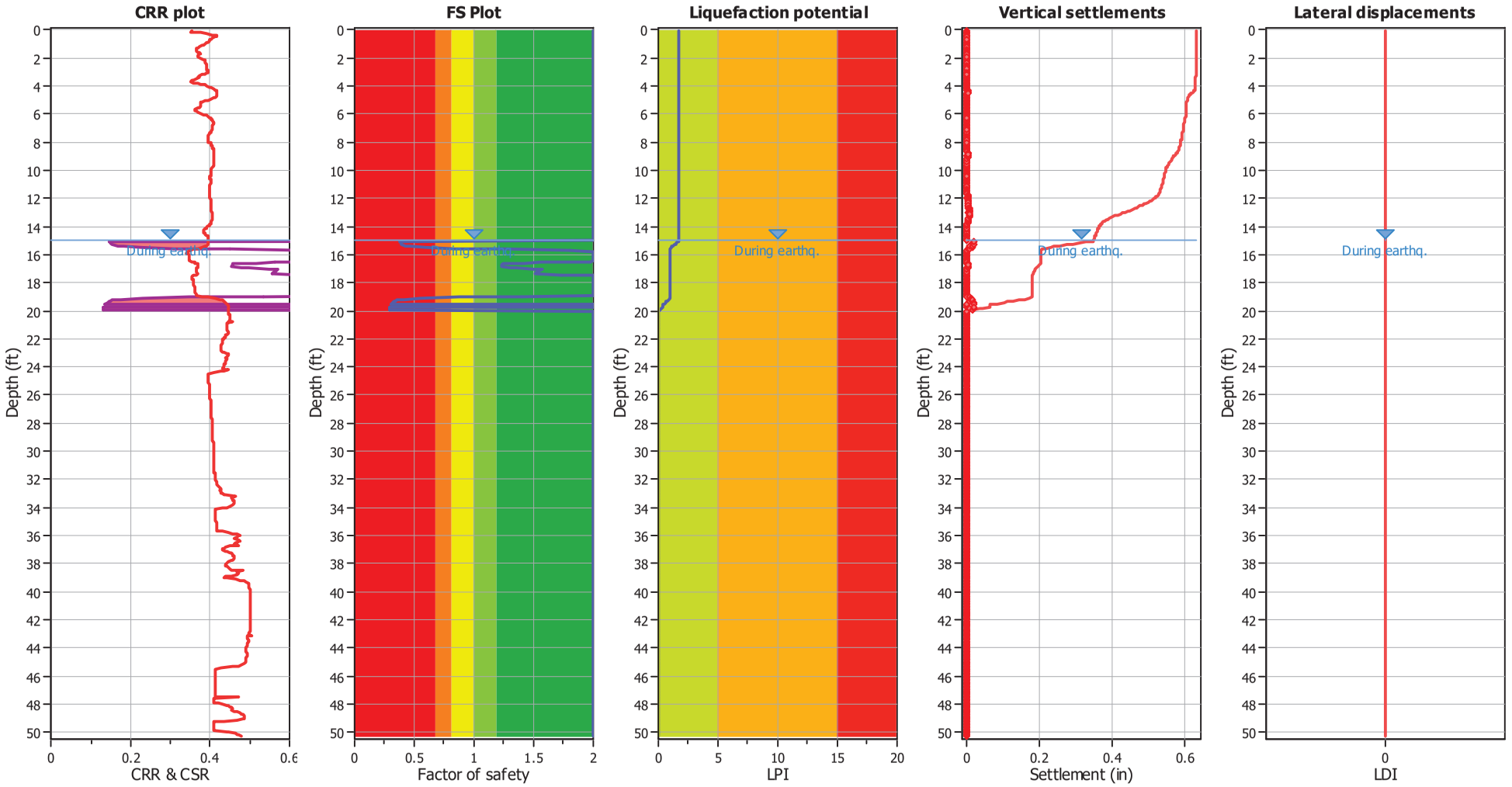
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	20.00 ft

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	20.00 ft

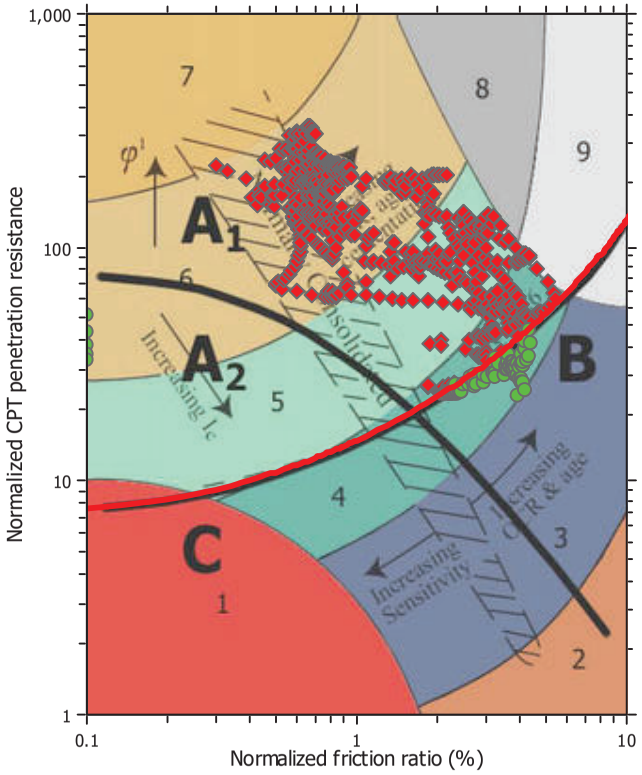
F.S. color scheme

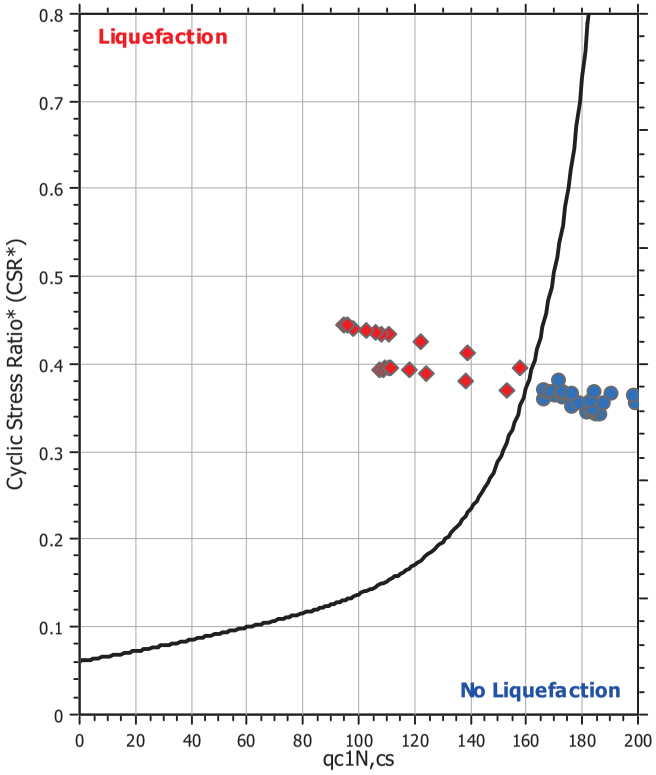
- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

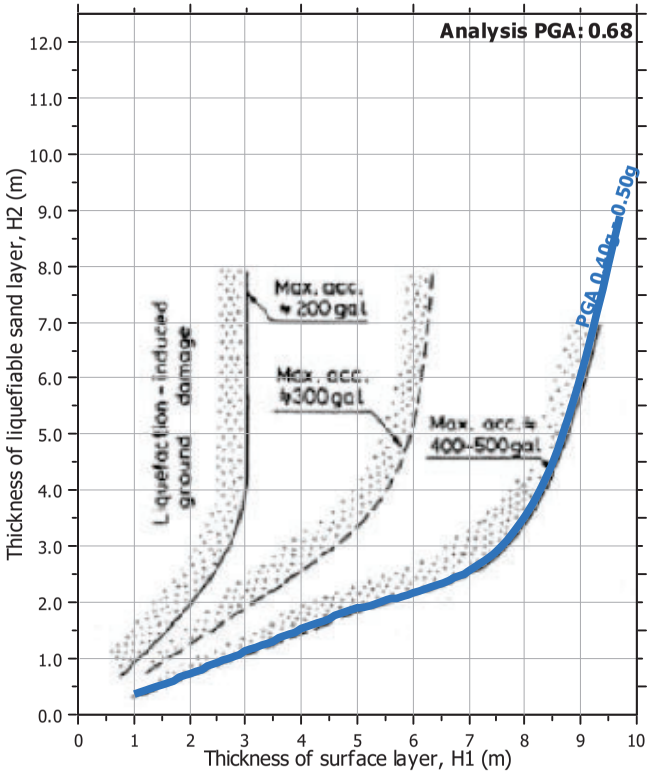
LPI color scheme

- Very high risk
- High risk
- Low risk

Liquefaction analysis summary plots



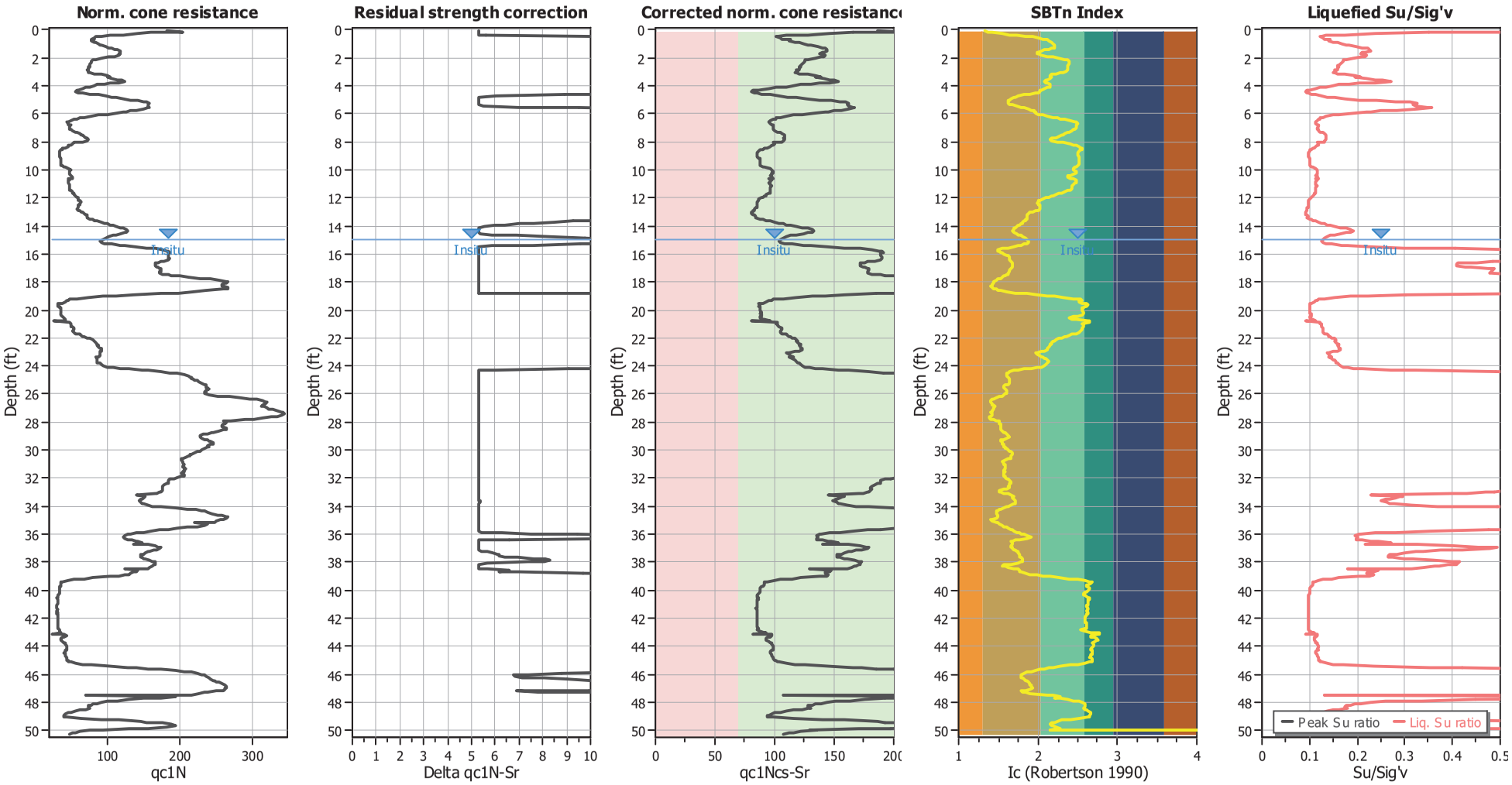




Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	20.00 ft

Check for strength loss plots (Idriss & Boulanger (2008))



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	15.00 ft	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	No
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	No
Earthquake magnitude M_w:	6.89	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	Yes
Depth to water table (insitu):	15.00 ft	Fill height:	N/A	Limit depth:	20.00 ft

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.07	113.13	0.34	0.11	0.63	114.27
2	0.13	126.50	0.38	0.34	1.06	114.66
3	0.22	99.76	0.41	0.34	1.84	115.04
4	0.28	87.91	0.43	0.34	3.51	115.02
5	0.34	76.05	0.45	0.23	5.09	114.95
6	0.40	64.48	0.46	0.23	6.90	114.92
7	0.46	57.66	0.49	0.23	9.00	115.22
8	0.53	52.63	0.57	0.23	11.04	115.97
9	0.59	50.73	0.67	0.23	13.09	116.99
10	0.66	49.12	0.79	0.23	14.60	118.11
11	0.74	50.73	0.91	0.23	16.03	119.07
12	0.80	48.93	1.02	0.23	16.94	119.95
13	0.86	50.73	1.12	0.23	17.80	120.76
14	0.93	52.35	1.26	0.23	18.18	121.62
15	0.99	54.53	1.40	0.23	18.61	122.47
16	1.05	56.05	1.54	0.23	19.05	123.27
17	1.12	57.47	1.69	0.23	19.38	124.07
18	1.20	60.79	1.87	0.23	19.43	124.77
19	1.26	63.63	1.98	0.23	18.94	125.22
20	1.33	66.48	1.95	0.23	17.99	125.23
21	1.39	68.66	1.80	0.23	16.71	124.92
22	1.46	70.84	1.67	0.23	15.33	124.43
23	1.52	73.30	1.55	0.23	14.21	123.91
24	1.58	73.11	1.42	0.23	13.31	123.35
25	1.65	73.02	1.32	0.45	12.79	122.87
26	1.71	72.55	1.27	0.11	12.60	122.70
27	1.77	72.93	1.33	0.11	13.04	122.96
28	1.84	71.79	1.47	0.11	14.24	123.61
29	1.92	68.18	1.68	0.11	16.07	124.27
30	1.98	63.73	1.83	0.11	18.47	124.78
31	2.04	57.47	1.96	0.00	21.11	125.05
32	2.11	52.06	2.06	0.00	23.69	125.21
33	2.17	49.41	2.13	0.00	25.45	125.30
34	2.23	48.74	2.15	0.00	26.15	125.27
35	2.32	48.27	2.09	0.00	26.14	125.12
36	2.38	48.08	2.02	0.00	25.90	124.86
37	2.44	47.51	1.95	0.00	25.65	124.60
38	2.50	47.13	1.89	0.00	25.49	124.35
39	2.57	46.66	1.84	1.25	25.32	124.15
40	2.63	46.61	1.81	1.36	25.17	124.04
41	2.69	46.85	1.81	1.48	25.15	124.02
42	2.77	46.56	1.83	1.36	25.28	123.99
43	2.84	45.80	1.80	1.36	25.51	123.88
44	2.90	44.76	1.76	1.36	25.32	123.67
45	2.96	45.66	1.68	1.25	24.69	123.28
46	3.02	45.52	1.54	2.16	23.21	122.78
47	3.09	47.79	1.40	3.29	21.50	122.38
48	3.15	51.21	1.38	3.64	19.57	122.38

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	3.22	56.99	1.43	3.18	18.09	122.84
50	3.28	62.40	1.53	2.84	17.28	123.49
51	3.35	64.58	1.67	2.04	17.59	124.11
52	3.42	61.64	1.80	1.70	17.80	124.60
53	3.48	66.57	1.84	1.48	17.48	124.90
54	3.55	71.03	1.84	1.48	16.38	125.13
55	3.61	74.63	1.85	1.59	15.53	125.28
56	3.68	77.00	1.86	1.59	15.37	125.23
57	3.76	71.98	1.79	1.48	15.75	124.84
58	3.82	65.34	1.64	1.48	16.54	124.06
59	3.88	59.65	1.46	1.48	17.30	123.03
60	3.94	53.77	1.29	1.48	17.71	121.90
61	4.00	50.55	1.12	1.48	17.71	120.55
62	4.09	46.85	0.90	1.25	17.22	118.97
63	4.15	43.34	0.71	1.25	16.32	117.00
64	4.21	40.68	0.53	1.25	15.30	114.77
65	4.28	37.36	0.38	1.25	14.21	112.52
66	4.33	35.56	0.31	1.25	13.62	110.93
67	4.40	35.09	0.31	1.25	13.49	110.70
68	4.48	36.89	0.35	1.25	13.14	111.27
69	4.54	40.68	0.37	1.25	12.01	112.04
70	4.60	46.94	0.39	1.25	10.26	112.64
71	4.67	54.34	0.39	1.25	8.56	113.11
72	4.73	60.41	0.39	1.25	7.22	113.44
73	4.80	65.43	0.40	1.14	6.44	113.75
74	4.86	70.18	0.41	1.25	5.88	114.21
75	4.93	75.87	0.44	1.14	5.41	114.84
76	4.99	82.60	0.47	1.25	5.04	115.65
77	5.05	89.52	0.52	1.14	4.74	116.59
78	5.12	96.73	0.59	1.14	4.62	117.61
79	5.19	101.47	0.67	1.14	4.61	118.46
80	5.25	104.03	0.71	1.02	4.73	119.07
81	5.32	103.98	0.75	0.23	5.00	119.62
82	5.38	103.94	0.83	0.23	5.69	120.74
83	5.47	104.98	1.09	0.23	6.72	122.35
84	5.54	107.25	1.39	0.11	7.78	123.89
85	5.60	107.92	1.59	0.11	8.78	124.99
86	5.67	104.41	1.75	0.11	9.77	125.57
87	5.73	98.25	1.83	0.11	10.81	125.75
88	5.80	91.99	1.81	0.11	11.55	125.50
89	5.87	87.72	1.67	0.11	11.85	125.00
90	5.91	85.63	1.56	0.11	11.90	124.15
91	5.98	77.76	1.34	0.11	12.33	123.15
92	6.05	67.71	1.20	0.11	13.17	121.97
93	6.12	60.03	1.09	0.11	14.56	120.95
94	6.19	51.87	1.01	0.11	16.27	120.10
95	6.26	45.42	0.97	0.00	18.39	119.46
96	6.33	40.87	0.95	0.00	20.23	119.06

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	6.37	38.88	0.95	0.00	22.03	118.84
98	6.43	35.47	0.96	-0.11	24.09	118.82
99	6.50	32.34	1.02	-0.11	26.67	118.89
100	6.57	30.16	1.07	-0.11	28.94	119.04
101	6.63	29.30	1.10	-0.11	30.26	119.29
102	6.70	29.87	1.16	-0.11	30.56	119.67
103	6.77	31.39	1.23	-0.11	30.13	120.14
104	6.84	33.10	1.27	0.00	29.69	120.49
105	6.90	33.19	1.29	0.00	29.58	120.67
106	6.97	32.81	1.31	-0.34	29.62	120.71
107	7.04	33.24	1.29	0.11	29.57	120.71
108	7.12	33.29	1.29	0.91	29.18	120.72
109	7.15	34.14	1.30	1.02	28.50	120.86
110	7.22	36.32	1.33	0.68	27.36	121.10
111	7.29	38.79	1.35	0.80	26.07	121.43
112	7.36	41.63	1.39	0.57	25.06	121.80
113	7.43	43.91	1.45	-0.34	24.20	122.16
114	7.50	46.18	1.48	-0.57	23.41	122.35
115	7.57	47.79	1.44	-0.57	22.30	122.27
116	7.64	49.98	1.34	-0.68	20.94	121.88
117	7.71	51.49	1.21	-1.02	19.56	121.39
118	7.75	52.82	1.14	-1.14	18.28	120.90
119	7.81	54.81	1.06	-1.36	17.48	120.64
120	7.89	55.48	1.06	-1.36	17.24	120.49
121	7.95	53.77	1.07	-1.48	18.01	120.51
122	8.03	49.50	1.11	-1.48	20.36	120.51
123	8.08	40.02	1.17	-0.87	23.30	120.66
124	8.15	38.69	1.27	-0.87	26.48	120.86
125	8.22	36.60	1.34	-0.46	28.34	121.13
126	8.29	34.61	1.38	-0.34	29.94	121.17
127	8.36	33.29	1.35	-0.34	31.15	120.92
128	8.43	31.29	1.28	-0.23	32.16	120.35
129	8.50	28.45	1.16	-0.11	32.99	119.64
130	8.54	27.41	1.08	-0.11	33.26	118.68
131	8.61	25.98	0.91	0.11	32.74	117.72
132	8.68	25.60	0.80	0.23	31.80	116.71
133	8.74	25.56	0.74	0.34	30.94	116.02
134	8.81	25.41	0.69	0.34	30.44	115.64
135	8.88	25.51	0.69	0.34	30.31	115.57
136	8.96	25.79	0.72	0.45	30.44	115.71
137	8.99	25.89	0.73	0.45	30.76	115.99
138	9.06	25.98	0.77	0.45	31.23	116.42
139	9.14	26.65	0.84	0.34	31.63	116.90
140	9.20	27.22	0.88	0.34	31.69	117.27
141	9.27	27.69	0.88	0.34	31.53	117.44
142	9.34	28.07	0.89	0.45	31.32	117.50
143	9.41	28.35	0.89	0.45	31.28	117.58
144	9.47	28.35	0.90	0.57	31.26	117.62

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	9.54	28.54	0.90	0.45	31.26	117.61
146	9.61	28.54	0.88	0.57	31.15	117.58
147	9.65	28.73	0.88	0.45	31.05	117.59
148	9.71	29.02	0.90	0.57	30.73	117.81
149	9.79	30.73	0.94	0.57	30.19	118.33
150	9.85	33.29	1.04	0.57	29.01	119.13
151	9.92	37.55	1.14	0.57	28.07	120.00
152	9.99	39.64	1.24	0.34	27.99	120.73
153	10.06	38.69	1.34	-0.11	28.54	121.30
154	10.13	39.45	1.41	-0.34	29.49	121.63
155	10.20	38.50	1.44	-0.34	29.76	121.83
156	10.24	39.26	1.44	-0.23	29.55	121.69
157	10.31	39.45	1.33	-0.34	28.00	121.02
158	10.38	40.40	1.05	-0.34	26.41	120.37
159	10.45	41.82	1.09	-0.34	25.27	120.05
160	10.52	42.58	1.15	-0.46	25.56	120.50
161	10.59	42.58	1.24	-0.80	27.06	120.87
162	10.65	38.03	1.31	-1.27	28.53	121.26
163	10.72	39.35	1.39	-1.27	30.00	121.49
164	10.76	38.69	1.41	-1.27	30.05	121.58
165	10.84	38.64	1.36	-2.04	29.99	121.40
166	10.91	38.64	1.29	-2.04	29.60	121.13
167	10.98	38.60	1.26	-1.93	28.89	120.92
168	11.05	40.30	1.23	-1.93	28.15	120.85
169	11.12	41.44	1.23	-1.93	27.49	120.85
170	11.19	41.63	1.23	-1.93	27.44	120.84
171	11.26	40.68	1.22	-1.93	27.59	120.78
172	11.29	40.68	1.21	-1.93	27.64	120.66
173	11.36	40.68	1.18	-1.70	27.36	120.55
174	11.43	41.35	1.16	-1.02	26.63	120.39
175	11.50	42.96	1.11	-1.14	25.54	120.17
176	11.57	44.38	1.05	-1.36	24.03	119.76
177	11.63	45.90	0.94	-1.36	22.44	119.15
178	11.71	46.94	0.83	-1.36	20.94	118.39
179	11.78	47.32	0.75	-1.36	19.70	117.69
180	11.84	48.17	0.70	-1.36	18.68	117.10
181	11.91	49.12	0.65	-1.36	17.77	116.65
182	11.95	50.17	0.61	-1.36	16.65	116.12
183	12.01	52.06	0.55	-1.36	15.63	115.51
184	12.08	52.16	0.49	-1.36	14.51	114.77
185	12.15	53.58	0.45	-1.36	13.71	114.27
186	12.22	55.29	0.44	-1.14	13.11	114.01
187	12.29	55.76	0.43	-0.91	12.87	113.95
188	12.36	55.67	0.43	-0.80	12.83	113.90
189	12.43	55.48	0.43	-0.80	13.00	113.91
190	12.50	54.53	0.44	-0.80	13.25	113.96
191	12.53	54.15	0.44	-0.80	13.56	114.04
192	12.60	53.48	0.45	-0.80	13.74	114.07

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	12.67	53.48	0.44	-0.80	13.81	113.97
194	12.74	53.01	0.43	-0.80	13.70	113.75
195	12.81	53.01	0.41	-0.80	13.51	113.51
196	12.88	53.67	0.40	-0.80	13.13	113.34
197	12.96	55.38	0.39	-0.80	12.29	112.92
198	13.03	57.85	0.33	-0.80	11.29	112.27
199	13.06	59.08	0.30	-0.68	10.31	111.63
200	13.13	61.26	0.30	-0.68	9.84	111.53
201	13.20	63.06	0.31	-0.68	9.62	111.84
202	13.27	64.58	0.32	-0.68	9.55	112.26
203	13.34	65.91	0.34	-0.34	9.64	112.65
204	13.41	65.62	0.36	0.00	9.60	113.09
205	13.48	69.42	0.38	0.00	9.46	113.59
206	13.55	72.64	0.41	0.00	9.17	114.21
207	13.61	76.15	0.44	0.00	8.94	114.87
208	13.67	80.04	0.47	0.11	8.68	115.54
209	13.74	84.59	0.51	0.11	8.39	116.19
210	13.80	89.05	0.55	0.11	8.06	116.83
211	13.88	94.45	0.58	0.11	7.78	117.33
212	13.92	97.11	0.60	0.11	7.47	117.77
213	13.98	101.85	0.63	0.11	7.18	118.14
214	14.05	106.78	0.65	0.11	6.81	118.54
215	14.13	112.19	0.68	0.11	6.45	118.90
216	14.20	117.40	0.69	0.11	6.13	119.20
217	14.27	121.10	0.71	0.11	5.90	119.43
218	14.34	123.28	0.72	0.11	5.78	119.57
219	14.37	123.66	0.72	0.11	5.78	119.62
220	14.44	122.43	0.72	0.23	5.92	119.58
221	14.51	119.01	0.72	0.11	6.18	119.47
222	14.58	114.56	0.71	0.11	6.59	119.30
223	14.65	108.96	0.70	0.11	7.10	119.12
224	14.72	103.56	0.70	0.11	7.70	118.97
225	14.79	98.81	0.70	0.11	8.30	118.86
226	14.86	95.02	0.70	0.11	8.86	118.77
227	14.93	91.89	0.70	0.11	9.27	118.70
228	14.97	90.75	0.70	0.23	9.58	118.63
229	15.04	88.67	0.70	0.23	9.83	118.64
230	15.11	88.10	0.71	0.23	10.02	118.79
231	15.17	89.90	0.74	0.23	9.96	119.15
232	15.24	94.83	0.79	0.23	9.55	119.70
233	15.31	103.27	0.84	0.23	8.80	120.39
234	15.38	115.31	0.91	0.23	8.01	121.00
235	15.42	122.62	0.93	0.23	7.11	121.60
236	15.49	137.51	0.98	0.23	6.11	121.99
237	15.56	152.68	0.97	0.23	4.67	121.66
238	15.63	166.62	0.72	0.34	3.50	121.19
239	15.70	177.05	0.75	0.34	2.77	120.89
240	15.77	183.02	0.82	0.34	2.75	121.58

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	15.84	186.53	0.91	0.23	2.94	122.34
242	15.91	187.86	1.00	0.23	3.22	122.97
243	15.95	185.77	1.06	0.57	3.61	123.62
244	16.05	185.02	1.19	0.57	3.97	124.14
245	16.08	185.58	1.25	0.57	4.34	124.74
246	16.16	185.96	1.36	0.57	4.63	125.23
247	16.22	186.53	1.45	0.57	4.90	125.67
248	16.29	187.10	1.50	0.57	5.04	125.94
249	16.36	187.96	1.51	0.57	5.11	126.02
250	16.43	186.44	1.50	0.57	5.19	125.95
251	16.50	181.70	1.47	0.57	5.34	125.76
252	16.57	175.72	1.43	0.57	5.50	125.54
253	16.61	173.16	1.41	0.45	5.63	125.30
254	16.68	169.46	1.36	0.68	5.69	125.16
255	16.75	169.46	1.37	0.45	5.74	125.08
256	16.82	169.46	1.37	0.45	5.71	125.11
257	16.89	171.45	1.37	0.45	5.67	125.15
258	16.93	172.78	1.38	0.57	5.53	125.18
259	17.00	175.91	1.37	0.57	5.38	125.15
260	17.07	177.24	1.34	0.68	5.21	125.06
261	17.14	177.14	1.31	0.68	5.07	124.88
262	17.21	177.05	1.27	0.68	4.97	124.71
263	17.28	177.05	1.26	0.68	4.91	124.60
264	17.35	176.95	1.26	0.68	4.82	124.59
265	17.41	180.84	1.26	0.68	4.67	124.72
266	17.49	188.15	1.30	0.68	4.48	124.94
267	17.52	192.98	1.33	0.80	4.24	125.33
268	17.59	205.22	1.41	0.80	3.96	125.82
269	17.66	219.72	1.51	0.80	3.60	126.43
270	17.73	236.60	1.60	0.80	3.21	126.98
271	17.80	251.30	1.65	0.80	2.81	127.33
272	17.87	264.01	1.65	0.80	2.41	127.45
273	17.94	273.68	1.60	0.80	2.12	127.46
274	18.01	276.05	1.60	0.80	1.99	127.45
275	18.05	275.39	1.62	0.80	1.98	127.40
276	18.12	272.92	1.57	0.80	2.03	127.36
277	18.19	269.70	1.59	0.91	1.89	126.94
278	18.26	269.42	1.36	0.91	1.76	126.66
279	18.33	271.79	1.40	0.91	1.62	126.52
280	18.39	277.48	1.50	0.91	1.74	126.96
281	18.46	278.61	1.61	1.02	2.00	127.48
282	18.53	271.98	1.73	1.14	2.49	127.72
283	18.58	247.13	1.72	1.48	2.82	127.57
284	18.64	246.09	1.58	1.48	3.29	127.33
285	18.71	228.45	1.67	1.36	4.31	127.93
286	18.78	207.02	2.24	1.36	6.41	129.03
287	18.84	181.41	2.68	1.36	9.48	129.88
288	18.91	142.63	2.86	1.36	12.69	129.74

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
289	18.98	116.45	2.59	1.31	16.05	128.93
290	19.05	97.49	2.36	1.25	19.18	127.79
291	19.12	77.10	2.20	2.27	23.23	126.80
292	19.19	60.31	2.15	2.95	28.34	125.89
293	19.26	49.50	2.04	3.98	31.95	124.83
294	19.32	47.32	1.66	4.66	32.81	123.59
295	19.36	45.90	1.40	4.66	31.45	122.06
296	19.43	43.24	1.15	4.66	31.47	120.90
297	19.50	38.88	1.12	4.77	33.28	120.12
298	19.57	34.23	1.13	4.54	35.71	119.91
299	19.64	34.28	1.14	5.11	36.90	119.71
300	19.71	34.33	1.08	5.11	36.01	119.49
301	19.79	35.66	1.02	5.11	34.89	119.25
302	19.82	36.32	1.01	5.11	33.75	119.15
303	19.89	37.36	1.01	4.66	33.35	119.26
304	19.96	37.65	1.05	5.00	32.98	119.26
305	20.03	37.65	1.00	5.23	33.23	119.37
306	20.09	37.27	1.05	4.66	33.24	119.35
307	20.16	37.60	1.04	4.89	33.67	119.49
308	20.23	37.17	1.07	4.89	33.88	119.63
309	20.30	37.55	1.11	4.89	34.04	119.88
310	20.37	38.69	1.14	4.77	33.38	120.00
311	20.43	40.21	1.09	4.77	30.96	119.16
312	20.50	40.87	0.72	4.77	27.96	117.97
313	20.56	42.77	0.67	4.77	26.35	117.49
314	20.64	44.00	0.91	5.23	27.16	118.52
315	20.67	44.29	1.04	4.66	29.70	120.34
316	20.74	44.76	1.40	4.89	36.65	121.52
317	20.81	26.84	1.69	4.66	37.82	122.97
318	20.88	50.17	1.86	4.77	37.63	123.93
319	20.95	52.35	1.98	4.32	32.96	124.89
320	21.02	53.39	2.09	4.32	33.25	125.37
321	21.08	53.30	2.22	4.43	33.69	125.75
322	21.16	53.96	2.29	4.54	34.02	126.04
323	21.22	54.72	2.34	4.54	33.75	126.25
324	21.29	56.71	2.37	4.20	33.41	126.37
325	21.33	56.99	2.37	4.20	32.97	126.38
326	21.39	56.99	2.31	4.20	32.82	126.23
327	21.47	56.14	2.24	4.20	32.74	126.08
328	21.54	56.05	2.24	4.20	32.54	126.00
329	21.61	57.28	2.23	3.98	31.70	125.98
330	21.68	60.41	2.17	3.86	29.80	125.95
331	21.74	66.19	2.09	3.64	27.66	125.87
332	21.82	69.42	2.01	3.41	25.81	125.79
333	21.88	72.07	1.98	3.29	24.71	125.74
334	21.92	73.78	1.98	3.29	23.82	125.78
335	21.99	76.91	1.98	3.18	22.71	125.83
336	22.05	81.93	1.93	3.07	21.35	125.80

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
337	22.13	85.63	1.86	2.95	20.10	125.68
338	22.20	87.62	1.81	2.84	19.31	125.54
339	22.27	88.19	1.78	2.84	18.75	125.47
340	22.34	90.75	1.77	2.84	18.28	125.47
341	22.41	93.12	1.77	2.73	17.82	125.52
342	22.47	94.36	1.77	2.73	17.56	125.55
343	22.51	94.55	1.77	2.73	17.49	125.56
344	22.57	94.36	1.78	0.11	17.31	125.54
345	22.65	96.44	1.75	-2.39	16.94	125.45
346	22.71	97.96	1.69	-2.50	16.46	125.37
347	22.78	99.38	1.69	-2.73	16.15	125.32
348	22.86	99.95	1.69	-2.73	16.04	125.32
349	22.92	99.57	1.68	-2.61	15.42	124.80
350	23.00	99.19	1.34	-2.73	14.18	123.63
351	23.07	98.34	1.00	-2.61	12.82	122.26
352	23.10	97.87	1.00	-2.73	12.34	121.69
353	23.18	97.87	1.10	-2.61	12.86	122.15
354	23.25	97.58	1.20	-2.73	13.47	122.68
355	23.31	97.39	1.25	-2.78	14.18	122.99
356	23.39	92.74	1.28	-2.78	14.63	123.16
357	23.45	94.17	1.30	-2.78	15.17	123.35
358	23.52	93.41	1.37	-2.84	15.53	123.75
359	23.59	94.26	1.49	-2.84	16.08	124.15
360	23.62	93.50	1.54	-2.84	16.53	124.56
361	23.69	94.36	1.62	-2.84	16.75	124.80
362	23.76	95.49	1.63	-2.84	16.53	124.90
363	23.83	98.06	1.59	-2.84	16.08	124.94
364	23.90	101.09	1.61	-2.84	15.64	125.10
365	23.96	104.22	1.69	-2.84	15.12	125.34
366	24.04	109.81	1.69	-2.84	14.11	125.49
367	24.11	119.49	1.62	-2.84	12.47	125.41
368	24.18	131.25	1.50	-2.84	10.54	125.18
369	24.24	144.81	1.40	-2.84	8.61	125.02
370	24.31	163.77	1.37	-2.84	7.21	125.01
371	24.35	173.45	1.37	-2.84	6.03	125.17
372	24.42	191.84	1.37	-2.73	5.19	125.36
373	24.48	204.93	1.37	-2.73	4.60	125.81
374	24.55	216.40	1.52	-2.73	4.38	126.45
375	24.62	226.08	1.67	-2.73	4.39	127.22
376	24.69	233.38	1.80	-2.61	4.49	127.88
377	24.77	236.51	1.94	-2.61	4.67	128.41
378	24.84	237.36	2.05	-2.61	4.86	128.78
379	24.87	238.41	2.09	-2.61	4.96	129.03
380	24.94	240.97	2.14	-2.61	4.99	129.20
381	25.00	243.43	2.18	-2.61	5.01	129.40
382	25.07	245.90	2.24	-2.61	5.04	129.63
383	25.14	249.88	2.32	-2.61	5.06	129.88
384	25.21	253.67	2.38	-2.61	5.02	130.10

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
385	25.28	258.23	2.41	-2.61	4.65	129.82
386	25.35	260.60	2.03	-2.61	4.12	129.24
387	25.42	261.07	1.83	-2.50	3.72	128.69
388	25.49	260.88	1.95	-2.50	3.74	128.74
389	25.56	262.02	2.07	-2.50	3.96	129.11
390	25.60	262.87	2.13	-2.50	4.11	129.43
391	25.67	265.91	2.21	-2.37	4.26	129.60
392	25.73	260.50	2.23	-2.37	4.38	129.66
393	25.80	258.13	2.20	-2.26	4.42	129.60
394	25.86	260.69	2.17	-2.16	4.38	129.51
395	25.93	259.27	2.15	-2.16	4.31	129.46
396	26.00	260.41	2.14	-2.16	4.21	129.43
397	26.06	266.38	2.13	-2.16	3.94	129.45
398	26.12	278.71	2.12	-2.16	3.52	129.53
399	26.19	295.40	2.12	-2.16	3.01	129.63
400	26.25	312.18	2.10	-2.16	2.52	129.72
401	26.33	327.36	2.09	-2.04	2.10	129.78
402	26.39	340.06	2.08	-2.04	1.78	129.83
403	26.46	348.88	2.06	-2.04	1.57	129.86
404	26.53	353.25	2.06	-1.93	1.47	129.91
405	26.60	355.24	2.09	-1.93	1.51	130.05
406	26.67	353.82	2.18	-1.93	1.68	130.31
407	26.74	349.74	2.30	-1.93	1.89	130.58
408	26.77	347.84	2.35	-1.93	2.09	130.83
409	26.84	347.84	2.43	-1.82	2.16	130.99
410	26.91	352.39	2.45	-1.82	2.18	131.12
411	26.98	355.33	2.47	-1.82	2.13	131.19
412	27.06	358.08	2.48	-1.82	2.06	131.26
413	27.12	364.63	2.49	-1.82	1.95	131.32
414	27.20	372.31	2.48	-1.70	1.80	131.37
415	27.27	378.66	2.48	-1.70	1.70	131.40
416	27.30	380.56	2.49	-1.70	1.65	131.47
417	27.37	383.78	2.53	-1.70	1.67	131.57
418	27.44	383.50	2.57	-1.59	1.74	131.67
419	27.50	379.14	2.60	-1.59	1.81	131.64
420	27.57	372.97	2.52	-1.59	1.61	130.99
421	27.64	363.68	1.97	-1.59	1.44	130.25
422	27.71	352.11	1.96	-1.48	1.35	129.51
423	27.78	338.45	1.96	-1.48	1.66	129.46
424	27.85	325.18	1.99	-1.48	2.12	129.41
425	27.91	301.18	2.03	-1.36	2.60	129.37
426	27.97	290.56	2.04	-1.36	2.93	129.35
427	28.03	295.78	2.04	-1.31	3.03	129.37
428	28.11	293.88	2.06	-1.25	3.04	129.41
429	28.16	292.36	2.07	-1.25	3.15	129.46
430	28.23	289.90	2.09	-1.25	3.24	129.51
431	28.29	288.95	2.11	-1.25	3.30	129.56
432	28.36	290.75	2.12	-1.25	3.26	129.60

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
433	28.43	295.78	2.11	-1.25	3.17	129.61
434	28.50	297.20	2.10	-1.14	3.15	129.63
435	28.56	293.31	2.13	-1.14	3.32	129.67
436	28.64	284.68	2.17	-1.14	3.59	129.70
437	28.71	277.76	2.18	-1.14	3.85	129.70
438	28.74	274.73	2.18	-1.14	4.06	129.69
439	28.81	269.51	2.20	-1.14	4.28	129.70
440	28.87	263.54	2.24	-1.14	4.56	129.76
441	28.95	259.65	2.28	-1.14	4.79	129.85
442	29.01	259.08	2.30	-1.14	4.94	129.95
443	29.08	259.27	2.34	-1.02	4.98	130.03
444	29.15	261.73	2.36	-1.02	4.49	129.50
445	29.22	265.05	1.79	-1.02	3.75	128.63
446	29.29	269.23	1.59	-1.02	3.19	127.98
447	29.36	272.83	1.84	-1.02	3.19	128.17
448	29.40	274.54	1.91	-1.02	3.44	128.76
449	29.47	278.05	2.01	-1.02	3.54	129.02
450	29.54	278.14	2.04	-1.07	3.64	129.17
451	29.60	274.77	2.04	-1.12	3.72	129.15
452	29.69	271.41	2.01	-1.12	3.78	129.10
453	29.75	272.36	2.02	-1.14	3.85	129.11
454	29.82	270.46	2.05	-1.14	3.99	129.24
455	29.89	267.23	2.12	-1.14	4.22	129.42
456	29.92	266.10	2.20	-1.14	4.50	129.66
457	29.99	263.54	2.28	-1.14	4.76	129.90
458	30.07	261.54	2.35	-1.14	5.06	130.10
459	30.14	257.47	2.42	-1.14	5.34	130.21
460	30.21	252.16	2.42	-1.14	5.56	130.18
461	30.28	248.27	2.37	-1.25	5.65	130.06
462	30.32	247.04	2.33	-1.25	5.61	129.86
463	30.39	246.09	2.25	-1.25	5.50	129.62
464	30.45	244.38	2.16	-1.25	5.38	129.29
465	30.52	239.92	2.06	-1.36	5.30	128.95
466	30.59	236.32	1.98	-3.07	5.26	128.67
467	30.66	235.28	1.95	-4.09	4.75	127.85
468	30.73	235.37	1.43	-4.54	4.07	126.82
469	30.80	235.66	1.28	-4.32	3.47	125.87
470	30.86	236.04	1.38	-3.75	3.51	125.97
471	30.93	237.27	1.49	-3.98	3.72	126.44
472	31.00	240.21	1.55	-4.54	3.89	126.75
473	31.04	238.22	1.56	-4.98	4.01	126.95
474	31.10	237.84	1.62	-4.98	4.16	127.10
475	31.19	237.46	1.65	-4.98	4.24	127.23
476	31.25	238.79	1.65	-5.45	4.25	127.28
477	31.32	239.73	1.64	-5.79	4.17	127.25
478	31.37	240.87	1.62	-6.36	4.04	127.07
479	31.45	239.92	1.54	-7.16	3.97	126.90
480	31.51	237.65	1.54	-7.50	3.92	126.78

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
481	31.58	239.78	1.54	-7.73	3.99	126.78
482	31.65	235.66	1.54	-7.84	3.95	126.76
483	31.72	239.64	1.52	-8.07	3.91	126.71
484	31.79	240.97	1.51	-8.07	3.82	126.67
485	31.82	239.73	1.51	-7.95	3.87	126.65
486	31.89	235.94	1.52	-8.07	4.02	126.61
487	31.96	230.44	1.51	-7.95	4.22	126.52
488	32.03	225.32	1.49	-8.07	4.47	126.47
489	32.10	220.20	1.52	-7.95	4.78	126.57
490	32.17	217.26	1.60	-7.95	5.11	126.80
491	32.25	216.88	1.65	-7.95	5.30	126.99
492	32.32	217.64	1.66	-7.95	5.35	127.05
493	32.35	217.45	1.64	-7.95	5.28	126.91
494	32.42	215.17	1.56	-7.95	5.17	126.58
495	32.48	212.23	1.46	-7.95	5.02	126.13
496	32.55	209.01	1.38	-7.95	4.89	125.76
497	32.63	209.10	1.35	-7.95	4.87	125.62
498	32.69	209.10	1.39	-7.95	4.90	125.66
499	32.76	209.20	1.40	-7.95	4.53	125.13
500	32.83	210.34	1.07	-7.95	3.82	123.96
501	32.90	209.01	0.82	-7.95	3.10	122.58
502	32.97	207.30	0.84	-7.95	2.90	122.03
503	33.01	205.78	0.88	-7.95	3.24	122.46
504	33.08	202.27	0.98	-7.95	3.72	123.06
505	33.15	198.96	1.08	-8.18	4.74	123.55
506	33.21	169.65	1.14	-8.18	5.40	123.95
507	33.29	184.73	1.20	-8.18	5.91	124.13
508	33.35	183.50	1.20	-8.41	5.72	124.29
509	33.40	181.79	1.19	-8.41	5.83	124.25
510	33.48	179.33	1.19	-8.41	5.94	124.17
511	33.54	177.33	1.17	-8.41	6.12	124.19
512	33.61	175.72	1.22	-8.41	6.34	124.34
513	33.66	175.34	1.27	-8.52	6.51	124.61
514	33.73	178.57	1.31	-8.41	6.50	124.75
515	33.81	180.37	1.28	-8.52	6.29	124.70
516	33.87	182.17	1.23	-8.41	5.88	124.49
517	33.95	188.90	1.18	-8.52	5.40	124.36
518	34.00	196.96	1.18	-8.41	4.86	124.45
519	34.06	209.29	1.21	-8.52	4.30	124.87
520	34.13	230.63	1.31	-8.41	3.75	125.49
521	34.20	249.31	1.40	-8.52	3.30	126.12
522	34.26	262.40	1.46	-8.52	2.97	126.52
523	34.32	270.17	1.46	-8.52	2.71	126.67
524	34.39	275.48	1.44	-8.52	2.55	126.77
525	34.47	279.28	1.49	-8.52	2.51	127.02
526	34.53	285.44	1.59	-8.41	2.57	127.51
527	34.60	293.50	1.72	-8.41	2.64	128.10
528	34.66	301.47	1.85	-8.41	2.72	128.67

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
529	34.73	307.35	1.96	-8.41	2.86	129.22
530	34.79	310.00	2.12	-8.41	2.84	129.31
531	34.85	308.58	1.91	-8.41	2.40	128.49
532	34.92	303.55	1.33	-8.41	1.89	127.30
533	34.98	298.62	1.34	-8.41	1.60	126.38
534	35.05	292.84	1.39	-8.41	1.84	126.60
535	35.12	291.32	1.47	-8.41	2.38	126.84
536	35.17	261.64	1.54	-8.35	2.76	127.19
537	35.25	277.38	1.63	-8.35	3.08	127.51
538	35.31	281.36	1.70	-8.35	3.11	127.88
539	35.37	276.91	1.77	-8.29	3.43	128.12
540	35.45	265.15	1.83	-8.29	3.88	128.17
541	35.50	252.06	1.80	-8.29	4.38	127.98
542	35.57	236.79	1.72	-8.29	4.81	127.55
543	35.64	223.04	1.62	-8.18	5.20	127.01
544	35.72	210.62	1.53	-8.18	5.60	126.45
545	35.79	197.72	1.45	-8.18	6.09	125.96
546	35.86	185.68	1.41	-8.18	6.69	125.58
547	35.92	175.06	1.39	-8.18	7.37	125.28
548	35.99	164.63	1.37	-8.18	8.00	125.10
549	36.03	160.36	1.38	-8.18	8.76	125.17
550	36.10	154.01	1.49	-8.18	9.61	125.55
551	36.17	150.88	1.64	-8.18	10.56	126.17
552	36.23	151.64	1.81	-8.18	10.54	126.24
553	36.30	156.38	1.53	-8.18	9.30	125.40
554	36.37	162.64	1.07	-8.18	7.56	124.06
555	36.44	168.99	1.03	-8.18	6.26	123.04
556	36.51	174.68	1.01	-8.18	5.81	122.99
557	36.55	178.38	1.02	-8.18	5.47	123.09
558	36.62	184.92	1.03	-8.45	5.69	123.26
559	36.70	170.60	1.10	-8.45	5.60	123.72
560	36.75	194.97	1.19	-8.45	5.61	124.43
561	36.82	205.12	1.33	-8.52	5.30	125.28
562	36.89	210.62	1.45	-8.75	5.38	125.96
563	36.96	214.03	1.53	-8.86	5.54	126.41
564	37.03	212.90	1.58	-8.86	5.77	126.62
565	37.10	207.59	1.59	-8.86	6.08	126.68
566	37.17	202.46	1.60	-8.98	6.42	126.66
567	37.24	197.72	1.61	-8.98	6.71	126.63
568	37.27	194.88	1.61	-8.98	6.97	126.58
569	37.34	190.71	1.60	-8.98	7.16	126.49
570	37.41	187.58	1.57	-8.98	7.29	126.30
571	37.48	184.73	1.52	-8.98	7.30	126.08
572	37.56	183.88	1.48	-8.98	7.32	125.97
573	37.63	183.97	1.51	-8.86	7.47	126.17
574	37.70	185.58	1.64	-8.86	7.76	126.69
575	37.77	189.38	1.80	-8.86	8.05	127.27
576	37.80	191.75	1.89	-8.86	8.26	127.88

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
577	37.87	197.82	2.07	-8.86	8.32	128.36
578	37.93	203.13	2.15	-8.86	8.23	128.67
579	38.00	205.78	2.11	-8.86	7.94	128.64
580	38.07	207.78	2.00	-8.86	6.93	127.60
581	38.14	207.78	1.31	-8.86	5.32	125.49
582	38.21	205.88	0.75	-8.86	3.90	123.11
583	38.28	203.98	0.88	-8.86	3.48	122.17
584	38.32	202.75	0.96	-8.86	4.10	123.08
585	38.39	199.62	1.10	-8.86	4.76	123.88
586	38.46	195.73	1.24	-8.86	6.15	124.45
587	38.52	159.79	1.31	-8.86	6.97	124.83
588	38.59	179.90	1.34	-8.86	7.56	124.94
589	38.66	178.38	1.34	-8.86	7.31	125.12
590	38.72	173.45	1.38	-8.86	7.78	125.30
591	38.78	169.46	1.47	-8.86	8.84	125.96
592	38.86	163.30	1.79	-8.86	10.42	126.94
593	38.92	155.52	2.10	-8.86	12.48	127.91
594	38.98	144.52	2.34	-8.86	14.74	128.43
595	39.04	129.35	2.42	-8.86	17.67	128.34
596	39.12	103.18	2.31	-8.86	21.30	127.85
597	39.17	86.96	2.26	-9.43	26.04	127.08
598	39.25	70.55	2.17	-9.66	30.52	126.32
599	39.30	60.79	2.02	-9.54	35.03	125.33
600	39.38	51.40	1.79	-9.54	38.08	124.33
601	39.45	48.08	1.64	-9.54	39.38	123.38
602	39.52	48.17	1.49	-9.43	38.51	122.66
603	39.59	49.03	1.35	-9.43	37.02	122.06
604	39.63	49.12	1.28	-9.43	35.87	121.55
605	39.70	48.65	1.20	-9.43	35.71	121.12
606	39.77	46.56	1.15	-9.43	36.22	120.80
607	39.84	45.04	1.16	-9.43	37.22	120.71
608	39.91	44.57	1.19	-9.43	37.73	120.66
609	39.98	44.57	1.15	-9.43	37.59	120.51
610	40.03	44.57	1.10	-9.43	36.95	120.18
611	40.11	44.57	1.04	-9.43	36.23	119.90
612	40.19	45.23	1.02	-9.43	35.38	119.48
613	40.24	44.86	0.92	-9.43	34.47	118.90
614	40.30	44.00	0.81	-9.43	34.38	118.44
615	40.38	42.67	0.87	-9.43	35.04	118.35
616	40.43	42.11	0.90	-9.43	36.12	118.72
617	40.51	42.77	0.96	-9.43	37.20	118.99
618	40.56	40.97	0.98	-9.43	37.35	119.18
619	40.63	42.86	0.97	-9.43	37.40	119.15
620	40.70	42.48	0.95	-9.43	36.86	119.04
621	40.76	42.11	0.93	-9.43	36.93	118.93
622	40.84	42.01	0.94	-9.43	36.95	118.85
623	40.89	42.01	0.92	-9.43	36.83	118.76
624	40.95	42.01	0.90	-9.43	36.60	118.62

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
625	41.03	41.92	0.88	-9.43	36.40	118.48
626	41.08	41.92	0.87	-9.43	36.25	118.38
627	41.17	41.92	0.87	-9.43	36.22	118.32
628	41.22	41.73	0.86	-9.43	36.35	118.30
629	41.28	41.44	0.87	-9.43	36.38	118.33
630	41.37	42.11	0.88	-9.43	36.34	118.36
631	41.44	42.11	0.87	-9.43	36.22	118.38
632	41.50	42.01	0.87	-9.43	36.22	118.38
633	41.57	42.20	0.88	-9.43	36.36	118.43
634	41.60	42.01	0.89	-9.43	36.42	118.47
635	41.67	42.11	0.88	-9.43	36.30	118.44
636	41.74	42.48	0.87	-9.43	36.01	118.35
637	41.81	42.48	0.85	-9.32	35.60	118.21
638	41.88	42.67	0.83	-9.43	35.20	118.09
639	41.95	43.15	0.82	-9.43	34.87	118.00
640	42.02	43.15	0.82	-9.43	34.69	117.97
641	42.08	43.15	0.81	-9.43	34.73	117.98
642	42.15	43.15	0.83	-9.43	34.88	118.05
643	42.22	43.15	0.84	-9.43	35.10	118.17
644	42.29	43.24	0.86	-9.32	35.32	118.29
645	42.33	43.24	0.87	-9.32	35.53	118.42
646	42.39	43.24	0.88	-9.32	35.72	118.51
647	42.46	43.24	0.89	-9.32	35.86	118.57
648	42.53	43.24	0.89	-9.32	35.95	118.66
649	42.61	43.62	0.91	-9.32	36.03	118.89
650	42.67	44.48	0.97	-9.32	35.93	119.09
651	42.74	44.95	0.95	-9.32	34.53	118.65
652	42.81	45.71	0.73	-9.32	32.69	117.85
653	42.85	46.09	0.68	-9.32	32.44	118.03
654	42.92	47.13	1.00	-9.32	34.76	119.82
655	42.99	49.22	1.38	-9.32	38.15	121.93
656	43.06	48.93	1.67	-9.26	44.92	123.02
657	43.11	33.29	1.82	-9.26	44.98	123.92
658	43.19	55.38	1.93	-9.26	43.24	124.44
659	43.25	58.42	1.94	-9.20	38.41	124.91
660	43.33	55.29	1.92	-9.20	39.01	124.83
661	43.38	52.35	1.90	-9.20	40.96	124.70
662	43.47	49.79	1.93	-9.20	42.43	124.66
663	43.52	49.79	1.96	-9.20	43.26	124.68
664	43.58	49.79	1.96	-9.09	42.48	124.76
665	43.66	53.20	1.95	-9.09	41.13	124.90
666	43.72	55.86	1.99	-9.09	39.83	125.13
667	43.77	56.90	2.06	-9.09	39.79	125.52
668	43.85	56.90	2.23	-9.09	40.30	125.84
669	43.90	56.90	2.26	-9.09	40.49	126.12
670	43.98	58.80	2.29	-9.09	40.35	126.26
671	44.03	58.89	2.33	-9.09	39.76	126.25
672	44.12	59.36	2.22	-9.09	39.44	126.10

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
673	44.17	58.89	2.16	-9.09	38.84	125.91
674	44.23	59.65	2.15	-9.09	38.90	125.80
675	44.30	58.13	2.14	-9.09	39.30	125.70
676	44.38	56.33	2.10	-8.98	39.91	125.52
677	44.45	55.67	2.05	-8.98	39.99	125.36
678	44.52	56.42	2.02	-8.98	39.59	125.29
679	44.58	57.37	2.02	-8.98	39.16	125.30
680	44.62	57.66	2.03	-8.98	38.71	125.35
681	44.69	58.80	2.03	-8.98	38.15	125.46
682	44.76	60.98	2.08	-8.98	37.90	125.67
683	44.83	60.88	2.17	-8.98	38.30	125.97
684	44.90	60.03	2.28	-8.98	39.22	126.35
685	44.97	60.69	2.43	-8.98	39.86	126.78
686	45.04	62.49	2.57	-8.86	40.03	127.21
687	45.08	63.73	2.66	-8.86	39.63	127.64
688	45.15	67.14	2.81	-8.86	37.88	128.14
689	45.21	76.62	2.93	-8.98	34.89	128.77
690	45.28	88.38	3.09	-8.98	31.05	129.56
691	45.35	104.41	3.33	-8.96	26.42	130.52
692	45.41	133.81	3.58	-8.96	22.02	131.58
693	45.48	163.77	3.88	-8.96	18.92	132.47
694	45.54	177.05	4.06	-8.98	16.91	133.18
695	45.62	195.73	4.25	-8.98	15.39	133.69
696	45.67	217.16	4.36	-8.98	13.70	134.13
697	45.75	240.87	4.39	-8.98	12.17	134.37
698	45.80	255.76	4.29	-8.98	10.76	134.35
699	45.87	269.79	4.03	-8.98	9.51	134.07
700	45.94	280.42	3.71	-8.98	8.50	133.75
701	46.00	287.43	3.62	-8.98	7.93	133.63
702	46.07	293.03	3.74	-8.98	7.65	133.61
703	46.14	294.93	3.63	-8.86	7.68	133.84
704	46.21	298.34	3.92	-8.86	7.84	134.10
705	46.26	298.62	4.12	-8.86	8.24	134.58
706	46.33	300.24	4.40	-8.86	8.59	135.02
707	46.40	304.50	4.67	-8.86	8.98	135.53
708	46.48	306.97	5.03	-8.75	9.34	136.01
709	46.53	309.15	5.29	-8.75	9.75	136.52
710	46.60	313.99	5.70	-8.75	10.08	137.00
711	46.68	318.82	6.03	-8.75	10.30	137.28
712	46.73	322.81	6.18	-8.75	10.44	137.28
713	46.80	325.27	6.38	-8.75	10.56	137.28
714	46.85	325.94	6.50	-8.75	10.77	137.28
715	46.93	325.65	6.74	-8.63	11.10	137.28
716	47.00	324.04	7.03	-8.63	11.41	137.28
717	47.05	324.23	7.11	-8.63	10.37	137.28
718	47.13	322.62	4.37	-8.63	8.91	136.20
719	47.20	311.71	3.71	-8.52	7.70	134.60
720	47.28	298.15	4.23	-8.52	8.12	134.45

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
721	47.31	290.85	4.26	-8.52	9.22	134.89
722	47.39	279.75	4.63	-8.46	10.43	135.40
723	47.46	268.47	5.34	-8.41	16.24	135.54
724	47.51	96.92	5.86	-8.41	18.83	136.20
725	47.58	240.59	6.49	-8.35	21.90	136.57
726	47.66	216.88	6.80	-8.29	18.98	137.28
727	47.72	189.66	6.87	-8.29	22.08	137.15
728	47.79	165.58	6.87	-8.18	25.33	136.84
729	47.85	148.22	6.79	-8.18	28.56	136.45
730	47.92	131.25	6.63	-8.18	31.30	136.04
731	47.99	121.57	6.45	-8.18	33.51	135.57
732	48.06	114.08	6.11	-8.18	34.58	135.00
733	48.13	109.06	5.56	-8.18	34.95	134.40
734	48.16	106.21	5.27	-8.18	34.89	133.71
735	48.23	101.28	4.80	-8.07	34.88	133.27
736	48.31	101.09	4.77	-8.07	34.53	133.00
737	48.38	104.41	4.78	-8.07	34.11	132.88
738	48.45	102.70	4.55	-8.07	34.06	132.52
739	48.50	95.02	4.17	-8.07	34.57	131.69
740	48.57	86.39	3.58	-8.07	35.72	130.55
741	48.64	77.00	3.11	-7.95	37.04	129.31
742	48.70	69.80	2.80	-7.95	38.33	128.07
743	48.77	64.20	2.37	-7.84	38.63	126.73
744	48.84	60.79	1.91	-7.84	38.88	125.62
745	48.91	57.56	1.94	-7.84	38.04	124.39
746	48.98	56.33	1.49	-7.84	37.85	123.79
747	49.02	56.33	1.53	-7.84	38.05	124.51
748	49.09	63.25	2.40	-7.73	36.47	127.02
749	49.16	89.52	3.27	-7.73	31.83	129.90
750	49.23	124.51	4.05	-7.95	26.59	132.08
751	49.28	152.20	4.60	-7.95	22.53	133.84
752	49.35	187.10	5.36	-7.95	20.55	135.08
753	49.42	196.96	5.85	-8.18	19.08	136.10
754	49.48	219.25	6.26	-8.07	18.28	136.85
755	49.55	236.04	6.74	-8.18	17.68	137.28
756	49.62	243.72	7.33	-8.18	17.81	137.28
757	49.69	243.72	7.80	-8.29	18.56	137.28
758	49.75	227.12	7.61	-8.29	19.94	137.28
759	49.82	197.06	7.07	-8.29	22.01	137.28
760	49.87	169.75	6.61	-8.29	20.70	133.83
761	49.95	129.54	0.00	-8.29	17.36	128.00
762	50.00	103.46	0.00	-8.29	100.00	87.36
763	50.07	87.05	0.00	-8.29	100.00	87.36
764	50.13	78.90	0.00	-8.18	100.00	87.36
765	50.20	73.68	0.00	-8.07	100.00	87.36
766	50.28	67.42	0.00	-8.07	100.00	87.36

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data ::

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
1	0.07	0.00	0.00	0.00	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
2	0.13	0.01	0.00	0.01	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
3	0.22	0.01	0.00	0.01	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
4	0.28	0.02	0.00	0.02	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
5	0.34	0.02	0.00	0.02	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
6	0.40	0.02	0.00	0.02	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
7	0.46	0.03	0.00	0.03	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
8	0.53	0.03	0.00	0.03	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
9	0.59	0.03	0.00	0.03	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
10	0.66	0.04	0.00	0.04	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
11	0.74	0.04	0.00	0.04	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
12	0.80	0.05	0.00	0.05	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
13	0.86	0.05	0.00	0.05	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
14	0.93	0.05	0.00	0.05	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
15	0.99	0.06	0.00	0.06	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
16	1.05	0.06	0.00	0.06	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
17	1.12	0.07	0.00	0.07	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
18	1.20	0.07	0.00	0.07	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
19	1.26	0.08	0.00	0.08	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
20	1.33	0.08	0.00	0.08	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
21	1.39	0.08	0.00	0.08	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
22	1.46	0.09	0.00	0.09	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
23	1.52	0.09	0.00	0.09	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
24	1.58	0.10	0.00	0.10	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
25	1.65	0.10	0.00	0.10	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
26	1.71	0.10	0.00	0.10	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
27	1.77	0.11	0.00	0.11	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
28	1.84	0.11	0.00	0.11	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
29	1.92	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
30	1.98	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
31	2.04	0.12	0.00	0.12	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
32	2.11	0.13	0.00	0.13	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
33	2.17	0.13	0.00	0.13	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
34	2.23	0.14	0.00	0.14	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
35	2.32	0.14	0.00	0.14	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
36	2.38	0.14	0.00	0.14	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
37	2.44	0.15	0.00	0.15	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
38	2.50	0.15	0.00	0.15	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
39	2.57	0.16	0.00	0.16	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
40	2.63	0.16	0.00	0.16	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
41	2.69	0.16	0.00	0.16	1.00	0.442	1.17	0.376	1.00	1.00	2.000	No
42	2.77	0.17	0.00	0.17	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
43	2.84	0.17	0.00	0.17	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
44	2.90	0.18	0.00	0.18	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
45	2.96	0.18	0.00	0.18	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
46	3.02	0.18	0.00	0.18	1.00	0.441	1.17	0.376	1.00	1.00	2.000	No
47	3.09	0.19	0.00	0.19	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
48	3.15	0.19	0.00	0.19	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
49	3.22	0.20	0.00	0.20	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
50	3.28	0.20	0.00	0.20	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
51	3.35	0.20	0.00	0.20	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
52	3.42	0.21	0.00	0.21	1.00	0.441	1.17	0.375	1.00	1.00	2.000	No
53	3.48	0.21	0.00	0.21	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
54	3.55	0.22	0.00	0.22	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
55	3.61	0.22	0.00	0.22	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
56	3.68	0.22	0.00	0.22	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
57	3.76	0.23	0.00	0.23	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
58	3.82	0.23	0.00	0.23	1.00	0.440	1.17	0.375	1.00	1.00	2.000	No
59	3.88	0.24	0.00	0.24	1.00	0.440	1.17	0.374	1.00	1.00	2.000	No
60	3.94	0.24	0.00	0.24	0.99	0.440	1.17	0.374	1.00	1.00	2.000	No
61	4.00	0.24	0.00	0.24	0.99	0.440	1.17	0.374	1.00	1.00	2.000	No
62	4.09	0.25	0.00	0.25	0.99	0.440	1.17	0.374	1.00	1.00	2.000	No
63	4.15	0.25	0.00	0.25	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
64	4.21	0.26	0.00	0.26	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
65	4.28	0.26	0.00	0.26	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
66	4.33	0.26	0.00	0.26	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
67	4.40	0.27	0.00	0.27	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
68	4.48	0.27	0.00	0.27	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
69	4.54	0.28	0.00	0.28	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
70	4.60	0.28	0.00	0.28	0.99	0.439	1.17	0.374	1.00	1.00	2.000	No
71	4.67	0.28	0.00	0.28	0.99	0.439	1.17	0.373	1.00	1.00	2.000	No
72	4.73	0.29	0.00	0.29	0.99	0.439	1.17	0.373	1.00	1.00	2.000	No
73	4.80	0.29	0.00	0.29	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
74	4.86	0.29	0.00	0.29	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
75	4.93	0.30	0.00	0.30	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
76	4.99	0.30	0.00	0.30	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
77	5.05	0.30	0.00	0.30	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
78	5.12	0.31	0.00	0.31	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
79	5.19	0.31	0.00	0.31	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
80	5.25	0.32	0.00	0.32	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
81	5.32	0.32	0.00	0.32	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
82	5.38	0.32	0.00	0.32	0.99	0.438	1.17	0.373	1.00	1.00	2.000	No
83	5.47	0.33	0.00	0.33	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
84	5.54	0.33	0.00	0.33	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
85	5.60	0.34	0.00	0.34	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
86	5.67	0.34	0.00	0.34	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
87	5.73	0.35	0.00	0.35	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
88	5.80	0.35	0.00	0.35	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
89	5.87	0.35	0.00	0.35	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
90	5.91	0.36	0.00	0.36	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
91	5.98	0.36	0.00	0.36	0.99	0.437	1.17	0.372	1.00	1.00	2.000	No
92	6.05	0.37	0.00	0.37	0.99	0.436	1.17	0.372	1.00	1.00	2.000	No
93	6.12	0.37	0.00	0.37	0.99	0.436	1.17	0.372	1.00	1.00	2.000	No
94	6.19	0.37	0.00	0.37	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
95	6.26	0.38	0.00	0.38	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
96	6.33	0.38	0.00	0.38	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
97	6.37	0.38	0.00	0.38	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
98	6.43	0.39	0.00	0.39	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
99	6.50	0.39	0.00	0.39	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
100	6.57	0.40	0.00	0.40	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
101	6.63	0.40	0.00	0.40	0.99	0.436	1.17	0.371	1.00	1.00	2.000	No
102	6.70	0.40	0.00	0.40	0.99	0.435	1.17	0.371	1.00	1.00	2.000	No
103	6.77	0.41	0.00	0.41	0.98	0.435	1.17	0.371	1.00	1.00	2.000	No
104	6.84	0.41	0.00	0.41	0.98	0.435	1.17	0.371	1.00	1.00	2.000	No
105	6.90	0.42	0.00	0.42	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
106	6.97	0.42	0.00	0.42	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
107	7.04	0.43	0.00	0.43	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
108	7.12	0.43	0.00	0.43	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
109	7.15	0.43	0.00	0.43	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
110	7.22	0.44	0.00	0.44	0.98	0.435	1.17	0.370	1.00	1.00	2.000	No
111	7.29	0.44	0.00	0.44	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
112	7.36	0.44	0.00	0.44	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
113	7.43	0.45	0.00	0.45	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
114	7.50	0.45	0.00	0.45	0.98	0.434	1.17	0.370	1.00	1.00	2.000	No
115	7.57	0.46	0.00	0.46	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
116	7.64	0.46	0.00	0.46	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
117	7.71	0.47	0.00	0.47	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
118	7.75	0.47	0.00	0.47	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
119	7.81	0.47	0.00	0.47	0.98	0.434	1.17	0.369	1.00	1.00	2.000	No
120	7.89	0.48	0.00	0.48	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
121	7.95	0.48	0.00	0.48	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
122	8.03	0.48	0.00	0.48	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
123	8.08	0.49	0.00	0.49	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
124	8.15	0.49	0.00	0.49	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
125	8.22	0.50	0.00	0.50	0.98	0.433	1.17	0.369	1.00	1.00	2.000	No
126	8.29	0.50	0.00	0.50	0.98	0.433	1.17	0.368	1.00	1.00	2.000	No
127	8.36	0.50	0.00	0.50	0.98	0.433	1.17	0.368	1.00	1.00	2.000	No
128	8.43	0.51	0.00	0.51	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
129	8.50	0.51	0.00	0.51	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
130	8.54	0.52	0.00	0.52	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
131	8.61	0.52	0.00	0.52	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
132	8.68	0.52	0.00	0.52	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
133	8.74	0.53	0.00	0.53	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
134	8.81	0.53	0.00	0.53	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
135	8.88	0.54	0.00	0.54	0.98	0.432	1.17	0.368	1.00	1.00	2.000	No
136	8.96	0.54	0.00	0.54	0.98	0.432	1.17	0.367	1.00	1.00	2.000	No
137	8.99	0.54	0.00	0.54	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
138	9.06	0.55	0.00	0.55	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
139	9.14	0.55	0.00	0.55	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
140	9.20	0.55	0.00	0.55	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
141	9.27	0.56	0.00	0.56	0.98	0.431	1.17	0.367	1.00	1.00	2.000	No
142	9.34	0.56	0.00	0.56	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No
143	9.41	0.57	0.00	0.57	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No
144	9.47	0.57	0.00	0.57	0.97	0.431	1.17	0.367	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
145	9.54	0.57	0.00	0.57	0.97	0.430	1.17	0.367	1.00	1.00	2.000	No
146	9.61	0.58	0.00	0.58	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
147	9.65	0.58	0.00	0.58	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
148	9.71	0.58	0.00	0.58	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
149	9.79	0.59	0.00	0.59	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
150	9.85	0.59	0.00	0.59	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
151	9.92	0.60	0.00	0.60	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
152	9.99	0.60	0.00	0.60	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
153	10.06	0.61	0.00	0.61	0.97	0.430	1.17	0.366	1.00	1.00	2.000	No
154	10.13	0.61	0.00	0.61	0.97	0.429	1.17	0.366	1.00	1.00	2.000	No
155	10.20	0.61	0.00	0.61	0.97	0.429	1.17	0.366	1.00	1.00	2.000	No
156	10.24	0.62	0.00	0.62	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
157	10.31	0.62	0.00	0.62	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
158	10.38	0.62	0.00	0.62	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
159	10.45	0.63	0.00	0.63	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
160	10.52	0.63	0.00	0.63	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
161	10.59	0.64	0.00	0.64	0.97	0.429	1.17	0.365	1.00	1.00	2.000	No
162	10.65	0.64	0.00	0.64	0.97	0.428	1.17	0.365	1.00	1.00	2.000	No
163	10.72	0.65	0.00	0.65	0.97	0.428	1.17	0.365	1.00	1.00	2.000	No
164	10.76	0.65	0.00	0.65	0.97	0.428	1.17	0.365	1.00	1.00	2.000	No
165	10.84	0.65	0.00	0.65	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
166	10.91	0.66	0.00	0.66	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
167	10.98	0.66	0.00	0.66	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
168	11.05	0.66	0.00	0.66	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
169	11.12	0.67	0.00	0.67	0.97	0.428	1.17	0.364	1.00	1.00	2.000	No
170	11.19	0.67	0.00	0.67	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
171	11.26	0.68	0.00	0.68	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
172	11.29	0.68	0.00	0.68	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
173	11.36	0.68	0.00	0.68	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
174	11.43	0.69	0.00	0.69	0.97	0.427	1.17	0.364	1.00	1.00	2.000	No
175	11.50	0.69	0.00	0.69	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
176	11.57	0.70	0.00	0.70	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
177	11.63	0.70	0.00	0.70	0.97	0.427	1.17	0.363	1.00	1.00	2.000	No
178	11.71	0.70	0.00	0.70	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
179	11.78	0.71	0.00	0.71	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
180	11.84	0.71	0.00	0.71	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
181	11.91	0.72	0.00	0.72	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
182	11.95	0.72	0.00	0.72	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
183	12.01	0.72	0.00	0.72	0.96	0.426	1.17	0.363	1.00	1.00	2.000	No
184	12.08	0.73	0.00	0.73	0.96	0.426	1.17	0.362	1.00	1.00	2.000	No
185	12.15	0.73	0.00	0.73	0.96	0.426	1.17	0.362	1.00	1.00	2.000	No
186	12.22	0.73	0.00	0.73	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
187	12.29	0.74	0.00	0.74	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
188	12.36	0.74	0.00	0.74	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
189	12.43	0.75	0.00	0.75	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
190	12.50	0.75	0.00	0.75	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
191	12.53	0.75	0.00	0.75	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
192	12.60	0.76	0.00	0.76	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
193	12.67	0.76	0.00	0.76	0.96	0.425	1.17	0.362	1.00	1.00	2.000	No
194	12.74	0.76	0.00	0.76	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
195	12.81	0.77	0.00	0.77	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
196	12.88	0.77	0.00	0.77	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
197	12.96	0.78	0.00	0.78	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
198	13.03	0.78	0.00	0.78	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
199	13.06	0.78	0.00	0.78	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
200	13.13	0.79	0.00	0.79	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
201	13.20	0.79	0.00	0.79	0.96	0.424	1.17	0.361	1.00	1.00	2.000	No
202	13.27	0.79	0.00	0.79	0.96	0.423	1.17	0.361	1.00	1.00	2.000	No
203	13.34	0.80	0.00	0.80	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
204	13.41	0.80	0.00	0.80	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
205	13.48	0.81	0.00	0.81	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
206	13.55	0.81	0.00	0.81	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
207	13.61	0.81	0.00	0.81	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
208	13.67	0.82	0.00	0.82	0.96	0.423	1.17	0.360	1.00	1.00	2.000	No
209	13.74	0.82	0.00	0.82	0.96	0.422	1.17	0.360	1.00	1.00	2.000	No
210	13.80	0.82	0.00	0.82	0.96	0.422	1.17	0.360	1.00	1.00	2.000	No
211	13.88	0.83	0.00	0.83	0.96	0.422	1.17	0.359	1.00	1.00	2.000	No
212	13.92	0.83	0.00	0.83	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
213	13.98	0.84	0.00	0.84	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
214	14.05	0.84	0.00	0.84	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
215	14.13	0.84	0.00	0.84	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
216	14.20	0.85	0.00	0.85	0.95	0.422	1.17	0.359	1.00	1.00	2.000	No
217	14.27	0.85	0.00	0.85	0.95	0.421	1.17	0.359	1.00	1.00	2.000	No
218	14.34	0.86	0.00	0.86	0.95	0.421	1.17	0.359	1.00	1.00	2.000	No
219	14.37	0.86	0.00	0.86	0.95	0.421	1.17	0.359	1.00	1.00	2.000	No
220	14.44	0.86	0.00	0.86	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
221	14.51	0.87	0.00	0.87	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
222	14.58	0.87	0.00	0.87	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
223	14.65	0.87	0.00	0.87	0.95	0.421	1.17	0.358	1.00	1.00	2.000	No
224	14.72	0.88	0.00	0.88	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
225	14.79	0.88	0.00	0.88	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
226	14.86	0.89	0.00	0.89	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
227	14.93	0.89	0.00	0.89	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
228	14.97	0.89	0.00	0.89	0.95	0.420	1.17	0.358	1.00	1.00	2.000	No
229	15.04	0.90	0.00	0.90	0.95	0.420	1.17	0.358	1.00	1.00	0.394	No
230	15.11	0.90	0.00	0.90	0.95	0.421	1.17	0.359	1.00	1.00	0.395	No
231	15.17	0.91	0.01	0.90	0.95	0.422	1.17	0.359	1.00	1.00	0.395	No
232	15.24	0.91	0.01	0.90	0.95	0.423	1.17	0.360	1.00	1.00	0.395	No
233	15.31	0.91	0.01	0.90	0.95	0.424	1.17	0.361	1.00	1.00	0.395	No
234	15.38	0.92	0.01	0.91	0.95	0.425	1.17	0.362	1.00	1.00	0.393	No
235	15.42	0.92	0.01	0.91	0.95	0.425	1.17	0.362	1.00	1.00	0.390	No
236	15.49	0.92	0.02	0.91	0.95	0.426	1.17	0.363	1.00	1.00	0.381	No
237	15.56	0.93	0.02	0.91	0.95	0.427	1.17	0.363	1.00	1.00	0.370	No
238	15.63	0.93	0.02	0.91	0.95	0.428	1.17	0.364	1.00	1.00	0.359	No
239	15.70	0.94	0.02	0.92	0.95	0.428	1.17	0.365	1.00	1.00	0.350	No
240	15.77	0.94	0.02	0.92	0.95	0.429	1.17	0.365	1.00	1.00	0.345	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
241	15.84	0.95	0.03	0.92	0.95	0.430	1.17	0.366	1.00	1.00	0.342	No
242	15.91	0.95	0.03	0.92	0.95	0.431	1.17	0.367	1.00	1.00	0.342	No
243	15.95	0.95	0.03	0.92	0.95	0.431	1.17	0.367	1.00	1.00	0.344	No
244	16.05	0.96	0.03	0.93	0.95	0.432	1.17	0.368	1.00	1.00	0.346	No
245	16.08	0.96	0.03	0.93	0.94	0.433	1.17	0.369	1.00	1.00	0.346	No
246	16.16	0.97	0.04	0.93	0.94	0.434	1.17	0.369	1.00	1.00	0.346	No
247	16.22	0.97	0.04	0.93	0.94	0.434	1.17	0.370	1.00	1.00	0.346	No
248	16.29	0.97	0.04	0.93	0.94	0.435	1.17	0.371	1.00	1.00	0.347	No
249	16.36	0.98	0.04	0.94	0.94	0.436	1.17	0.371	1.00	1.00	0.346	No
250	16.43	0.98	0.04	0.94	0.94	0.437	1.17	0.372	1.00	1.00	0.349	No
251	16.50	0.99	0.05	0.94	0.94	0.437	1.17	0.373	1.00	1.00	0.354	No
252	16.57	0.99	0.05	0.94	0.94	0.438	1.17	0.373	1.00	1.00	0.361	No
253	16.61	0.99	0.05	0.94	0.94	0.439	1.17	0.373	1.00	1.00	0.364	No
254	16.68	1.00	0.05	0.95	0.94	0.439	1.17	0.374	1.00	1.00	0.368	No
255	16.75	1.00	0.05	0.95	0.94	0.440	1.17	0.375	1.00	1.00	0.369	No
256	16.82	1.01	0.06	0.95	0.94	0.441	1.17	0.375	1.00	1.00	0.370	No
257	16.89	1.01	0.06	0.95	0.94	0.442	1.17	0.376	1.00	1.00	0.368	No
258	16.93	1.01	0.06	0.95	0.94	0.442	1.17	0.376	1.00	1.00	0.368	No
259	17.00	1.02	0.06	0.96	0.94	0.443	1.17	0.377	1.00	1.00	0.365	No
260	17.07	1.02	0.06	0.96	0.94	0.444	1.17	0.378	1.00	1.00	0.365	No
261	17.14	1.03	0.07	0.96	0.94	0.444	1.17	0.378	1.00	1.00	0.366	No
262	17.21	1.03	0.07	0.96	0.94	0.445	1.17	0.379	1.00	1.00	0.366	No
263	17.28	1.04	0.07	0.97	0.94	0.446	1.17	0.379	1.00	1.00	0.367	No
264	17.35	1.04	0.07	0.97	0.94	0.446	1.17	0.380	1.00	1.00	0.368	No
265	17.41	1.04	0.08	0.97	0.94	0.447	1.17	0.381	1.00	1.00	0.365	No
266	17.49	1.05	0.08	0.97	0.94	0.448	1.17	0.381	1.00	1.00	0.358	No
267	17.52	1.05	0.08	0.97	0.94	0.448	1.17	0.382	1.00	1.00	0.355	No
268	17.59	1.06	0.08	0.97	0.94	0.449	1.17	0.382	1.00	1.00	0.356	No
269	17.66	1.06	0.08	0.98	0.94	0.449	1.17	0.383	1.00	1.00	0.356	No
270	17.73	1.06	0.09	0.98	0.94	0.450	1.17	0.383	1.00	1.00	0.357	No
271	17.80	1.07	0.09	0.98	0.94	0.451	1.17	0.384	1.00	1.00	0.357	No
272	17.87	1.07	0.09	0.98	0.94	0.451	1.17	0.384	1.00	1.00	0.358	No
273	17.94	1.08	0.09	0.99	0.94	0.452	1.17	0.385	1.00	1.00	0.358	No
274	18.01	1.08	0.09	0.99	0.94	0.453	1.17	0.386	1.00	1.00	0.359	No
275	18.05	1.08	0.10	0.99	0.94	0.453	1.17	0.386	1.00	1.00	0.359	No
276	18.12	1.09	0.10	0.99	0.93	0.454	1.17	0.386	1.00	1.00	0.360	No
277	18.19	1.09	0.10	0.99	0.93	0.454	1.17	0.387	1.00	1.00	0.360	No
278	18.26	1.10	0.10	1.00	0.93	0.455	1.17	0.387	1.00	1.00	0.361	No
279	18.33	1.10	0.10	1.00	0.93	0.456	1.17	0.388	1.00	1.00	0.361	No
280	18.39	1.11	0.11	1.00	0.93	0.456	1.17	0.389	1.00	1.00	0.362	No
281	18.46	1.11	0.11	1.00	0.93	0.457	1.17	0.389	1.00	1.00	0.362	No
282	18.53	1.12	0.11	1.01	0.93	0.458	1.17	0.390	1.00	1.00	0.363	No
283	18.58	1.12	0.11	1.01	0.93	0.458	1.17	0.390	1.00	1.00	0.363	No
284	18.64	1.12	0.11	1.01	0.93	0.459	1.17	0.390	1.00	1.00	0.363	No
285	18.71	1.13	0.12	1.01	0.93	0.459	1.17	0.391	1.00	1.00	0.364	No
286	18.78	1.13	0.12	1.01	0.93	0.460	1.17	0.391	1.00	1.00	0.364	No
287	18.84	1.14	0.12	1.02	0.93	0.460	1.17	0.392	1.00	1.00	0.365	No
288	18.91	1.14	0.12	1.02	0.93	0.461	1.17	0.392	1.00	1.00	0.367	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
289	18.98	1.14	0.12	1.02	0.93	0.461	1.17	0.393	1.00	1.00	0.382	No
290	19.05	1.15	0.13	1.02	0.93	0.462	1.17	0.393	1.00	1.00	0.396	No
291	19.12	1.15	0.13	1.02	0.93	0.463	1.17	0.394	1.00	1.00	0.413	No
292	19.19	1.16	0.13	1.03	0.93	0.463	1.17	0.394	1.00	1.00	0.426	No
293	19.26	1.16	0.13	1.03	0.93	0.464	1.17	0.395	1.00	1.00	0.433	No
294	19.32	1.17	0.13	1.03	0.93	0.464	1.17	0.395	1.00	1.00	0.435	No
295	19.36	1.17	0.14	1.03	0.93	0.465	1.17	0.396	1.00	1.00	0.437	No
296	19.43	1.17	0.14	1.03	0.93	0.465	1.17	0.396	1.00	1.00	0.439	No
297	19.50	1.18	0.14	1.04	0.93	0.466	1.17	0.397	1.00	1.00	0.442	No
298	19.57	1.18	0.14	1.04	0.93	0.466	1.17	0.397	1.00	1.00	0.444	No
299	19.64	1.18	0.14	1.04	0.93	0.467	1.17	0.398	1.00	1.00	0.445	No
300	19.71	1.19	0.15	1.04	0.93	0.468	1.17	0.398	1.00	1.00	0.445	No
301	19.79	1.19	0.15	1.04	0.93	0.468	1.17	0.399	1.00	1.00	0.445	No
302	19.82	1.20	0.15	1.05	0.93	0.468	1.17	0.399	1.00	1.00	0.445	No
303	19.89	1.20	0.15	1.05	0.93	0.469	1.17	0.399	1.00	1.00	0.445	No
304	19.96	1.20	0.15	1.05	0.93	0.469	1.17	0.400	1.00	1.00	0.446	No
305	20.03	1.21	0.16	1.05	0.93	0.470	1.17	0.400	1.00	1.00	2.000	No
306	20.09	1.21	0.16	1.05	0.93	0.471	1.17	0.401	1.00	1.00	2.000	No
307	20.16	1.22	0.16	1.05	0.92	0.471	1.17	0.401	1.00	1.00	2.000	No
308	20.23	1.22	0.16	1.06	0.92	0.472	1.17	0.402	1.00	1.00	2.000	No
309	20.30	1.22	0.17	1.06	0.92	0.472	1.17	0.402	1.00	1.00	2.000	No
310	20.37	1.23	0.17	1.06	0.92	0.473	1.17	0.402	1.00	1.00	2.000	No
311	20.43	1.23	0.17	1.06	0.92	0.473	1.17	0.403	1.00	1.00	2.000	No
312	20.50	1.24	0.17	1.06	0.92	0.474	1.17	0.403	1.00	1.00	2.000	No
313	20.56	1.24	0.17	1.07	0.92	0.474	1.17	0.404	1.00	1.00	2.000	No
314	20.64	1.24	0.18	1.07	0.92	0.475	1.17	0.404	1.00	1.00	2.000	No
315	20.67	1.25	0.18	1.07	0.92	0.475	1.17	0.404	1.00	1.00	2.000	No
316	20.74	1.25	0.18	1.07	0.92	0.475	1.17	0.405	1.00	1.00	2.000	No
317	20.81	1.25	0.18	1.07	0.92	0.476	1.17	0.405	1.00	1.00	2.000	No
318	20.88	1.26	0.18	1.08	0.92	0.476	1.17	0.406	1.00	1.00	2.000	No
319	20.95	1.26	0.19	1.08	0.92	0.477	1.17	0.406	1.00	1.00	2.000	No
320	21.02	1.27	0.19	1.08	0.92	0.477	1.17	0.407	1.00	1.00	2.000	No
321	21.08	1.27	0.19	1.08	0.92	0.478	1.17	0.407	1.00	1.00	2.000	No
322	21.16	1.28	0.19	1.08	0.92	0.478	1.17	0.407	1.00	1.00	2.000	No
323	21.22	1.28	0.19	1.09	0.92	0.479	1.17	0.408	1.00	1.00	2.000	No
324	21.29	1.29	0.20	1.09	0.92	0.479	1.17	0.408	1.00	1.00	2.000	No
325	21.33	1.29	0.20	1.09	0.92	0.480	1.17	0.408	1.00	1.00	2.000	No
326	21.39	1.29	0.20	1.09	0.92	0.480	1.17	0.409	1.00	1.00	2.000	No
327	21.47	1.30	0.20	1.09	0.92	0.481	1.17	0.409	1.00	1.00	2.000	No
328	21.54	1.30	0.20	1.10	0.92	0.481	1.17	0.410	1.00	1.00	2.000	No
329	21.61	1.30	0.21	1.10	0.92	0.481	1.17	0.410	1.00	1.00	2.000	No
330	21.68	1.31	0.21	1.10	0.92	0.482	1.17	0.410	1.00	1.00	2.000	No
331	21.74	1.31	0.21	1.10	0.92	0.482	1.17	0.411	1.00	1.00	2.000	No
332	21.82	1.32	0.21	1.11	0.92	0.483	1.17	0.411	1.00	1.00	2.000	No
333	21.88	1.32	0.21	1.11	0.92	0.483	1.17	0.411	1.00	1.00	2.000	No
334	21.92	1.32	0.22	1.11	0.92	0.483	1.17	0.412	1.00	1.00	2.000	No
335	21.99	1.33	0.22	1.11	0.92	0.484	1.17	0.412	1.00	1.00	2.000	No
336	22.05	1.33	0.22	1.11	0.91	0.484	1.17	0.412	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
337	22.13	1.34	0.22	1.12	0.91	0.485	1.17	0.413	1.00	1.00	2.000	No
338	22.20	1.34	0.22	1.12	0.91	0.485	1.17	0.413	1.00	1.00	2.000	No
339	22.27	1.35	0.23	1.12	0.91	0.486	1.17	0.414	1.00	1.00	2.000	No
340	22.34	1.35	0.23	1.12	0.91	0.486	1.17	0.414	1.00	1.00	2.000	No
341	22.41	1.36	0.23	1.12	0.91	0.487	1.17	0.414	1.00	1.00	2.000	No
342	22.47	1.36	0.23	1.13	0.91	0.487	1.17	0.415	1.00	1.00	2.000	No
343	22.51	1.36	0.23	1.13	0.91	0.487	1.17	0.415	1.00	1.00	2.000	No
344	22.57	1.37	0.24	1.13	0.91	0.488	1.17	0.415	1.00	1.00	2.000	No
345	22.65	1.37	0.24	1.13	0.91	0.488	1.17	0.415	1.00	1.00	2.000	No
346	22.71	1.37	0.24	1.13	0.91	0.488	1.17	0.416	1.00	1.00	2.000	No
347	22.78	1.38	0.24	1.14	0.91	0.489	1.17	0.416	1.00	1.00	2.000	No
348	22.86	1.38	0.25	1.14	0.91	0.489	1.17	0.417	1.00	1.00	2.000	No
349	22.92	1.39	0.25	1.14	0.91	0.490	1.17	0.417	1.00	1.00	2.000	No
350	23.00	1.39	0.25	1.14	0.91	0.490	1.17	0.417	1.00	1.00	2.000	No
351	23.07	1.40	0.25	1.14	0.91	0.490	1.17	0.418	1.00	1.00	2.000	No
352	23.10	1.40	0.25	1.15	0.91	0.491	1.17	0.418	1.00	1.00	2.000	No
353	23.18	1.40	0.26	1.15	0.91	0.491	1.17	0.418	1.00	1.00	2.000	No
354	23.25	1.41	0.26	1.15	0.91	0.491	1.17	0.418	1.00	1.00	2.000	No
355	23.31	1.41	0.26	1.15	0.91	0.492	1.17	0.419	1.00	1.00	2.000	No
356	23.39	1.42	0.26	1.15	0.91	0.492	1.17	0.419	1.00	1.00	2.000	No
357	23.45	1.42	0.26	1.16	0.91	0.493	1.17	0.419	1.00	1.00	2.000	No
358	23.52	1.42	0.27	1.16	0.91	0.493	1.17	0.420	1.00	1.00	2.000	No
359	23.59	1.43	0.27	1.16	0.91	0.493	1.17	0.420	1.00	1.00	2.000	No
360	23.62	1.43	0.27	1.16	0.91	0.494	1.17	0.420	1.00	1.00	2.000	No
361	23.69	1.43	0.27	1.16	0.91	0.494	1.17	0.420	1.00	1.00	2.000	No
362	23.76	1.44	0.27	1.17	0.91	0.494	1.17	0.421	1.00	1.00	2.000	No
363	23.83	1.44	0.28	1.17	0.91	0.495	1.17	0.421	1.00	1.00	2.000	No
364	23.90	1.45	0.28	1.17	0.91	0.495	1.17	0.421	1.00	1.00	2.000	No
365	23.96	1.45	0.28	1.17	0.90	0.495	1.17	0.422	1.00	1.00	2.000	No
366	24.04	1.46	0.28	1.17	0.90	0.496	1.17	0.422	1.00	1.00	2.000	No
367	24.11	1.46	0.28	1.18	0.90	0.496	1.17	0.422	1.00	1.00	2.000	No
368	24.18	1.47	0.29	1.18	0.90	0.496	1.17	0.423	1.00	1.00	2.000	No
369	24.24	1.47	0.29	1.18	0.90	0.497	1.17	0.423	1.00	1.00	2.000	No
370	24.31	1.47	0.29	1.18	0.90	0.497	1.17	0.423	1.00	1.00	2.000	No
371	24.35	1.48	0.29	1.18	0.90	0.497	1.17	0.423	1.00	1.00	2.000	No
372	24.42	1.48	0.29	1.19	0.90	0.498	1.17	0.424	1.00	1.00	2.000	No
373	24.48	1.48	0.30	1.19	0.90	0.498	1.17	0.424	1.00	1.00	2.000	No
374	24.55	1.49	0.30	1.19	0.90	0.498	1.17	0.424	1.00	1.00	2.000	No
375	24.62	1.49	0.30	1.19	0.90	0.499	1.17	0.424	1.00	1.00	2.000	No
376	24.69	1.50	0.30	1.20	0.90	0.499	1.17	0.425	1.00	1.00	2.000	No
377	24.77	1.50	0.30	1.20	0.90	0.499	1.17	0.425	1.00	1.00	2.000	No
378	24.84	1.51	0.31	1.20	0.90	0.500	1.17	0.425	1.00	1.00	2.000	No
379	24.87	1.51	0.31	1.20	0.90	0.500	1.17	0.425	1.00	1.00	2.000	No
380	24.94	1.51	0.31	1.20	0.90	0.500	1.17	0.426	1.00	1.00	2.000	No
381	25.00	1.52	0.31	1.21	0.90	0.500	1.17	0.426	1.00	1.00	2.000	No
382	25.07	1.52	0.31	1.21	0.90	0.501	1.17	0.426	1.00	1.00	2.000	No
383	25.14	1.53	0.32	1.21	0.90	0.501	1.17	0.426	1.00	1.00	2.000	No
384	25.21	1.53	0.32	1.21	0.90	0.501	1.17	0.427	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
385	25.28	1.54	0.32	1.22	0.90	0.501	1.17	0.427	1.00	1.00	2.000	No
386	25.35	1.54	0.32	1.22	0.90	0.502	1.17	0.427	1.00	1.00	2.000	No
387	25.42	1.54	0.33	1.22	0.90	0.502	1.17	0.427	1.00	1.00	2.000	No
388	25.49	1.55	0.33	1.22	0.90	0.502	1.17	0.428	1.00	1.00	2.000	No
389	25.56	1.55	0.33	1.22	0.90	0.503	1.17	0.428	1.00	1.00	2.000	No
390	25.60	1.56	0.33	1.23	0.90	0.503	1.17	0.428	1.00	1.00	2.000	No
391	25.67	1.56	0.33	1.23	0.90	0.503	1.17	0.428	1.00	1.00	2.000	No
392	25.73	1.56	0.33	1.23	0.90	0.503	1.17	0.429	1.00	1.00	2.000	No
393	25.80	1.57	0.34	1.23	0.89	0.504	1.17	0.429	1.00	1.00	2.000	No
394	25.86	1.57	0.34	1.23	0.89	0.504	1.17	0.429	1.00	1.00	2.000	No
395	25.93	1.58	0.34	1.24	0.89	0.504	1.17	0.429	1.00	1.00	2.000	No
396	26.00	1.58	0.34	1.24	0.89	0.504	1.17	0.429	1.00	1.00	2.000	No
397	26.06	1.59	0.35	1.24	0.89	0.505	1.17	0.430	1.00	1.00	2.000	No
398	26.12	1.59	0.35	1.24	0.89	0.505	1.17	0.430	1.00	1.00	2.000	No
399	26.19	1.59	0.35	1.25	0.89	0.505	1.17	0.430	1.00	1.00	2.000	No
400	26.25	1.60	0.35	1.25	0.89	0.505	1.17	0.430	1.00	1.00	2.000	No
401	26.33	1.60	0.35	1.25	0.89	0.506	1.17	0.431	1.00	1.00	2.000	No
402	26.39	1.61	0.36	1.25	0.89	0.506	1.17	0.431	1.00	1.00	2.000	No
403	26.46	1.61	0.36	1.25	0.89	0.506	1.17	0.431	1.00	1.00	2.000	No
404	26.53	1.62	0.36	1.26	0.89	0.506	1.17	0.431	1.00	1.00	2.000	No
405	26.60	1.62	0.36	1.26	0.89	0.507	1.17	0.431	1.00	1.00	2.000	No
406	26.67	1.63	0.36	1.26	0.89	0.507	1.17	0.432	1.00	1.00	2.000	No
407	26.74	1.63	0.37	1.26	0.89	0.507	1.17	0.432	1.00	1.00	2.000	No
408	26.77	1.63	0.37	1.27	0.89	0.507	1.17	0.432	1.00	1.00	2.000	No
409	26.84	1.64	0.37	1.27	0.89	0.507	1.17	0.432	1.00	1.00	2.000	No
410	26.91	1.64	0.37	1.27	0.89	0.508	1.17	0.432	1.00	1.00	2.000	No
411	26.98	1.65	0.37	1.27	0.89	0.508	1.17	0.433	1.00	1.00	2.000	No
412	27.06	1.65	0.38	1.28	0.89	0.508	1.17	0.433	1.00	1.00	2.000	No
413	27.12	1.66	0.38	1.28	0.89	0.508	1.17	0.433	1.00	1.00	2.000	No
414	27.20	1.66	0.38	1.28	0.89	0.509	1.17	0.433	1.00	1.00	2.000	No
415	27.27	1.66	0.38	1.28	0.89	0.509	1.17	0.433	1.00	1.00	2.000	No
416	27.30	1.67	0.38	1.28	0.89	0.509	1.17	0.433	1.00	1.00	2.000	No
417	27.37	1.67	0.39	1.29	0.89	0.509	1.17	0.434	1.00	1.00	2.000	No
418	27.44	1.68	0.39	1.29	0.89	0.509	1.17	0.434	1.00	1.00	2.000	No
419	27.50	1.68	0.39	1.29	0.89	0.510	1.17	0.434	1.00	1.00	2.000	No
420	27.57	1.68	0.39	1.29	0.89	0.510	1.17	0.434	1.00	1.00	2.000	No
421	27.64	1.69	0.39	1.30	0.88	0.510	1.17	0.434	1.00	1.00	2.000	No
422	27.71	1.69	0.40	1.30	0.88	0.510	1.17	0.434	1.00	1.00	2.000	No
423	27.78	1.70	0.40	1.30	0.88	0.511	1.17	0.435	1.00	1.00	2.000	No
424	27.85	1.70	0.40	1.30	0.88	0.511	1.17	0.435	1.00	1.00	2.000	No
425	27.91	1.71	0.40	1.30	0.88	0.511	1.17	0.435	1.00	1.00	2.000	No
426	27.97	1.71	0.40	1.31	0.88	0.511	1.17	0.435	1.00	1.00	2.000	No
427	28.03	1.71	0.41	1.31	0.88	0.511	1.17	0.435	1.00	1.00	2.000	No
428	28.11	1.72	0.41	1.31	0.88	0.511	1.17	0.435	1.00	1.00	2.000	No
429	28.16	1.72	0.41	1.31	0.88	0.512	1.17	0.436	1.00	1.00	2.000	No
430	28.23	1.73	0.41	1.31	0.88	0.512	1.17	0.436	1.00	1.00	2.000	No
431	28.29	1.73	0.41	1.32	0.88	0.512	1.17	0.436	1.00	1.00	2.000	No
432	28.36	1.74	0.42	1.32	0.88	0.512	1.17	0.436	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
433	28.43	1.74	0.42	1.32	0.88	0.512	1.17	0.436	1.00	1.00	2.000	No
434	28.50	1.74	0.42	1.32	0.88	0.513	1.17	0.436	1.00	1.00	2.000	No
435	28.56	1.75	0.42	1.33	0.88	0.513	1.17	0.437	1.00	1.00	2.000	No
436	28.64	1.75	0.43	1.33	0.88	0.513	1.17	0.437	1.00	1.00	2.000	No
437	28.71	1.76	0.43	1.33	0.88	0.513	1.17	0.437	1.00	1.00	2.000	No
438	28.74	1.76	0.43	1.33	0.88	0.513	1.17	0.437	1.00	1.00	2.000	No
439	28.81	1.77	0.43	1.33	0.88	0.513	1.17	0.437	1.00	1.00	2.000	No
440	28.87	1.77	0.43	1.34	0.88	0.514	1.17	0.437	1.00	1.00	2.000	No
441	28.95	1.77	0.44	1.34	0.88	0.514	1.17	0.437	1.00	1.00	2.000	No
442	29.01	1.78	0.44	1.34	0.88	0.514	1.17	0.438	1.00	1.00	2.000	No
443	29.08	1.78	0.44	1.34	0.88	0.514	1.17	0.438	1.00	1.00	2.000	No
444	29.15	1.79	0.44	1.35	0.88	0.514	1.17	0.438	1.00	1.00	2.000	No
445	29.22	1.79	0.44	1.35	0.88	0.514	1.17	0.438	1.00	1.00	2.000	No
446	29.29	1.80	0.45	1.35	0.88	0.515	1.17	0.438	1.00	1.00	2.000	No
447	29.36	1.80	0.45	1.35	0.87	0.515	1.17	0.438	1.00	1.00	2.000	No
448	29.40	1.80	0.45	1.35	0.87	0.515	1.17	0.438	1.00	1.00	2.000	No
449	29.47	1.81	0.45	1.36	0.87	0.515	1.17	0.439	1.00	1.00	2.000	No
450	29.54	1.81	0.45	1.36	0.87	0.515	1.17	0.439	1.00	1.00	2.000	No
451	29.60	1.82	0.46	1.36	0.87	0.515	1.17	0.439	1.00	1.00	2.000	No
452	29.69	1.82	0.46	1.36	0.87	0.516	1.17	0.439	1.00	1.00	2.000	No
453	29.75	1.83	0.46	1.37	0.87	0.516	1.17	0.439	1.00	1.00	2.000	No
454	29.82	1.83	0.46	1.37	0.87	0.516	1.17	0.439	1.00	1.00	2.000	No
455	29.89	1.83	0.46	1.37	0.87	0.516	1.17	0.439	1.00	1.00	2.000	No
456	29.92	1.84	0.47	1.37	0.87	0.516	1.17	0.439	1.00	1.00	2.000	No
457	29.99	1.84	0.47	1.37	0.87	0.516	1.17	0.440	1.00	1.00	2.000	No
458	30.07	1.85	0.47	1.38	0.87	0.516	1.17	0.440	1.00	1.00	2.000	No
459	30.14	1.85	0.47	1.38	0.87	0.517	1.17	0.440	1.00	1.00	2.000	No
460	30.21	1.86	0.47	1.38	0.87	0.517	1.17	0.440	1.00	1.00	2.000	No
461	30.28	1.86	0.48	1.38	0.87	0.517	1.17	0.440	1.00	1.00	2.000	No
462	30.32	1.86	0.48	1.38	0.87	0.517	1.17	0.440	1.00	1.00	2.000	No
463	30.39	1.87	0.48	1.39	0.87	0.517	1.17	0.440	1.00	1.00	2.000	No
464	30.45	1.87	0.48	1.39	0.87	0.517	1.17	0.440	1.00	1.00	2.000	No
465	30.52	1.88	0.48	1.39	0.87	0.517	1.17	0.441	1.00	1.00	2.000	No
466	30.59	1.88	0.49	1.39	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
467	30.66	1.88	0.49	1.40	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
468	30.73	1.89	0.49	1.40	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
469	30.80	1.89	0.49	1.40	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
470	30.86	1.90	0.49	1.40	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
471	30.93	1.90	0.50	1.41	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
472	31.00	1.91	0.50	1.41	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
473	31.04	1.91	0.50	1.41	0.87	0.518	1.17	0.441	1.00	1.00	2.000	No
474	31.10	1.91	0.50	1.41	0.87	0.519	1.17	0.442	1.00	1.00	2.000	No
475	31.19	1.92	0.51	1.41	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No
476	31.25	1.92	0.51	1.42	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No
477	31.32	1.93	0.51	1.42	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No
478	31.37	1.93	0.51	1.42	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No
479	31.45	1.93	0.51	1.42	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No
480	31.51	1.94	0.52	1.42	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
481	31.58	1.94	0.52	1.43	0.86	0.519	1.17	0.442	1.00	1.00	2.000	No
482	31.65	1.95	0.52	1.43	0.86	0.520	1.17	0.442	1.00	1.00	2.000	No
483	31.72	1.95	0.52	1.43	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
484	31.79	1.96	0.52	1.43	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
485	31.82	1.96	0.52	1.43	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
486	31.89	1.96	0.53	1.44	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
487	31.96	1.97	0.53	1.44	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
488	32.03	1.97	0.53	1.44	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
489	32.10	1.98	0.53	1.44	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
490	32.17	1.98	0.54	1.45	0.86	0.520	1.17	0.443	1.00	1.00	2.000	No
491	32.25	1.99	0.54	1.45	0.86	0.521	1.17	0.443	1.00	1.00	2.000	No
492	32.32	1.99	0.54	1.45	0.86	0.521	1.17	0.443	1.00	1.00	2.000	No
493	32.35	1.99	0.54	1.45	0.86	0.521	1.17	0.443	1.00	1.00	2.000	No
494	32.42	2.00	0.54	1.45	0.86	0.521	1.17	0.443	1.00	1.00	2.000	No
495	32.48	2.00	0.55	1.46	0.86	0.521	1.17	0.444	1.00	1.00	2.000	No
496	32.55	2.00	0.55	1.46	0.86	0.521	1.17	0.444	1.00	1.00	2.000	No
497	32.63	2.01	0.55	1.46	0.86	0.521	1.17	0.444	1.00	1.00	2.000	No
498	32.69	2.01	0.55	1.46	0.86	0.521	1.17	0.444	1.00	1.00	2.000	No
499	32.76	2.02	0.55	1.46	0.86	0.521	1.17	0.444	1.00	1.00	2.000	No
500	32.83	2.02	0.56	1.47	0.86	0.521	1.17	0.444	1.00	1.00	2.000	No
501	32.90	2.03	0.56	1.47	0.85	0.522	1.17	0.444	1.00	1.00	2.000	No
502	32.97	2.03	0.56	1.47	0.85	0.522	1.17	0.444	1.00	1.00	2.000	No
503	33.01	2.03	0.56	1.47	0.85	0.522	1.17	0.444	1.00	1.00	2.000	No
504	33.08	2.04	0.56	1.47	0.85	0.522	1.17	0.444	1.00	1.00	2.000	No
505	33.15	2.04	0.57	1.48	0.85	0.522	1.17	0.444	1.00	1.00	2.000	No
506	33.21	2.05	0.57	1.48	0.85	0.522	1.17	0.445	1.00	1.00	2.000	No
507	33.29	2.05	0.57	1.48	0.85	0.522	1.17	0.445	1.00	1.00	2.000	No
508	33.35	2.05	0.57	1.48	0.85	0.522	1.17	0.445	1.00	1.00	2.000	No
509	33.40	2.06	0.57	1.48	0.85	0.522	1.17	0.445	1.00	1.00	2.000	No
510	33.48	2.06	0.58	1.49	0.85	0.522	1.17	0.445	1.00	1.00	2.000	No
511	33.54	2.07	0.58	1.49	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
512	33.61	2.07	0.58	1.49	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
513	33.66	2.07	0.58	1.49	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
514	33.73	2.08	0.58	1.49	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
515	33.81	2.08	0.59	1.50	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
516	33.87	2.09	0.59	1.50	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
517	33.95	2.09	0.59	1.50	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
518	34.00	2.09	0.59	1.50	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
519	34.06	2.10	0.59	1.50	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
520	34.13	2.10	0.60	1.51	0.85	0.523	1.17	0.445	1.00	1.00	2.000	No
521	34.20	2.11	0.60	1.51	0.85	0.523	1.17	0.446	1.00	1.00	2.000	No
522	34.26	2.11	0.60	1.51	0.85	0.523	1.17	0.446	1.00	1.00	2.000	No
523	34.32	2.12	0.60	1.51	0.85	0.523	1.17	0.446	1.00	1.00	2.000	No
524	34.39	2.12	0.60	1.51	0.85	0.523	1.17	0.446	1.00	1.00	2.000	No
525	34.47	2.12	0.61	1.52	0.85	0.524	1.17	0.446	1.00	1.00	2.000	No
526	34.53	2.13	0.61	1.52	0.85	0.524	1.17	0.446	1.00	1.00	2.000	No
527	34.60	2.13	0.61	1.52	0.85	0.524	1.17	0.446	1.00	1.00	2.000	No
528	34.66	2.14	0.61	1.52	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
529	34.73	2.14	0.62	1.53	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
530	34.79	2.14	0.62	1.53	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
531	34.85	2.15	0.62	1.53	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
532	34.92	2.15	0.62	1.53	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
533	34.98	2.16	0.62	1.53	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
534	35.05	2.16	0.63	1.54	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
535	35.12	2.17	0.63	1.54	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
536	35.17	2.17	0.63	1.54	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
537	35.25	2.17	0.63	1.54	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
538	35.31	2.18	0.63	1.54	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
539	35.37	2.18	0.64	1.55	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
540	35.45	2.19	0.64	1.55	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
541	35.50	2.19	0.64	1.55	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
542	35.57	2.19	0.64	1.55	0.84	0.524	1.17	0.446	1.00	1.00	2.000	No
543	35.64	2.20	0.64	1.56	0.84	0.524	1.17	0.447	1.00	1.00	2.000	No
544	35.72	2.20	0.65	1.56	0.84	0.524	1.17	0.447	1.00	1.00	2.000	No
545	35.79	2.21	0.65	1.56	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
546	35.86	2.21	0.65	1.56	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
547	35.92	2.22	0.65	1.56	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
548	35.99	2.22	0.66	1.57	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
549	36.03	2.22	0.66	1.57	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
550	36.10	2.23	0.66	1.57	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
551	36.17	2.23	0.66	1.57	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
552	36.23	2.24	0.66	1.57	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
553	36.30	2.24	0.66	1.58	0.84	0.525	1.17	0.447	1.00	1.00	2.000	No
554	36.37	2.25	0.67	1.58	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
555	36.44	2.25	0.67	1.58	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
556	36.51	2.25	0.67	1.58	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
557	36.55	2.26	0.67	1.58	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
558	36.62	2.26	0.67	1.59	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
559	36.70	2.27	0.68	1.59	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
560	36.75	2.27	0.68	1.59	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
561	36.82	2.27	0.68	1.59	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
562	36.89	2.28	0.68	1.59	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
563	36.96	2.28	0.69	1.60	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
564	37.03	2.29	0.69	1.60	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
565	37.10	2.29	0.69	1.60	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
566	37.17	2.29	0.69	1.60	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
567	37.24	2.30	0.69	1.61	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
568	37.27	2.30	0.69	1.61	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
569	37.34	2.31	0.70	1.61	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
570	37.41	2.31	0.70	1.61	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
571	37.48	2.31	0.70	1.61	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
572	37.56	2.32	0.70	1.62	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
573	37.63	2.32	0.71	1.62	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
574	37.70	2.33	0.71	1.62	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
575	37.77	2.33	0.71	1.62	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
576	37.80	2.33	0.71	1.62	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
577	37.87	2.34	0.71	1.63	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
578	37.93	2.34	0.72	1.63	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
579	38.00	2.35	0.72	1.63	0.83	0.525	1.17	0.447	1.00	1.00	2.000	No
580	38.07	2.35	0.72	1.63	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
581	38.14	2.36	0.72	1.63	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
582	38.21	2.36	0.72	1.64	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
583	38.28	2.37	0.73	1.64	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
584	38.32	2.37	0.73	1.64	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
585	38.39	2.37	0.73	1.64	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
586	38.46	2.38	0.73	1.64	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
587	38.52	2.38	0.73	1.65	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
588	38.59	2.38	0.74	1.65	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
589	38.66	2.39	0.74	1.65	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
590	38.72	2.39	0.74	1.65	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
591	38.78	2.40	0.74	1.65	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
592	38.86	2.40	0.74	1.66	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
593	38.92	2.41	0.75	1.66	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
594	38.98	2.41	0.75	1.66	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
595	39.04	2.41	0.75	1.66	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
596	39.12	2.42	0.75	1.67	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
597	39.17	2.42	0.75	1.67	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
598	39.25	2.43	0.76	1.67	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
599	39.30	2.43	0.76	1.67	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
600	39.38	2.43	0.76	1.67	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
601	39.45	2.44	0.76	1.68	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
602	39.52	2.44	0.77	1.68	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
603	39.59	2.45	0.77	1.68	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
604	39.63	2.45	0.77	1.68	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
605	39.70	2.45	0.77	1.68	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
606	39.77	2.46	0.77	1.69	0.82	0.525	1.17	0.447	1.00	1.00	2.000	No
607	39.84	2.46	0.77	1.69	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
608	39.91	2.47	0.78	1.69	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
609	39.98	2.47	0.78	1.69	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
610	40.03	2.47	0.78	1.69	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
611	40.11	2.48	0.78	1.70	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
612	40.19	2.48	0.79	1.70	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
613	40.24	2.49	0.79	1.70	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
614	40.30	2.49	0.79	1.70	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
615	40.38	2.49	0.79	1.70	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
616	40.43	2.50	0.79	1.70	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
617	40.51	2.50	0.80	1.71	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
618	40.56	2.51	0.80	1.71	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
619	40.63	2.51	0.80	1.71	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
620	40.70	2.51	0.80	1.71	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
621	40.76	2.52	0.80	1.71	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
622	40.84	2.52	0.81	1.72	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
623	40.89	2.53	0.81	1.72	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
624	40.95	2.53	0.81	1.72	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
625	41.03	2.53	0.81	1.72	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
626	41.08	2.54	0.81	1.72	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
627	41.17	2.54	0.82	1.72	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
628	41.22	2.54	0.82	1.73	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
629	41.28	2.55	0.82	1.73	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
630	41.37	2.55	0.82	1.73	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
631	41.44	2.56	0.82	1.73	0.81	0.525	1.17	0.447	1.00	1.00	2.000	No
632	41.50	2.56	0.83	1.73	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
633	41.57	2.56	0.83	1.74	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
634	41.60	2.57	0.83	1.74	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
635	41.67	2.57	0.83	1.74	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
636	41.74	2.58	0.83	1.74	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
637	41.81	2.58	0.84	1.74	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
638	41.88	2.58	0.84	1.74	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
639	41.95	2.59	0.84	1.75	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
640	42.02	2.59	0.84	1.75	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
641	42.08	2.60	0.84	1.75	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
642	42.15	2.60	0.85	1.75	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
643	42.22	2.60	0.85	1.75	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
644	42.29	2.61	0.85	1.76	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
645	42.33	2.61	0.85	1.76	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
646	42.39	2.61	0.85	1.76	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
647	42.46	2.62	0.86	1.76	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
648	42.53	2.62	0.86	1.76	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
649	42.61	2.63	0.86	1.77	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
650	42.67	2.63	0.86	1.77	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
651	42.74	2.63	0.87	1.77	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
652	42.81	2.64	0.87	1.77	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
653	42.85	2.64	0.87	1.77	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
654	42.92	2.65	0.87	1.77	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
655	42.99	2.65	0.87	1.78	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
656	43.06	2.65	0.88	1.78	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
657	43.11	2.66	0.88	1.78	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
658	43.19	2.66	0.88	1.78	0.80	0.525	1.17	0.447	1.00	1.00	2.000	No
659	43.25	2.67	0.88	1.78	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
660	43.33	2.67	0.88	1.79	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
661	43.38	2.67	0.89	1.79	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
662	43.47	2.68	0.89	1.79	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
663	43.52	2.68	0.89	1.79	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
664	43.58	2.69	0.89	1.79	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
665	43.66	2.69	0.89	1.80	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
666	43.72	2.69	0.90	1.80	0.79	0.525	1.17	0.447	1.00	1.00	2.000	No
667	43.77	2.70	0.90	1.80	0.79	0.524	1.17	0.447	1.00	1.00	2.000	No
668	43.85	2.70	0.90	1.80	0.79	0.524	1.17	0.447	1.00	1.00	2.000	No
669	43.90	2.71	0.90	1.80	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
670	43.98	2.71	0.90	1.81	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
671	44.03	2.71	0.91	1.81	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
672	44.12	2.72	0.91	1.81	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
673	44.17	2.72	0.91	1.81	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
674	44.23	2.73	0.91	1.81	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
675	44.30	2.73	0.91	1.82	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
676	44.38	2.74	0.92	1.82	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
677	44.45	2.74	0.92	1.82	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
678	44.52	2.74	0.92	1.82	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
679	44.58	2.75	0.92	1.83	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
680	44.62	2.75	0.92	1.83	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
681	44.69	2.76	0.93	1.83	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
682	44.76	2.76	0.93	1.83	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
683	44.83	2.76	0.93	1.83	0.79	0.524	1.17	0.446	1.00	1.00	2.000	No
684	44.90	2.77	0.93	1.84	0.79	0.523	1.17	0.446	1.00	1.00	2.000	No
685	44.97	2.77	0.94	1.84	0.78	0.523	1.17	0.446	1.00	1.00	2.000	No
686	45.04	2.78	0.94	1.84	0.78	0.523	1.17	0.446	1.00	1.00	2.000	No
687	45.08	2.78	0.94	1.84	0.78	0.523	1.17	0.446	1.00	1.00	2.000	No
688	45.15	2.78	0.94	1.84	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
689	45.21	2.79	0.94	1.85	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
690	45.28	2.79	0.94	1.85	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
691	45.35	2.80	0.95	1.85	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
692	45.41	2.80	0.95	1.85	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
693	45.48	2.81	0.95	1.86	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
694	45.54	2.81	0.95	1.86	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
695	45.62	2.82	0.96	1.86	0.78	0.523	1.17	0.445	1.00	1.00	2.000	No
696	45.67	2.82	0.96	1.86	0.78	0.522	1.17	0.445	1.00	1.00	2.000	No
697	45.75	2.82	0.96	1.87	0.78	0.522	1.17	0.445	1.00	1.00	2.000	No
698	45.80	2.83	0.96	1.87	0.78	0.522	1.17	0.445	1.00	1.00	2.000	No
699	45.87	2.83	0.96	1.87	0.78	0.522	1.17	0.445	1.00	1.00	2.000	No
700	45.94	2.84	0.97	1.87	0.78	0.522	1.17	0.445	1.00	1.00	2.000	No
701	46.00	2.84	0.97	1.87	0.78	0.522	1.17	0.444	1.00	1.00	2.000	No
702	46.07	2.85	0.97	1.88	0.78	0.522	1.17	0.444	1.00	1.00	2.000	No
703	46.14	2.85	0.97	1.88	0.78	0.522	1.17	0.444	1.00	1.00	2.000	No
704	46.21	2.86	0.97	1.88	0.78	0.522	1.17	0.444	1.00	1.00	2.000	No
705	46.26	2.86	0.98	1.88	0.78	0.522	1.17	0.444	1.00	1.00	2.000	No
706	46.33	2.86	0.98	1.89	0.78	0.521	1.17	0.444	1.00	1.00	2.000	No
707	46.40	2.87	0.98	1.89	0.78	0.521	1.17	0.444	1.00	1.00	2.000	No
708	46.48	2.87	0.98	1.89	0.78	0.521	1.17	0.444	1.00	1.00	2.000	No
709	46.53	2.88	0.98	1.89	0.78	0.521	1.17	0.444	1.00	1.00	2.000	No
710	46.60	2.88	0.99	1.90	0.78	0.521	1.17	0.444	1.00	1.00	2.000	No
711	46.68	2.89	0.99	1.90	0.78	0.521	1.17	0.444	1.00	1.00	2.000	No
712	46.73	2.89	0.99	1.90	0.77	0.521	1.17	0.443	1.00	1.00	2.000	No
713	46.80	2.90	0.99	1.90	0.77	0.521	1.17	0.443	1.00	1.00	2.000	No
714	46.85	2.90	0.99	1.91	0.77	0.521	1.17	0.443	1.00	1.00	2.000	No
715	46.93	2.90	1.00	1.91	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No
716	47.00	2.91	1.00	1.91	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No
717	47.05	2.91	1.00	1.91	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No
718	47.13	2.92	1.00	1.92	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No
719	47.20	2.92	1.00	1.92	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No
720	47.28	2.93	1.01	1.92	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition
721	47.31	2.93	1.01	1.92	0.77	0.520	1.17	0.443	1.00	1.00	2.000	No
722	47.39	2.94	1.01	1.93	0.77	0.520	1.17	0.442	1.00	1.00	2.000	No
723	47.46	2.94	1.01	1.93	0.77	0.520	1.17	0.442	1.00	1.00	2.000	No
724	47.51	2.94	1.01	1.93	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
725	47.58	2.95	1.02	1.93	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
726	47.66	2.95	1.02	1.93	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
727	47.72	2.96	1.02	1.94	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
728	47.79	2.96	1.02	1.94	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
729	47.85	2.97	1.03	1.94	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
730	47.92	2.97	1.03	1.94	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
731	47.99	2.98	1.03	1.95	0.77	0.519	1.17	0.442	1.00	1.00	2.000	No
732	48.06	2.98	1.03	1.95	0.77	0.518	1.17	0.441	1.00	1.00	2.000	No
733	48.13	2.99	1.03	1.95	0.77	0.518	1.17	0.441	1.00	1.00	2.000	No
734	48.16	2.99	1.03	1.95	0.77	0.518	1.17	0.441	1.00	1.00	2.000	No
735	48.23	2.99	1.04	1.96	0.77	0.518	1.17	0.441	1.00	1.00	2.000	No
736	48.31	3.00	1.04	1.96	0.77	0.518	1.17	0.441	1.00	1.00	2.000	No
737	48.38	3.00	1.04	1.96	0.77	0.518	1.17	0.441	1.00	1.00	2.000	No
738	48.45	3.01	1.04	1.96	0.76	0.518	1.17	0.441	1.00	1.00	2.000	No
739	48.50	3.01	1.05	1.97	0.76	0.518	1.17	0.441	1.00	1.00	2.000	No
740	48.57	3.02	1.05	1.97	0.76	0.518	1.17	0.441	1.00	1.00	2.000	No
741	48.64	3.02	1.05	1.97	0.76	0.517	1.17	0.441	1.00	1.00	2.000	No
742	48.70	3.02	1.05	1.97	0.76	0.517	1.17	0.441	1.00	1.00	2.000	No
743	48.77	3.03	1.05	1.97	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
744	48.84	3.03	1.06	1.98	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
745	48.91	3.04	1.06	1.98	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
746	48.98	3.04	1.06	1.98	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
747	49.02	3.04	1.06	1.98	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
748	49.09	3.05	1.06	1.98	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
749	49.16	3.05	1.07	1.99	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
750	49.23	3.06	1.07	1.99	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
751	49.28	3.06	1.07	1.99	0.76	0.517	1.17	0.440	1.00	1.00	2.000	No
752	49.35	3.07	1.07	1.99	0.76	0.516	1.17	0.440	1.00	1.00	2.000	No
753	49.42	3.07	1.07	2.00	0.76	0.516	1.17	0.440	1.00	1.00	2.000	No
754	49.48	3.07	1.08	2.00	0.76	0.516	1.17	0.439	1.00	1.00	2.000	No
755	49.55	3.08	1.08	2.00	0.76	0.516	1.17	0.439	1.00	1.00	2.000	No
756	49.62	3.08	1.08	2.00	0.76	0.516	1.17	0.439	1.00	1.00	2.000	No
757	49.69	3.09	1.08	2.01	0.76	0.516	1.17	0.439	1.00	1.00	2.000	No
758	49.75	3.09	1.08	2.01	0.76	0.516	1.17	0.439	1.00	1.00	2.000	No
759	49.82	3.10	1.09	2.01	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
760	49.87	3.10	1.09	2.01	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
761	49.95	3.11	1.09	2.02	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
762	50.00	3.11	1.09	2.02	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
763	50.07	3.11	1.09	2.02	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
764	50.13	3.11	1.10	2.02	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
765	50.20	3.12	1.10	2.02	0.76	0.515	1.17	0.439	1.00	1.00	2.000	No
766	50.28	3.12	1.10	2.02	0.75	0.515	1.17	0.439	1.00	1.00	2.000	No

:: Cyclic Stress Ratio fully adjusted (CSR*) calculation data :: (continued)

Point ID	Depth (ft)	σ_v (tsf)	u_0 (tsf)	σ_v' (tsf)	r_d	CSR	MSF	CSR_{eq}	K_σ	User FS	CSR^*	Belongs to transition

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
σ_v: Total overburden pressure at test point (tsf)
u_0: Water pressure at test point (tsf)
σ_v': Effective overburden pressure based on GWT during earthquake (tsf)
r_d: Nonlinear shear mass factor
CSR: Cyclic Stress Ratio
MSF: Magnitude Scaling Factor
CSR_{eq}: CSR adjusted for M=7.5
K_σ: Effective overburden stress factor
CSR^*: CSR fully adjusted

:: Cyclic Resistance Ratio (CRR) calculation data ::

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
1	0.07	117.59	0.00	1.32	0.35	1.70	181.76	0.00	181.76	4.000	No	No	2.00
2	0.13	113.13	0.00	1.36	0.33	1.70	203.24	0.00	203.24	4.000	No	No	2.00
3	0.22	104.73	0.00	1.43	0.39	1.70	160.28	0.00	160.28	4.000	No	No	2.00
4	0.28	87.91	0.00	1.55	0.42	1.70	141.24	0.00	141.24	4.000	No	No	2.00
5	0.34	76.15	0.00	1.64	0.45	1.70	122.19	0.00	122.19	4.000	No	No	2.00
6	0.40	66.07	2.26	1.74	0.49	1.70	103.60	0.00	103.60	4.000	No	No	2.00
7	0.46	58.26	10.21	1.84	0.50	1.70	92.64	8.06	100.70	4.000	No	No	2.00
8	0.53	53.68	17.11	1.93	0.47	1.70	84.56	27.68	112.24	4.000	No	No	2.00
9	0.59	50.83	23.40	2.01	0.45	1.70	81.50	41.57	123.07	4.000	No	No	2.00
10	0.66	50.20	27.73	2.06	0.44	1.70	78.92	48.23	127.15	4.000	No	No	2.00
11	0.74	49.60	31.59	2.11	0.43	1.70	81.50	53.73	135.24	4.000	No	No	2.00
12	0.80	50.13	33.94	2.14	0.43	1.70	78.61	55.65	134.26	4.000	No	No	2.00
13	0.86	50.67	36.09	2.16	0.42	1.70	81.50	58.36	139.87	4.000	No	No	2.00
14	0.93	52.54	37.02	2.18	0.41	1.70	84.11	59.80	143.90	4.000	No	No	2.00
15	0.99	54.31	38.08	2.19	0.40	1.70	87.61	61.52	149.13	4.000	No	No	2.00
16	1.05	56.02	39.13	2.20	0.40	1.70	90.05	62.97	153.02	4.000	No	No	2.00
17	1.12	58.11	39.91	2.21	0.39	1.70	92.33	64.14	156.47	4.000	No	No	2.00
18	1.20	60.63	40.03	2.21	0.38	1.70	97.67	65.51	163.18	4.000	No	No	2.00
19	1.26	63.64	38.87	2.20	0.38	1.70	102.23	65.65	167.88	4.000	No	No	2.00
20	1.33	66.26	36.57	2.17	0.37	1.70	106.81	64.62	171.43	4.000	No	No	2.00
21	1.39	68.66	33.35	2.13	0.37	1.70	110.31	61.97	172.28	4.000	No	No	2.00
22	1.46	70.94	29.71	2.08	0.37	1.70	113.81	57.93	171.75	4.000	No	No	2.00
23	1.52	72.42	26.62	2.05	0.37	1.70	117.77	53.75	171.51	4.000	No	No	2.00
24	1.58	73.15	24.06	2.01	0.38	1.70	117.46	48.80	166.26	4.000	No	No	2.00
25	1.65	72.90	22.53	1.99	0.38	1.70	117.32	45.48	162.80	4.000	No	No	2.00
26	1.71	72.84	21.97	1.99	0.39	1.70	116.56	44.10	160.66	4.000	No	No	2.00
27	1.77	72.42	23.25	2.00	0.38	1.70	117.17	47.06	164.23	4.000	No	No	2.00
28	1.84	70.97	26.73	2.05	0.37	1.70	115.34	53.48	168.82	4.000	No	No	2.00
29	1.92	67.90	31.68	2.11	0.37	1.70	109.54	59.75	169.29	4.000	No	No	2.00
30	1.98	63.13	37.74	2.18	0.38	1.70	102.39	64.69	167.08	4.000	No	No	2.00
31	2.04	57.75	43.90	2.26	0.39	1.70	92.33	66.98	159.31	4.000	No	No	2.00
32	2.11	52.98	49.48	2.33	0.40	1.70	83.64	67.90	151.55	4.000	No	No	2.00
33	2.17	50.07	53.10	2.38	0.41	1.70	79.38	68.42	147.80	4.000	No	No	2.00
34	2.23	48.81	54.49	2.39	0.41	1.70	78.31	68.69	147.00	4.000	No	No	2.00
35	2.32	48.36	54.46	2.39	0.41	1.70	77.55	68.48	146.03	4.000	No	No	2.00
36	2.38	47.95	54.00	2.39	0.41	1.70	77.25	68.21	145.46	4.000	No	No	2.00
37	2.44	47.57	53.50	2.38	0.41	1.70	76.33	67.76	144.09	4.000	No	No	2.00
38	2.50	47.11	53.17	2.38	0.41	1.70	75.72	67.46	143.18	4.000	No	No	2.00
39	2.57	46.81	52.82	2.37	0.42	1.70	74.97	67.11	142.07	4.000	No	No	2.00
40	2.63	46.73	52.54	2.37	0.42	1.70	74.89	66.97	141.85	4.000	No	No	2.00
41	2.69	46.69	52.49	2.37	0.42	1.70	75.27	67.05	142.32	4.000	No	No	2.00
42	2.77	46.42	52.74	2.37	0.42	1.70	74.81	67.03	141.84	4.000	No	No	2.00
43	2.84	45.73	53.22	2.38	0.42	1.70	73.58	66.90	140.48	4.000	No	No	2.00
44	2.90	45.43	52.83	2.37	0.42	1.70	71.91	66.29	138.20	4.000	No	No	2.00
45	2.96	45.34	51.56	2.36	0.42	1.70	73.36	66.14	139.50	4.000	No	No	2.00
46	3.02	46.36	48.48	2.32	0.42	1.70	73.13	64.65	137.78	4.000	No	No	2.00
47	3.09	48.22	44.77	2.27	0.42	1.70	76.78	63.59	140.37	4.000	No	No	2.00
48	3.15	52.05	40.36	2.22	0.41	1.70	82.28	62.05	144.32	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
49	3.22	56.91	36.81	2.17	0.40	1.70	91.56	61.33	152.90	4.000	No	No	2.00
50	3.28	61.36	34.80	2.15	0.38	1.70	100.25	61.35	161.60	4.000	No	No	2.00
51	3.35	62.90	35.57	2.16	0.38	1.70	103.76	62.93	166.69	4.000	No	No	2.00
52	3.42	64.29	36.09	2.16	0.39	1.70	99.03	62.37	161.40	4.000	No	No	2.00
53	3.48	66.44	35.31	2.15	0.37	1.70	106.95	63.38	170.34	4.000	No	No	2.00
54	3.55	70.77	32.50	2.12	0.36	1.70	114.12	61.76	175.88	4.000	No	No	2.00
55	3.61	74.24	30.25	2.09	0.36	1.70	119.90	59.95	179.85	4.000	No	No	2.00
56	3.68	74.56	29.82	2.09	0.35	1.70	123.71	60.10	183.81	4.000	No	No	2.00
57	3.76	71.46	30.85	2.10	0.36	1.70	115.65	59.93	175.57	4.000	No	No	2.00
58	3.82	65.68	32.92	2.12	0.38	1.70	104.98	60.30	165.28	4.000	No	No	2.00
59	3.88	59.61	34.85	2.15	0.39	1.70	95.84	60.41	156.24	4.000	No	No	2.00
60	3.94	54.68	35.87	2.16	0.41	1.70	86.39	59.27	145.66	4.000	No	No	2.00
61	4.00	50.41	35.88	2.16	0.42	1.70	81.22	58.10	139.32	4.000	No	No	2.00
62	4.09	46.93	34.66	2.15	0.44	1.70	75.27	55.61	130.88	4.000	No	No	2.00
63	4.15	43.64	32.35	2.12	0.45	1.70	69.63	52.05	121.68	4.000	No	No	2.00
64	4.21	40.48	29.64	2.08	0.47	1.70	65.36	48.09	113.45	4.000	No	No	2.00
65	4.28	37.88	26.65	2.05	0.49	1.70	60.02	43.14	103.16	4.000	No	No	2.00
66	4.33	36.02	24.96	2.02	0.50	1.70	57.13	40.11	97.25	4.000	No	No	2.00
67	4.40	35.86	24.58	2.02	0.51	1.70	56.38	39.40	95.78	4.000	No	No	2.00
68	4.48	37.57	23.57	2.01	0.50	1.70	59.27	38.23	97.49	4.000	No	No	2.00
69	4.54	41.52	20.17	1.96	0.50	1.70	65.36	32.68	98.03	4.000	No	No	2.00
70	4.60	47.34	14.55	1.89	0.51	1.70	75.42	19.70	95.12	4.000	No	No	2.00
71	4.67	53.91	8.63	1.82	0.52	1.70	87.30	4.14	91.45	4.000	No	No	2.00
72	4.73	60.08	3.54	1.76	0.50	1.70	97.06	0.01	97.06	4.000	No	No	2.00
73	4.80	65.36	0.35	1.72	0.49	1.70	105.12	0.00	105.12	4.000	No	No	2.00
74	4.86	70.51	0.00	1.69	0.47	1.70	112.75	0.00	112.75	4.000	No	No	2.00
75	4.93	76.23	0.00	1.66	0.45	1.70	121.90	0.00	121.90	4.000	No	No	2.00
76	4.99	82.68	0.00	1.64	0.43	1.70	132.71	0.00	132.71	4.000	No	No	2.00
77	5.05	89.63	0.00	1.62	0.42	1.68	142.25	0.00	142.25	4.000	No	No	2.00
78	5.12	95.92	0.00	1.62	0.40	1.64	150.06	0.00	150.06	4.000	No	No	2.00
79	5.19	100.76	0.00	1.61	0.39	1.62	154.99	0.00	154.99	4.000	No	No	2.00
80	5.25	103.17	0.00	1.62	0.39	1.60	157.36	0.00	157.36	4.000	No	No	2.00
81	5.32	103.99	0.00	1.64	0.39	1.59	156.70	0.00	156.70	4.000	No	No	2.00
82	5.38	104.30	0.00	1.68	0.39	1.59	156.08	0.00	156.08	4.000	No	No	2.00
83	5.47	105.39	1.52	1.73	0.39	1.58	156.52	0.00	156.52	4.000	No	No	2.00
84	5.54	106.72	5.72	1.78	0.39	1.56	158.33	0.53	158.86	4.000	No	No	2.00
85	5.60	106.53	9.42	1.83	0.38	1.54	157.03	7.46	164.49	4.000	No	No	2.00
86	5.67	103.53	12.91	1.87	0.37	1.52	149.93	19.47	169.39	4.000	No	No	2.00
87	5.73	98.22	16.38	1.92	0.37	1.51	140.04	31.20	171.23	4.000	No	No	2.00
88	5.80	92.65	18.73	1.95	0.37	1.51	131.11	37.61	168.71	4.000	No	No	2.00
89	5.87	88.45	19.68	1.96	0.38	1.51	125.29	39.55	164.83	4.000	No	No	2.00
90	5.91	83.70	19.84	1.96	0.38	1.51	122.57	39.63	162.19	4.000	No	No	2.00
91	5.98	77.03	21.13	1.98	0.40	1.53	112.39	41.49	153.88	4.000	No	No	2.00
92	6.05	68.50	23.65	2.01	0.41	1.55	99.14	44.94	144.07	4.000	No	No	2.00
93	6.12	59.87	27.62	2.06	0.42	1.56	88.43	49.88	138.31	4.000	No	No	2.00
94	6.19	52.44	32.20	2.11	0.44	1.57	77.16	53.50	130.66	4.000	No	No	2.00
95	6.26	46.05	37.54	2.18	0.45	1.59	68.14	56.51	124.65	4.000	No	No	2.00
96	6.33	41.72	41.90	2.24	0.46	1.59	61.59	58.04	119.63	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
97	6.37	38.41	45.94	2.29	0.46	1.59	58.60	59.59	118.19	4.000	No	No	2.00
98	6.43	35.56	50.32	2.34	0.47	1.60	53.63	60.35	113.98	4.000	No	No	2.00
99	6.50	32.66	55.51	2.41	0.48	1.60	49.03	61.06	110.09	4.000	No	No	2.00
100	6.57	30.60	59.82	2.46	0.48	1.61	45.77	61.50	107.27	4.000	No	No	2.00
101	6.63	29.78	62.24	2.49	0.49	1.60	44.36	61.76	106.11	4.000	No	No	2.00
102	6.70	30.19	62.78	2.50	0.48	1.59	44.93	62.06	106.99	4.000	No	No	2.00
103	6.77	31.45	62.00	2.49	0.48	1.58	46.79	62.38	109.17	4.000	No	No	2.00
104	6.84	32.56	61.21	2.48	0.47	1.56	48.86	62.75	111.62	4.000	No	No	2.00
105	6.90	33.03	61.01	2.48	0.47	1.56	48.79	62.68	111.47	4.000	No	No	2.00
106	6.97	33.08	61.07	2.48	0.48	1.55	48.08	62.50	110.58	4.000	No	No	2.00
107	7.04	33.12	60.99	2.47	0.48	1.54	48.44	62.57	111.01	4.000	No	No	2.00
108	7.12	33.57	60.27	2.47	0.48	1.54	48.30	62.33	110.64	4.000	No	No	2.00
109	7.15	34.60	59.00	2.45	0.47	1.53	49.33	62.25	111.58	4.000	No	No	2.00
110	7.22	36.43	56.83	2.42	0.47	1.51	52.00	62.32	114.32	4.000	No	No	2.00
111	7.29	38.92	54.32	2.39	0.46	1.50	55.01	62.28	117.29	4.000	No	No	2.00
112	7.36	41.45	52.31	2.37	0.46	1.49	58.43	62.44	120.87	4.000	No	No	2.00
113	7.43	43.91	50.56	2.34	0.45	1.47	61.10	62.43	123.53	4.000	No	No	2.00
114	7.50	45.95	48.90	2.32	0.45	1.46	63.73	62.38	126.11	4.000	No	No	2.00
115	7.57	47.97	46.51	2.29	0.44	1.45	65.56	61.68	127.24	4.000	No	No	2.00
116	7.64	49.74	43.50	2.26	0.44	1.44	68.13	60.65	128.78	4.000	No	No	2.00
117	7.71	51.42	40.35	2.22	0.44	1.44	69.89	59.03	128.92	4.000	No	No	2.00
118	7.75	53.02	37.27	2.18	0.44	1.43	71.57	57.09	128.66	4.000	No	No	2.00
119	7.81	54.35	35.31	2.15	0.44	1.43	73.86	55.91	129.77	4.000	No	No	2.00
120	7.89	54.67	34.69	2.15	0.44	1.42	74.45	55.46	129.91	4.000	No	No	2.00
121	7.95	52.90	36.63	2.17	0.44	1.42	72.00	56.65	128.66	4.000	No	No	2.00
122	8.03	47.74	42.18	2.24	0.45	1.42	66.29	59.38	125.67	4.000	No	No	2.00
123	8.08	42.72	48.67	2.32	0.47	1.44	54.34	59.81	114.15	4.000	No	No	2.00
124	8.15	38.43	55.13	2.40	0.47	1.43	52.32	61.84	114.15	4.000	No	No	2.00
125	8.22	36.63	58.71	2.45	0.47	1.43	49.48	62.21	111.68	4.000	No	No	2.00
126	8.29	34.83	61.66	2.48	0.48	1.43	46.79	62.29	109.08	4.000	No	No	2.00
127	8.36	33.06	63.83	2.51	0.48	1.43	44.96	62.33	107.29	4.000	No	No	2.00
128	8.43	31.01	65.61	2.53	0.49	1.43	42.29	61.99	104.28	4.000	No	No	2.00
129	8.50	29.05	67.04	2.55	0.50	1.43	38.56	61.24	99.80	4.000	No	No	2.00
130	8.54	27.28	67.49	2.56	0.50	1.44	37.18	60.94	98.11	4.000	No	No	2.00
131	8.61	26.33	66.61	2.55	0.51	1.44	35.25	60.19	95.45	4.000	No	No	2.00
132	8.68	25.72	64.98	2.52	0.51	1.43	34.65	59.66	94.30	4.000	No	No	2.00
133	8.74	25.53	63.46	2.51	0.51	1.43	34.49	59.26	93.75	4.000	No	No	2.00
134	8.81	25.50	62.56	2.49	0.51	1.42	34.19	58.96	93.15	4.000	No	No	2.00
135	8.88	25.58	62.33	2.49	0.51	1.42	34.20	58.90	93.10	4.000	No	No	2.00
136	8.96	25.74	62.56	2.49	0.51	1.41	34.41	59.02	93.44	4.000	No	No	2.00
137	8.99	25.89	63.14	2.50	0.51	1.41	34.47	59.18	93.64	4.000	No	No	2.00
138	9.06	26.18	63.97	2.51	0.51	1.40	34.45	59.37	93.81	4.000	No	No	2.00
139	9.14	26.62	64.68	2.52	0.51	1.40	35.14	59.73	94.87	4.000	No	No	2.00
140	9.20	27.19	64.79	2.52	0.51	1.39	35.74	59.93	95.67	4.000	No	No	2.00
141	9.27	27.67	64.51	2.52	0.51	1.38	36.19	59.99	96.19	4.000	No	No	2.00
142	9.34	28.04	64.13	2.51	0.51	1.38	36.53	60.00	96.53	4.000	No	No	2.00
143	9.41	28.26	64.07	2.51	0.51	1.37	36.75	60.05	96.80	4.000	No	No	2.00
144	9.47	28.42	64.03	2.51	0.51	1.37	36.63	60.00	96.63	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
145	9.54	28.48	64.03	2.51	0.51	1.36	36.74	60.04	96.77	4.000	No	No	2.00
146	9.61	28.61	63.84	2.51	0.51	1.36	36.61	59.95	96.57	4.000	No	No	2.00
147	9.65	28.77	63.65	2.51	0.51	1.35	36.78	59.96	96.74	4.000	No	No	2.00
148	9.71	29.50	63.09	2.50	0.51	1.35	37.02	59.89	96.91	4.000	No	No	2.00
149	9.79	31.02	62.11	2.49	0.50	1.34	38.93	60.19	99.12	4.000	No	No	2.00
150	9.85	33.86	59.94	2.46	0.49	1.33	41.86	60.43	102.29	4.000	No	No	2.00
151	9.92	36.83	58.20	2.44	0.48	1.32	46.74	61.29	108.03	4.000	No	No	2.00
152	9.99	38.63	58.04	2.44	0.48	1.31	49.01	61.88	110.89	4.000	No	No	2.00
153	10.06	39.26	59.08	2.45	0.48	1.31	47.76	61.84	109.59	4.000	No	No	2.00
154	10.13	38.88	60.84	2.47	0.47	1.30	48.44	62.53	110.98	4.000	No	No	2.00
155	10.20	39.07	61.33	2.48	0.48	1.30	47.20	62.32	109.52	4.000	No	No	2.00
156	10.24	39.07	60.95	2.47	0.48	1.29	48.00	62.44	110.43	4.000	No	No	2.00
157	10.31	39.70	58.06	2.44	0.48	1.29	48.10	61.63	109.73	4.000	No	No	2.00
158	10.38	40.55	55.00	2.40	0.48	1.29	49.09	60.91	109.99	4.000	No	No	2.00
159	10.45	41.59	52.74	2.37	0.47	1.28	50.60	60.50	111.10	4.000	No	No	2.00
160	10.52	42.32	53.31	2.38	0.47	1.27	51.30	60.90	112.20	4.000	No	No	2.00
161	10.59	41.05	56.26	2.42	0.47	1.27	51.09	61.88	112.98	4.000	No	No	2.00
162	10.65	39.97	59.06	2.45	0.48	1.27	45.79	61.28	107.08	4.000	No	No	2.00
163	10.72	38.67	61.77	2.48	0.48	1.27	47.10	62.41	109.51	4.000	No	No	2.00
164	10.76	38.87	61.85	2.49	0.48	1.27	46.28	62.20	108.48	4.000	No	No	2.00
165	10.84	38.63	61.74	2.48	0.48	1.26	46.08	62.11	108.19	4.000	No	No	2.00
166	10.91	38.60	61.05	2.48	0.48	1.26	45.95	61.89	107.84	4.000	No	No	2.00
167	10.98	39.15	59.73	2.46	0.48	1.26	45.79	61.48	107.26	4.000	No	No	2.00
168	11.05	40.09	58.34	2.44	0.48	1.25	47.57	61.57	109.13	4.000	No	No	2.00
169	11.12	41.10	57.08	2.43	0.48	1.24	48.72	61.49	110.21	4.000	No	No	2.00
170	11.19	41.22	57.00	2.42	0.48	1.24	48.79	61.49	110.27	4.000	No	No	2.00
171	11.26	40.97	57.28	2.43	0.48	1.24	47.60	61.25	108.85	4.000	No	No	2.00
172	11.29	40.65	57.38	2.43	0.48	1.24	47.53	61.26	108.79	4.000	No	No	2.00
173	11.36	40.88	56.84	2.42	0.48	1.23	47.41	61.06	108.46	4.000	No	No	2.00
174	11.43	41.64	55.43	2.41	0.48	1.23	48.04	60.77	108.81	4.000	No	No	2.00
175	11.50	42.88	53.27	2.38	0.48	1.22	49.70	60.46	110.16	4.000	No	No	2.00
176	11.57	44.39	50.20	2.34	0.48	1.22	51.17	59.64	110.81	4.000	No	No	2.00
177	11.63	45.72	46.82	2.30	0.47	1.22	52.75	58.53	111.29	4.000	No	No	2.00
178	11.71	46.70	43.50	2.26	0.48	1.21	53.82	57.06	110.88	4.000	No	No	2.00
179	11.78	47.46	40.67	2.22	0.48	1.21	54.16	55.43	109.59	4.000	No	No	2.00
180	11.84	48.18	38.24	2.19	0.48	1.21	55.02	53.97	108.98	4.000	No	No	2.00
181	11.91	49.13	36.02	2.16	0.48	1.21	55.98	52.47	108.45	4.000	No	No	2.00
182	11.95	50.43	33.19	2.13	0.48	1.21	57.14	50.21	107.35	4.000	No	No	2.00
183	12.01	51.44	30.53	2.09	0.48	1.20	59.16	47.87	107.03	4.000	No	No	2.00
184	12.08	52.58	27.49	2.06	0.49	1.20	59.27	44.15	103.43	4.000	No	No	2.00
185	12.15	53.66	25.21	2.03	0.49	1.20	60.80	41.15	101.94	4.000	No	No	2.00
186	12.22	54.86	23.49	2.01	0.50	1.20	62.61	38.63	101.24	4.000	No	No	2.00
187	12.29	55.56	22.77	2.00	0.50	1.20	63.01	37.43	100.44	4.000	No	No	2.00
188	12.36	55.62	22.66	2.00	0.50	1.19	62.77	37.20	99.97	4.000	No	No	2.00
189	12.43	55.22	23.17	2.00	0.50	1.19	62.37	38.04	100.41	4.000	No	No	2.00
190	12.50	54.71	23.88	2.01	0.50	1.19	61.15	39.07	100.21	4.000	No	No	2.00
191	12.53	54.04	24.79	2.02	0.50	1.18	60.60	40.46	101.07	4.000	No	No	2.00
192	12.60	53.69	25.29	2.03	0.50	1.18	59.71	41.08	100.79	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
193	12.67	53.31	25.51	2.03	0.50	1.18	59.55	41.38	100.94	4.000	No	No	2.00
194	12.74	53.16	25.20	2.03	0.50	1.18	58.92	40.80	99.73	4.000	No	No	2.00
195	12.81	53.22	24.64	2.02	0.50	1.17	58.82	39.91	98.72	4.000	No	No	2.00
196	12.88	54.01	23.53	2.01	0.50	1.17	59.45	38.20	97.64	4.000	No	No	2.00
197	12.96	55.62	21.03	1.98	0.51	1.17	61.29	33.88	95.18	4.000	No	No	2.00
198	13.03	57.43	17.90	1.94	0.52	1.17	64.02	27.40	91.42	4.000	No	No	2.00
199	13.06	59.39	14.74	1.90	0.53	1.17	65.60	19.45	85.05	4.000	No	No	2.00
200	13.13	61.12	13.13	1.88	0.54	1.17	67.95	15.15	83.10	4.000	No	No	2.00
201	13.20	62.96	12.37	1.87	0.54	1.17	69.78	13.14	82.92	4.000	No	No	2.00
202	13.27	64.51	12.15	1.86	0.54	1.17	71.22	12.60	83.82	4.000	No	No	2.00
203	13.34	65.37	12.45	1.87	0.53	1.16	72.39	13.49	85.88	4.000	No	No	2.00
204	13.41	66.98	12.30	1.87	0.53	1.16	71.92	13.06	84.97	4.000	No	No	2.00
205	13.48	69.23	11.85	1.86	0.53	1.15	75.74	11.97	87.71	4.000	No	No	2.00
206	13.55	72.74	10.83	1.85	0.53	1.15	79.02	9.28	88.29	4.000	No	No	2.00
207	13.61	76.28	10.00	1.84	0.52	1.15	82.56	7.22	89.78	4.000	No	No	2.00
208	13.67	80.26	9.05	1.83	0.52	1.14	86.50	5.03	91.52	4.000	No	No	2.00
209	13.74	84.56	7.99	1.81	0.51	1.14	91.05	2.96	94.01	4.000	No	No	2.00
210	13.80	89.36	6.76	1.80	0.51	1.13	95.48	1.25	96.73	4.000	No	No	2.00
211	13.88	93.54	5.70	1.78	0.50	1.13	100.75	0.42	101.17	4.000	No	No	2.00
212	13.92	97.80	4.51	1.77	0.49	1.13	103.32	0.07	103.39	4.000	No	No	2.00
213	13.98	101.91	3.35	1.75	0.48	1.12	107.88	0.00	107.88	4.000	No	No	2.00
214	14.05	106.94	1.89	1.74	0.47	1.12	112.59	0.00	112.59	4.000	No	No	2.00
215	14.13	112.12	0.39	1.72	0.46	1.11	117.72	0.00	117.72	4.000	No	No	2.00
216	14.20	116.90	0.00	1.70	0.45	1.11	122.64	0.00	122.64	4.000	No	No	2.00
217	14.27	120.59	0.00	1.69	0.45	1.10	126.05	0.00	126.05	4.000	No	No	2.00
218	14.34	122.68	0.00	1.68	0.44	1.10	127.94	0.00	127.94	4.000	No	No	2.00
219	14.37	123.13	0.00	1.68	0.44	1.10	128.20	0.00	128.20	4.000	No	No	2.00
220	14.44	121.70	0.00	1.69	0.44	1.10	126.72	0.00	126.72	4.000	No	No	2.00
221	14.51	118.67	0.00	1.70	0.45	1.09	123.09	0.00	123.09	4.000	No	No	2.00
222	14.58	114.18	0.98	1.72	0.46	1.09	118.45	0.00	118.45	4.000	No	No	2.00
223	14.65	109.03	3.07	1.75	0.47	1.09	112.65	0.00	112.65	4.000	No	No	2.00
224	14.72	103.78	5.41	1.78	0.48	1.09	107.06	0.30	107.35	4.000	No	No	2.00
225	14.79	99.13	7.68	1.81	0.49	1.09	102.02	2.55	104.56	4.000	No	No	2.00
226	14.86	95.24	9.70	1.83	0.49	1.09	97.87	6.84	104.72	4.000	No	No	2.00
227	14.93	92.56	11.15	1.85	0.49	1.09	94.42	10.79	105.20	4.000	No	No	2.00
228	14.97	90.44	12.26	1.87	0.48	1.09	93.07	14.05	107.12	4.000	No	No	2.00
229	15.04	89.18	13.11	1.88	0.48	1.08	90.78	16.54	107.32	0.148	No	No	0.37
230	15.11	88.89	13.74	1.88	0.48	1.08	90.06	18.41	108.48	0.150	No	No	0.38
231	15.17	90.95	13.54	1.88	0.48	1.08	91.77	17.91	109.69	0.152	No	No	0.38
232	15.24	96.00	12.15	1.86	0.48	1.08	96.68	13.89	110.57	0.153	No	No	0.39
233	15.31	104.47	9.48	1.83	0.47	1.08	105.13	6.45	111.59	0.155	No	No	0.39
234	15.38	113.74	6.60	1.79	0.46	1.07	117.02	1.17	118.19	0.168	No	No	0.43
235	15.42	125.15	3.07	1.75	0.45	1.07	124.15	0.00	124.15	0.181	No	No	0.47
236	15.49	137.61	0.00	1.70	0.42	1.07	138.54	0.00	138.54	0.228	No	No	0.60
237	15.56	152.27	0.00	1.62	0.40	1.06	153.11	0.00	153.11	0.311	No	No	0.84
238	15.63	165.45	0.00	1.55	0.38	1.06	166.43	0.00	166.43	0.449	No	No	1.25
239	15.70	175.57	0.00	1.50	0.36	1.05	176.32	0.00	176.32	0.630	No	No	1.80
240	15.77	182.20	0.00	1.49	0.35	1.05	181.92	0.00	181.92	0.786	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
241	15.84	185.81	0.00	1.51	0.35	1.05	185.14	0.00	185.14	0.901	No	No	2.00
242	15.91	186.72	0.00	1.53	0.35	1.05	186.27	0.00	186.27	0.948	No	No	2.00
243	15.95	186.22	0.00	1.55	0.35	1.05	184.18	0.00	184.18	0.865	No	No	2.00
244	16.05	185.46	0.00	1.58	0.35	1.05	183.26	0.00	183.26	0.831	No	No	2.00
245	16.08	185.53	0.00	1.60	0.35	1.05	183.72	0.00	183.72	0.848	No	No	2.00
246	16.16	186.03	0.00	1.62	0.35	1.05	183.93	0.00	183.93	0.855	No	No	2.00
247	16.22	186.54	0.00	1.63	0.35	1.05	184.33	0.00	184.33	0.870	No	No	2.00
248	16.29	187.20	0.00	1.64	0.35	1.04	184.74	0.00	184.74	0.886	No	No	2.00
249	16.36	187.17	0.00	1.64	0.35	1.04	185.41	0.00	185.41	0.912	No	No	2.00
250	16.43	185.37	0.00	1.65	0.35	1.04	183.80	0.00	183.80	0.851	No	No	2.00
251	16.50	181.29	0.00	1.66	0.36	1.04	179.12	0.00	179.12	0.702	No	No	1.98
252	16.57	176.87	0.00	1.67	0.37	1.04	173.25	0.00	173.25	0.564	No	No	1.56
253	16.61	172.79	0.00	1.67	0.37	1.04	170.72	0.00	170.72	0.516	No	No	1.42
254	16.68	170.70	0.00	1.68	0.38	1.04	167.03	0.00	167.03	0.458	No	No	1.24
255	16.75	169.47	0.00	1.68	0.38	1.04	166.88	0.00	166.88	0.456	No	No	1.24
256	16.82	170.13	0.00	1.68	0.38	1.04	166.74	0.00	166.74	0.454	No	No	1.23
257	16.89	171.24	0.00	1.68	0.37	1.04	168.50	0.00	168.50	0.480	No	No	1.30
258	16.93	173.39	0.00	1.67	0.37	1.04	169.71	0.00	169.71	0.499	No	No	1.36
259	17.00	175.32	0.00	1.66	0.37	1.04	172.55	0.00	172.55	0.550	No	No	1.51
260	17.07	176.77	0.00	1.65	0.37	1.04	173.69	0.00	173.69	0.572	No	No	1.57
261	17.14	177.15	0.00	1.64	0.37	1.04	173.45	0.00	173.45	0.568	No	No	1.55
262	17.21	177.09	0.00	1.64	0.37	1.04	173.22	0.00	173.22	0.563	No	No	1.54
263	17.28	177.03	0.00	1.63	0.37	1.03	173.08	0.00	173.08	0.560	No	No	1.53
264	17.35	178.29	0.00	1.63	0.37	1.03	172.85	0.00	172.85	0.556	No	No	1.51
265	17.41	181.99	0.00	1.62	0.36	1.03	176.43	0.00	176.43	0.633	No	No	1.73
266	17.49	187.33	0.00	1.61	0.35	1.03	183.25	0.00	183.25	0.831	No	No	2.00
267	17.52	195.46	0.00	1.59	0.35	1.03	187.78	0.00	187.78	1.015	No	No	2.00
268	17.59	205.98	0.00	1.58	0.33	1.03	199.28	0.00	199.28	1.817	No	No	2.00
269	17.66	220.52	0.00	1.55	0.31	1.03	212.90	0.00	212.90	4.000	No	No	2.00
270	17.73	235.88	0.00	1.53	0.29	1.02	228.74	0.00	228.74	4.000	No	No	2.00
271	17.80	250.65	0.00	1.50	0.28	1.02	242.50	0.00	242.50	4.000	No	No	2.00
272	17.87	263.01	0.00	1.47	0.26	1.02	254.36	0.00	254.36	4.000	No	No	2.00
273	17.94	271.26	0.00	1.45	0.26	1.02	263.51	0.00	263.51	4.000	No	No	2.00
274	18.01	275.05	0.00	1.44	0.26	1.02	265.63	0.00	265.63	4.000	No	No	2.00
275	18.05	274.80	0.00	1.44	0.26	1.02	264.91	0.00	264.91	4.000	No	No	2.00
276	18.12	272.68	0.00	1.44	0.26	1.02	262.37	0.00	262.37	4.000	No	No	2.00
277	18.19	270.69	0.00	1.43	0.26	1.02	259.12	0.00	259.12	4.000	No	No	2.00
278	18.26	270.32	0.00	1.42	0.26	1.02	258.69	0.00	258.69	4.000	No	No	2.00
279	18.33	272.91	0.00	1.41	0.26	1.02	260.82	0.00	260.82	4.000	No	No	2.00
280	18.39	275.97	0.00	1.42	0.26	1.01	266.13	0.00	266.13	4.000	No	No	2.00
281	18.46	276.04	0.00	1.44	0.26	1.01	267.05	0.00	267.05	4.000	No	No	2.00
282	18.53	265.92	0.00	1.48	0.26	1.01	260.54	0.00	260.54	4.000	No	No	2.00
283	18.58	255.09	0.00	1.50	0.28	1.01	236.87	0.00	236.87	4.000	No	No	2.00
284	18.64	240.58	0.00	1.53	0.28	1.01	235.75	0.00	235.75	4.000	No	No	2.00
285	18.71	227.21	0.00	1.60	0.31	1.01	218.92	0.00	218.92	4.000	No	No	2.00
286	18.78	205.65	0.24	1.72	0.33	1.01	198.48	0.00	198.48	1.738	No	No	2.00
287	18.84	177.04	11.89	1.86	0.34	1.01	173.87	16.84	190.71	1.164	No	No	2.00
288	18.91	146.85	22.23	1.99	0.35	1.01	136.64	47.79	184.43	0.874	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
289	18.98	118.88	31.64	2.11	0.37	1.01	111.55	60.12	171.67	0.533	No	No	1.40
290	19.05	97.04	39.45	2.21	0.39	1.01	93.38	64.02	157.41	0.347	No	No	0.87
291	19.12	78.33	48.52	2.32	0.42	1.01	73.86	64.86	138.72	0.229	No	No	0.55
292	19.19	62.35	58.71	2.45	0.45	1.01	57.78	64.52	122.30	0.177	No	No	0.42
293	19.26	52.43	65.24	2.53	0.48	1.01	47.41	63.37	110.78	0.153	No	No	0.35
294	19.32	47.64	66.73	2.55	0.48	1.01	45.28	63.11	108.39	0.150	No	No	0.34
295	19.36	45.55	64.37	2.52	0.48	1.01	43.91	62.16	106.07	0.146	No	No	0.33
296	19.43	42.74	64.40	2.52	0.49	1.01	41.33	61.43	102.76	0.141	No	No	0.32
297	19.50	38.85	67.53	2.56	0.50	1.01	37.13	60.93	98.06	0.135	No	No	0.31
298	19.57	35.87	71.57	2.61	0.51	1.01	32.67	0.00	32.67	4.000	No	Yes	2.00
299	19.64	34.35	73.49	2.63	0.51	1.01	32.68	0.00	32.68	4.000	No	Yes	2.00
300	19.71	34.83	72.06	2.61	0.51	1.01	32.70	0.00	32.70	4.000	No	Yes	2.00
301	19.79	35.51	70.24	2.59	0.51	1.01	33.93	60.55	94.47	0.131	No	No	0.29
302	19.82	36.52	68.33	2.57	0.51	1.01	34.54	60.35	94.88	0.131	No	No	0.29
303	19.89	37.18	67.65	2.56	0.51	1.01	35.49	60.48	95.97	0.132	No	No	0.30
304	19.96	37.62	67.02	2.55	0.51	1.00	35.73	60.42	96.15	0.133	No	No	0.30
305	20.03	37.59	67.45	2.56	0.51	1.00	35.70	60.50	96.20	4.000	No	No	2.00
306	20.09	37.58	67.46	2.56	0.51	1.00	35.31	60.39	95.70	4.000	No	No	2.00
307	20.16	37.42	68.19	2.56	0.51	1.00	35.59	60.62	96.21	4.000	No	No	2.00
308	20.23	37.51	68.54	2.57	0.51	1.00	35.15	60.57	95.71	4.000	No	No	2.00
309	20.30	37.87	68.81	2.57	0.51	1.00	35.47	60.72	96.19	4.000	No	No	2.00
310	20.37	38.89	67.71	2.56	0.50	1.00	36.52	60.79	97.31	4.000	No	No	2.00
311	20.43	39.99	63.49	2.51	0.50	1.00	37.92	60.24	98.16	4.000	No	No	2.00
312	20.50	41.35	57.99	2.44	0.50	1.00	38.51	58.94	97.45	4.000	No	No	2.00
313	20.56	42.62	54.88	2.40	0.50	1.00	40.26	58.45	98.72	4.000	No	No	2.00
314	20.64	43.76	56.46	2.42	0.50	1.00	41.38	59.27	100.66	4.000	No	No	2.00
315	20.67	44.42	61.22	2.48	0.49	0.99	41.64	60.72	102.36	4.000	No	No	2.00
316	20.74	38.70	73.09	2.63	0.49	0.99	42.04	0.00	42.04	4.000	No	Yes	2.00
317	20.81	40.66	74.95	2.65	0.54	0.99	25.17	0.00	25.17	4.000	No	Yes	2.00
318	20.88	43.19	74.65	2.65	0.47	0.99	47.05	0.00	47.05	4.000	No	Yes	2.00
319	20.95	52.03	66.99	2.55	0.47	0.99	49.05	64.25	113.30	4.000	No	No	2.00
320	21.02	53.08	67.48	2.56	0.47	0.99	49.98	64.63	114.61	4.000	No	No	2.00
321	21.08	53.61	68.23	2.57	0.47	0.99	49.85	64.76	114.60	4.000	No	No	2.00
322	21.16	54.06	68.79	2.57	0.47	0.99	50.42	65.05	115.46	4.000	No	No	2.00
323	21.22	55.19	68.34	2.57	0.46	0.99	51.08	65.14	116.22	4.000	No	No	2.00
324	21.29	56.20	67.75	2.56	0.46	0.99	52.89	65.53	118.43	4.000	No	No	2.00
325	21.33	56.96	67.01	2.55	0.46	0.99	53.13	65.43	118.57	4.000	No	No	2.00
326	21.39	56.77	66.75	2.55	0.46	0.99	53.08	65.36	118.44	4.000	No	No	2.00
327	21.47	56.45	66.61	2.55	0.46	0.98	52.23	65.08	117.32	4.000	No	No	2.00
328	21.54	56.55	66.26	2.54	0.46	0.98	52.10	64.96	117.06	4.000	No	No	2.00
329	21.61	57.97	64.79	2.52	0.46	0.98	53.20	64.92	118.12	4.000	No	No	2.00
330	21.68	61.35	61.41	2.48	0.45	0.98	56.07	64.84	120.91	4.000	No	No	2.00
331	21.74	65.39	57.42	2.43	0.44	0.98	61.41	65.11	126.52	4.000	No	No	2.00
332	21.82	69.28	53.81	2.39	0.44	0.98	64.36	64.63	128.99	4.000	No	No	2.00
333	21.88	71.80	51.59	2.36	0.44	0.98	66.77	64.39	131.15	4.000	No	No	2.00
334	21.92	74.30	49.75	2.33	0.43	0.98	68.33	63.99	132.32	4.000	No	No	2.00
335	21.99	77.59	47.41	2.31	0.43	0.98	71.18	63.60	134.78	4.000	No	No	2.00
336	22.05	81.53	44.44	2.27	0.42	0.98	75.80	63.14	138.94	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
337	22.13	85.10	41.59	2.23	0.42	0.98	79.17	62.16	141.33	4.000	No	No	2.00
338	22.20	87.19	39.75	2.21	0.42	0.98	80.94	61.27	142.21	4.000	No	No	2.00
339	22.27	88.89	38.42	2.19	0.42	0.98	81.40	60.34	141.74	4.000	No	No	2.00
340	22.34	90.73	37.28	2.18	0.41	0.98	83.71	59.92	143.63	4.000	No	No	2.00
341	22.41	92.78	36.15	2.16	0.41	0.98	85.84	59.41	145.25	4.000	No	No	2.00
342	22.47	94.05	35.50	2.16	0.41	0.97	86.92	59.04	145.97	4.000	No	No	2.00
343	22.51	94.45	35.32	2.15	0.41	0.97	87.06	58.90	145.97	4.000	No	No	2.00
344	22.57	95.12	34.88	2.15	0.41	0.97	86.82	58.41	145.23	4.000	No	No	2.00
345	22.65	96.23	33.94	2.14	0.41	0.97	88.67	57.87	146.54	4.000	No	No	2.00
346	22.71	97.89	32.71	2.12	0.41	0.97	90.00	56.82	146.82	4.000	No	No	2.00
347	22.78	99.06	31.89	2.11	0.41	0.97	91.24	56.13	147.37	4.000	No	No	2.00
348	22.86	99.59	31.61	2.11	0.41	0.97	91.69	55.90	147.59	4.000	No	No	2.00
349	22.92	99.53	29.96	2.09	0.41	0.97	91.24	53.73	144.97	4.000	No	No	2.00
350	23.00	99.00	26.54	2.04	0.42	0.97	90.76	48.63	139.39	4.000	No	No	2.00
351	23.07	98.43	22.61	2.00	0.44	0.97	89.80	41.35	131.16	4.000	No	No	2.00
352	23.10	97.99	21.17	1.98	0.44	0.97	89.29	38.21	127.50	4.000	No	No	2.00
353	23.18	97.73	22.74	2.00	0.44	0.97	89.26	41.52	130.78	4.000	No	No	2.00
354	23.25	97.57	24.52	2.02	0.43	0.96	88.97	44.88	133.84	4.000	No	No	2.00
355	23.31	95.86	26.56	2.04	0.43	0.96	88.77	48.29	137.06	4.000	No	No	2.00
356	23.39	94.73	27.81	2.06	0.43	0.96	84.42	49.39	133.81	4.000	No	No	2.00
357	23.45	93.40	29.28	2.08	0.42	0.96	85.70	51.70	137.40	4.000	No	No	2.00
358	23.52	93.91	30.25	2.09	0.42	0.96	84.95	52.81	137.77	4.000	No	No	2.00
359	23.59	93.68	31.71	2.11	0.42	0.96	85.70	54.76	140.45	4.000	No	No	2.00
360	23.62	94.00	32.88	2.12	0.42	0.96	84.98	55.92	140.90	4.000	No	No	2.00
361	23.69	94.41	33.44	2.13	0.42	0.96	85.72	56.69	142.41	4.000	No	No	2.00
362	23.76	95.93	32.88	2.12	0.42	0.96	86.69	56.30	142.98	4.000	No	No	2.00
363	23.83	98.17	31.70	2.11	0.41	0.96	88.97	55.44	144.41	4.000	No	No	2.00
364	23.90	101.08	30.54	2.09	0.41	0.96	91.68	54.56	146.24	4.000	No	No	2.00
365	23.96	105.00	29.16	2.08	0.41	0.96	94.47	53.27	147.75	4.000	No	No	2.00
366	24.04	111.13	26.36	2.04	0.40	0.96	99.49	49.94	149.43	4.000	No	No	2.00
367	24.11	120.14	21.57	1.98	0.40	0.96	108.19	41.91	150.09	4.000	No	No	2.00
368	24.18	131.81	15.48	1.91	0.41	0.96	118.63	26.20	144.82	4.000	No	No	2.00
369	24.24	146.57	8.82	1.82	0.43	0.95	130.57	5.29	135.86	4.000	No	No	2.00
370	24.31	160.64	3.48	1.76	0.41	0.96	147.89	0.01	147.90	4.000	No	No	2.00
371	24.35	176.31	0.00	1.70	0.39	0.96	156.83	0.00	156.83	4.000	No	No	2.00
372	24.42	190.03	0.00	1.65	0.37	0.96	173.85	0.00	173.85	4.000	No	No	2.00
373	24.48	204.35	0.00	1.61	0.35	0.96	185.97	0.00	185.97	4.000	No	No	2.00
374	24.55	215.76	0.00	1.60	0.33	0.96	196.59	0.00	196.59	4.000	No	No	2.00
375	24.62	225.25	0.00	1.60	0.32	0.96	205.55	0.00	205.55	4.000	No	No	2.00
376	24.69	231.95	0.00	1.61	0.31	0.96	212.28	0.00	212.28	4.000	No	No	2.00
377	24.77	235.71	0.00	1.62	0.31	0.96	215.08	0.00	215.08	4.000	No	No	2.00
378	24.84	237.39	0.00	1.63	0.31	0.96	215.75	0.00	215.75	4.000	No	No	2.00
379	24.87	238.88	0.00	1.64	0.31	0.96	216.67	0.00	216.67	4.000	No	No	2.00
380	24.94	240.90	0.00	1.64	0.31	0.96	218.95	0.00	218.95	4.000	No	No	2.00
381	25.00	243.40	0.00	1.64	0.30	0.96	221.15	0.00	221.15	4.000	No	No	2.00
382	25.07	246.37	0.00	1.64	0.30	0.96	223.34	0.00	223.34	4.000	No	No	2.00
383	25.14	249.78	0.00	1.64	0.30	0.96	226.95	0.00	226.95	4.000	No	No	2.00
384	25.21	253.89	0.00	1.64	0.29	0.96	230.39	0.00	230.39	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
385	25.28	257.46	0.00	1.62	0.29	0.96	234.56	0.00	234.56	4.000	No	No	2.00
386	25.35	259.93	0.00	1.59	0.28	0.96	236.67	0.00	236.67	4.000	No	No	2.00
387	25.42	260.81	0.00	1.56	0.28	0.96	236.98	0.00	236.98	4.000	No	No	2.00
388	25.49	261.29	0.00	1.56	0.28	0.96	236.67	0.00	236.67	4.000	No	No	2.00
389	25.56	261.89	0.00	1.58	0.28	0.96	237.61	0.00	237.61	4.000	No	No	2.00
390	25.60	263.56	0.00	1.58	0.28	0.96	238.34	0.00	238.34	4.000	No	No	2.00
391	25.67	263.06	0.00	1.59	0.28	0.96	241.08	0.00	241.08	4.000	No	No	2.00
392	25.73	261.48	0.00	1.60	0.29	0.96	235.85	0.00	235.85	4.000	No	No	2.00
393	25.80	259.74	0.00	1.60	0.29	0.96	233.48	0.00	233.48	4.000	No	No	2.00
394	25.86	259.33	0.00	1.60	0.29	0.96	235.78	0.00	235.78	4.000	No	No	2.00
395	25.93	260.09	0.00	1.60	0.29	0.96	234.30	0.00	234.30	4.000	No	No	2.00
396	26.00	261.99	0.00	1.59	0.29	0.96	235.24	0.00	235.24	4.000	No	No	2.00
397	26.06	268.47	0.00	1.57	0.28	0.96	240.78	0.00	240.78	4.000	No	No	2.00
398	26.12	280.13	0.00	1.55	0.27	0.96	252.36	0.00	252.36	4.000	No	No	2.00
399	26.19	295.40	0.00	1.51	0.26	0.96	267.42	0.00	267.42	4.000	No	No	2.00
400	26.25	311.62	0.00	1.48	0.26	0.96	282.47	0.00	282.47	4.000	No	No	2.00
401	26.33	326.50	0.00	1.45	0.26	0.96	296.05	0.00	296.05	4.000	No	No	2.00
402	26.39	338.74	0.00	1.42	0.26	0.96	307.40	0.00	307.40	4.000	No	No	2.00
403	26.46	347.37	0.00	1.40	0.26	0.96	315.22	0.00	315.22	4.000	No	No	2.00
404	26.53	352.43	0.00	1.40	0.26	0.96	319.01	0.00	319.01	4.000	No	No	2.00
405	26.60	354.08	0.00	1.40	0.26	0.96	320.65	0.00	320.65	4.000	No	No	2.00
406	26.67	352.91	0.00	1.41	0.26	0.95	319.21	0.00	319.21	4.000	No	No	2.00
407	26.74	350.44	0.00	1.43	0.26	0.95	315.36	0.00	315.36	4.000	No	No	2.00
408	26.77	348.45	0.00	1.45	0.26	0.95	313.57	0.00	313.57	4.000	No	No	2.00
409	26.84	349.33	0.00	1.45	0.26	0.95	313.42	0.00	313.42	4.000	No	No	2.00
410	26.91	351.83	0.00	1.45	0.26	0.95	317.37	0.00	317.37	4.000	No	No	2.00
411	26.98	355.24	0.00	1.45	0.26	0.95	319.85	0.00	319.85	4.000	No	No	2.00
412	27.06	359.32	0.00	1.44	0.26	0.95	322.15	0.00	322.15	4.000	No	No	2.00
413	27.12	364.98	0.00	1.43	0.26	0.95	327.89	0.00	327.89	4.000	No	No	2.00
414	27.20	371.84	0.00	1.42	0.26	0.95	334.63	0.00	334.63	4.000	No	No	2.00
415	27.27	377.15	0.00	1.41	0.26	0.95	340.17	0.00	340.17	4.000	No	No	2.00
416	27.30	380.98	0.00	1.41	0.26	0.95	341.79	0.00	341.79	4.000	No	No	2.00
417	27.37	382.59	0.00	1.41	0.26	0.95	344.51	0.00	344.51	4.000	No	No	2.00
418	27.44	382.12	0.00	1.42	0.26	0.95	344.09	0.00	344.09	4.000	No	No	2.00
419	27.50	378.51	0.00	1.42	0.26	0.95	340.02	0.00	340.02	4.000	No	No	2.00
420	27.57	371.91	0.00	1.41	0.26	0.95	334.33	0.00	334.33	4.000	No	No	2.00
421	27.64	362.90	0.00	1.39	0.26	0.95	325.84	0.00	325.84	4.000	No	No	2.00
422	27.71	351.39	0.00	1.39	0.26	0.95	315.33	0.00	315.33	4.000	No	No	2.00
423	27.78	338.56	0.00	1.41	0.26	0.95	302.94	0.00	302.94	4.000	No	No	2.00
424	27.85	321.58	0.00	1.45	0.26	0.95	290.93	0.00	290.93	4.000	No	No	2.00
425	27.91	305.62	0.00	1.48	0.26	0.95	269.35	0.00	269.35	4.000	No	No	2.00
426	27.97	295.82	0.00	1.51	0.26	0.95	259.76	0.00	259.76	4.000	No	No	2.00
427	28.03	293.39	0.00	1.51	0.26	0.95	264.31	0.00	264.31	4.000	No	No	2.00
428	28.11	293.99	0.00	1.51	0.26	0.95	262.47	0.00	262.47	4.000	No	No	2.00
429	28.16	292.03	0.00	1.52	0.26	0.94	261.02	0.00	261.02	4.000	No	No	2.00
430	28.23	290.39	0.00	1.53	0.26	0.94	258.71	0.00	258.71	4.000	No	No	2.00
431	28.29	289.85	0.00	1.53	0.26	0.94	257.75	0.00	257.75	4.000	No	No	2.00
432	28.36	291.81	0.00	1.53	0.26	0.94	259.23	0.00	259.23	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
433	28.43	294.56	0.00	1.52	0.26	0.94	263.60	0.00	263.60	4.000	No	No	2.00
434	28.50	295.41	0.00	1.52	0.26	0.94	264.74	0.00	264.74	4.000	No	No	2.00
435	28.56	291.71	0.00	1.53	0.26	0.94	261.16	0.00	261.16	4.000	No	No	2.00
436	28.64	285.23	0.00	1.55	0.26	0.94	253.32	0.00	253.32	4.000	No	No	2.00
437	28.71	279.04	0.00	1.57	0.27	0.94	246.61	0.00	246.61	4.000	No	No	2.00
438	28.74	273.98	0.00	1.58	0.28	0.94	243.68	0.00	243.68	4.000	No	No	2.00
439	28.81	269.24	0.00	1.60	0.28	0.94	238.61	0.00	238.61	4.000	No	No	2.00
440	28.87	264.22	0.00	1.61	0.29	0.93	232.85	0.00	232.85	4.000	No	No	2.00
441	28.95	260.74	0.00	1.63	0.29	0.93	229.04	0.00	229.04	4.000	No	No	2.00
442	29.01	259.32	0.00	1.63	0.29	0.93	228.39	0.00	228.39	4.000	No	No	2.00
443	29.08	260.01	0.00	1.64	0.29	0.93	228.44	0.00	228.44	4.000	No	No	2.00
444	29.15	262.00	0.00	1.61	0.29	0.93	230.64	0.00	230.64	4.000	No	No	2.00
445	29.22	265.32	0.00	1.56	0.29	0.93	233.65	0.00	233.65	4.000	No	No	2.00
446	29.29	269.02	0.00	1.52	0.28	0.93	237.48	0.00	237.48	4.000	No	No	2.00
447	29.36	272.19	0.00	1.52	0.28	0.93	240.76	0.00	240.76	4.000	No	No	2.00
448	29.40	275.13	0.00	1.54	0.28	0.93	242.32	0.00	242.32	4.000	No	No	2.00
449	29.47	276.90	0.00	1.55	0.27	0.93	245.52	0.00	245.52	4.000	No	No	2.00
450	29.54	276.97	0.00	1.55	0.27	0.93	245.49	0.00	245.49	4.000	No	No	2.00
451	29.60	274.76	0.00	1.56	0.28	0.93	242.18	0.00	242.18	4.000	No	No	2.00
452	29.69	272.83	0.00	1.56	0.28	0.93	238.84	0.00	238.84	4.000	No	No	2.00
453	29.75	271.39	0.00	1.57	0.28	0.93	239.62	0.00	239.62	4.000	No	No	2.00
454	29.82	270.00	0.00	1.58	0.28	0.93	237.71	0.00	237.71	4.000	No	No	2.00
455	29.89	267.91	0.00	1.59	0.29	0.93	234.53	0.00	234.53	4.000	No	No	2.00
456	29.92	265.61	0.00	1.61	0.29	0.93	233.40	0.00	233.40	4.000	No	No	2.00
457	29.99	263.71	0.00	1.62	0.29	0.93	230.86	0.00	230.86	4.000	No	No	2.00
458	30.07	260.83	0.00	1.64	0.29	0.93	228.84	0.00	228.84	4.000	No	No	2.00
459	30.14	257.04	0.00	1.66	0.30	0.92	224.87	0.00	224.87	4.000	No	No	2.00
460	30.21	252.62	0.00	1.67	0.30	0.92	219.75	0.00	219.75	4.000	No	No	2.00
461	30.28	249.14	0.00	1.67	0.31	0.92	215.97	0.00	215.97	4.000	No	No	2.00
462	30.32	247.12	0.00	1.67	0.31	0.92	214.76	0.00	214.76	4.000	No	No	2.00
463	30.39	245.82	0.00	1.67	0.31	0.92	213.74	0.00	213.74	4.000	No	No	2.00
464	30.45	243.44	0.00	1.66	0.31	0.92	212.03	0.00	212.03	4.000	No	No	2.00
465	30.52	240.18	0.00	1.65	0.32	0.92	207.74	0.00	207.74	4.000	No	No	2.00
466	30.59	237.13	0.00	1.65	0.32	0.91	204.25	0.00	204.25	4.000	No	No	2.00
467	30.66	235.60	0.00	1.62	0.33	0.91	203.17	0.00	203.17	4.000	No	No	2.00
468	30.73	235.37	0.00	1.58	0.33	0.91	203.14	0.00	203.14	4.000	No	No	2.00
469	30.80	235.63	0.00	1.54	0.33	0.91	203.29	0.00	203.29	4.000	No	No	2.00
470	30.86	236.27	0.00	1.55	0.32	0.91	203.54	0.00	203.54	4.000	No	No	2.00
471	30.93	237.78	0.00	1.56	0.32	0.91	204.58	0.00	204.58	4.000	No	No	2.00
472	31.00	238.50	0.00	1.57	0.32	0.91	207.21	0.00	207.21	4.000	No	No	2.00
473	31.04	238.69	0.00	1.58	0.32	0.91	205.29	0.00	205.29	4.000	No	No	2.00
474	31.10	237.77	0.00	1.59	0.32	0.91	204.83	0.00	204.83	4.000	No	No	2.00
475	31.19	237.96	0.00	1.59	0.32	0.91	204.34	0.00	204.34	4.000	No	No	2.00
476	31.25	238.58	0.00	1.59	0.32	0.91	205.48	0.00	205.48	4.000	No	No	2.00
477	31.32	239.71	0.00	1.59	0.32	0.91	206.24	0.00	206.24	4.000	No	No	2.00
478	31.37	240.08	0.00	1.58	0.32	0.91	207.22	0.00	207.22	4.000	No	No	2.00
479	31.45	239.38	0.00	1.58	0.32	0.91	206.21	0.00	206.21	4.000	No	No	2.00
480	31.51	239.01	0.00	1.57	0.32	0.91	203.99	0.00	203.99	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
481	31.58	237.59	0.00	1.58	0.32	0.91	205.85	0.00	205.85	4.000	No	No	2.00
482	31.65	238.25	0.00	1.57	0.33	0.91	201.90	0.00	201.90	4.000	No	No	2.00
483	31.72	238.64	0.00	1.57	0.32	0.91	205.50	0.00	205.50	4.000	No	No	2.00
484	31.79	240.00	0.00	1.57	0.32	0.91	206.63	0.00	206.63	4.000	No	No	2.00
485	31.82	238.76	0.00	1.57	0.32	0.91	205.42	0.00	205.42	4.000	No	No	2.00
486	31.89	235.25	0.00	1.58	0.33	0.90	201.78	0.00	201.78	4.000	No	No	2.00
487	31.96	230.45	0.00	1.59	0.33	0.90	196.55	0.00	196.55	4.000	No	No	2.00
488	32.03	225.20	0.00	1.61	0.34	0.90	191.69	0.00	191.69	4.000	No	No	2.00
489	32.10	220.81	0.00	1.63	0.35	0.90	186.85	0.00	186.85	4.000	No	No	2.00
490	32.17	218.00	0.00	1.64	0.35	0.90	184.02	0.00	184.02	4.000	No	No	2.00
491	32.25	217.15	0.00	1.66	0.35	0.90	183.56	0.00	183.56	4.000	No	No	2.00
492	32.32	217.21	0.00	1.66	0.35	0.90	184.15	0.00	184.15	4.000	No	No	2.00
493	32.35	216.64	0.00	1.65	0.35	0.89	183.92	0.00	183.92	4.000	No	No	2.00
494	32.42	214.84	0.00	1.65	0.35	0.89	181.71	0.00	181.71	4.000	No	No	2.00
495	32.48	212.02	0.00	1.64	0.36	0.89	178.91	0.00	178.91	4.000	No	No	2.00
496	32.55	210.00	0.00	1.63	0.36	0.89	175.85	0.00	175.85	4.000	No	No	2.00
497	32.63	208.96	0.00	1.63	0.36	0.89	175.82	0.00	175.82	4.000	No	No	2.00
498	32.69	209.02	0.00	1.63	0.36	0.89	175.73	0.00	175.73	4.000	No	No	2.00
499	32.76	209.43	0.00	1.61	0.36	0.89	175.71	0.00	175.71	4.000	No	No	2.00
500	32.83	209.40	0.00	1.57	0.36	0.89	176.66	0.00	176.66	4.000	No	No	2.00
501	32.90	208.77	0.00	1.52	0.36	0.89	175.33	0.00	175.33	4.000	No	No	2.00
502	32.97	207.25	0.00	1.50	0.37	0.89	173.67	0.00	173.67	4.000	No	No	2.00
503	33.01	205.00	0.00	1.53	0.37	0.89	172.23	0.00	172.23	4.000	No	No	2.00
504	33.08	202.22	0.00	1.56	0.37	0.88	168.88	0.00	168.88	4.000	No	No	2.00
505	33.15	190.18	0.00	1.62	0.38	0.88	165.77	0.00	165.77	4.000	No	No	2.00
506	33.21	184.33	0.00	1.66	0.42	0.87	139.27	0.00	139.27	4.000	No	No	2.00
507	33.29	179.17	0.00	1.69	0.40	0.87	152.69	0.00	152.69	4.000	No	No	2.00
508	33.35	183.22	0.00	1.68	0.40	0.87	151.50	0.00	151.50	4.000	No	No	2.00
509	33.40	181.42	0.00	1.68	0.40	0.87	149.88	0.00	149.88	4.000	No	No	2.00
510	33.48	179.36	0.00	1.69	0.41	0.87	147.57	0.00	147.57	4.000	No	No	2.00
511	33.54	177.34	0.00	1.70	0.41	0.87	145.70	0.00	145.70	4.000	No	No	2.00
512	33.61	176.01	0.00	1.71	0.41	0.87	144.16	0.00	144.16	4.000	No	No	2.00
513	33.66	176.42	0.66	1.72	0.41	0.87	143.74	0.00	143.74	4.000	No	No	2.00
514	33.73	177.97	0.61	1.72	0.41	0.87	146.54	0.00	146.54	4.000	No	No	2.00
515	33.81	180.25	0.00	1.71	0.41	0.87	148.04	0.00	148.04	4.000	No	No	2.00
516	33.87	183.69	0.00	1.69	0.40	0.87	149.58	0.00	149.58	4.000	No	No	2.00
517	33.95	189.22	0.00	1.66	0.40	0.87	155.52	0.00	155.52	4.000	No	No	2.00
518	34.00	198.26	0.00	1.63	0.38	0.87	162.73	0.00	162.73	4.000	No	No	2.00
519	34.06	212.17	0.00	1.60	0.37	0.88	173.92	0.00	173.92	4.000	No	No	2.00
520	34.13	229.62	0.00	1.56	0.34	0.89	193.42	0.00	193.42	4.000	No	No	2.00
521	34.20	247.32	0.00	1.53	0.32	0.89	210.68	0.00	210.68	4.000	No	No	2.00
522	34.26	260.50	0.00	1.51	0.30	0.90	222.85	0.00	222.85	4.000	No	No	2.00
523	34.32	269.23	0.00	1.49	0.29	0.90	230.08	0.00	230.08	4.000	No	No	2.00
524	34.39	274.85	0.00	1.48	0.29	0.90	235.00	0.00	235.00	4.000	No	No	2.00
525	34.47	279.94	0.00	1.48	0.28	0.90	238.47	0.00	238.47	4.000	No	No	2.00
526	34.53	285.95	0.00	1.48	0.28	0.91	244.22	0.00	244.22	4.000	No	No	2.00
527	34.60	293.35	0.00	1.49	0.27	0.91	251.81	0.00	251.81	4.000	No	No	2.00
528	34.66	300.65	0.00	1.49	0.26	0.91	258.79	0.00	258.79	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
529	34.73	306.15	0.00	1.50	0.26	0.91	263.74	0.00	263.74	4.000	No	No	2.00
530	34.79	308.52	0.00	1.50	0.26	0.91	265.92	0.00	265.92	4.000	No	No	2.00
531	34.85	307.26	0.00	1.47	0.26	0.91	264.60	0.00	264.60	4.000	No	No	2.00
532	34.92	303.46	0.00	1.43	0.26	0.91	260.19	0.00	260.19	4.000	No	No	2.00
533	34.98	298.22	0.00	1.41	0.26	0.91	255.88	0.00	255.88	4.000	No	No	2.00
534	35.05	294.14	0.00	1.43	0.27	0.90	250.44	0.00	250.44	4.000	No	No	2.00
535	35.12	281.81	0.00	1.47	0.27	0.90	248.88	0.00	248.88	4.000	No	No	2.00
536	35.17	276.66	0.00	1.49	0.30	0.89	220.68	0.00	220.68	4.000	No	No	2.00
537	35.25	273.34	0.00	1.52	0.29	0.90	235.42	0.00	235.42	4.000	No	No	2.00
538	35.31	278.43	0.00	1.52	0.28	0.90	239.10	0.00	239.10	4.000	No	No	2.00
539	35.37	274.35	0.00	1.54	0.29	0.90	234.78	0.00	234.78	4.000	No	No	2.00
540	35.45	264.59	0.00	1.57	0.30	0.89	223.54	0.00	223.54	4.000	No	No	2.00
541	35.50	251.21	0.00	1.60	0.32	0.89	211.19	0.00	211.19	4.000	No	No	2.00
542	35.57	237.18	0.00	1.63	0.33	0.88	196.88	0.00	196.88	4.000	No	No	2.00
543	35.64	223.36	0.00	1.65	0.35	0.87	184.11	0.00	184.11	4.000	No	No	2.00
544	35.72	210.34	0.00	1.67	0.37	0.87	172.65	0.00	172.65	4.000	No	No	2.00
545	35.79	197.89	0.00	1.70	0.39	0.86	160.81	0.00	160.81	4.000	No	No	2.00
546	35.86	186.04	1.39	1.73	0.40	0.85	149.92	0.00	149.92	4.000	No	No	2.00
547	35.92	175.01	4.14	1.76	0.42	0.85	140.40	0.03	140.43	4.000	No	No	2.00
548	35.99	166.57	6.53	1.79	0.43	0.84	131.23	1.16	132.39	4.000	No	No	2.00
549	36.03	159.55	9.34	1.83	0.43	0.84	127.98	6.61	134.59	4.000	No	No	2.00
550	36.10	154.97	12.35	1.87	0.42	0.85	123.23	15.95	139.18	4.000	No	No	2.00
551	36.17	152.06	15.55	1.91	0.41	0.85	121.37	26.67	148.04	4.000	No	No	2.00
552	36.23	152.85	15.49	1.91	0.41	0.85	121.95	26.53	148.48	4.000	No	No	2.00
553	36.30	156.77	11.27	1.85	0.43	0.84	124.74	12.40	137.14	4.000	No	No	2.00
554	36.37	162.55	4.88	1.77	0.44	0.84	128.90	0.14	129.04	4.000	No	No	2.00
555	36.44	168.65	0.00	1.71	0.43	0.84	134.37	0.00	134.37	4.000	No	No	2.00
556	36.51	173.90	0.00	1.68	0.42	0.84	139.29	0.00	139.29	4.000	No	No	2.00
557	36.55	179.21	0.00	1.66	0.42	0.85	142.51	0.00	142.51	4.000	No	No	2.00
558	36.62	177.85	0.00	1.68	0.41	0.85	148.23	0.00	148.23	4.000	No	No	2.00
559	36.70	183.38	0.00	1.67	0.43	0.84	135.47	0.00	135.47	4.000	No	No	2.00
560	36.75	190.11	0.00	1.67	0.39	0.85	157.02	0.00	157.02	4.000	No	No	2.00
561	36.82	203.45	0.00	1.66	0.38	0.86	166.13	0.00	166.13	4.000	No	No	2.00
562	36.89	209.80	0.00	1.66	0.37	0.86	171.00	0.00	171.00	4.000	No	No	2.00
563	36.96	212.39	0.00	1.67	0.37	0.86	174.01	0.00	174.01	4.000	No	No	2.00
564	37.03	211.38	0.00	1.68	0.37	0.86	172.88	0.00	172.88	4.000	No	No	2.00
565	37.10	207.52	0.00	1.70	0.38	0.86	167.97	0.00	167.97	4.000	No	No	2.00
566	37.17	202.46	0.27	1.72	0.38	0.85	163.24	0.00	163.24	4.000	No	No	2.00
567	37.24	198.22	1.48	1.73	0.39	0.85	158.88	0.00	158.88	4.000	No	No	2.00
568	37.27	194.31	2.53	1.74	0.39	0.85	156.22	0.00	156.22	4.000	No	No	2.00
569	37.34	190.93	3.30	1.75	0.40	0.85	152.41	0.00	152.42	4.000	No	No	2.00
570	37.41	187.54	3.79	1.76	0.40	0.84	149.53	0.01	149.55	4.000	No	No	2.00
571	37.48	185.27	3.84	1.76	0.41	0.84	146.91	0.02	146.92	4.000	No	No	2.00
572	37.56	184.06	3.91	1.76	0.41	0.84	146.06	0.02	146.08	4.000	No	No	2.00
573	37.63	184.35	4.50	1.77	0.41	0.84	146.06	0.07	146.13	4.000	No	No	2.00
574	37.70	186.18	5.62	1.78	0.41	0.84	147.43	0.45	147.88	4.000	No	No	2.00
575	37.77	188.78	6.72	1.80	0.40	0.84	150.83	1.46	152.29	4.000	No	No	2.00
576	37.80	192.86	7.51	1.81	0.40	0.84	153.03	2.70	155.73	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
577	37.87	197.44	7.75	1.81	0.38	0.85	158.49	3.21	161.70	4.000	No	No	2.00
578	37.93	202.12	7.42	1.81	0.38	0.85	163.09	2.62	165.71	4.000	No	No	2.00
579	38.00	205.44	6.33	1.79	0.38	0.85	165.20	1.06	166.26	4.000	No	No	2.00
580	38.07	206.99	2.39	1.74	0.38	0.85	166.77	0.00	166.77	4.000	No	No	2.00
581	38.14	207.02	0.00	1.66	0.38	0.85	166.68	0.00	166.68	4.000	No	No	2.00
582	38.21	205.75	0.00	1.57	0.38	0.85	164.87	0.00	164.87	4.000	No	No	2.00
583	38.28	204.08	0.00	1.54	0.38	0.85	163.07	0.00	163.07	4.000	No	No	2.00
584	38.32	201.99	0.00	1.58	0.38	0.85	161.92	0.00	161.92	4.000	No	No	2.00
585	38.39	199.24	0.00	1.62	0.39	0.84	159.02	0.00	159.02	4.000	No	No	2.00
586	38.46	184.92	0.00	1.70	0.39	0.84	155.45	0.00	155.45	4.000	No	No	2.00
587	38.52	178.35	2.51	1.74	0.45	0.82	123.78	0.00	123.78	4.000	No	No	2.00
588	38.59	172.56	4.87	1.77	0.42	0.83	141.23	0.14	141.38	4.000	No	No	2.00
589	38.66	177.12	3.89	1.76	0.42	0.83	139.79	0.02	139.80	4.000	No	No	2.00
590	38.72	173.64	5.69	1.78	0.43	0.83	135.45	0.48	135.93	4.000	No	No	2.00
591	38.78	168.61	9.64	1.83	0.42	0.83	132.72	7.54	140.26	4.000	No	No	2.00
592	38.86	162.63	15.09	1.90	0.40	0.84	129.22	25.82	155.04	4.000	No	No	2.00
593	38.92	154.32	21.60	1.98	0.37	0.85	124.22	44.37	168.59	4.000	No	No	2.00
594	38.98	143.00	28.10	2.06	0.37	0.85	115.61	55.83	171.44	4.000	No	No	2.00
595	39.04	125.56	35.78	2.16	0.38	0.84	103.01	62.97	165.98	4.000	No	No	2.00
596	39.12	106.37	44.32	2.27	0.41	0.83	80.91	64.37	145.28	4.000	No	No	2.00
597	39.17	86.76	54.28	2.39	0.43	0.82	67.52	65.67	133.19	4.000	No	No	2.00
598	39.25	72.63	62.71	2.50	0.46	0.81	54.07	64.63	118.70	4.000	No	No	2.00
599	39.30	60.78	70.46	2.59	0.48	0.80	46.22	64.17	110.39	4.000	No	No	2.00
600	39.38	53.29	75.35	2.65	0.49	0.80	38.71	0.00	38.71	4.000	No	Yes	2.00
601	39.45	49.08	77.37	2.68	0.50	0.79	36.08	0.00	36.08	4.000	No	Yes	2.00
602	39.52	48.29	76.03	2.66	0.50	0.79	36.12	0.00	36.12	4.000	No	Yes	2.00
603	39.59	48.64	73.69	2.63	0.50	0.79	36.76	0.00	36.76	4.000	No	Yes	2.00
604	39.63	48.80	71.84	2.61	0.50	0.79	36.80	0.00	36.80	4.000	No	Yes	2.00
605	39.70	47.97	71.58	2.61	0.50	0.79	36.41	0.00	36.41	4.000	No	Yes	2.00
606	39.77	46.61	72.41	2.62	0.51	0.79	34.76	0.00	34.76	4.000	No	Yes	2.00
607	39.84	45.25	74.00	2.64	0.51	0.79	33.56	0.00	33.56	4.000	No	Yes	2.00
608	39.91	44.59	74.80	2.65	0.51	0.79	33.17	0.00	33.17	4.000	No	Yes	2.00
609	39.98	44.43	74.58	2.64	0.51	0.79	33.14	0.00	33.14	4.000	No	Yes	2.00
610	40.03	44.43	73.58	2.63	0.51	0.79	33.12	0.00	33.12	4.000	No	Yes	2.00
611	40.11	44.65	72.43	2.62	0.51	0.79	33.09	0.00	33.09	4.000	No	Yes	2.00
612	40.19	44.75	71.03	2.60	0.51	0.79	33.57	0.00	33.57	4.000	No	Yes	2.00
613	40.24	44.56	69.54	2.58	0.51	0.78	33.26	60.22	93.47	4.000	No	No	2.00
614	40.30	43.71	69.38	2.58	0.52	0.78	32.57	59.98	92.55	4.000	No	No	2.00
615	40.38	42.79	70.48	2.59	0.52	0.78	31.52	59.89	91.41	4.000	No	No	2.00
616	40.43	42.38	72.25	2.62	0.52	0.78	31.09	0.00	31.09	4.000	No	Yes	2.00
617	40.51	41.81	73.97	2.64	0.52	0.78	31.59	0.00	31.59	4.000	No	Yes	2.00
618	40.56	42.06	74.20	2.64	0.52	0.78	30.18	0.00	30.18	4.000	No	Yes	2.00
619	40.63	41.97	74.28	2.64	0.52	0.78	31.62	0.00	31.62	4.000	No	Yes	2.00
620	40.70	42.35	73.43	2.63	0.52	0.78	31.31	0.00	31.31	4.000	No	Yes	2.00
621	40.76	42.06	73.54	2.63	0.52	0.78	31.00	0.00	31.00	4.000	No	Yes	2.00
622	40.84	41.91	73.57	2.63	0.52	0.78	30.90	0.00	30.90	4.000	No	Yes	2.00
623	40.89	41.87	73.39	2.63	0.52	0.78	30.89	0.00	30.89	4.000	No	Yes	2.00
624	40.95	41.84	73.02	2.63	0.52	0.78	30.87	0.00	30.87	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
625	41.03	41.81	72.69	2.62	0.52	0.78	30.78	0.00	30.78	4.000	No	Yes	2.00
626	41.08	41.78	72.45	2.62	0.52	0.78	30.76	0.00	30.76	4.000	No	Yes	2.00
627	41.17	41.72	72.41	2.62	0.52	0.78	30.74	0.00	30.74	4.000	No	Yes	2.00
628	41.22	41.56	72.61	2.62	0.52	0.78	30.58	0.00	30.58	4.000	No	Yes	2.00
629	41.28	41.62	72.66	2.62	0.52	0.77	30.34	0.00	30.34	4.000	No	Yes	2.00
630	41.37	41.75	72.60	2.62	0.52	0.77	30.83	0.00	30.83	4.000	No	Yes	2.00
631	41.44	41.94	72.40	2.62	0.52	0.77	30.81	0.00	30.81	4.000	No	Yes	2.00
632	41.50	41.97	72.41	2.62	0.52	0.77	30.72	0.00	30.72	4.000	No	Yes	2.00
633	41.57	41.94	72.63	2.62	0.52	0.77	30.85	0.00	30.85	4.000	No	Yes	2.00
634	41.60	41.97	72.73	2.62	0.52	0.77	30.69	0.00	30.69	4.000	No	Yes	2.00
635	41.67	42.06	72.54	2.62	0.52	0.77	30.75	0.00	30.75	4.000	No	Yes	2.00
636	41.74	42.22	72.06	2.61	0.52	0.77	31.01	0.00	31.01	4.000	No	Yes	2.00
637	41.81	42.41	71.39	2.60	0.52	0.77	30.99	0.00	30.99	4.000	No	Yes	2.00
638	41.88	42.63	70.75	2.60	0.52	0.77	31.11	59.82	90.93	4.000	No	No	2.00
639	41.95	42.85	70.20	2.59	0.52	0.77	31.45	59.82	91.27	4.000	No	No	2.00
640	42.02	43.01	69.89	2.59	0.52	0.77	31.43	59.75	91.18	4.000	No	No	2.00
641	42.08	43.01	69.96	2.59	0.52	0.77	31.41	59.76	91.18	4.000	No	No	2.00
642	42.15	43.01	70.21	2.59	0.52	0.77	31.40	59.80	91.20	4.000	No	No	2.00
643	42.22	43.04	70.58	2.59	0.52	0.77	31.38	59.87	91.25	4.000	No	No	2.00
644	42.29	43.08	70.93	2.60	0.52	0.77	31.43	59.95	91.38	4.000	No	No	2.00
645	42.33	43.11	71.28	2.60	0.52	0.77	31.43	0.00	31.43	4.000	No	Yes	2.00
646	42.39	43.11	71.60	2.61	0.52	0.77	31.41	0.00	31.41	4.000	No	Yes	2.00
647	42.46	43.11	71.83	2.61	0.52	0.77	31.39	0.00	31.39	4.000	No	Yes	2.00
648	42.53	43.23	71.96	2.61	0.52	0.77	31.37	0.00	31.37	4.000	No	Yes	2.00
649	42.61	43.65	72.10	2.61	0.52	0.77	31.65	0.00	31.65	4.000	No	Yes	2.00
650	42.67	44.22	71.94	2.61	0.51	0.77	32.28	0.00	32.28	4.000	No	Yes	2.00
651	42.74	44.91	69.64	2.58	0.51	0.77	32.61	60.05	92.65	4.000	No	No	2.00
652	42.81	45.45	66.51	2.54	0.51	0.77	33.14	59.56	92.70	4.000	No	No	2.00
653	42.85	46.18	66.08	2.54	0.51	0.77	33.42	59.55	92.97	4.000	No	No	2.00
654	42.92	47.35	70.02	2.59	0.51	0.77	34.23	60.59	94.83	4.000	No	No	2.00
655	42.99	48.29	75.47	2.66	0.50	0.77	35.85	0.00	35.85	4.000	No	Yes	2.00
656	43.06	43.68	85.50	2.78	0.50	0.77	35.67	0.00	35.67	4.000	No	Yes	2.00
657	43.11	45.73	85.58	2.78	0.54	0.76	23.80	0.00	23.80	4.000	No	Yes	2.00
658	43.19	48.90	83.10	2.75	0.49	0.78	40.61	0.00	40.61	4.000	No	Yes	2.00
659	43.25	56.23	75.87	2.66	0.48	0.78	42.90	0.00	42.90	4.000	No	Yes	2.00
660	43.33	55.22	76.80	2.67	0.49	0.77	40.44	0.00	40.44	4.000	No	Yes	2.00
661	43.38	52.34	79.76	2.71	0.49	0.77	38.16	0.00	38.16	4.000	No	Yes	2.00
662	43.47	50.51	81.93	2.74	0.50	0.77	36.18	0.00	36.18	4.000	No	Yes	2.00
663	43.52	49.66	83.14	2.75	0.50	0.77	36.16	0.00	36.16	4.000	No	Yes	2.00
664	43.58	50.80	82.00	2.74	0.50	0.77	36.14	0.00	36.14	4.000	No	Yes	2.00
665	43.66	52.82	80.02	2.71	0.49	0.77	38.72	0.00	38.72	4.000	No	Yes	2.00
666	43.72	55.19	78.05	2.69	0.49	0.77	40.75	0.00	40.75	4.000	No	Yes	2.00
667	43.77	56.42	78.00	2.69	0.49	0.77	41.54	0.00	41.54	4.000	No	Yes	2.00
668	43.85	56.77	78.77	2.70	0.49	0.77	41.51	0.00	41.51	4.000	No	Yes	2.00
669	43.90	57.40	79.06	2.70	0.49	0.77	41.50	0.00	41.50	4.000	No	Yes	2.00
670	43.98	58.07	78.84	2.70	0.48	0.77	42.94	0.00	42.94	4.000	No	Yes	2.00
671	44.03	58.89	77.94	2.69	0.48	0.77	42.98	0.00	42.98	4.000	No	Yes	2.00
672	44.12	58.92	77.46	2.68	0.48	0.77	43.31	0.00	43.31	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
673	44.17	59.17	76.54	2.67	0.48	0.77	42.92	0.00	42.92	4.000	No	Yes	2.00
674	44.23	58.76	76.64	2.67	0.48	0.77	43.49	0.00	43.49	4.000	No	Yes	2.00
675	44.30	57.91	77.25	2.68	0.48	0.77	42.28	0.00	42.28	4.000	No	Yes	2.00
676	44.38	56.58	78.17	2.69	0.49	0.77	40.87	0.00	40.87	4.000	No	Yes	2.00
677	44.45	56.01	78.30	2.69	0.49	0.77	40.33	0.00	40.33	4.000	No	Yes	2.00
678	44.52	56.36	77.70	2.68	0.49	0.77	40.88	0.00	40.88	4.000	No	Yes	2.00
679	44.58	57.02	77.04	2.68	0.49	0.77	41.59	0.00	41.59	4.000	No	Yes	2.00
680	44.62	57.81	76.34	2.67	0.49	0.77	41.79	0.00	41.79	4.000	No	Yes	2.00
681	44.69	59.02	75.47	2.66	0.48	0.77	42.64	0.00	42.64	4.000	No	Yes	2.00
682	44.76	60.09	75.07	2.65	0.48	0.77	44.30	0.00	44.30	4.000	No	Yes	2.00
683	44.83	60.50	75.70	2.66	0.48	0.77	44.20	0.00	44.20	4.000	No	Yes	2.00
684	44.90	60.40	77.13	2.68	0.48	0.77	43.53	0.00	43.53	4.000	No	Yes	2.00
685	44.97	60.94	78.11	2.69	0.48	0.77	44.02	0.00	44.02	4.000	No	Yes	2.00
686	45.04	62.18	78.36	2.69	0.48	0.77	45.39	0.00	45.39	4.000	No	Yes	2.00
687	45.08	64.33	77.75	2.68	0.47	0.77	46.34	0.00	46.34	4.000	No	Yes	2.00
688	45.15	69.04	75.04	2.65	0.47	0.77	48.95	0.00	48.95	4.000	No	Yes	2.00
689	45.21	77.25	70.22	2.59	0.45	0.78	56.35	67.08	123.43	4.000	No	No	2.00
690	45.28	89.67	63.65	2.51	0.43	0.79	65.66	68.18	133.84	4.000	No	No	2.00
691	45.35	108.74	55.03	2.40	0.41	0.80	78.54	68.97	147.51	4.000	No	No	2.00
692	45.41	133.87	45.90	2.29	0.37	0.81	103.01	70.96	173.97	4.000	No	No	2.00
693	45.48	158.08	38.82	2.20	0.33	0.83	128.66	71.89	200.55	4.000	No	No	2.00
694	45.54	178.72	33.85	2.14	0.32	0.84	139.90	69.05	208.95	4.000	No	No	2.00
695	45.62	196.52	29.89	2.09	0.30	0.84	156.12	66.76	222.88	4.000	No	No	2.00
696	45.67	217.79	25.18	2.03	0.29	0.85	174.66	61.05	235.71	4.000	No	No	2.00
697	45.75	237.80	20.65	1.97	0.27	0.86	195.10	51.98	247.07	4.000	No	No	2.00
698	45.80	255.34	16.20	1.91	0.28	0.85	206.64	37.08	243.72	4.000	No	No	2.00
699	45.87	268.53	12.02	1.86	0.28	0.85	216.83	19.52	236.35	4.000	No	No	2.00
700	45.94	279.08	8.42	1.82	0.29	0.85	224.31	5.66	229.97	4.000	No	No	2.00
701	46.00	286.83	6.28	1.79	0.29	0.85	230.04	1.20	231.25	4.000	No	No	2.00
702	46.07	291.67	5.22	1.78	0.29	0.85	235.10	0.33	235.43	4.000	No	No	2.00
703	46.14	295.31	5.34	1.78	0.28	0.85	236.82	0.39	237.21	4.000	No	No	2.00
704	46.21	297.17	5.94	1.79	0.28	0.85	240.05	0.85	240.90	4.000	No	No	2.00
705	46.26	298.94	7.43	1.81	0.28	0.85	240.69	3.23	243.93	4.000	No	No	2.00
706	46.33	300.99	8.72	1.82	0.27	0.86	242.83	6.90	249.74	4.000	No	No	2.00
707	46.40	303.78	10.14	1.84	0.26	0.86	246.96	12.44	259.40	4.000	No	No	2.00
708	46.48	306.75	11.42	1.86	0.26	0.86	248.87	18.25	267.12	4.000	No	No	2.00
709	46.53	309.91	12.82	1.87	0.26	0.86	250.57	25.11	275.68	4.000	No	No	2.00
710	46.60	313.86	13.94	1.89	0.26	0.86	254.39	30.87	285.27	4.000	No	No	2.00
711	46.68	318.41	14.69	1.90	0.26	0.86	258.21	34.83	293.04	4.000	No	No	2.00
712	46.73	322.17	15.17	1.90	0.26	0.86	261.37	37.46	298.83	4.000	No	No	2.00
713	46.80	324.55	15.54	1.91	0.26	0.86	263.26	39.42	302.69	4.000	No	No	2.00
714	46.85	325.49	16.26	1.92	0.26	0.86	263.74	42.91	306.64	4.000	No	No	2.00
715	46.93	325.09	17.31	1.93	0.26	0.86	263.40	47.75	311.15	4.000	No	No	2.00
716	47.00	324.52	18.30	1.94	0.26	0.86	261.99	51.95	313.95	4.000	No	No	2.00
717	47.05	323.51	14.94	1.90	0.26	0.86	262.08	36.39	298.47	4.000	No	No	2.00
718	47.13	319.40	9.89	1.84	0.26	0.85	260.67	11.75	272.42	4.000	No	No	2.00
719	47.20	310.70	5.41	1.78	0.27	0.85	251.28	0.45	251.73	4.000	No	No	2.00
720	47.28	300.11	7.01	1.80	0.28	0.85	238.50	2.36	240.85	4.000	No	No	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS
721	47.31	289.46	10.99	1.85	0.27	0.85	234.02	15.68	249.70	4.000	No	No	2.00
722	47.39	279.57	15.14	1.90	0.26	0.85	225.75	34.27	260.02	4.000	No	No	2.00
723	47.46	214.93	32.12	2.11	0.26	0.85	216.57	83.09	299.65	4.000	No	No	2.00
724	47.51	201.87	38.62	2.20	0.44	0.77	70.24	57.85	128.09	4.000	No	No	2.00
725	47.58	184.68	45.65	2.28	0.26	0.85	193.96	94.07	288.03	4.000	No	No	2.00
726	47.66	215.59	38.96	2.20	0.26	0.85	174.78	83.01	257.78	4.000	No	No	2.00
727	47.72	190.59	46.05	2.29	0.29	0.84	150.65	83.29	233.93	4.000	No	No	2.00
728	47.79	167.70	52.85	2.37	0.32	0.83	129.25	81.77	211.02	4.000	No	No	2.00
729	47.85	148.23	59.11	2.45	0.34	0.81	114.14	80.38	194.52	4.000	No	No	2.00
730	47.92	133.56	64.10	2.51	0.36	0.80	99.58	77.98	177.56	4.000	No	No	2.00
731	47.99	122.18	67.93	2.56	0.37	0.80	91.41	76.72	168.13	4.000	No	No	2.00
732	48.06	114.79	69.71	2.58	0.39	0.79	85.12	75.35	160.47	4.000	No	No	2.00
733	48.13	109.67	70.33	2.59	0.40	0.78	80.87	74.25	155.13	4.000	No	No	2.00
734	48.16	105.40	70.24	2.59	0.40	0.78	78.50	73.54	152.05	4.000	No	No	2.00
735	48.23	102.74	70.21	2.59	0.41	0.78	74.43	72.35	146.78	4.000	No	No	2.00
736	48.31	102.14	69.63	2.58	0.41	0.78	74.22	72.15	146.37	4.000	No	No	2.00
737	48.38	102.62	68.93	2.57	0.40	0.78	76.87	72.76	149.62	4.000	No	No	2.00
738	48.45	100.59	68.85	2.57	0.41	0.78	75.43	72.32	147.75	4.000	No	No	2.00
739	48.50	94.59	69.70	2.58	0.42	0.77	69.20	70.71	139.90	4.000	No	No	2.00
740	48.57	86.02	71.59	2.61	0.44	0.76	62.30	0.00	62.30	4.000	No	Yes	2.00
741	48.64	77.61	73.71	2.63	0.45	0.75	54.93	0.00	54.93	4.000	No	Yes	2.00
742	48.70	70.22	75.75	2.66	0.47	0.75	49.36	0.00	49.36	4.000	No	Yes	2.00
743	48.77	64.82	76.21	2.67	0.48	0.74	45.06	0.00	45.06	4.000	No	Yes	2.00
744	48.84	60.74	76.60	2.67	0.48	0.74	42.46	0.00	42.46	4.000	No	Yes	2.00
745	48.91	58.11	75.30	2.65	0.49	0.74	39.99	0.00	39.99	4.000	No	Yes	2.00
746	48.98	56.63	74.99	2.65	0.49	0.73	39.05	0.00	39.05	4.000	No	Yes	2.00
747	49.02	58.52	75.31	2.65	0.49	0.73	39.04	0.00	39.04	4.000	No	Yes	2.00
748	49.09	69.59	72.81	2.62	0.48	0.74	44.19	0.00	44.19	4.000	No	Yes	2.00
749	49.16	92.31	65.04	2.53	0.43	0.76	64.37	68.18	132.55	4.000	No	No	2.00
750	49.23	121.96	55.34	2.40	0.38	0.79	92.65	72.95	165.60	4.000	No	No	2.00
751	49.28	154.49	47.02	2.30	0.34	0.81	115.86	74.96	190.82	4.000	No	No	2.00
752	49.35	178.64	42.64	2.25	0.30	0.83	146.52	79.61	226.13	4.000	No	No	2.00
753	49.42	200.99	39.21	2.20	0.29	0.83	155.07	78.57	233.64	4.000	No	No	2.00
754	49.48	217.30	37.27	2.18	0.26	0.85	175.19	81.21	256.39	4.000	No	No	2.00
755	49.55	232.89	35.81	2.16	0.26	0.85	188.54	82.46	271.00	4.000	No	No	2.00
756	49.62	241.04	36.13	2.16	0.26	0.84	194.61	84.27	278.89	4.000	No	No	2.00
757	49.69	238.07	37.95	2.19	0.26	0.84	194.54	86.54	281.09	4.000	No	No	2.00
758	49.75	222.51	41.21	2.23	0.26	0.84	181.24	86.88	268.12	4.000	No	No	2.00
759	49.82	197.86	45.89	2.29	0.28	0.84	155.55	84.43	239.98	4.000	No	No	2.00
760	49.87	165.33	42.96	2.25	0.32	0.81	130.46	75.87	206.33	4.000	No	No	2.00
761	49.95	134.13	34.99	2.15	0.39	0.78	94.92	60.34	155.27	4.000	No	No	2.00
762	50.00	106.56	100.00	4.06	0.40	0.77	75.58	0.00	75.58	4.000	No	Yes	2.00
763	50.07	89.68	100.00	4.06	0.43	0.76	62.41	0.00	62.41	4.000	No	Yes	2.00
764	50.13	79.76	100.00	4.06	0.44	0.75	56.01	0.00	56.01	4.000	No	Yes	2.00
765	50.20	73.22	100.00	4.06	0.45	0.75	51.97	0.00	51.97	4.000	No	Yes	2.00
766	50.28	69.39	100.00	4.06	0.47	0.74	47.17	0.00	47.17	4.000	No	Yes	2.00

:: Cyclic Resistance Ratio (CRR) calculation data :: (continued)

Point ID	Depth (ft)	q_t (tsf)	FC (%)	Ic	m	C_N	q_{c1N}	Δq_{c1N}	$q_{c1N,cs}$	$CRR_{7.5}$	Belongs to trans. layer	Clay-like behaviour	FS

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
q_t: Total cone resistance
FC: Fines content (%)
I_c: Soil behavior type index
m: Stress exponent
C_N: Overburden correction factor
q_{c1N}: Normalized and adjusted cone resistance
Δq_{c1N}: Cone resistance correction factor due to fines
$q_{c1N,cs}$: Normalized and adjusted cone resistance
$CRR_{7.5}$: Cyclic resistance ratio for M_w=7.5
FS: Factor of safety against soil liquefaction

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
0.07	2.00	0.00	0.00	0.06	0.00	0.13	2.00	0.00	0.00	0.06	0.00
0.22	2.00	0.00	0.00	0.08	0.00	0.28	2.00	0.00	0.00	0.06	0.00
0.34	2.00	0.00	0.00	0.06	0.00	0.40	2.00	0.00	0.00	0.06	0.00
0.46	2.00	0.00	0.00	0.06	0.00	0.53	2.00	0.00	0.00	0.07	0.00
0.59	2.00	0.00	0.00	0.06	0.00	0.66	2.00	0.00	0.00	0.07	0.00
0.74	2.00	0.00	0.00	0.08	0.00	0.80	2.00	0.00	0.00	0.06	0.00
0.86	2.00	0.00	0.00	0.06	0.00	0.93	2.00	0.00	0.00	0.07	0.00
0.99	2.00	0.00	0.00	0.06	0.00	1.05	2.00	0.00	0.00	0.06	0.00
1.12	2.00	0.00	0.00	0.06	0.00	1.20	2.00	0.00	0.00	0.08	0.00
1.26	2.00	0.00	0.00	0.06	0.00	1.33	2.00	0.00	0.00	0.06	0.00
1.39	2.00	0.00	0.00	0.07	0.00	1.46	2.00	0.00	0.00	0.07	0.00
1.52	2.00	0.00	0.00	0.06	0.00	1.58	2.00	0.00	0.00	0.06	0.00
1.65	2.00	0.00	0.00	0.06	0.00	1.71	2.00	0.00	0.00	0.06	0.00
1.77	2.00	0.00	0.00	0.07	0.00	1.84	2.00	0.00	0.00	0.06	0.00
1.92	2.00	0.00	0.00	0.08	0.00	1.98	2.00	0.00	0.00	0.06	0.00
2.04	2.00	0.00	0.00	0.06	0.00	2.11	2.00	0.00	0.00	0.06	0.00
2.17	2.00	0.00	0.00	0.06	0.00	2.23	2.00	0.00	0.00	0.06	0.00
2.32	2.00	0.00	0.00	0.08	0.00	2.38	2.00	0.00	0.00	0.06	0.00
2.44	2.00	0.00	0.00	0.06	0.00	2.50	2.00	0.00	0.00	0.06	0.00
2.57	2.00	0.00	0.00	0.06	0.00	2.63	2.00	0.00	0.00	0.06	0.00
2.69	2.00	0.00	0.00	0.07	0.00	2.77	2.00	0.00	0.00	0.08	0.00
2.84	2.00	0.00	0.00	0.07	0.00	2.90	2.00	0.00	0.00	0.06	0.00
2.96	2.00	0.00	0.00	0.06	0.00	3.02	2.00	0.00	0.00	0.06	0.00
3.09	2.00	0.00	0.00	0.07	0.00	3.15	2.00	0.00	0.00	0.06	0.00
3.22	2.00	0.00	0.00	0.07	0.00	3.28	2.00	0.00	0.00	0.06	0.00
3.35	2.00	0.00	0.00	0.06	0.00	3.42	2.00	0.00	0.00	0.07	0.00
3.48	2.00	0.00	0.00	0.07	0.00	3.55	2.00	0.00	0.00	0.06	0.00
3.61	2.00	0.00	0.00	0.07	0.00	3.68	2.00	0.00	0.00	0.06	0.00
3.76	2.00	0.00	0.00	0.08	0.00	3.82	2.00	0.00	0.00	0.06	0.00
3.88	2.00	0.00	0.00	0.06	0.00	3.94	2.00	0.00	0.00	0.06	0.00
4.00	2.00	0.00	0.00	0.06	0.00	4.09	2.00	0.00	0.00	0.08	0.00
4.15	2.00	0.00	0.00	0.06	0.00	4.21	2.00	0.00	0.00	0.06	0.00
4.28	2.00	0.00	0.00	0.07	0.00	4.33	2.00	0.00	0.00	0.06	0.00
4.40	2.00	0.00	0.00	0.06	0.00	4.48	2.00	0.00	0.00	0.08	0.00
4.54	2.00	0.00	0.00	0.06	0.00	4.60	2.00	0.00	0.00	0.07	0.00
4.67	2.00	0.00	0.00	0.07	0.00	4.73	2.00	0.00	0.00	0.06	0.00
4.80	2.00	0.00	0.00	0.07	0.00	4.86	2.00	0.00	0.00	0.06	0.00
4.93	2.00	0.00	0.00	0.07	0.00	4.99	2.00	0.00	0.00	0.06	0.00
5.05	2.00	0.00	0.00	0.06	0.00	5.12	2.00	0.00	0.00	0.07	0.00
5.19	2.00	0.00	0.00	0.07	0.00	5.25	2.00	0.00	0.00	0.06	0.00
5.32	2.00	0.00	0.00	0.07	0.00	5.38	2.00	0.00	0.00	0.06	0.00
5.47	2.00	0.00	0.00	0.09	0.00	5.54	2.00	0.00	0.00	0.07	0.00
5.60	2.00	0.00	0.00	0.06	0.00	5.67	2.00	0.00	0.00	0.07	0.00
5.73	2.00	0.00	0.00	0.07	0.00	5.80	2.00	0.00	0.00	0.07	0.00
5.87	2.00	0.00	0.00	0.07	0.00	5.91	2.00	0.00	0.00	0.04	0.00
5.98	2.00	0.00	0.00	0.07	0.00	6.05	2.00	0.00	0.00	0.07	0.00
6.12	2.00	0.00	0.00	0.07	0.00	6.19	2.00	0.00	0.00	0.07	0.00
6.26	2.00	0.00	0.00	0.07	0.00	6.33	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
6.37	2.00	0.00	0.00	0.04	0.00	6.43	2.00	0.00	0.00	0.07	0.00
6.50	2.00	0.00	0.00	0.07	0.00	6.57	2.00	0.00	0.00	0.06	0.00
6.63	2.00	0.00	0.00	0.07	0.00	6.70	2.00	0.00	0.00	0.07	0.00
6.77	2.00	0.00	0.00	0.07	0.00	6.84	2.00	0.00	0.00	0.07	0.00
6.90	2.00	0.00	0.00	0.06	0.00	6.97	2.00	0.00	0.00	0.07	0.00
7.04	2.00	0.00	0.00	0.07	0.00	7.12	2.00	0.00	0.00	0.08	0.00
7.15	2.00	0.00	0.00	0.04	0.00	7.22	2.00	0.00	0.00	0.07	0.00
7.29	2.00	0.00	0.00	0.07	0.00	7.36	2.00	0.00	0.00	0.07	0.00
7.43	2.00	0.00	0.00	0.07	0.00	7.50	2.00	0.00	0.00	0.07	0.00
7.57	2.00	0.00	0.00	0.07	0.00	7.64	2.00	0.00	0.00	0.07	0.00
7.71	2.00	0.00	0.00	0.07	0.00	7.75	2.00	0.00	0.00	0.04	0.00
7.81	2.00	0.00	0.00	0.07	0.00	7.89	2.00	0.00	0.00	0.07	0.00
7.95	2.00	0.00	0.00	0.07	0.00	8.03	2.00	0.00	0.00	0.07	0.00
8.08	2.00	0.00	0.00	0.06	0.00	8.15	2.00	0.00	0.00	0.07	0.00
8.22	2.00	0.00	0.00	0.07	0.00	8.29	2.00	0.00	0.00	0.07	0.00
8.36	2.00	0.00	0.00	0.07	0.00	8.43	2.00	0.00	0.00	0.07	0.00
8.50	2.00	0.00	0.00	0.07	0.00	8.54	2.00	0.00	0.00	0.04	0.00
8.61	2.00	0.00	0.00	0.07	0.00	8.68	2.00	0.00	0.00	0.07	0.00
8.74	2.00	0.00	0.00	0.07	0.00	8.81	2.00	0.00	0.00	0.07	0.00
8.88	2.00	0.00	0.00	0.07	0.00	8.96	2.00	0.00	0.00	0.07	0.00
8.99	2.00	0.00	0.00	0.04	0.00	9.06	2.00	0.00	0.00	0.07	0.00
9.14	2.00	0.00	0.00	0.07	0.00	9.20	2.00	0.00	0.00	0.06	0.00
9.27	2.00	0.00	0.00	0.07	0.00	9.34	2.00	0.00	0.00	0.07	0.00
9.41	2.00	0.00	0.00	0.07	0.00	9.47	2.00	0.00	0.00	0.07	0.00
9.54	2.00	0.00	0.00	0.07	0.00	9.61	2.00	0.00	0.00	0.07	0.00
9.65	2.00	0.00	0.00	0.04	0.00	9.71	2.00	0.00	0.00	0.06	0.00
9.79	2.00	0.00	0.00	0.07	0.00	9.85	2.00	0.00	0.00	0.07	0.00
9.92	2.00	0.00	0.00	0.07	0.00	9.99	2.00	0.00	0.00	0.07	0.00
10.06	2.00	0.00	0.00	0.07	0.00	10.13	2.00	0.00	0.00	0.07	0.00
10.20	2.00	0.00	0.00	0.07	0.00	10.24	2.00	0.00	0.00	0.04	0.00
10.31	2.00	0.00	0.00	0.07	0.00	10.38	2.00	0.00	0.00	0.07	0.00
10.45	2.00	0.00	0.00	0.07	0.00	10.52	2.00	0.00	0.00	0.07	0.00
10.59	2.00	0.00	0.00	0.07	0.00	10.65	2.00	0.00	0.00	0.06	0.00
10.72	2.00	0.00	0.00	0.08	0.00	10.76	2.00	0.00	0.00	0.04	0.00
10.84	2.00	0.00	0.00	0.08	0.00	10.91	2.00	0.00	0.00	0.07	0.00
10.98	2.00	0.00	0.00	0.07	0.00	11.05	2.00	0.00	0.00	0.07	0.00
11.12	2.00	0.00	0.00	0.07	0.00	11.19	2.00	0.00	0.00	0.07	0.00
11.26	2.00	0.00	0.00	0.07	0.00	11.29	2.00	0.00	0.00	0.04	0.00
11.36	2.00	0.00	0.00	0.07	0.00	11.43	2.00	0.00	0.00	0.07	0.00
11.50	2.00	0.00	0.00	0.07	0.00	11.57	2.00	0.00	0.00	0.07	0.00
11.63	2.00	0.00	0.00	0.07	0.00	11.71	2.00	0.00	0.00	0.07	0.00
11.78	2.00	0.00	0.00	0.07	0.00	11.84	2.00	0.00	0.00	0.07	0.00
11.91	2.00	0.00	0.00	0.07	0.00	11.95	2.00	0.00	0.00	0.04	0.00
12.01	2.00	0.00	0.00	0.07	0.00	12.08	2.00	0.00	0.00	0.07	0.00
12.15	2.00	0.00	0.00	0.07	0.00	12.22	2.00	0.00	0.00	0.07	0.00
12.29	2.00	0.00	0.00	0.07	0.00	12.36	2.00	0.00	0.00	0.07	0.00
12.43	2.00	0.00	0.00	0.07	0.00	12.50	2.00	0.00	0.00	0.07	0.00
12.53	2.00	0.00	0.00	0.03	0.00	12.60	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
12.67	2.00	0.00	0.00	0.07	0.00	12.74	2.00	0.00	0.00	0.07	0.00
12.81	2.00	0.00	0.00	0.07	0.00	12.88	2.00	0.00	0.00	0.07	0.00
12.96	2.00	0.00	0.00	0.07	0.00	13.03	2.00	0.00	0.00	0.07	0.00
13.06	2.00	0.00	0.00	0.04	0.00	13.13	2.00	0.00	0.00	0.07	0.00
13.20	2.00	0.00	0.00	0.07	0.00	13.27	2.00	0.00	0.00	0.07	0.00
13.34	2.00	0.00	0.00	0.07	0.00	13.41	2.00	0.00	0.00	0.07	0.00
13.48	2.00	0.00	0.00	0.07	0.00	13.55	2.00	0.00	0.00	0.07	0.00
13.61	2.00	0.00	0.00	0.06	0.00	13.67	2.00	0.00	0.00	0.06	0.00
13.74	2.00	0.00	0.00	0.07	0.00	13.80	2.00	0.00	0.00	0.06	0.00
13.88	2.00	0.00	0.00	0.07	0.00	13.92	2.00	0.00	0.00	0.04	0.00
13.98	2.00	0.00	0.00	0.07	0.00	14.05	2.00	0.00	0.00	0.07	0.00
14.13	2.00	0.00	0.00	0.08	0.00	14.20	2.00	0.00	0.00	0.07	0.00
14.27	2.00	0.00	0.00	0.07	0.00	14.34	2.00	0.00	0.00	0.07	0.00
14.37	2.00	0.00	0.00	0.03	0.00	14.44	2.00	0.00	0.00	0.07	0.00
14.51	2.00	0.00	0.00	0.07	0.00	14.58	2.00	0.00	0.00	0.07	0.00
14.65	2.00	0.00	0.00	0.07	0.00	14.72	2.00	0.00	0.00	0.07	0.00
14.79	2.00	0.00	0.00	0.07	0.00	14.86	2.00	0.00	0.00	0.07	0.00
14.93	2.00	0.00	0.00	0.07	0.00	14.97	2.00	0.00	0.00	0.04	0.00
15.04	0.37	0.63	0.37	0.07	0.10	15.11	0.38	0.62	0.37	0.07	0.10
15.17	0.38	0.62	0.37	0.07	0.10	15.24	0.39	0.61	0.38	0.07	0.10
15.31	0.39	0.61	0.38	0.07	0.10	15.38	0.43	0.57	0.41	0.07	0.10
15.42	0.47	0.53	0.44	0.04	0.04	15.49	0.60	0.40	0.63	0.07	0.07
15.56	0.84	0.16	2.41	0.07	0.03	15.63	1.25	0.00	0.00	0.07	0.00
15.70	1.80	0.00	0.00	0.07	0.00	15.77	2.00	0.00	0.00	0.06	0.00
15.84	2.00	0.00	0.00	0.07	0.00	15.91	2.00	0.00	0.00	0.07	0.00
15.95	2.00	0.00	0.00	0.04	0.00	16.05	2.00	0.00	0.00	0.10	0.00
16.08	2.00	0.00	0.00	0.04	0.00	16.16	2.00	0.00	0.00	0.07	0.00
16.22	2.00	0.00	0.00	0.07	0.00	16.29	2.00	0.00	0.00	0.07	0.00
16.36	2.00	0.00	0.00	0.07	0.00	16.43	2.00	0.00	0.00	0.07	0.00
16.50	1.98	0.00	0.00	0.07	0.00	16.57	1.56	0.00	0.00	0.07	0.00
16.61	1.42	0.00	0.00	0.04	0.00	16.68	1.24	0.00	0.00	0.07	0.00
16.75	1.24	0.00	0.00	0.07	0.00	16.82	1.23	0.00	0.00	0.07	0.00
16.89	1.30	0.00	0.00	0.07	0.00	16.93	1.36	0.00	0.00	0.03	0.00
17.00	1.51	0.00	0.00	0.07	0.00	17.07	1.57	0.00	0.00	0.07	0.00
17.14	1.55	0.00	0.00	0.07	0.00	17.21	1.54	0.00	0.00	0.07	0.00
17.28	1.53	0.00	0.00	0.07	0.00	17.35	1.51	0.00	0.00	0.07	0.00
17.41	1.73	0.00	0.00	0.07	0.00	17.49	2.00	0.00	0.00	0.07	0.00
17.52	2.00	0.00	0.00	0.03	0.00	17.59	2.00	0.00	0.00	0.07	0.00
17.66	2.00	0.00	0.00	0.07	0.00	17.73	2.00	0.00	0.00	0.07	0.00
17.80	2.00	0.00	0.00	0.07	0.00	17.87	2.00	0.00	0.00	0.07	0.00
17.94	2.00	0.00	0.00	0.07	0.00	18.01	2.00	0.00	0.00	0.07	0.00
18.05	2.00	0.00	0.00	0.04	0.00	18.12	2.00	0.00	0.00	0.07	0.00
18.19	2.00	0.00	0.00	0.07	0.00	18.26	2.00	0.00	0.00	0.07	0.00
18.33	2.00	0.00	0.00	0.07	0.00	18.39	2.00	0.00	0.00	0.07	0.00
18.46	2.00	0.00	0.00	0.07	0.00	18.53	2.00	0.00	0.00	0.07	0.00
18.58	2.00	0.00	0.00	0.05	0.00	18.64	2.00	0.00	0.00	0.06	0.00
18.71	2.00	0.00	0.00	0.07	0.00	18.78	2.00	0.00	0.00	0.07	0.00
18.84	2.00	0.00	0.00	0.07	0.00	18.91	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
18.98	1.40	0.00	0.00	0.07	0.00	19.05	0.87	0.13	3.74	0.07	0.02
19.12	0.55	0.45	0.55	0.07	0.07	19.19	0.42	0.58	0.40	0.07	0.08
19.26	0.35	0.65	0.35	0.07	0.10	19.32	0.34	0.66	0.35	0.07	0.10
19.36	0.33	0.67	0.34	0.04	0.05	19.43	0.32	0.68	0.33	0.07	0.10
19.50	0.31	0.69	0.33	0.07	0.11	19.57	2.00	0.00	0.00	0.07	0.00
19.64	2.00	0.00	0.00	0.07	0.00	19.71	2.00	0.00	0.00	0.07	0.00
19.79	0.29	0.71	0.32	0.07	0.11	19.82	0.29	0.71	0.32	0.04	0.05
19.89	0.30	0.70	0.32	0.07	0.10	19.96	0.30	0.70	0.32	0.07	0.10
20.03	2.00	0.00	0.00	0.07	0.00	20.09	2.00	0.00	0.00	0.06	0.00
20.16	2.00	0.00	0.00	0.07	0.00	20.23	2.00	0.00	0.00	0.07	0.00
20.30	2.00	0.00	0.00	0.07	0.00	20.37	2.00	0.00	0.00	0.07	0.00
20.43	2.00	0.00	0.00	0.07	0.00	20.50	2.00	0.00	0.00	0.07	0.00
20.56	2.00	0.00	0.00	0.07	0.00	20.64	2.00	0.00	0.00	0.07	0.00
20.67	2.00	0.00	0.00	0.03	0.00	20.74	2.00	0.00	0.00	0.07	0.00
20.81	2.00	0.00	0.00	0.07	0.00	20.88	2.00	0.00	0.00	0.07	0.00
20.95	2.00	0.00	0.00	0.07	0.00	21.02	2.00	0.00	0.00	0.07	0.00
21.08	2.00	0.00	0.00	0.07	0.00	21.16	2.00	0.00	0.00	0.07	0.00
21.22	2.00	0.00	0.00	0.07	0.00	21.29	2.00	0.00	0.00	0.07	0.00
21.33	2.00	0.00	0.00	0.03	0.00	21.39	2.00	0.00	0.00	0.07	0.00
21.47	2.00	0.00	0.00	0.07	0.00	21.54	2.00	0.00	0.00	0.07	0.00
21.61	2.00	0.00	0.00	0.07	0.00	21.68	2.00	0.00	0.00	0.07	0.00
21.74	2.00	0.00	0.00	0.07	0.00	21.82	2.00	0.00	0.00	0.07	0.00
21.88	2.00	0.00	0.00	0.07	0.00	21.92	2.00	0.00	0.00	0.03	0.00
21.99	2.00	0.00	0.00	0.07	0.00	22.05	2.00	0.00	0.00	0.07	0.00
22.13	2.00	0.00	0.00	0.07	0.00	22.20	2.00	0.00	0.00	0.07	0.00
22.27	2.00	0.00	0.00	0.07	0.00	22.34	2.00	0.00	0.00	0.07	0.00
22.41	2.00	0.00	0.00	0.07	0.00	22.47	2.00	0.00	0.00	0.07	0.00
22.51	2.00	0.00	0.00	0.04	0.00	22.57	2.00	0.00	0.00	0.07	0.00
22.65	2.00	0.00	0.00	0.07	0.00	22.71	2.00	0.00	0.00	0.07	0.00
22.78	2.00	0.00	0.00	0.07	0.00	22.86	2.00	0.00	0.00	0.07	0.00
22.92	2.00	0.00	0.00	0.07	0.00	23.00	2.00	0.00	0.00	0.07	0.00
23.07	2.00	0.00	0.00	0.07	0.00	23.10	2.00	0.00	0.00	0.04	0.00
23.18	2.00	0.00	0.00	0.07	0.00	23.25	2.00	0.00	0.00	0.07	0.00
23.31	2.00	0.00	0.00	0.07	0.00	23.39	2.00	0.00	0.00	0.07	0.00
23.45	2.00	0.00	0.00	0.07	0.00	23.52	2.00	0.00	0.00	0.07	0.00
23.59	2.00	0.00	0.00	0.07	0.00	23.62	2.00	0.00	0.00	0.04	0.00
23.69	2.00	0.00	0.00	0.07	0.00	23.76	2.00	0.00	0.00	0.07	0.00
23.83	2.00	0.00	0.00	0.07	0.00	23.90	2.00	0.00	0.00	0.07	0.00
23.96	2.00	0.00	0.00	0.06	0.00	24.04	2.00	0.00	0.00	0.07	0.00
24.11	2.00	0.00	0.00	0.07	0.00	24.18	2.00	0.00	0.00	0.07	0.00
24.24	2.00	0.00	0.00	0.06	0.00	24.31	2.00	0.00	0.00	0.07	0.00
24.35	2.00	0.00	0.00	0.03	0.00	24.42	2.00	0.00	0.00	0.07	0.00
24.48	2.00	0.00	0.00	0.07	0.00	24.55	2.00	0.00	0.00	0.07	0.00
24.62	2.00	0.00	0.00	0.07	0.00	24.69	2.00	0.00	0.00	0.07	0.00
24.77	2.00	0.00	0.00	0.07	0.00	24.84	2.00	0.00	0.00	0.07	0.00
24.87	2.00	0.00	0.00	0.03	0.00	24.94	2.00	0.00	0.00	0.07	0.00
25.00	2.00	0.00	0.00	0.07	0.00	25.07	2.00	0.00	0.00	0.07	0.00
25.14	2.00	0.00	0.00	0.07	0.00	25.21	2.00	0.00	0.00	0.07	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
25.28	2.00	0.00	0.00	0.07	0.00	25.35	2.00	0.00	0.00	0.07	0.00
25.42	2.00	0.00	0.00	0.07	0.00	25.49	2.00	0.00	0.00	0.07	0.00
25.56	2.00	0.00	0.00	0.07	0.00	25.60	2.00	0.00	0.00	0.04	0.00
25.67	2.00	0.00	0.00	0.07	0.00	25.73	2.00	0.00	0.00	0.06	0.00
25.80	2.00	0.00	0.00	0.07	0.00	25.86	2.00	0.00	0.00	0.06	0.00
25.93	2.00	0.00	0.00	0.07	0.00	26.00	2.00	0.00	0.00	0.07	0.00
26.06	2.00	0.00	0.00	0.06	0.00	26.12	2.00	0.00	0.00	0.06	0.00
26.19	2.00	0.00	0.00	0.07	0.00	26.25	2.00	0.00	0.00	0.07	0.00
26.33	2.00	0.00	0.00	0.07	0.00	26.39	2.00	0.00	0.00	0.06	0.00
26.46	2.00	0.00	0.00	0.07	0.00	26.53	2.00	0.00	0.00	0.07	0.00
26.60	2.00	0.00	0.00	0.07	0.00	26.67	2.00	0.00	0.00	0.07	0.00
26.74	2.00	0.00	0.00	0.07	0.00	26.77	2.00	0.00	0.00	0.03	0.00
26.84	2.00	0.00	0.00	0.07	0.00	26.91	2.00	0.00	0.00	0.07	0.00
26.98	2.00	0.00	0.00	0.07	0.00	27.06	2.00	0.00	0.00	0.07	0.00
27.12	2.00	0.00	0.00	0.07	0.00	27.20	2.00	0.00	0.00	0.07	0.00
27.27	2.00	0.00	0.00	0.07	0.00	27.30	2.00	0.00	0.00	0.03	0.00
27.37	2.00	0.00	0.00	0.07	0.00	27.44	2.00	0.00	0.00	0.07	0.00
27.50	2.00	0.00	0.00	0.07	0.00	27.57	2.00	0.00	0.00	0.07	0.00
27.64	2.00	0.00	0.00	0.07	0.00	27.71	2.00	0.00	0.00	0.07	0.00
27.78	2.00	0.00	0.00	0.07	0.00	27.85	2.00	0.00	0.00	0.07	0.00
27.91	2.00	0.00	0.00	0.06	0.00	27.97	2.00	0.00	0.00	0.05	0.00
28.03	2.00	0.00	0.00	0.06	0.00	28.11	2.00	0.00	0.00	0.08	0.00
28.16	2.00	0.00	0.00	0.05	0.00	28.23	2.00	0.00	0.00	0.07	0.00
28.29	2.00	0.00	0.00	0.06	0.00	28.36	2.00	0.00	0.00	0.07	0.00
28.43	2.00	0.00	0.00	0.07	0.00	28.50	2.00	0.00	0.00	0.07	0.00
28.56	2.00	0.00	0.00	0.07	0.00	28.64	2.00	0.00	0.00	0.07	0.00
28.71	2.00	0.00	0.00	0.07	0.00	28.74	2.00	0.00	0.00	0.04	0.00
28.81	2.00	0.00	0.00	0.07	0.00	28.87	2.00	0.00	0.00	0.06	0.00
28.95	2.00	0.00	0.00	0.07	0.00	29.01	2.00	0.00	0.00	0.07	0.00
29.08	2.00	0.00	0.00	0.07	0.00	29.15	2.00	0.00	0.00	0.07	0.00
29.22	2.00	0.00	0.00	0.07	0.00	29.29	2.00	0.00	0.00	0.07	0.00
29.36	2.00	0.00	0.00	0.07	0.00	29.40	2.00	0.00	0.00	0.04	0.00
29.47	2.00	0.00	0.00	0.07	0.00	29.54	2.00	0.00	0.00	0.07	0.00
29.60	2.00	0.00	0.00	0.06	0.00	29.69	2.00	0.00	0.00	0.09	0.00
29.75	2.00	0.00	0.00	0.07	0.00	29.82	2.00	0.00	0.00	0.06	0.00
29.89	2.00	0.00	0.00	0.07	0.00	29.92	2.00	0.00	0.00	0.04	0.00
29.99	2.00	0.00	0.00	0.07	0.00	30.07	2.00	0.00	0.00	0.07	0.00
30.14	2.00	0.00	0.00	0.07	0.00	30.21	2.00	0.00	0.00	0.07	0.00
30.28	2.00	0.00	0.00	0.07	0.00	30.32	2.00	0.00	0.00	0.03	0.00
30.39	2.00	0.00	0.00	0.07	0.00	30.45	2.00	0.00	0.00	0.06	0.00
30.52	2.00	0.00	0.00	0.07	0.00	30.59	2.00	0.00	0.00	0.07	0.00
30.66	2.00	0.00	0.00	0.07	0.00	30.73	2.00	0.00	0.00	0.07	0.00
30.80	2.00	0.00	0.00	0.07	0.00	30.86	2.00	0.00	0.00	0.06	0.00
30.93	2.00	0.00	0.00	0.07	0.00	31.00	2.00	0.00	0.00	0.07	0.00
31.04	2.00	0.00	0.00	0.03	0.00	31.10	2.00	0.00	0.00	0.06	0.00
31.19	2.00	0.00	0.00	0.08	0.00	31.25	2.00	0.00	0.00	0.06	0.00
31.32	2.00	0.00	0.00	0.07	0.00	31.37	2.00	0.00	0.00	0.05	0.00
31.45	2.00	0.00	0.00	0.07	0.00	31.51	2.00	0.00	0.00	0.06	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
31.58	2.00	0.00	0.00	0.07	0.00	31.65	2.00	0.00	0.00	0.07	0.00
31.72	2.00	0.00	0.00	0.07	0.00	31.79	2.00	0.00	0.00	0.07	0.00
31.82	2.00	0.00	0.00	0.03	0.00	31.89	2.00	0.00	0.00	0.07	0.00
31.96	2.00	0.00	0.00	0.07	0.00	32.03	2.00	0.00	0.00	0.07	0.00
32.10	2.00	0.00	0.00	0.07	0.00	32.17	2.00	0.00	0.00	0.07	0.00
32.25	2.00	0.00	0.00	0.07	0.00	32.32	2.00	0.00	0.00	0.07	0.00
32.35	2.00	0.00	0.00	0.03	0.00	32.42	2.00	0.00	0.00	0.07	0.00
32.48	2.00	0.00	0.00	0.07	0.00	32.55	2.00	0.00	0.00	0.07	0.00
32.63	2.00	0.00	0.00	0.07	0.00	32.69	2.00	0.00	0.00	0.06	0.00
32.76	2.00	0.00	0.00	0.07	0.00	32.83	2.00	0.00	0.00	0.07	0.00
32.90	2.00	0.00	0.00	0.07	0.00	32.97	2.00	0.00	0.00	0.07	0.00
33.01	2.00	0.00	0.00	0.04	0.00	33.08	2.00	0.00	0.00	0.07	0.00
33.15	2.00	0.00	0.00	0.07	0.00	33.21	2.00	0.00	0.00	0.06	0.00
33.29	2.00	0.00	0.00	0.08	0.00	33.35	2.00	0.00	0.00	0.06	0.00
33.40	2.00	0.00	0.00	0.06	0.00	33.48	2.00	0.00	0.00	0.08	0.00
33.54	2.00	0.00	0.00	0.06	0.00	33.61	2.00	0.00	0.00	0.07	0.00
33.66	2.00	0.00	0.00	0.05	0.00	33.73	2.00	0.00	0.00	0.07	0.00
33.81	2.00	0.00	0.00	0.08	0.00	33.87	2.00	0.00	0.00	0.05	0.00
33.95	2.00	0.00	0.00	0.08	0.00	34.00	2.00	0.00	0.00	0.05	0.00
34.06	2.00	0.00	0.00	0.05	0.00	34.13	2.00	0.00	0.00	0.08	0.00
34.20	2.00	0.00	0.00	0.07	0.00	34.26	2.00	0.00	0.00	0.06	0.00
34.32	2.00	0.00	0.00	0.06	0.00	34.39	2.00	0.00	0.00	0.06	0.00
34.47	2.00	0.00	0.00	0.08	0.00	34.53	2.00	0.00	0.00	0.06	0.00
34.60	2.00	0.00	0.00	0.07	0.00	34.66	2.00	0.00	0.00	0.06	0.00
34.73	2.00	0.00	0.00	0.06	0.00	34.79	2.00	0.00	0.00	0.06	0.00
34.85	2.00	0.00	0.00	0.06	0.00	34.92	2.00	0.00	0.00	0.07	0.00
34.98	2.00	0.00	0.00	0.06	0.00	35.05	2.00	0.00	0.00	0.07	0.00
35.12	2.00	0.00	0.00	0.07	0.00	35.17	2.00	0.00	0.00	0.05	0.00
35.25	2.00	0.00	0.00	0.08	0.00	35.31	2.00	0.00	0.00	0.06	0.00
35.37	2.00	0.00	0.00	0.06	0.00	35.45	2.00	0.00	0.00	0.08	0.00
35.50	2.00	0.00	0.00	0.05	0.00	35.57	2.00	0.00	0.00	0.07	0.00
35.64	2.00	0.00	0.00	0.07	0.00	35.72	2.00	0.00	0.00	0.08	0.00
35.79	2.00	0.00	0.00	0.07	0.00	35.86	2.00	0.00	0.00	0.07	0.00
35.92	2.00	0.00	0.00	0.06	0.00	35.99	2.00	0.00	0.00	0.07	0.00
36.03	2.00	0.00	0.00	0.04	0.00	36.10	2.00	0.00	0.00	0.07	0.00
36.17	2.00	0.00	0.00	0.07	0.00	36.23	2.00	0.00	0.00	0.07	0.00
36.30	2.00	0.00	0.00	0.07	0.00	36.37	2.00	0.00	0.00	0.07	0.00
36.44	2.00	0.00	0.00	0.07	0.00	36.51	2.00	0.00	0.00	0.07	0.00
36.55	2.00	0.00	0.00	0.04	0.00	36.62	2.00	0.00	0.00	0.06	0.00
36.70	2.00	0.00	0.00	0.08	0.00	36.75	2.00	0.00	0.00	0.05	0.00
36.82	2.00	0.00	0.00	0.07	0.00	36.89	2.00	0.00	0.00	0.07	0.00
36.96	2.00	0.00	0.00	0.07	0.00	37.03	2.00	0.00	0.00	0.07	0.00
37.10	2.00	0.00	0.00	0.07	0.00	37.17	2.00	0.00	0.00	0.07	0.00
37.24	2.00	0.00	0.00	0.07	0.00	37.27	2.00	0.00	0.00	0.04	0.00
37.34	2.00	0.00	0.00	0.07	0.00	37.41	2.00	0.00	0.00	0.07	0.00
37.48	2.00	0.00	0.00	0.07	0.00	37.56	2.00	0.00	0.00	0.07	0.00
37.63	2.00	0.00	0.00	0.07	0.00	37.70	2.00	0.00	0.00	0.07	0.00
37.77	2.00	0.00	0.00	0.07	0.00	37.80	2.00	0.00	0.00	0.03	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
37.87	2.00	0.00	0.00	0.07	0.00	37.93	2.00	0.00	0.00	0.07	0.00
38.00	2.00	0.00	0.00	0.07	0.00	38.07	2.00	0.00	0.00	0.07	0.00
38.14	2.00	0.00	0.00	0.07	0.00	38.21	2.00	0.00	0.00	0.07	0.00
38.28	2.00	0.00	0.00	0.07	0.00	38.32	2.00	0.00	0.00	0.04	0.00
38.39	2.00	0.00	0.00	0.07	0.00	38.46	2.00	0.00	0.00	0.07	0.00
38.52	2.00	0.00	0.00	0.06	0.00	38.59	2.00	0.00	0.00	0.06	0.00
38.66	2.00	0.00	0.00	0.08	0.00	38.72	2.00	0.00	0.00	0.06	0.00
38.78	2.00	0.00	0.00	0.06	0.00	38.86	2.00	0.00	0.00	0.08	0.00
38.92	2.00	0.00	0.00	0.06	0.00	38.98	2.00	0.00	0.00	0.06	0.00
39.04	2.00	0.00	0.00	0.06	0.00	39.12	2.00	0.00	0.00	0.07	0.00
39.17	2.00	0.00	0.00	0.06	0.00	39.25	2.00	0.00	0.00	0.08	0.00
39.30	2.00	0.00	0.00	0.06	0.00	39.38	2.00	0.00	0.00	0.08	0.00
39.45	2.00	0.00	0.00	0.07	0.00	39.52	2.00	0.00	0.00	0.07	0.00
39.59	2.00	0.00	0.00	0.07	0.00	39.63	2.00	0.00	0.00	0.05	0.00
39.70	2.00	0.00	0.00	0.07	0.00	39.77	2.00	0.00	0.00	0.07	0.00
39.84	2.00	0.00	0.00	0.07	0.00	39.91	2.00	0.00	0.00	0.07	0.00
39.98	2.00	0.00	0.00	0.07	0.00	40.03	2.00	0.00	0.00	0.05	0.00
40.11	2.00	0.00	0.00	0.08	0.00	40.19	2.00	0.00	0.00	0.08	0.00
40.24	2.00	0.00	0.00	0.05	0.00	40.30	2.00	0.00	0.00	0.05	0.00
40.38	2.00	0.00	0.00	0.08	0.00	40.43	2.00	0.00	0.00	0.05	0.00
40.51	2.00	0.00	0.00	0.08	0.00	40.56	2.00	0.00	0.00	0.05	0.00
40.63	2.00	0.00	0.00	0.07	0.00	40.70	2.00	0.00	0.00	0.06	0.00
40.76	2.00	0.00	0.00	0.06	0.00	40.84	2.00	0.00	0.00	0.08	0.00
40.89	2.00	0.00	0.00	0.05	0.00	40.95	2.00	0.00	0.00	0.05	0.00
41.03	2.00	0.00	0.00	0.08	0.00	41.08	2.00	0.00	0.00	0.05	0.00
41.17	2.00	0.00	0.00	0.08	0.00	41.22	2.00	0.00	0.00	0.06	0.00
41.28	2.00	0.00	0.00	0.05	0.00	41.37	2.00	0.00	0.00	0.09	0.00
41.44	2.00	0.00	0.00	0.07	0.00	41.50	2.00	0.00	0.00	0.06	0.00
41.57	2.00	0.00	0.00	0.07	0.00	41.60	2.00	0.00	0.00	0.04	0.00
41.67	2.00	0.00	0.00	0.07	0.00	41.74	2.00	0.00	0.00	0.07	0.00
41.81	2.00	0.00	0.00	0.07	0.00	41.88	2.00	0.00	0.00	0.07	0.00
41.95	2.00	0.00	0.00	0.07	0.00	42.02	2.00	0.00	0.00	0.07	0.00
42.08	2.00	0.00	0.00	0.07	0.00	42.15	2.00	0.00	0.00	0.07	0.00
42.22	2.00	0.00	0.00	0.07	0.00	42.29	2.00	0.00	0.00	0.07	0.00
42.33	2.00	0.00	0.00	0.04	0.00	42.39	2.00	0.00	0.00	0.07	0.00
42.46	2.00	0.00	0.00	0.07	0.00	42.53	2.00	0.00	0.00	0.07	0.00
42.61	2.00	0.00	0.00	0.07	0.00	42.67	2.00	0.00	0.00	0.07	0.00
42.74	2.00	0.00	0.00	0.07	0.00	42.81	2.00	0.00	0.00	0.07	0.00
42.85	2.00	0.00	0.00	0.04	0.00	42.92	2.00	0.00	0.00	0.07	0.00
42.99	2.00	0.00	0.00	0.07	0.00	43.06	2.00	0.00	0.00	0.07	0.00
43.11	2.00	0.00	0.00	0.05	0.00	43.19	2.00	0.00	0.00	0.08	0.00
43.25	2.00	0.00	0.00	0.06	0.00	43.33	2.00	0.00	0.00	0.08	0.00
43.38	2.00	0.00	0.00	0.05	0.00	43.47	2.00	0.00	0.00	0.08	0.00
43.52	2.00	0.00	0.00	0.06	0.00	43.58	2.00	0.00	0.00	0.06	0.00
43.66	2.00	0.00	0.00	0.08	0.00	43.72	2.00	0.00	0.00	0.06	0.00
43.77	2.00	0.00	0.00	0.05	0.00	43.85	2.00	0.00	0.00	0.08	0.00
43.90	2.00	0.00	0.00	0.05	0.00	43.98	2.00	0.00	0.00	0.08	0.00
44.03	2.00	0.00	0.00	0.05	0.00	44.12	2.00	0.00	0.00	0.08	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}
44.17	2.00	0.00	0.00	0.06	0.00	44.23	2.00	0.00	0.00	0.06	0.00
44.30	2.00	0.00	0.00	0.07	0.00	44.38	2.00	0.00	0.00	0.08	0.00
44.45	2.00	0.00	0.00	0.07	0.00	44.52	2.00	0.00	0.00	0.07	0.00
44.58	2.00	0.00	0.00	0.07	0.00	44.62	2.00	0.00	0.00	0.04	0.00
44.69	2.00	0.00	0.00	0.07	0.00	44.76	2.00	0.00	0.00	0.07	0.00
44.83	2.00	0.00	0.00	0.07	0.00	44.90	2.00	0.00	0.00	0.07	0.00
44.97	2.00	0.00	0.00	0.07	0.00	45.04	2.00	0.00	0.00	0.07	0.00
45.08	2.00	0.00	0.00	0.04	0.00	45.15	2.00	0.00	0.00	0.06	0.00
45.21	2.00	0.00	0.00	0.07	0.00	45.28	2.00	0.00	0.00	0.07	0.00
45.35	2.00	0.00	0.00	0.07	0.00	45.41	2.00	0.00	0.00	0.06	0.00
45.48	2.00	0.00	0.00	0.07	0.00	45.54	2.00	0.00	0.00	0.06	0.00
45.62	2.00	0.00	0.00	0.07	0.00	45.67	2.00	0.00	0.00	0.06	0.00
45.75	2.00	0.00	0.00	0.07	0.00	45.80	2.00	0.00	0.00	0.05	0.00
45.87	2.00	0.00	0.00	0.07	0.00	45.94	2.00	0.00	0.00	0.07	0.00
46.00	2.00	0.00	0.00	0.06	0.00	46.07	2.00	0.00	0.00	0.07	0.00
46.14	2.00	0.00	0.00	0.07	0.00	46.21	2.00	0.00	0.00	0.08	0.00
46.26	2.00	0.00	0.00	0.05	0.00	46.33	2.00	0.00	0.00	0.07	0.00
46.40	2.00	0.00	0.00	0.07	0.00	46.48	2.00	0.00	0.00	0.08	0.00
46.53	2.00	0.00	0.00	0.05	0.00	46.60	2.00	0.00	0.00	0.07	0.00
46.68	2.00	0.00	0.00	0.08	0.00	46.73	2.00	0.00	0.00	0.05	0.00
46.80	2.00	0.00	0.00	0.07	0.00	46.85	2.00	0.00	0.00	0.05	0.00
46.93	2.00	0.00	0.00	0.08	0.00	47.00	2.00	0.00	0.00	0.08	0.00
47.05	2.00	0.00	0.00	0.05	0.00	47.13	2.00	0.00	0.00	0.08	0.00
47.20	2.00	0.00	0.00	0.07	0.00	47.28	2.00	0.00	0.00	0.07	0.00
47.31	2.00	0.00	0.00	0.04	0.00	47.39	2.00	0.00	0.00	0.07	0.00
47.46	2.00	0.00	0.00	0.07	0.00	47.51	2.00	0.00	0.00	0.05	0.00
47.58	2.00	0.00	0.00	0.07	0.00	47.66	2.00	0.00	0.00	0.08	0.00
47.72	2.00	0.00	0.00	0.06	0.00	47.79	2.00	0.00	0.00	0.07	0.00
47.85	2.00	0.00	0.00	0.07	0.00	47.92	2.00	0.00	0.00	0.07	0.00
47.99	2.00	0.00	0.00	0.07	0.00	48.06	2.00	0.00	0.00	0.07	0.00
48.13	2.00	0.00	0.00	0.07	0.00	48.16	2.00	0.00	0.00	0.03	0.00
48.23	2.00	0.00	0.00	0.07	0.00	48.31	2.00	0.00	0.00	0.07	0.00
48.38	2.00	0.00	0.00	0.07	0.00	48.45	2.00	0.00	0.00	0.07	0.00
48.50	2.00	0.00	0.00	0.05	0.00	48.57	2.00	0.00	0.00	0.07	0.00
48.64	2.00	0.00	0.00	0.07	0.00	48.70	2.00	0.00	0.00	0.07	0.00
48.77	2.00	0.00	0.00	0.07	0.00	48.84	2.00	0.00	0.00	0.07	0.00
48.91	2.00	0.00	0.00	0.07	0.00	48.98	2.00	0.00	0.00	0.07	0.00
49.02	2.00	0.00	0.00	0.03	0.00	49.09	2.00	0.00	0.00	0.07	0.00
49.16	2.00	0.00	0.00	0.07	0.00	49.23	2.00	0.00	0.00	0.07	0.00
49.28	2.00	0.00	0.00	0.05	0.00	49.35	2.00	0.00	0.00	0.07	0.00
49.42	2.00	0.00	0.00	0.06	0.00	49.48	2.00	0.00	0.00	0.07	0.00
49.55	2.00	0.00	0.00	0.07	0.00	49.62	2.00	0.00	0.00	0.06	0.00
49.69	2.00	0.00	0.00	0.07	0.00	49.75	2.00	0.00	0.00	0.06	0.00
49.82	2.00	0.00	0.00	0.07	0.00	49.87	2.00	0.00	0.00	0.05	0.00
49.95	2.00	0.00	0.00	0.08	0.00	50.00	2.00	0.00	0.00	0.05	0.00
50.07	2.00	0.00	0.00	0.07	0.00	50.13	2.00	0.00	0.00	0.06	0.00
50.20	2.00	0.00	0.00	0.07	0.00	50.28	2.00	0.00	0.00	0.09	0.00

:: Liquefaction Potential Index calculation data ::

Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}	Depth (ft)	FS	m(FS)	H_1*m(FS)	d_z	LPI_{ISH}

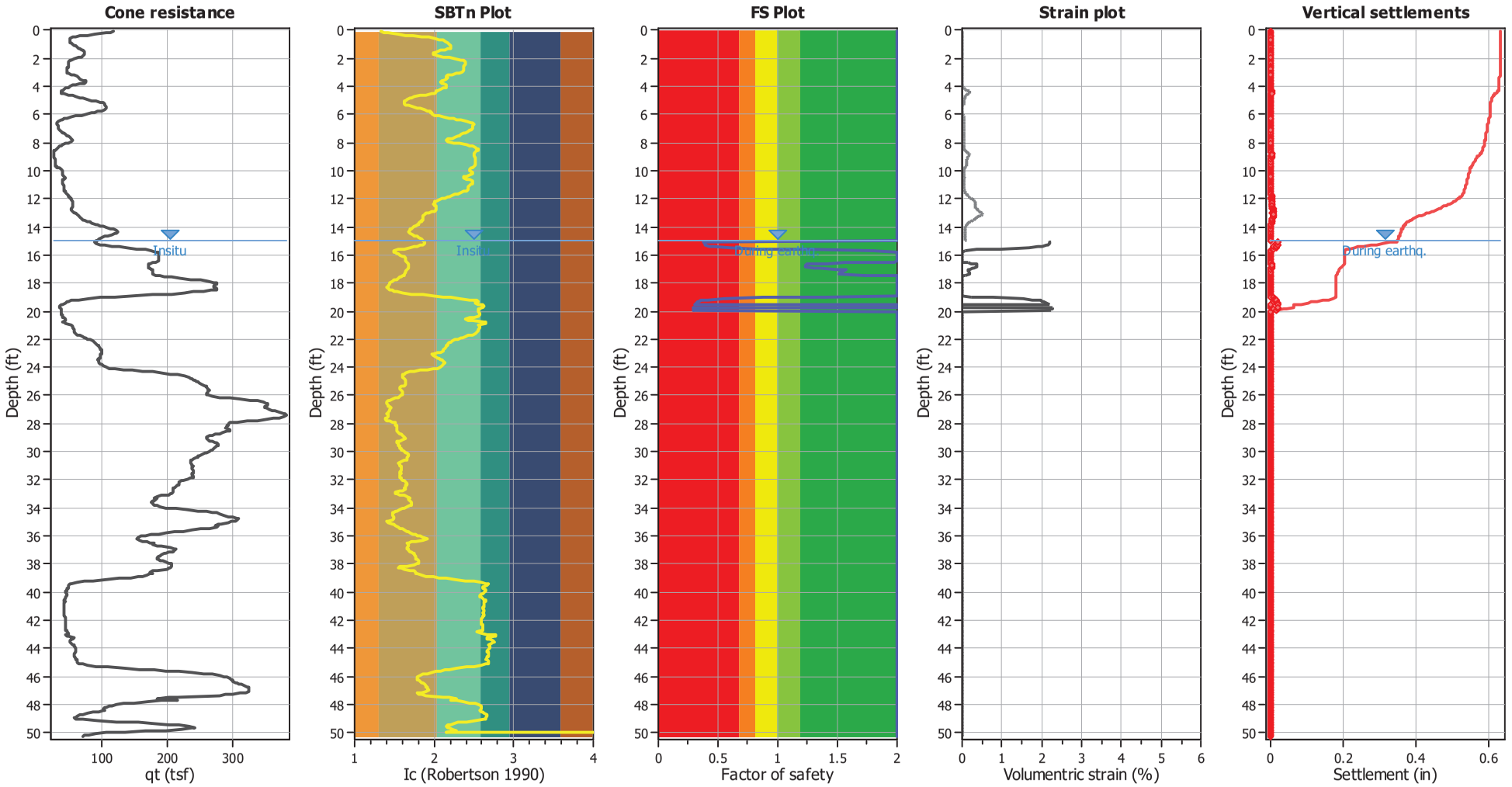
Overall liquefaction potential: 1.72

LPI_{ISH} > 5.0 - Liquefaction manifestation is expected

Abbreviations

FS: Calculated factor of safety for test point
d_z: Layer thickness (ft)
LPI: Liquefaction potential index value for test point

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
0.07	1.32	222.26	1.00	222.26	37	564	0.36	0.000	0.00	10.00	0.00	0.000
0.13	1.36	213.83	1.00	213.83	36	570	0.35	0.001	0.00	10.00	0.00	0.000
0.22	1.43	197.93	1.00	197.93	34	573	0.38	0.001	0.00	10.00	0.00	0.000
0.28	1.55	166.14	1.00	166.14	29	560	0.39	0.001	0.00	10.00	0.00	0.000
0.34	1.64	143.90	1.00	143.90	26	549	0.41	0.002	0.00	10.00	0.00	0.000
0.40	1.74	124.83	1.07	133.43	25	539	0.42	0.002	0.00	10.00	0.00	0.000
0.46	1.84	110.07	1.19	131.25	26	539	0.42	0.003	0.00	10.00	0.00	0.000
0.53	1.93	101.40	1.25	127.19	26	554	0.41	0.003	0.00	10.00	0.00	0.000
0.59	2.01	96.01	1.31	125.91	26	579	0.41	0.003	0.00	10.00	0.00	0.000
0.66	2.06	94.81	1.37	129.44	28	612	0.40	0.004	0.00	10.00	0.00	0.000
0.74	2.11	93.66	1.43	133.94	29	643	0.40	0.004	0.00	10.00	0.00	0.000
0.80	2.14	94.67	1.48	140.01	31	675	0.40	0.004	0.00	10.00	0.00	0.000
0.86	2.16	95.69	1.53	146.52	33	706	0.39	0.004	0.00	10.00	0.00	0.000
0.93	2.18	99.21	1.56	154.38	34	742	0.39	0.004	0.00	10.00	0.00	0.000
0.99	2.19	102.55	1.59	162.68	37	780	0.39	0.004	0.00	10.00	0.00	0.000
1.05	2.20	105.77	1.62	171.16	39	818	0.38	0.004	0.00	10.00	0.00	0.000
1.12	2.21	109.71	1.64	180.26	41	859	0.38	0.004	0.00	10.00	0.00	0.000
1.20	2.21	114.47	1.65	188.52	43	898	0.37	0.004	0.00	10.00	0.00	0.000
1.26	2.20	120.14	1.61	193.42	44	926	0.37	0.004	0.00	10.00	0.00	0.000
1.33	2.17	125.09	1.54	193.10	43	929	0.37	0.005	0.00	10.00	0.00	0.000
1.39	2.13	129.63	1.47	190.03	42	915	0.36	0.005	0.00	10.00	0.00	0.000
1.46	2.08	133.92	1.40	186.96	40	893	0.37	0.006	0.00	10.00	0.00	0.000
1.52	2.05	136.71	1.35	184.54	39	868	0.37	0.006	0.00	10.00	0.00	0.000
1.58	2.01	138.08	1.32	182.07	38	842	0.37	0.007	0.00	10.00	0.00	0.000
1.65	1.99	137.60	1.30	179.21	37	819	0.37	0.007	0.00	10.00	0.00	0.000
1.71	1.99	137.48	1.30	178.30	37	811	0.38	0.008	0.00	10.00	0.00	0.000
1.77	2.00	136.69	1.31	179.05	37	823	0.37	0.008	0.00	10.00	0.00	0.000
1.84	2.05	133.93	1.35	180.97	38	851	0.37	0.008	0.00	10.00	0.00	0.000
1.92	2.11	128.13	1.43	183.44	40	881	0.37	0.008	0.00	10.00	0.00	0.000
1.98	2.18	119.10	1.58	187.72	42	901	0.37	0.008	0.00	10.00	0.00	0.000
2.04	2.26	108.93	1.79	194.85	45	909	0.38	0.008	0.00	10.00	0.00	0.000
2.11	2.33	99.90	2.05	204.59	49	910	0.38	0.008	0.00	10.00	0.00	0.000
2.17	2.38	94.39	2.25	212.69	52	911	0.39	0.009	0.00	10.00	0.00	0.000
2.23	2.39	92.00	2.34	215.33	53	908	0.39	0.009	0.00	10.00	0.00	0.000
2.32	2.39	91.15	2.34	213.18	52	899	0.39	0.010	0.00	10.00	0.00	0.000
2.38	2.39	90.37	2.31	208.68	51	885	0.39	0.010	0.00	10.00	0.00	0.000
2.44	2.38	89.64	2.28	204.21	50	871	0.39	0.011	0.00	10.00	0.00	0.000
2.50	2.38	88.75	2.26	200.36	49	857	0.39	0.011	0.00	10.00	0.00	0.000
2.57	2.37	88.19	2.24	197.25	48	847	0.39	0.012	0.00	10.00	0.00	0.000
2.63	2.37	88.02	2.22	195.36	47	842	0.39	0.013	0.00	10.00	0.00	0.000
2.69	2.37	87.95	2.22	194.98	47	841	0.39	0.013	0.00	10.00	0.00	0.000
2.77	2.37	87.43	2.23	195.13	47	839	0.39	0.014	0.00	10.00	0.00	0.000
2.84	2.38	86.10	2.26	194.66	47	833	0.39	0.014	0.01	10.00	0.00	0.000
2.90	2.37	85.53	2.24	191.31	46	822	0.39	0.015	0.01	10.00	0.00	0.000
2.96	2.36	85.35	2.16	184.58	45	804	0.39	0.016	0.01	10.00	0.00	0.000
3.02	2.32	87.27	2.00	174.25	41	783	0.39	0.017	0.01	10.00	0.01	0.000
3.09	2.27	90.78	1.83	165.69	39	768	0.39	0.018	0.01	10.00	0.01	0.000
3.15	2.22	98.01	1.66	162.51	37	773	0.39	0.019	0.01	10.00	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
3.22	2.17	107.20	1.55	166.21	37	800	0.38	0.018	0.01	10.00	0.01	0.000
3.28	2.15	115.61	1.50	173.30	38	835	0.37	0.017	0.01	10.00	0.01	0.000
3.35	2.16	118.51	1.52	179.90	40	867	0.37	0.016	0.01	10.00	0.01	0.000
3.42	2.16	121.12	1.53	185.46	41	893	0.37	0.016	0.01	10.00	0.01	0.000
3.48	2.15	125.17	1.51	189.19	42	912	0.37	0.016	0.01	10.00	0.01	0.000
3.55	2.12	133.35	1.45	193.08	42	929	0.36	0.016	0.01	10.00	0.01	0.000
3.61	2.09	139.91	1.41	196.62	42	940	0.36	0.016	0.01	10.00	0.00	0.000
3.68	2.09	140.50	1.40	196.42	42	938	0.35	0.016	0.01	10.00	0.01	0.000
3.76	2.10	134.64	1.42	190.67	41	914	0.36	0.017	0.01	10.00	0.01	0.000
3.82	2.12	123.70	1.46	180.20	39	867	0.37	0.020	0.01	10.00	0.01	0.000
3.88	2.15	112.22	1.50	168.35	37	811	0.38	0.023	0.01	10.00	0.01	0.000
3.94	2.16	102.89	1.53	156.96	35	756	0.39	0.027	0.01	10.00	0.01	0.000
4.00	2.16	94.82	1.53	144.67	32	697	0.39	0.033	0.02	10.00	0.01	0.000
4.09	2.15	88.24	1.50	131.96	29	636	0.40	0.043	0.03	10.00	0.02	0.000
4.15	2.12	82.01	1.44	118.49	26	570	0.40	0.061	0.04	10.00	0.03	0.001
4.21	2.08	76.02	1.39	106.05	23	506	0.41	0.094	0.08	10.00	0.06	0.001
4.28	2.05	71.12	1.35	96.02	20	452	0.41	0.151	0.15	10.00	0.11	0.002
4.33	2.02	67.59	1.33	89.81	19	418	0.42	0.219	0.23	10.00	0.18	0.003
4.40	2.02	67.28	1.32	89.12	19	413	0.42	0.237	0.26	10.00	0.20	0.003
4.48	2.01	70.50	1.31	92.58	19	426	0.42	0.214	0.22	10.00	0.17	0.003
4.54	1.96	77.96	1.28	99.80	20	447	0.42	0.179	0.17	10.00	0.13	0.002
4.60	1.89	88.95	1.23	109.69	22	466	0.42	0.154	0.14	10.00	0.11	0.002
4.67	1.82	101.37	1.17	119.05	23	484	0.42	0.136	0.11	10.00	0.09	0.001
4.73	1.76	113.02	1.10	123.78	24	498	0.42	0.125	0.10	10.00	0.08	0.001
4.80	1.72	120.29	1.02	123.05	23	515	0.41	0.113	0.09	10.00	0.07	0.001
4.86	1.69	127.25	1.00	127.25	24	535	0.41	0.100	0.08	10.00	0.06	0.001
4.93	1.66	135.15	1.00	135.15	25	560	0.40	0.088	0.07	10.00	0.05	0.001
4.99	1.64	143.91	1.00	143.91	26	592	0.40	0.075	0.05	10.00	0.04	0.001
5.05	1.62	153.87	1.00	153.87	28	627	0.39	0.064	0.04	10.00	0.03	0.000
5.12	1.62	163.21	1.00	163.21	30	666	0.38	0.055	0.03	10.00	0.03	0.000
5.19	1.61	170.37	1.00	170.37	31	699	0.38	0.049	0.03	10.00	0.02	0.000
5.25	1.62	174.10	1.00	174.10	32	722	0.38	0.046	0.03	10.00	0.02	0.000
5.32	1.64	175.68	1.00	175.68	32	742	0.38	0.043	0.02	10.00	0.02	0.000
5.38	1.68	178.35	1.00	178.35	33	782	0.38	0.039	0.02	10.00	0.02	0.000
5.47	1.73	183.23	1.05	192.74	36	847	0.38	0.033	0.02	10.00	0.01	0.000
5.54	1.78	188.82	1.13	214.09	41	917	0.37	0.029	0.01	10.00	0.01	0.000
5.60	1.83	191.15	1.18	226.25	44	970	0.37	0.026	0.01	10.00	0.01	0.000
5.67	1.87	187.90	1.22	229.02	45	996	0.36	0.025	0.01	10.00	0.01	0.000
5.73	1.92	180.27	1.25	225.03	45	998	0.36	0.025	0.01	10.00	0.01	0.000
5.80	1.95	170.88	1.27	216.63	44	977	0.36	0.027	0.01	10.00	0.01	0.000
5.87	1.96	162.72	1.28	207.60	43	947	0.37	0.029	0.01	10.00	0.01	0.000
5.91	1.96	153.52	1.28	196.08	40	898	0.37	0.033	0.01	10.00	0.01	0.000
5.98	1.98	141.11	1.29	181.88	38	843	0.38	0.039	0.02	10.00	0.01	0.000
6.05	2.01	126.09	1.31	165.69	35	780	0.39	0.047	0.02	10.00	0.02	0.000
6.12	2.06	111.52	1.36	152.08	32	725	0.39	0.059	0.03	10.00	0.02	0.000
6.19	2.11	98.42	1.44	141.90	31	682	0.40	0.071	0.04	10.00	0.03	0.001
6.26	2.18	86.33	1.57	135.59	30	651	0.40	0.084	0.05	10.00	0.04	0.001
6.33	2.24	78.14	1.71	133.77	31	632	0.40	0.095	0.06	10.00	0.04	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
6.37	2.29	71.87	1.88	134.80	32	619	0.40	0.103	0.06	10.00	0.04	0.000
6.43	2.34	66.48	2.09	139.14	33	614	0.41	0.108	0.06	10.00	0.04	0.001
6.50	2.41	60.98	2.41	146.82	36	611	0.41	0.112	0.05	10.00	0.04	0.001
6.57	2.46	57.09	2.72	155.18	39	613	0.41	0.113	0.05	10.00	0.04	0.001
6.63	2.49	55.52	2.91	161.80	42	619	0.41	0.111	0.05	10.00	0.03	0.001
6.70	2.50	56.29	2.96	166.61	43	633	0.41	0.105	0.04	10.00	0.03	0.000
6.77	2.49	58.68	2.89	169.81	44	652	0.41	0.097	0.04	10.00	0.03	0.000
6.84	2.48	60.76	2.83	171.91	44	667	0.41	0.092	0.04	10.00	0.03	0.000
6.90	2.48	61.65	2.81	173.41	44	674	0.41	0.090	0.03	10.00	0.03	0.000
6.97	2.48	61.73	2.82	173.95	44	676	0.41	0.091	0.04	10.00	0.03	0.000
7.04	2.47	61.79	2.81	173.72	44	676	0.41	0.093	0.04	10.00	0.03	0.000
7.12	2.47	62.63	2.75	172.48	44	677	0.41	0.094	0.04	10.00	0.03	0.000
7.15	2.45	64.58	2.66	171.48	43	684	0.41	0.092	0.04	10.00	0.03	0.000
7.22	2.42	68.03	2.50	169.95	42	697	0.40	0.088	0.04	10.00	0.03	0.000
7.29	2.39	72.22	2.33	168.26	41	716	0.40	0.083	0.03	10.00	0.03	0.000
7.36	2.37	75.77	2.21	167.14	40	739	0.40	0.077	0.03	10.00	0.02	0.000
7.43	2.34	79.16	2.11	166.72	40	761	0.40	0.071	0.03	10.00	0.02	0.000
7.50	2.32	81.76	2.02	165.01	39	777	0.40	0.068	0.03	10.00	0.02	0.000
7.57	2.29	84.00	1.90	159.77	37	781	0.40	0.068	0.03	10.00	0.02	0.000
7.64	2.26	85.45	1.77	151.50	35	772	0.39	0.072	0.04	10.00	0.03	0.000
7.71	2.22	86.69	1.66	143.69	33	760	0.39	0.077	0.04	10.00	0.03	0.001
7.75	2.18	88.06	1.56	137.64	31	746	0.39	0.081	0.05	10.00	0.04	0.000
7.81	2.15	89.06	1.51	134.60	30	742	0.39	0.084	0.05	10.00	0.04	0.001
7.89	2.15	88.81	1.50	132.89	29	739	0.39	0.087	0.05	10.00	0.04	0.001
7.95	2.17	86.04	1.55	132.96	30	737	0.39	0.089	0.06	10.00	0.04	0.001
8.03	2.24	78.70	1.72	135.55	31	725	0.40	0.095	0.06	10.00	0.04	0.001
8.08	2.32	71.67	2.01	143.79	34	718	0.40	0.099	0.05	10.00	0.04	0.001
8.15	2.40	65.49	2.38	156.02	38	715	0.40	0.102	0.05	10.00	0.03	0.001
8.22	2.45	62.76	2.63	165.29	42	720	0.40	0.101	0.04	10.00	0.03	0.001
8.29	2.48	59.91	2.87	171.70	44	717	0.41	0.104	0.04	10.00	0.03	0.000
8.36	2.51	56.89	3.05	173.56	45	704	0.41	0.113	0.04	10.00	0.03	0.000
8.43	2.53	53.28	3.21	171.12	45	678	0.41	0.130	0.05	10.00	0.04	0.001
8.50	2.55	49.72	3.35	166.46	44	649	0.41	0.155	0.06	10.00	0.04	0.001
8.54	2.56	46.54	3.39	157.84	42	613	0.41	0.195	0.08	10.00	0.06	0.001
8.61	2.55	44.44	3.31	146.91	39	583	0.41	0.244	0.11	10.00	0.08	0.001
8.68	2.52	42.86	3.15	135.19	35	555	0.41	0.310	0.16	10.00	0.11	0.002
8.74	2.51	42.07	3.02	126.96	33	537	0.41	0.365	0.20	10.00	0.14	0.002
8.81	2.49	41.63	2.94	122.42	31	529	0.41	0.401	0.23	10.00	0.17	0.003
8.88	2.49	41.46	2.92	121.15	31	529	0.41	0.409	0.24	10.00	0.17	0.003
8.96	2.49	41.49	2.94	122.04	31	534	0.41	0.398	0.23	10.00	0.16	0.003
8.99	2.50	41.70	2.99	124.69	32	542	0.41	0.374	0.21	10.00	0.15	0.001
9.06	2.51	42.01	3.06	128.71	33	555	0.41	0.340	0.18	10.00	0.13	0.002
9.14	2.52	42.56	3.13	133.08	35	571	0.41	0.304	0.16	10.00	0.11	0.002
9.20	2.52	43.25	3.14	135.68	35	585	0.41	0.279	0.14	10.00	0.10	0.002
9.27	2.52	43.72	3.11	136.03	35	592	0.41	0.268	0.14	10.00	0.10	0.002
9.34	2.51	44.00	3.08	135.38	35	597	0.41	0.264	0.13	10.00	0.09	0.002
9.41	2.51	44.08	3.07	135.42	35	601	0.41	0.260	0.13	10.00	0.09	0.002
9.47	2.51	44.07	3.07	135.25	35	604	0.41	0.259	0.13	10.00	0.09	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
9.54	2.51	43.91	3.07	134.77	35	605	0.41	0.261	0.13	10.00	0.09	0.002
9.61	2.51	43.83	3.05	133.74	35	606	0.41	0.263	0.14	10.00	0.10	0.002
9.65	2.51	43.92	3.04	133.31	34	608	0.41	0.262	0.14	10.00	0.10	0.001
9.71	2.50	44.74	2.99	133.59	34	618	0.41	0.248	0.13	10.00	0.09	0.001
9.79	2.49	46.67	2.90	135.49	35	640	0.41	0.218	0.11	10.00	0.08	0.001
9.85	2.46	50.45	2.73	137.65	35	676	0.41	0.178	0.09	10.00	0.06	0.001
9.92	2.44	54.39	2.60	141.22	35	717	0.40	0.146	0.07	10.00	0.05	0.001
9.99	2.44	56.74	2.58	146.67	37	750	0.40	0.127	0.06	10.00	0.04	0.001
10.06	2.45	57.53	2.66	153.14	39	775	0.40	0.115	0.05	10.00	0.04	0.001
10.13	2.47	56.87	2.80	159.20	41	789	0.40	0.110	0.05	10.00	0.03	0.001
10.20	2.48	56.90	2.84	161.51	41	799	0.40	0.107	0.05	10.00	0.03	0.001
10.24	2.47	56.67	2.81	159.11	41	794	0.40	0.110	0.05	10.00	0.03	0.000
10.31	2.44	56.84	2.59	147.00	37	771	0.40	0.123	0.06	10.00	0.04	0.001
10.38	2.40	57.33	2.37	136.08	33	751	0.40	0.136	0.07	10.00	0.05	0.001
10.45	2.37	58.20	2.23	129.87	32	743	0.40	0.143	0.08	10.00	0.06	0.001
10.52	2.38	59.01	2.27	133.73	33	763	0.40	0.132	0.07	10.00	0.05	0.001
10.59	2.42	57.32	2.46	140.93	35	775	0.40	0.127	0.07	10.00	0.04	0.001
10.65	2.45	55.92	2.66	148.75	37	788	0.40	0.121	0.06	10.00	0.04	0.001
10.72	2.48	54.09	2.87	155.51	40	796	0.40	0.119	0.05	10.00	0.04	0.001
10.76	2.49	54.23	2.88	156.28	40	801	0.40	0.118	0.05	10.00	0.03	0.000
10.84	2.48	53.56	2.87	153.86	39	794	0.40	0.122	0.05	10.00	0.04	0.001
10.91	2.48	53.14	2.82	149.63	38	785	0.40	0.129	0.06	10.00	0.04	0.001
10.98	2.46	53.47	2.71	145.01	37	780	0.40	0.133	0.06	10.00	0.04	0.001
11.05	2.44	54.32	2.61	141.59	36	781	0.40	0.134	0.07	10.00	0.05	0.001
11.12	2.43	55.27	2.52	139.03	35	785	0.40	0.133	0.07	10.00	0.05	0.001
11.19	2.42	55.15	2.51	138.39	34	787	0.40	0.134	0.07	10.00	0.05	0.001
11.26	2.43	54.57	2.53	138.06	34	785	0.40	0.136	0.07	10.00	0.05	0.001
11.29	2.43	54.01	2.54	137.01	34	780	0.40	0.140	0.07	10.00	0.05	0.000
11.36	2.42	54.00	2.50	134.93	34	778	0.40	0.143	0.08	10.00	0.05	0.001
11.43	2.41	54.61	2.40	131.16	32	775	0.40	0.147	0.08	10.00	0.06	0.001
11.50	2.38	55.73	2.26	126.17	31	772	0.40	0.151	0.09	10.00	0.06	0.001
11.57	2.34	57.11	2.09	119.15	29	761	0.40	0.160	0.10	10.00	0.07	0.001
11.63	2.30	58.18	1.92	111.48	26	744	0.40	0.176	0.13	10.00	0.09	0.001
11.71	2.26	58.80	1.77	104.26	24	721	0.40	0.200	0.16	10.00	0.11	0.002
11.78	2.22	59.18	1.67	98.74	22	700	0.40	0.226	0.20	10.00	0.13	0.002
11.84	2.19	59.60	1.59	94.82	21	684	0.40	0.251	0.23	10.00	0.16	0.002
11.91	2.16	60.30	1.53	92.23	20	674	0.40	0.270	0.26	10.00	0.18	0.003
11.95	2.13	61.46	1.46	89.89	20	662	0.40	0.293	0.30	10.00	0.20	0.002
12.01	2.09	62.18	1.41	87.69	19	647	0.40	0.326	0.35	10.00	0.23	0.004
12.08	2.06	63.00	1.36	85.79	18	631	0.40	0.370	0.41	10.00	0.28	0.004
12.15	2.03	63.81	1.33	84.98	18	621	0.40	0.403	0.46	10.00	0.31	0.005
12.22	2.01	64.83	1.31	85.07	18	618	0.40	0.417	0.48	10.00	0.32	0.005
12.29	2.00	65.35	1.30	85.27	18	619	0.40	0.420	0.49	10.00	0.32	0.005
12.36	2.00	65.20	1.30	85.00	18	618	0.40	0.426	0.49	10.00	0.33	0.005
12.43	2.00	64.55	1.31	84.49	18	619	0.40	0.430	0.50	10.00	0.33	0.005
12.50	2.01	63.79	1.32	83.99	18	620	0.40	0.432	0.50	10.00	0.33	0.006
12.53	2.02	63.00	1.33	83.60	18	621	0.40	0.430	0.50	10.00	0.33	0.003
12.60	2.03	62.42	1.33	83.20	18	622	0.40	0.433	0.51	10.00	0.33	0.006

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Q_{tn}	K_c	$Q_{tn,cs}$	$N_{1,60}$ (blows)	G_{max} (tsf)	CSR	Shear, γ (%)	$e_{vol(15)}$ (%)	N_c	e_v (%)	Settle. (in)
12.67	2.03	61.78	1.34	82.51	17	619	0.40	0.446	0.53	10.00	0.35	0.006
12.74	2.03	61.35	1.33	81.70	17	615	0.40	0.469	0.56	10.00	0.37	0.006
12.81	2.02	61.16	1.33	81.04	17	610	0.40	0.493	0.60	10.00	0.39	0.007
12.88	2.01	61.77	1.31	81.09	17	608	0.40	0.505	0.62	10.00	0.40	0.007
12.96	1.98	63.19	1.29	81.39	17	602	0.40	0.535	0.66	10.00	0.43	0.007
13.03	1.94	64.76	1.26	81.65	17	592	0.40	0.590	0.74	10.00	0.48	0.008
13.06	1.90	66.59	1.23	82.23	16	583	0.41	0.643	0.81	10.00	0.53	0.004
13.13	1.88	68.21	1.22	83.27	17	585	0.41	0.639	0.80	10.00	0.52	0.009
13.20	1.87	70.01	1.21	84.99	17	595	0.41	0.591	0.73	10.00	0.47	0.007
13.27	1.86	71.52	1.21	86.68	17	608	0.41	0.539	0.65	10.00	0.42	0.007
13.34	1.87	72.30	1.21	87.81	17	619	0.41	0.501	0.59	10.00	0.38	0.006
13.41	1.87	73.86	1.21	89.62	18	633	0.41	0.456	0.53	10.00	0.34	0.006
13.48	1.86	76.09	1.21	91.99	18	650	0.40	0.410	0.46	10.00	0.30	0.005
13.55	1.85	79.66	1.20	95.50	19	672	0.40	0.356	0.38	10.00	0.25	0.004
13.61	1.84	83.27	1.19	99.11	19	696	0.40	0.310	0.32	10.00	0.21	0.003
13.67	1.83	87.35	1.18	103.02	20	722	0.40	0.269	0.27	10.00	0.17	0.002
13.74	1.81	91.70	1.17	106.94	21	748	0.40	0.236	0.23	10.00	0.15	0.002
13.80	1.80	96.56	1.15	110.99	21	776	0.40	0.208	0.19	10.00	0.12	0.002
13.88	1.78	100.68	1.13	114.11	22	799	0.40	0.189	0.17	10.00	0.11	0.002
13.92	1.77	105.01	1.11	116.93	22	820	0.40	0.173	0.15	10.00	0.10	0.001
13.98	1.75	109.02	1.09	119.01	23	839	0.40	0.161	0.14	10.00	0.09	0.001
14.05	1.74	113.96	1.06	120.86	23	861	0.39	0.149	0.13	10.00	0.08	0.001
14.13	1.72	118.98	1.02	121.82	23	881	0.39	0.139	0.12	10.00	0.08	0.001
14.20	1.70	123.56	1.00	123.56	23	900	0.39	0.132	0.11	10.00	0.07	0.001
14.27	1.69	127.04	1.00	127.04	24	914	0.38	0.127	0.10	10.00	0.07	0.001
14.34	1.68	128.85	1.00	128.85	24	923	0.38	0.124	0.10	10.00	0.06	0.001
14.37	1.68	129.17	1.00	129.17	24	926	0.38	0.123	0.10	10.00	0.06	0.000
14.44	1.69	127.41	1.00	127.41	24	923	0.38	0.125	0.10	10.00	0.06	0.001
14.51	1.70	124.02	1.00	124.02	23	917	0.39	0.129	0.11	10.00	0.07	0.001
14.58	1.72	119.20	1.04	123.83	23	906	0.39	0.135	0.11	10.00	0.07	0.001
14.65	1.75	113.69	1.09	123.45	23	894	0.39	0.142	0.12	10.00	0.07	0.001
14.72	1.78	108.12	1.13	122.03	23	882	0.39	0.149	0.12	10.00	0.08	0.001
14.79	1.81	103.15	1.16	119.88	23	873	0.40	0.156	0.13	10.00	0.08	0.001
14.86	1.83	98.97	1.19	117.46	23	866	0.40	0.162	0.14	10.00	0.09	0.001
14.93	1.85	96.00	1.20	115.41	23	861	0.40	0.166	0.14	10.00	0.09	0.002
14.97	1.87	93.72	1.21	113.67	22	856	0.39	0.171	0.15	10.00	0.09	0.001

Total estimated settlement: 0.29

Abbreviations

Q_{tn}: Normalized cone resistance
K_c: Fines correction factor
$Q_{tn,cs}$: Equivalent clean sand normalized cone resistance
G_{max}: Small strain shear modulus
CSR: Soil cyclic stress ratio
γ: Cyclic shear strain
$e_{vol(15)}$: Volumetric strain after 15 cycles
N_c: Equivalent number of cycles
e_v: Volumetric strain
Settle.: Calculated settlement

:: Post-earthquake settlement due to soil liquefaction ::

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
15.04	107.32	0.37	2.24	0.75	0.02	15.11	108.48	0.38	2.21	0.75	0.02
15.17	109.69	0.38	2.18	0.75	0.02	15.24	110.57	0.39	2.16	0.75	0.02
15.31	111.59	0.39	2.14	0.74	0.02	15.38	118.19	0.43	2.01	0.74	0.02
15.42	124.15	0.47	1.90	0.74	0.01	15.49	138.54	0.60	1.68	0.74	0.01
15.56	153.11	0.84	0.95	0.74	0.01	15.63	166.43	1.25	0.35	0.74	0.00
15.70	176.32	1.80	0.06	0.74	0.00	15.77	181.92	2.00	0.00	0.74	0.00
15.84	185.14	2.00	0.00	0.74	0.00	15.91	186.27	2.00	0.00	0.73	0.00
15.95	184.18	2.00	0.00	0.73	0.00	16.05	183.26	2.00	0.00	0.73	0.00
16.08	183.72	2.00	0.00	0.73	0.00	16.16	183.93	2.00	0.00	0.73	0.00
16.22	184.33	2.00	0.00	0.73	0.00	16.29	184.74	2.00	0.00	0.73	0.00
16.36	185.41	2.00	0.00	0.73	0.00	16.43	183.80	2.00	0.00	0.73	0.00
16.50	179.12	1.98	0.01	0.72	0.00	16.57	173.25	1.56	0.16	0.72	0.00
16.61	170.72	1.42	0.23	0.72	0.00	16.68	167.03	1.24	0.35	0.72	0.00
16.75	166.88	1.24	0.36	0.72	0.00	16.82	166.74	1.23	0.36	0.72	0.00
16.89	168.50	1.30	0.31	0.72	0.00	16.93	169.71	1.36	0.27	0.72	0.00
17.00	172.55	1.51	0.19	0.72	0.00	17.07	173.69	1.57	0.15	0.72	0.00
17.14	173.45	1.55	0.16	0.71	0.00	17.21	173.22	1.54	0.17	0.71	0.00
17.28	173.08	1.53	0.17	0.71	0.00	17.35	172.85	1.51	0.18	0.71	0.00
17.41	176.43	1.73	0.09	0.71	0.00	17.49	183.25	2.00	0.00	0.71	0.00
17.52	187.78	2.00	0.00	0.71	0.00	17.59	199.28	2.00	0.00	0.71	0.00
17.66	212.90	2.00	0.00	0.71	0.00	17.73	228.74	2.00	0.00	0.70	0.00
17.80	242.50	2.00	0.00	0.70	0.00	17.87	254.36	2.00	0.00	0.70	0.00
17.94	263.51	2.00	0.00	0.70	0.00	18.01	265.63	2.00	0.00	0.70	0.00
18.05	264.91	2.00	0.00	0.70	0.00	18.12	262.37	2.00	0.00	0.70	0.00
18.19	259.12	2.00	0.00	0.70	0.00	18.26	258.69	2.00	0.00	0.70	0.00
18.33	260.82	2.00	0.00	0.69	0.00	18.39	266.13	2.00	0.00	0.69	0.00
18.46	267.05	2.00	0.00	0.69	0.00	18.53	260.54	2.00	0.00	0.69	0.00
18.58	236.87	2.00	0.00	0.69	0.00	18.64	235.75	2.00	0.00	0.69	0.00
18.71	218.92	2.00	0.00	0.69	0.00	18.78	198.48	2.00	0.00	0.69	0.00
18.84	190.71	2.00	0.00	0.69	0.00	18.91	184.43	2.00	0.00	0.68	0.00
18.98	171.67	1.40	0.23	0.68	0.00	19.05	157.41	0.87	0.77	0.68	0.01
19.12	138.72	0.55	1.54	0.68	0.01	19.19	122.30	0.42	1.77	0.68	0.01
19.26	110.78	0.35	1.96	0.68	0.02	19.32	108.39	0.34	2.00	0.68	0.02
19.36	106.07	0.33	2.05	0.68	0.01	19.43	102.76	0.32	2.11	0.68	0.02
19.50	98.06	0.31	2.21	0.67	0.02	19.57	32.67	2.00	0.00	0.67	0.00
19.64	32.68	2.00	0.00	0.67	0.00	19.71	32.70	2.00	0.00	0.67	0.00
19.79	94.47	0.29	2.28	0.67	0.02	19.82	94.88	0.29	2.27	0.67	0.01
19.89	95.97	0.30	2.24	0.67	0.02	19.96	96.15	0.30	2.23	0.67	0.02
20.03	96.20	2.00	0.00	0.67	0.00	20.09	95.70	2.00	0.00	0.67	0.00
20.16	96.21	2.00	0.00	0.66	0.00	20.23	95.71	2.00	0.00	0.66	0.00
20.30	96.19	2.00	0.00	0.66	0.00	20.37	97.31	2.00	0.00	0.66	0.00
20.43	98.16	2.00	0.00	0.66	0.00	20.50	97.45	2.00	0.00	0.66	0.00
20.56	98.72	2.00	0.00	0.66	0.00	20.64	100.66	2.00	0.00	0.66	0.00
20.67	102.36	2.00	0.00	0.66	0.00	20.74	42.04	2.00	0.00	0.65	0.00
20.81	25.17	2.00	0.00	0.65	0.00	20.88	47.05	2.00	0.00	0.65	0.00
20.95	113.30	2.00	0.00	0.65	0.00	21.02	114.61	2.00	0.00	0.65	0.00
21.08	114.60	2.00	0.00	0.65	0.00	21.16	115.46	2.00	0.00	0.65	0.00
21.22	116.22	2.00	0.00	0.65	0.00	21.29	118.43	2.00	0.00	0.65	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
21.33	118.57	2.00	0.00	0.64	0.00	21.39	118.44	2.00	0.00	0.64	0.00
21.47	117.32	2.00	0.00	0.64	0.00	21.54	117.06	2.00	0.00	0.64	0.00
21.61	118.12	2.00	0.00	0.64	0.00	21.68	120.91	2.00	0.00	0.64	0.00
21.74	126.52	2.00	0.00	0.64	0.00	21.82	128.99	2.00	0.00	0.64	0.00
21.88	131.15	2.00	0.00	0.64	0.00	21.92	132.32	2.00	0.00	0.63	0.00
21.99	134.78	2.00	0.00	0.63	0.00	22.05	138.94	2.00	0.00	0.63	0.00
22.13	141.33	2.00	0.00	0.63	0.00	22.20	142.21	2.00	0.00	0.63	0.00
22.27	141.74	2.00	0.00	0.63	0.00	22.34	143.63	2.00	0.00	0.63	0.00
22.41	145.25	2.00	0.00	0.63	0.00	22.47	145.97	2.00	0.00	0.63	0.00
22.51	145.97	2.00	0.00	0.62	0.00	22.57	145.23	2.00	0.00	0.62	0.00
22.65	146.54	2.00	0.00	0.62	0.00	22.71	146.82	2.00	0.00	0.62	0.00
22.78	147.37	2.00	0.00	0.62	0.00	22.86	147.59	2.00	0.00	0.62	0.00
22.92	144.97	2.00	0.00	0.62	0.00	23.00	139.39	2.00	0.00	0.62	0.00
23.07	131.16	2.00	0.00	0.62	0.00	23.10	127.50	2.00	0.00	0.61	0.00
23.18	130.78	2.00	0.00	0.61	0.00	23.25	133.84	2.00	0.00	0.61	0.00
23.31	137.06	2.00	0.00	0.61	0.00	23.39	133.81	2.00	0.00	0.61	0.00
23.45	137.40	2.00	0.00	0.61	0.00	23.52	137.77	2.00	0.00	0.61	0.00
23.59	140.45	2.00	0.00	0.61	0.00	23.62	140.90	2.00	0.00	0.61	0.00
23.69	142.41	2.00	0.00	0.61	0.00	23.76	142.98	2.00	0.00	0.60	0.00
23.83	144.41	2.00	0.00	0.60	0.00	23.90	146.24	2.00	0.00	0.60	0.00
23.96	147.75	2.00	0.00	0.60	0.00	24.04	149.43	2.00	0.00	0.60	0.00
24.11	150.09	2.00	0.00	0.60	0.00	24.18	144.82	2.00	0.00	0.60	0.00
24.24	135.86	2.00	0.00	0.60	0.00	24.31	147.90	2.00	0.00	0.59	0.00
24.35	156.83	2.00	0.00	0.59	0.00	24.42	173.85	2.00	0.00	0.59	0.00
24.48	185.97	2.00	0.00	0.59	0.00	24.55	196.59	2.00	0.00	0.59	0.00
24.62	205.55	2.00	0.00	0.59	0.00	24.69	212.28	2.00	0.00	0.59	0.00
24.77	215.08	2.00	0.00	0.59	0.00	24.84	215.75	2.00	0.00	0.59	0.00
24.87	216.67	2.00	0.00	0.59	0.00	24.94	218.95	2.00	0.00	0.58	0.00
25.00	221.15	2.00	0.00	0.58	0.00	25.07	223.34	2.00	0.00	0.58	0.00
25.14	226.95	2.00	0.00	0.58	0.00	25.21	230.39	2.00	0.00	0.58	0.00
25.28	234.56	2.00	0.00	0.58	0.00	25.35	236.67	2.00	0.00	0.58	0.00
25.42	236.98	2.00	0.00	0.58	0.00	25.49	236.67	2.00	0.00	0.58	0.00
25.56	237.61	2.00	0.00	0.57	0.00	25.60	238.34	2.00	0.00	0.57	0.00
25.67	241.08	2.00	0.00	0.57	0.00	25.73	235.85	2.00	0.00	0.57	0.00
25.80	233.48	2.00	0.00	0.57	0.00	25.86	235.78	2.00	0.00	0.57	0.00
25.93	234.30	2.00	0.00	0.57	0.00	26.00	235.24	2.00	0.00	0.57	0.00
26.06	240.78	2.00	0.00	0.57	0.00	26.12	252.36	2.00	0.00	0.56	0.00
26.19	267.42	2.00	0.00	0.56	0.00	26.25	282.47	2.00	0.00	0.56	0.00
26.33	296.05	2.00	0.00	0.56	0.00	26.39	307.40	2.00	0.00	0.56	0.00
26.46	315.22	2.00	0.00	0.56	0.00	26.53	319.01	2.00	0.00	0.56	0.00
26.60	320.65	2.00	0.00	0.56	0.00	26.67	319.21	2.00	0.00	0.56	0.00
26.74	315.36	2.00	0.00	0.55	0.00	26.77	313.57	2.00	0.00	0.55	0.00
26.84	313.42	2.00	0.00	0.55	0.00	26.91	317.37	2.00	0.00	0.55	0.00
26.98	319.85	2.00	0.00	0.55	0.00	27.06	322.15	2.00	0.00	0.55	0.00
27.12	327.89	2.00	0.00	0.55	0.00	27.20	334.63	2.00	0.00	0.55	0.00
27.27	340.17	2.00	0.00	0.55	0.00	27.30	341.79	2.00	0.00	0.55	0.00
27.37	344.51	2.00	0.00	0.54	0.00	27.44	344.09	2.00	0.00	0.54	0.00
27.50	340.02	2.00	0.00	0.54	0.00	27.57	334.33	2.00	0.00	0.54	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
27.64	325.84	2.00	0.00	0.54	0.00	27.71	315.33	2.00	0.00	0.54	0.00
27.78	302.94	2.00	0.00	0.54	0.00	27.85	290.93	2.00	0.00	0.54	0.00
27.91	269.35	2.00	0.00	0.53	0.00	27.97	259.76	2.00	0.00	0.53	0.00
28.03	264.31	2.00	0.00	0.53	0.00	28.11	262.47	2.00	0.00	0.53	0.00
28.16	261.02	2.00	0.00	0.53	0.00	28.23	258.71	2.00	0.00	0.53	0.00
28.29	257.75	2.00	0.00	0.53	0.00	28.36	259.23	2.00	0.00	0.53	0.00
28.43	263.60	2.00	0.00	0.53	0.00	28.50	264.74	2.00	0.00	0.53	0.00
28.56	261.16	2.00	0.00	0.52	0.00	28.64	253.32	2.00	0.00	0.52	0.00
28.71	246.61	2.00	0.00	0.52	0.00	28.74	243.68	2.00	0.00	0.52	0.00
28.81	238.61	2.00	0.00	0.52	0.00	28.87	232.85	2.00	0.00	0.52	0.00
28.95	229.04	2.00	0.00	0.52	0.00	29.01	228.39	2.00	0.00	0.52	0.00
29.08	228.44	2.00	0.00	0.52	0.00	29.15	230.64	2.00	0.00	0.51	0.00
29.22	233.65	2.00	0.00	0.51	0.00	29.29	237.48	2.00	0.00	0.51	0.00
29.36	240.76	2.00	0.00	0.51	0.00	29.40	242.32	2.00	0.00	0.51	0.00
29.47	245.52	2.00	0.00	0.51	0.00	29.54	245.49	2.00	0.00	0.51	0.00
29.60	242.18	2.00	0.00	0.51	0.00	29.69	238.84	2.00	0.00	0.51	0.00
29.75	239.62	2.00	0.00	0.50	0.00	29.82	237.71	2.00	0.00	0.50	0.00
29.89	234.53	2.00	0.00	0.50	0.00	29.92	233.40	2.00	0.00	0.50	0.00
29.99	230.86	2.00	0.00	0.50	0.00	30.07	228.84	2.00	0.00	0.50	0.00
30.14	224.87	2.00	0.00	0.50	0.00	30.21	219.75	2.00	0.00	0.50	0.00
30.28	215.97	2.00	0.00	0.50	0.00	30.32	214.76	2.00	0.00	0.49	0.00
30.39	213.74	2.00	0.00	0.49	0.00	30.45	212.03	2.00	0.00	0.49	0.00
30.52	207.74	2.00	0.00	0.49	0.00	30.59	204.25	2.00	0.00	0.49	0.00
30.66	203.17	2.00	0.00	0.49	0.00	30.73	203.14	2.00	0.00	0.49	0.00
30.80	203.29	2.00	0.00	0.49	0.00	30.86	203.54	2.00	0.00	0.49	0.00
30.93	204.58	2.00	0.00	0.48	0.00	31.00	207.21	2.00	0.00	0.48	0.00
31.04	205.29	2.00	0.00	0.48	0.00	31.10	204.83	2.00	0.00	0.48	0.00
31.19	204.34	2.00	0.00	0.48	0.00	31.25	205.48	2.00	0.00	0.48	0.00
31.32	206.24	2.00	0.00	0.48	0.00	31.37	207.22	2.00	0.00	0.48	0.00
31.45	206.21	2.00	0.00	0.48	0.00	31.51	203.99	2.00	0.00	0.47	0.00
31.58	205.85	2.00	0.00	0.47	0.00	31.65	201.90	2.00	0.00	0.47	0.00
31.72	205.50	2.00	0.00	0.47	0.00	31.79	206.63	2.00	0.00	0.47	0.00
31.82	205.42	2.00	0.00	0.47	0.00	31.89	201.78	2.00	0.00	0.47	0.00
31.96	196.55	2.00	0.00	0.47	0.00	32.03	191.69	2.00	0.00	0.47	0.00
32.10	186.85	2.00	0.00	0.46	0.00	32.17	184.02	2.00	0.00	0.46	0.00
32.25	183.56	2.00	0.00	0.46	0.00	32.32	184.15	2.00	0.00	0.46	0.00
32.35	183.92	2.00	0.00	0.46	0.00	32.42	181.71	2.00	0.00	0.46	0.00
32.48	178.91	2.00	0.00	0.46	0.00	32.55	175.85	2.00	0.00	0.46	0.00
32.63	175.82	2.00	0.00	0.46	0.00	32.69	175.73	2.00	0.00	0.46	0.00
32.76	175.71	2.00	0.00	0.45	0.00	32.83	176.66	2.00	0.00	0.45	0.00
32.90	175.33	2.00	0.00	0.45	0.00	32.97	173.67	2.00	0.00	0.45	0.00
33.01	172.23	2.00	0.00	0.45	0.00	33.08	168.88	2.00	0.00	0.45	0.00
33.15	165.77	2.00	0.00	0.45	0.00	33.21	139.27	2.00	0.00	0.45	0.00
33.29	152.69	2.00	0.00	0.45	0.00	33.35	151.50	2.00	0.00	0.44	0.00
33.40	149.88	2.00	0.00	0.44	0.00	33.48	147.57	2.00	0.00	0.44	0.00
33.54	145.70	2.00	0.00	0.44	0.00	33.61	144.16	2.00	0.00	0.44	0.00
33.66	143.74	2.00	0.00	0.44	0.00	33.73	146.54	2.00	0.00	0.44	0.00
33.81	148.04	2.00	0.00	0.44	0.00	33.87	149.58	2.00	0.00	0.44	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
33.95	155.52	2.00	0.00	0.43	0.00	34.00	162.73	2.00	0.00	0.43	0.00
34.06	173.92	2.00	0.00	0.43	0.00	34.13	193.42	2.00	0.00	0.43	0.00
34.20	210.68	2.00	0.00	0.43	0.00	34.26	222.85	2.00	0.00	0.43	0.00
34.32	230.08	2.00	0.00	0.43	0.00	34.39	235.00	2.00	0.00	0.43	0.00
34.47	238.47	2.00	0.00	0.43	0.00	34.53	244.22	2.00	0.00	0.42	0.00
34.60	251.81	2.00	0.00	0.42	0.00	34.66	258.79	2.00	0.00	0.42	0.00
34.73	263.74	2.00	0.00	0.42	0.00	34.79	265.92	2.00	0.00	0.42	0.00
34.85	264.60	2.00	0.00	0.42	0.00	34.92	260.19	2.00	0.00	0.42	0.00
34.98	255.88	2.00	0.00	0.42	0.00	35.05	250.44	2.00	0.00	0.42	0.00
35.12	248.88	2.00	0.00	0.41	0.00	35.17	220.68	2.00	0.00	0.41	0.00
35.25	235.42	2.00	0.00	0.41	0.00	35.31	239.10	2.00	0.00	0.41	0.00
35.37	234.78	2.00	0.00	0.41	0.00	35.45	223.54	2.00	0.00	0.41	0.00
35.50	211.19	2.00	0.00	0.41	0.00	35.57	196.88	2.00	0.00	0.41	0.00
35.64	184.11	2.00	0.00	0.41	0.00	35.72	172.65	2.00	0.00	0.40	0.00
35.79	160.81	2.00	0.00	0.40	0.00	35.86	149.92	2.00	0.00	0.40	0.00
35.92	140.43	2.00	0.00	0.40	0.00	35.99	132.39	2.00	0.00	0.40	0.00
36.03	134.59	2.00	0.00	0.40	0.00	36.10	139.18	2.00	0.00	0.40	0.00
36.17	148.04	2.00	0.00	0.40	0.00	36.23	148.48	2.00	0.00	0.40	0.00
36.30	137.14	2.00	0.00	0.39	0.00	36.37	129.04	2.00	0.00	0.39	0.00
36.44	134.37	2.00	0.00	0.39	0.00	36.51	139.29	2.00	0.00	0.39	0.00
36.55	142.51	2.00	0.00	0.39	0.00	36.62	148.23	2.00	0.00	0.39	0.00
36.70	135.47	2.00	0.00	0.39	0.00	36.75	157.02	2.00	0.00	0.39	0.00
36.82	166.13	2.00	0.00	0.39	0.00	36.89	171.00	2.00	0.00	0.39	0.00
36.96	174.01	2.00	0.00	0.38	0.00	37.03	172.88	2.00	0.00	0.38	0.00
37.10	167.97	2.00	0.00	0.38	0.00	37.17	163.24	2.00	0.00	0.38	0.00
37.24	158.88	2.00	0.00	0.38	0.00	37.27	156.22	2.00	0.00	0.38	0.00
37.34	152.42	2.00	0.00	0.38	0.00	37.41	149.55	2.00	0.00	0.38	0.00
37.48	146.92	2.00	0.00	0.38	0.00	37.56	146.08	2.00	0.00	0.37	0.00
37.63	146.13	2.00	0.00	0.37	0.00	37.70	147.88	2.00	0.00	0.37	0.00
37.77	152.29	2.00	0.00	0.37	0.00	37.80	155.73	2.00	0.00	0.37	0.00
37.87	161.70	2.00	0.00	0.37	0.00	37.93	165.71	2.00	0.00	0.37	0.00
38.00	166.26	2.00	0.00	0.37	0.00	38.07	166.77	2.00	0.00	0.37	0.00
38.14	166.68	2.00	0.00	0.36	0.00	38.21	164.87	2.00	0.00	0.36	0.00
38.28	163.07	2.00	0.00	0.36	0.00	38.32	161.92	2.00	0.00	0.36	0.00
38.39	159.02	2.00	0.00	0.36	0.00	38.46	155.45	2.00	0.00	0.36	0.00
38.52	123.78	2.00	0.00	0.36	0.00	38.59	141.38	2.00	0.00	0.36	0.00
38.66	139.80	2.00	0.00	0.36	0.00	38.72	135.93	2.00	0.00	0.35	0.00
38.78	140.26	2.00	0.00	0.35	0.00	38.86	155.04	2.00	0.00	0.35	0.00
38.92	168.59	2.00	0.00	0.35	0.00	38.98	171.44	2.00	0.00	0.35	0.00
39.04	165.98	2.00	0.00	0.35	0.00	39.12	145.28	2.00	0.00	0.35	0.00
39.17	133.19	2.00	0.00	0.35	0.00	39.25	118.70	2.00	0.00	0.35	0.00
39.30	110.39	2.00	0.00	0.34	0.00	39.38	38.71	2.00	0.00	0.34	0.00
39.45	36.08	2.00	0.00	0.34	0.00	39.52	36.12	2.00	0.00	0.34	0.00
39.59	36.76	2.00	0.00	0.34	0.00	39.63	36.80	2.00	0.00	0.34	0.00
39.70	36.41	2.00	0.00	0.34	0.00	39.77	34.76	2.00	0.00	0.34	0.00
39.84	33.56	2.00	0.00	0.34	0.00	39.91	33.17	2.00	0.00	0.33	0.00
39.98	33.14	2.00	0.00	0.33	0.00	40.03	33.12	2.00	0.00	0.33	0.00
40.11	33.09	2.00	0.00	0.33	0.00	40.19	33.57	2.00	0.00	0.33	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
40.24	93.47	2.00	0.00	0.33	0.00	40.30	92.55	2.00	0.00	0.33	0.00
40.38	91.41	2.00	0.00	0.33	0.00	40.43	31.09	2.00	0.00	0.33	0.00
40.51	31.59	2.00	0.00	0.32	0.00	40.56	30.18	2.00	0.00	0.32	0.00
40.63	31.62	2.00	0.00	0.32	0.00	40.70	31.31	2.00	0.00	0.32	0.00
40.76	31.00	2.00	0.00	0.32	0.00	40.84	30.90	2.00	0.00	0.32	0.00
40.89	30.89	2.00	0.00	0.32	0.00	40.95	30.87	2.00	0.00	0.32	0.00
41.03	30.78	2.00	0.00	0.32	0.00	41.08	30.76	2.00	0.00	0.32	0.00
41.17	30.74	2.00	0.00	0.31	0.00	41.22	30.58	2.00	0.00	0.31	0.00
41.28	30.34	2.00	0.00	0.31	0.00	41.37	30.83	2.00	0.00	0.31	0.00
41.44	30.81	2.00	0.00	0.31	0.00	41.50	30.72	2.00	0.00	0.31	0.00
41.57	30.85	2.00	0.00	0.31	0.00	41.60	30.69	2.00	0.00	0.31	0.00
41.67	30.75	2.00	0.00	0.31	0.00	41.74	31.01	2.00	0.00	0.30	0.00
41.81	30.99	2.00	0.00	0.30	0.00	41.88	90.93	2.00	0.00	0.30	0.00
41.95	91.27	2.00	0.00	0.30	0.00	42.02	91.18	2.00	0.00	0.30	0.00
42.08	91.18	2.00	0.00	0.30	0.00	42.15	91.20	2.00	0.00	0.30	0.00
42.22	91.25	2.00	0.00	0.30	0.00	42.29	91.38	2.00	0.00	0.30	0.00
42.33	31.43	2.00	0.00	0.29	0.00	42.39	31.41	2.00	0.00	0.29	0.00
42.46	31.39	2.00	0.00	0.29	0.00	42.53	31.37	2.00	0.00	0.29	0.00
42.61	31.65	2.00	0.00	0.29	0.00	42.67	32.28	2.00	0.00	0.29	0.00
42.74	92.65	2.00	0.00	0.29	0.00	42.81	92.70	2.00	0.00	0.29	0.00
42.85	92.97	2.00	0.00	0.29	0.00	42.92	94.83	2.00	0.00	0.28	0.00
42.99	35.85	2.00	0.00	0.28	0.00	43.06	35.67	2.00	0.00	0.28	0.00
43.11	23.80	2.00	0.00	0.28	0.00	43.19	40.61	2.00	0.00	0.28	0.00
43.25	42.90	2.00	0.00	0.28	0.00	43.33	40.44	2.00	0.00	0.28	0.00
43.38	38.16	2.00	0.00	0.28	0.00	43.47	36.18	2.00	0.00	0.28	0.00
43.52	36.16	2.00	0.00	0.27	0.00	43.58	36.14	2.00	0.00	0.27	0.00
43.66	38.72	2.00	0.00	0.27	0.00	43.72	40.75	2.00	0.00	0.27	0.00
43.77	41.54	2.00	0.00	0.27	0.00	43.85	41.51	2.00	0.00	0.27	0.00
43.90	41.50	2.00	0.00	0.27	0.00	43.98	42.94	2.00	0.00	0.27	0.00
44.03	42.98	2.00	0.00	0.27	0.00	44.12	43.31	2.00	0.00	0.26	0.00
44.17	42.92	2.00	0.00	0.26	0.00	44.23	43.49	2.00	0.00	0.26	0.00
44.30	42.28	2.00	0.00	0.26	0.00	44.38	40.87	2.00	0.00	0.26	0.00
44.45	40.33	2.00	0.00	0.26	0.00	44.52	40.88	2.00	0.00	0.26	0.00
44.58	41.59	2.00	0.00	0.26	0.00	44.62	41.79	2.00	0.00	0.26	0.00
44.69	42.64	2.00	0.00	0.26	0.00	44.76	44.30	2.00	0.00	0.25	0.00
44.83	44.20	2.00	0.00	0.25	0.00	44.90	43.53	2.00	0.00	0.25	0.00
44.97	44.02	2.00	0.00	0.25	0.00	45.04	45.39	2.00	0.00	0.25	0.00
45.08	46.34	2.00	0.00	0.25	0.00	45.15	48.95	2.00	0.00	0.25	0.00
45.21	123.43	2.00	0.00	0.25	0.00	45.28	133.84	2.00	0.00	0.25	0.00
45.35	147.51	2.00	0.00	0.24	0.00	45.41	173.97	2.00	0.00	0.24	0.00
45.48	200.55	2.00	0.00	0.24	0.00	45.54	208.95	2.00	0.00	0.24	0.00
45.62	222.88	2.00	0.00	0.24	0.00	45.67	235.71	2.00	0.00	0.24	0.00
45.75	247.07	2.00	0.00	0.24	0.00	45.80	243.72	2.00	0.00	0.24	0.00
45.87	236.35	2.00	0.00	0.24	0.00	45.94	229.97	2.00	0.00	0.23	0.00
46.00	231.25	2.00	0.00	0.23	0.00	46.07	235.43	2.00	0.00	0.23	0.00
46.14	237.21	2.00	0.00	0.23	0.00	46.21	240.90	2.00	0.00	0.23	0.00
46.26	243.93	2.00	0.00	0.23	0.00	46.33	249.74	2.00	0.00	0.23	0.00
46.40	259.40	2.00	0.00	0.23	0.00	46.48	267.12	2.00	0.00	0.23	0.00

:: Post-earthquake settlement due to soil liquefaction :: (continued)

Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)	Depth (ft)	$q_{c1N,cs}$	FS	e_v (%)	DF	Settlement (in)
46.53	275.68	2.00	0.00	0.22	0.00	46.60	285.27	2.00	0.00	0.22	0.00
46.68	293.04	2.00	0.00	0.22	0.00	46.73	298.83	2.00	0.00	0.22	0.00
46.80	302.69	2.00	0.00	0.22	0.00	46.85	306.64	2.00	0.00	0.22	0.00
46.93	311.15	2.00	0.00	0.22	0.00	47.00	313.95	2.00	0.00	0.22	0.00
47.05	298.47	2.00	0.00	0.22	0.00	47.13	272.42	2.00	0.00	0.21	0.00
47.20	251.73	2.00	0.00	0.21	0.00	47.28	240.85	2.00	0.00	0.21	0.00
47.31	249.70	2.00	0.00	0.21	0.00	47.39	260.02	2.00	0.00	0.21	0.00
47.46	299.65	2.00	0.00	0.21	0.00	47.51	128.09	2.00	0.00	0.21	0.00
47.58	288.03	2.00	0.00	0.21	0.00	47.66	257.78	2.00	0.00	0.21	0.00
47.72	233.93	2.00	0.00	0.20	0.00	47.79	211.02	2.00	0.00	0.20	0.00
47.85	194.52	2.00	0.00	0.20	0.00	47.92	177.56	2.00	0.00	0.20	0.00
47.99	168.13	2.00	0.00	0.20	0.00	48.06	160.47	2.00	0.00	0.20	0.00
48.13	155.13	2.00	0.00	0.20	0.00	48.16	152.05	2.00	0.00	0.20	0.00
48.23	146.78	2.00	0.00	0.20	0.00	48.31	146.37	2.00	0.00	0.19	0.00
48.38	149.62	2.00	0.00	0.19	0.00	48.45	147.75	2.00	0.00	0.19	0.00
48.50	139.90	2.00	0.00	0.19	0.00	48.57	62.30	2.00	0.00	0.19	0.00
48.64	54.93	2.00	0.00	0.19	0.00	48.70	49.36	2.00	0.00	0.19	0.00
48.77	45.06	2.00	0.00	0.19	0.00	48.84	42.46	2.00	0.00	0.19	0.00
48.91	39.99	2.00	0.00	0.18	0.00	48.98	39.05	2.00	0.00	0.18	0.00
49.02	39.04	2.00	0.00	0.18	0.00	49.09	44.19	2.00	0.00	0.18	0.00
49.16	132.55	2.00	0.00	0.18	0.00	49.23	165.60	2.00	0.00	0.18	0.00
49.28	190.82	2.00	0.00	0.18	0.00	49.35	226.13	2.00	0.00	0.18	0.00
49.42	233.64	2.00	0.00	0.18	0.00	49.48	256.39	2.00	0.00	0.18	0.00
49.55	271.00	2.00	0.00	0.17	0.00	49.62	278.89	2.00	0.00	0.17	0.00
49.69	281.09	2.00	0.00	0.17	0.00	49.75	268.12	2.00	0.00	0.17	0.00
49.82	239.98	2.00	0.00	0.17	0.00	49.87	206.33	2.00	0.00	0.17	0.00
49.95	155.27	2.00	0.00	0.17	0.00	50.00	75.58	2.00	0.00	0.17	0.00
50.07	62.41	2.00	0.00	0.17	0.00	50.13	56.01	2.00	0.00	0.16	0.00
50.20	51.97	2.00	0.00	0.16	0.00	50.28	47.17	2.00	0.00	0.16	0.00

Total estimated settlement: 0.35

Abbreviations

$Q_{tn,cs}$:	Equivalent clean sand normalized cone resistance
FS:	Factor of safety against liquefaction
e_v (%):	Post-liquefaction volumentric strain
DF:	e_v depth weighting factor
Settlement:	Calculated settlement

:: Strength loss calculation Idriss & Boulanger (2008) ::

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
0.07	117.59	222.26	1.00	222.26	1.32	0.62	0.87
0.13	113.13	213.83	1.00	213.83	1.36	0.94	0.89
0.22	104.73	197.93	1.00	197.93	1.43	0.35	0.84
0.28	87.91	166.14	1.00	166.14	1.55	0.24	0.81
0.34	76.15	143.90	1.00	143.90	1.64	0.17	0.79
0.40	66.07	124.83	1.07	133.43	1.74	0.14	0.75
0.46	58.26	110.07	1.19	131.25	1.84	0.12	0.75
0.53	53.68	101.40	1.25	127.19	1.93	0.12	0.77
0.59	50.83	96.01	1.31	125.91	2.01	0.13	0.79
0.66	50.20	94.81	1.37	129.44	2.06	0.13	0.79
0.74	49.60	93.66	1.43	133.94	2.11	0.14	0.81
0.80	50.13	94.67	1.48	140.01	2.14	0.14	0.80
0.86	50.67	95.69	1.53	146.52	2.16	0.15	0.81
0.93	52.54	99.21	1.56	154.38	2.18	0.16	0.82
0.99	54.31	102.55	1.59	162.68	2.19	0.17	0.83
1.05	56.02	105.77	1.62	171.16	2.20	0.18	0.83
1.12	58.11	109.71	1.64	180.26	2.21	0.18	0.84
1.20	60.63	114.47	1.65	188.52	2.21	0.20	0.84
1.26	63.64	120.14	1.61	193.42	2.20	0.21	0.85
1.33	66.26	125.09	1.54	193.10	2.17	0.22	0.85
1.39	68.66	129.63	1.47	190.03	2.13	0.22	0.86
1.46	70.94	133.92	1.40	186.96	2.08	0.23	0.85
1.52	72.42	136.71	1.35	184.54	2.05	0.23	0.85
1.58	73.15	138.08	1.32	182.07	2.01	0.22	0.85
1.65	72.90	137.60	1.30	179.21	1.99	0.21	0.84
1.71	72.84	137.48	1.30	178.30	1.99	0.21	0.84
1.77	72.42	136.69	1.31	179.05	2.00	0.21	0.85
1.84	70.97	133.93	1.35	180.97	2.05	0.22	0.85
1.92	67.90	128.13	1.43	183.44	2.11	0.22	0.85
1.98	63.13	119.10	1.58	187.72	2.18	0.21	0.85
2.04	57.75	108.93	1.79	194.85	2.26	0.19	0.84
2.11	52.98	99.90	2.05	204.59	2.33	0.18	0.83
2.17	50.07	94.39	2.25	212.69	2.38	0.17	0.82
2.23	48.81	92.00	2.34	215.33	2.39	0.17	0.82
2.32	48.36	91.15	2.34	213.18	2.39	0.17	0.82
2.38	47.95	90.37	2.31	208.68	2.39	0.17	0.82
2.44	47.57	89.64	2.28	204.21	2.38	0.16	0.82
2.50	47.11	88.75	2.26	200.36	2.38	0.16	0.82
2.57	46.81	88.19	2.24	197.25	2.37	0.16	0.82
2.63	46.73	88.02	2.22	195.36	2.37	0.16	0.82
2.69	46.69	87.95	2.22	194.98	2.37	0.16	0.82
2.77	46.42	87.43	2.23	195.13	2.37	0.16	0.82
2.84	45.73	86.10	2.26	194.66	2.38	0.16	0.81
2.90	45.43	85.53	2.24	191.31	2.37	0.15	0.81
2.96	45.34	85.35	2.16	184.58	2.36	0.15	0.81
3.02	46.36	87.27	2.00	174.25	2.32	0.15	0.81
3.09	48.22	90.78	1.83	165.69	2.27	0.15	0.81
3.15	52.05	98.01	1.66	162.51	2.22	0.16	0.82

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
3.22	56.91	107.20	1.55	166.21	2.17	0.17	0.83
3.28	61.36	115.61	1.50	173.30	2.15	0.19	0.84
3.35	62.90	118.51	1.52	179.90	2.16	0.21	0.85
3.42	64.29	121.12	1.53	185.46	2.16	0.19	0.84
3.48	66.44	125.17	1.51	189.19	2.15	0.22	0.85
3.55	70.77	133.35	1.45	193.08	2.12	0.24	0.86
3.61	74.24	139.91	1.41	196.62	2.09	0.25	0.86
3.68	74.56	140.50	1.40	196.42	2.09	0.27	0.87
3.76	71.46	134.64	1.42	190.67	2.10	0.24	0.86
3.82	65.68	123.70	1.46	180.20	2.12	0.20	0.85
3.88	59.61	112.22	1.50	168.35	2.15	0.18	0.84
3.94	54.68	102.89	1.53	156.96	2.16	0.16	0.82
4.00	50.41	94.82	1.53	144.67	2.16	0.15	0.81
4.09	46.93	88.24	1.50	131.96	2.15	0.14	0.80
4.15	43.64	82.01	1.44	118.49	2.12	0.12	0.79
4.21	40.48	76.02	1.39	106.05	2.08	0.11	0.77
4.28	37.88	71.12	1.35	96.02	2.05	0.10	0.75
4.33	36.02	67.59	1.33	89.81	2.02	0.09	0.74
4.40	35.86	67.28	1.32	89.12	2.02	0.09	0.74
4.48	37.57	70.50	1.31	92.58	2.01	0.09	0.74
4.54	41.52	77.96	1.28	99.80	1.96	0.10	0.74
4.60	47.34	88.95	1.23	109.69	1.89	0.10	0.74
4.67	53.91	101.37	1.17	119.05	1.82	0.11	0.73
4.73	60.08	113.02	1.10	123.78	1.76	0.12	0.74
4.80	65.36	120.29	1.02	123.05	1.72	0.14	0.76
4.86	70.51	127.25	1.00	127.25	1.69	0.15	0.77
4.93	76.23	135.15	1.00	135.15	1.66	0.17	0.79
4.99	82.68	143.91	1.00	143.91	1.64	0.21	0.80
5.05	89.63	153.87	1.00	153.87	1.62	0.24	0.82
5.12	95.92	163.21	1.00	163.21	1.62	0.28	0.83
5.19	100.76	170.37	1.00	170.37	1.61	0.31	0.83
5.25	103.17	174.10	1.00	174.10	1.62	0.33	0.84
5.32	103.99	175.68	1.00	175.68	1.64	0.32	0.84
5.38	104.30	178.35	1.00	178.35	1.68	0.32	0.84
5.47	105.39	183.23	1.05	192.74	1.73	0.32	0.84
5.54	106.72	188.82	1.13	214.09	1.78	0.35	0.84
5.60	106.53	191.15	1.18	226.25	1.83	0.36	0.85
5.67	103.53	187.90	1.22	229.02	1.87	0.33	0.85
5.73	98.22	180.27	1.25	225.03	1.92	0.28	0.85
5.80	92.65	170.88	1.27	216.63	1.95	0.25	0.85
5.87	88.45	162.72	1.28	207.60	1.96	0.23	0.85
5.91	83.70	153.52	1.28	196.08	1.96	0.22	0.84
5.98	77.03	141.11	1.29	181.88	1.98	0.19	0.83
6.05	68.50	126.09	1.31	165.69	2.01	0.16	0.82
6.12	59.87	111.52	1.36	152.08	2.06	0.15	0.81
6.19	52.44	98.42	1.44	141.90	2.11	0.14	0.80
6.26	46.05	86.33	1.57	135.59	2.18	0.13	0.79
6.33	41.72	78.14	1.71	133.77	2.24	0.12	0.78

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
6.37	38.41	71.87	1.88	134.80	2.29	0.12	0.78
6.43	35.56	66.48	2.09	139.14	2.34	0.12	0.77
6.50	32.66	60.98	2.41	146.82	2.41	0.11	0.77
6.57	30.60	57.09	2.72	155.18	2.46	0.11	0.76
6.63	29.78	55.52	2.91	161.80	2.49	0.11	0.76
6.70	30.19	56.29	2.96	166.61	2.50	0.11	0.76
6.77	31.45	58.68	2.89	169.81	2.49	0.12	0.76
6.84	32.56	60.76	2.83	171.91	2.48	0.12	0.77
6.90	33.03	61.65	2.81	173.41	2.48	0.12	0.77
6.97	33.08	61.73	2.82	173.95	2.48	0.12	0.77
7.04	33.12	61.79	2.81	173.72	2.47	0.12	0.77
7.12	33.57	62.63	2.75	172.48	2.47	0.12	0.77
7.15	34.60	64.58	2.66	171.48	2.45	0.12	0.77
7.22	36.43	68.03	2.50	169.95	2.42	0.12	0.77
7.29	38.92	72.22	2.33	168.26	2.39	0.12	0.78
7.36	41.45	75.77	2.21	167.14	2.37	0.13	0.78
7.43	43.91	79.16	2.11	166.72	2.34	0.13	0.79
7.50	45.95	81.76	2.02	165.01	2.32	0.13	0.79
7.57	47.97	84.00	1.90	159.77	2.29	0.13	0.79
7.64	49.74	85.45	1.77	151.50	2.26	0.13	0.80
7.71	51.42	86.69	1.66	143.69	2.22	0.13	0.80
7.75	53.02	88.06	1.56	137.64	2.18	0.13	0.80
7.81	54.35	89.06	1.51	134.60	2.15	0.13	0.80
7.89	54.67	88.81	1.50	132.89	2.15	0.13	0.80
7.95	52.90	86.04	1.55	132.96	2.17	0.13	0.80
8.03	47.74	78.70	1.72	135.55	2.24	0.13	0.79
8.08	42.72	71.67	2.01	143.79	2.32	0.12	0.77
8.15	38.43	65.49	2.38	156.02	2.40	0.12	0.77
8.22	36.63	62.76	2.63	165.29	2.45	0.12	0.77
8.29	34.83	59.91	2.87	171.70	2.48	0.12	0.76
8.36	33.06	56.89	3.05	173.56	2.51	0.11	0.76
8.43	31.01	53.28	3.21	171.12	2.53	0.11	0.76
8.50	29.05	49.72	3.35	166.46	2.55	0.11	0.75
8.54	27.28	46.54	3.39	157.84	2.56	0.10	0.74
8.61	26.33	44.44	3.31	146.91	2.55	0.10	0.74
8.68	25.72	42.86	3.15	135.19	2.52	0.10	0.74
8.74	25.53	42.07	3.02	126.96	2.51	0.10	0.74
8.81	25.50	41.63	2.94	122.42	2.49	0.10	0.73
8.88	25.58	41.46	2.92	121.15	2.49	0.10	0.73
8.96	25.74	41.49	2.94	122.04	2.49	0.10	0.74
8.99	25.89	41.70	2.99	124.69	2.50	0.10	0.74
9.06	26.18	42.01	3.06	128.71	2.51	0.10	0.74
9.14	26.62	42.56	3.13	133.08	2.52	0.10	0.74
9.20	27.19	43.25	3.14	135.68	2.52	0.10	0.74
9.27	27.67	43.72	3.11	136.03	2.52	0.10	0.74
9.34	28.04	44.00	3.08	135.38	2.51	0.10	0.74
9.41	28.26	44.08	3.07	135.42	2.51	0.10	0.74
9.47	28.42	44.07	3.07	135.25	2.51	0.10	0.74

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
9.54	28.48	43.91	3.07	134.77	2.51	0.10	0.74
9.61	28.61	43.83	3.05	133.74	2.51	0.10	0.74
9.65	28.77	43.92	3.04	133.31	2.51	0.10	0.74
9.71	29.50	44.74	2.99	133.59	2.50	0.10	0.74
9.79	31.02	46.67	2.90	135.49	2.49	0.10	0.75
9.85	33.86	50.45	2.73	137.65	2.46	0.11	0.75
9.92	36.83	54.39	2.60	141.22	2.44	0.11	0.76
9.99	38.63	56.74	2.58	146.67	2.44	0.12	0.77
10.06	39.26	57.53	2.66	153.14	2.45	0.12	0.77
10.13	38.88	56.87	2.80	159.20	2.47	0.12	0.77
10.20	39.07	56.90	2.84	161.51	2.48	0.12	0.77
10.24	39.07	56.67	2.81	159.11	2.47	0.12	0.77
10.31	39.70	56.84	2.59	147.00	2.44	0.11	0.77
10.38	40.55	57.33	2.37	136.08	2.40	0.11	0.77
10.45	41.59	58.20	2.23	129.87	2.37	0.11	0.77
10.52	42.32	59.01	2.27	133.73	2.38	0.12	0.77
10.59	41.05	57.32	2.46	140.93	2.42	0.12	0.77
10.65	39.97	55.92	2.66	148.75	2.45	0.11	0.76
10.72	38.67	54.09	2.87	155.51	2.48	0.12	0.77
10.76	38.87	54.23	2.88	156.28	2.49	0.11	0.76
10.84	38.63	53.56	2.87	153.86	2.48	0.11	0.76
10.91	38.60	53.14	2.82	149.63	2.48	0.11	0.76
10.98	39.15	53.47	2.71	145.01	2.46	0.11	0.76
11.05	40.09	54.32	2.61	141.59	2.44	0.11	0.76
11.12	41.10	55.27	2.52	139.03	2.43	0.12	0.77
11.19	41.22	55.15	2.51	138.39	2.42	0.12	0.77
11.26	40.97	54.57	2.53	138.06	2.43	0.11	0.76
11.29	40.65	54.01	2.54	137.01	2.43	0.11	0.76
11.36	40.88	54.00	2.50	134.93	2.42	0.11	0.76
11.43	41.64	54.61	2.40	131.16	2.41	0.11	0.76
11.50	42.88	55.73	2.26	126.17	2.38	0.11	0.77
11.57	44.39	57.11	2.09	119.15	2.34	0.11	0.77
11.63	45.72	58.18	1.92	111.48	2.30	0.11	0.77
11.71	46.70	58.80	1.77	104.26	2.26	0.11	0.77
11.78	47.46	59.18	1.67	98.74	2.22	0.11	0.77
11.84	48.18	59.60	1.59	94.82	2.19	0.11	0.76
11.91	49.13	60.30	1.53	92.23	2.16	0.11	0.76
11.95	50.43	61.46	1.46	89.89	2.13	0.10	0.76
12.01	51.44	62.18	1.41	87.69	2.09	0.10	0.76
12.08	52.58	63.00	1.36	85.79	2.06	0.10	0.75
12.15	53.66	63.81	1.33	84.98	2.03	0.10	0.75
12.22	54.86	64.83	1.31	85.07	2.01	0.10	0.75
12.29	55.56	65.35	1.30	85.27	2.00	0.10	0.75
12.36	55.62	65.20	1.30	85.00	2.00	0.10	0.75
12.43	55.22	64.55	1.31	84.49	2.00	0.10	0.75
12.50	54.71	63.79	1.32	83.99	2.01	0.10	0.75
12.53	54.04	63.00	1.33	83.60	2.02	0.10	0.75
12.60	53.69	62.42	1.33	83.20	2.03	0.10	0.75

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
12.67	53.31	61.78	1.34	82.51	2.03	0.10	0.75
12.74	53.16	61.35	1.33	81.70	2.03	0.10	0.75
12.81	53.22	61.16	1.33	81.04	2.02	0.09	0.75
12.88	54.01	61.77	1.31	81.09	2.01	0.09	0.74
12.96	55.62	63.19	1.29	81.39	1.98	0.09	0.74
13.03	57.43	64.76	1.26	81.65	1.94	0.09	0.73
13.06	59.39	66.59	1.23	82.23	1.90	0.09	0.72
13.13	61.12	68.21	1.22	83.27	1.88	0.09	0.71
13.20	62.96	70.01	1.21	84.99	1.87	0.09	0.71
13.27	64.51	71.52	1.21	86.68	1.86	0.09	0.72
13.34	65.37	72.30	1.21	87.81	1.87	0.10	0.72
13.41	66.98	73.86	1.21	89.62	1.87	0.10	0.72
13.48	69.23	76.09	1.21	91.99	1.86	0.10	0.72
13.55	72.74	79.66	1.20	95.50	1.85	0.10	0.73
13.61	76.28	83.27	1.19	99.11	1.84	0.11	0.73
13.67	80.26	87.35	1.18	103.02	1.83	0.11	0.73
13.74	84.56	91.70	1.17	106.94	1.81	0.12	0.74
13.80	89.36	96.56	1.15	110.99	1.80	0.12	0.74
13.88	93.54	100.68	1.13	114.11	1.78	0.13	0.75
13.92	97.80	105.01	1.11	116.93	1.77	0.14	0.75
13.98	101.91	109.02	1.09	119.01	1.75	0.14	0.76
14.05	106.94	113.96	1.06	120.86	1.74	0.15	0.77
14.13	112.12	118.98	1.02	121.82	1.72	0.16	0.78
14.20	116.90	123.56	1.00	123.56	1.70	0.18	0.79
14.27	120.59	127.04	1.00	127.04	1.69	0.18	0.79
14.34	122.68	128.85	1.00	128.85	1.68	0.19	0.80
14.37	123.13	129.17	1.00	129.17	1.68	0.19	0.80
14.44	121.70	127.41	1.00	127.41	1.69	0.19	0.79
14.51	118.67	124.02	1.00	124.02	1.70	0.18	0.79
14.58	114.18	119.20	1.04	123.83	1.72	0.17	0.78
14.65	109.03	113.69	1.09	123.45	1.75	0.15	0.77
14.72	103.78	108.12	1.13	122.03	1.78	0.14	0.76
14.79	99.13	103.15	1.16	119.88	1.81	0.14	0.76
14.86	95.24	98.97	1.19	117.46	1.83	0.13	0.76
14.93	92.56	96.00	1.20	115.41	1.85	0.13	0.76
14.97	90.44	93.72	1.21	113.67	1.87	0.13	0.76
15.04	89.18	92.27	1.22	112.63	1.88	0.13	0.76
15.11	88.89	91.90	1.23	112.68	1.88	0.12	0.76
15.17	90.95	93.90	1.22	114.98	1.88	0.13	0.77
15.24	96.00	98.94	1.21	119.89	1.86	0.13	0.77
15.31	104.47	107.38	1.18	127.18	1.83	0.15	0.77
15.38	113.74	116.57	1.15	133.73	1.79	0.17	0.78
15.42	125.15	127.95	1.09	138.96	1.75	0.18	0.79
15.49	137.61	140.18	1.00	140.18	1.70	0.23	0.81
15.56	152.27	154.32	1.00	154.32	1.62	0.30	0.83
15.63	165.45	166.87	1.00	166.87	1.55	0.40	0.85
15.70	175.57	176.45	1.00	176.45	1.50	0.53	0.86
15.77	182.20	182.96	1.00	182.96	1.49	0.62	0.87

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
15.84	185.81	186.53	1.00	186.53	1.51	0.69	0.87
15.91	186.72	187.45	1.00	187.45	1.53	0.71	0.87
15.95	186.22	187.06	1.00	187.06	1.55	0.67	0.87
16.05	185.46	186.22	1.00	186.22	1.58	0.65	0.87
16.08	185.53	186.39	1.00	186.39	1.60	0.66	0.87
16.16	186.03	186.83	1.00	186.83	1.62	0.66	0.87
16.22	186.54	187.26	1.00	187.26	1.63	0.67	0.87
16.29	187.20	187.79	1.00	187.79	1.64	0.68	0.87
16.36	187.17	187.56	1.00	187.56	1.64	0.69	0.87
16.43	185.37	185.55	1.00	185.55	1.65	0.66	0.87
16.50	181.29	181.28	1.00	181.28	1.66	0.57	0.86
16.57	176.87	176.69	1.00	176.69	1.67	0.48	0.86
16.61	172.79	172.52	1.00	172.52	1.67	0.45	0.85
16.68	170.70	170.23	1.00	170.23	1.68	0.41	0.85
16.75	169.47	168.79	1.00	168.79	1.68	0.41	0.85
16.82	170.13	169.24	1.00	169.24	1.68	0.41	0.85
16.89	171.24	170.11	1.00	170.11	1.68	0.43	0.85
16.93	173.39	172.10	1.00	172.10	1.67	0.44	0.85
17.00	175.32	173.75	1.00	173.75	1.66	0.47	0.86
17.07	176.77	174.93	1.00	174.93	1.65	0.49	0.86
17.14	177.15	175.05	1.00	175.05	1.64	0.49	0.86
17.21	177.09	174.73	1.00	174.73	1.64	0.48	0.86
17.28	177.03	174.44	1.00	174.44	1.63	0.48	0.86
17.35	178.29	175.46	1.00	175.46	1.63	0.48	0.86
17.41	181.99	178.87	1.00	178.87	1.62	0.53	0.86
17.49	187.33	183.86	1.00	183.86	1.61	0.65	0.87
17.52	195.46	191.68	1.00	191.68	1.59	0.75	0.87
17.59	205.98	201.72	1.00	201.72	1.58	0.93	0.89
17.66	220.52	215.64	1.00	215.64	1.55	0.94	0.90
17.73	235.88	230.29	1.00	230.29	1.53	0.95	0.92
17.80	250.65	244.30	1.00	244.30	1.50	0.96	0.93
17.87	263.01	255.91	1.00	255.91	1.47	0.97	0.94
17.94	271.26	263.53	1.00	263.53	1.45	0.97	0.95
18.01	275.05	266.89	1.00	266.89	1.44	0.98	0.95
18.05	274.80	266.49	1.00	266.49	1.44	0.98	0.95
18.12	272.68	264.18	1.00	264.18	1.44	0.97	0.95
18.19	270.69	261.92	1.00	261.92	1.43	0.97	0.94
18.26	270.32	261.21	1.00	261.21	1.42	0.97	0.94
18.33	272.91	263.41	1.00	263.41	1.41	0.97	0.95
18.39	275.97	266.18	1.00	266.18	1.42	0.98	0.95
18.46	276.04	266.09	1.00	266.09	1.44	0.98	0.95
18.53	265.92	256.22	1.00	256.22	1.48	0.97	0.95
18.58	255.09	245.68	1.00	245.68	1.50	0.96	0.92
18.64	240.58	231.55	1.00	231.55	1.53	0.95	0.92
18.71	227.21	218.64	1.00	218.64	1.60	0.94	0.91
18.78	205.65	197.95	1.02	201.92	1.72	0.93	0.89
18.84	177.04	170.44	1.21	206.12	1.86	0.59	0.88
18.91	146.85	141.26	1.30	183.56	1.99	0.30	0.87

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
18.98	118.88	114.16	1.43	163.34	2.11	0.22	0.85
19.05	97.04	92.95	1.63	151.35	2.21	0.19	0.84
19.12	78.33	74.79	2.00	149.49	2.32	0.15	0.81
19.19	62.35	59.29	2.63	156.16	2.45	0.13	0.79
19.26	52.43	49.64	3.18	157.71	2.53	0.12	0.77
19.32	47.64	44.92	3.32	149.03	2.55	0.12	0.76
19.36	45.55	42.85	3.10	132.78	2.52	0.11	0.76
19.43	42.74	40.06	3.10	124.24	2.52	0.11	0.75
19.50	38.85	36.26	3.39	123.09	2.56	0.10	0.74
19.57	35.87	33.34	3.81	127.17	2.61	0.10	0.62
19.64	34.35	31.83	4.03	128.27	2.63	0.10	0.62
19.71	34.83	32.23	3.87	124.67	2.61	0.10	0.62
19.79	35.51	32.81	3.67	120.45	2.59	0.10	0.74
19.82	36.52	33.74	3.47	117.22	2.57	0.10	0.74
19.89	37.18	34.31	3.41	116.91	2.56	0.10	0.74
19.96	37.62	34.67	3.35	116.01	2.55	0.10	0.74
20.03	37.59	34.59	3.39	117.16	2.56	0.10	0.74
20.09	37.58	34.51	3.39	116.94	2.56	0.10	0.74
20.16	37.42	34.30	3.46	118.69	2.56	0.10	0.74
20.23	37.51	34.33	3.50	120.01	2.57	0.10	0.74
20.30	37.87	34.61	3.52	121.95	2.57	0.10	0.74
20.37	38.89	35.51	3.41	121.18	2.56	0.10	0.74
20.43	39.99	36.49	3.02	110.25	2.51	0.10	0.74
20.50	41.35	37.72	2.58	97.36	2.44	0.10	0.74
20.56	42.62	38.86	2.37	91.93	2.40	0.10	0.75
20.64	43.76	39.86	2.47	98.54	2.42	0.10	0.75
20.67	44.42	40.44	2.83	114.42	2.48	0.11	0.75
20.74	38.70	34.99	3.98	139.42	2.63	0.11	0.62
20.81	40.66	36.75	4.20	154.39	2.65	0.09	0.62
20.88	43.19	39.04	4.16	162.57	2.65	0.12	0.62
20.95	52.03	47.21	3.34	157.80	2.55	0.12	0.77
21.02	53.08	48.09	3.39	163.04	2.56	0.12	0.77
21.08	53.61	48.50	3.46	168.02	2.57	0.12	0.77
21.16	54.06	48.81	3.52	171.86	2.57	0.13	0.78
21.22	55.19	49.78	3.48	172.99	2.57	0.13	0.78
21.29	56.20	50.61	3.42	172.94	2.56	0.13	0.78
21.33	56.96	51.27	3.34	171.47	2.55	0.13	0.78
21.39	56.77	51.00	3.32	169.30	2.55	0.13	0.78
21.47	56.45	50.61	3.31	167.35	2.55	0.13	0.78
21.54	56.55	50.61	3.27	165.64	2.54	0.13	0.78
21.61	57.97	51.84	3.14	162.61	2.52	0.13	0.78
21.68	61.35	54.86	2.85	156.12	2.48	0.13	0.78
21.74	65.39	58.50	2.54	148.56	2.43	0.14	0.79
21.82	69.28	61.99	2.30	142.39	2.39	0.14	0.80
21.88	71.80	64.22	2.16	138.98	2.36	0.14	0.80
21.92	74.30	66.47	2.06	137.07	2.33	0.14	0.80
21.99	77.59	69.38	1.94	134.86	2.31	0.15	0.81
22.05	81.53	72.91	1.81	132.05	2.27	0.15	0.81

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
22.13	85.10	76.09	1.70	129.40	2.23	0.15	0.81
22.20	87.19	77.89	1.64	127.58	2.21	0.15	0.82
22.27	88.89	79.35	1.60	126.67	2.19	0.15	0.82
22.34	90.73	80.92	1.56	126.48	2.18	0.16	0.82
22.41	92.78	82.68	1.53	126.72	2.16	0.16	0.82
22.47	94.05	83.72	1.52	126.93	2.16	0.16	0.82
22.51	94.45	84.03	1.51	127.02	2.15	0.16	0.82
22.57	95.12	84.53	1.50	126.85	2.15	0.16	0.82
22.65	96.23	85.42	1.48	126.34	2.14	0.16	0.82
22.71	97.89	86.83	1.45	126.11	2.12	0.16	0.82
22.78	99.06	87.79	1.44	126.03	2.11	0.16	0.82
22.86	99.59	88.15	1.43	126.08	2.11	0.16	0.82
22.92	99.53	88.02	1.40	123.26	2.09	0.16	0.82
23.00	99.00	87.53	1.35	118.05	2.04	0.15	0.81
23.07	98.43	87.03	1.30	113.42	2.00	0.14	0.80
23.10	97.99	86.63	1.29	111.68	1.98	0.14	0.79
23.18	97.73	86.23	1.30	112.49	2.00	0.14	0.80
23.25	97.57	85.92	1.32	113.74	2.02	0.14	0.80
23.31	95.86	84.22	1.35	113.60	2.04	0.15	0.81
23.39	94.73	83.05	1.37	113.48	2.06	0.14	0.80
23.45	93.40	81.71	1.39	113.50	2.08	0.15	0.81
23.52	93.91	82.02	1.41	115.27	2.09	0.15	0.81
23.59	93.68	81.66	1.43	116.96	2.11	0.15	0.81
23.62	94.00	81.84	1.46	119.14	2.12	0.15	0.81
23.69	94.41	82.07	1.47	120.47	2.13	0.15	0.82
23.76	95.93	83.33	1.46	121.31	2.12	0.16	0.82
23.83	98.17	85.23	1.43	122.06	2.11	0.16	0.82
23.90	101.08	87.72	1.41	123.72	2.09	0.16	0.82
23.96	105.00	91.11	1.39	126.38	2.08	0.16	0.82
24.04	111.13	96.51	1.35	129.93	2.04	0.17	0.83
24.11	120.14	104.55	1.29	135.18	1.98	0.18	0.83
24.18	131.81	115.04	1.24	142.75	1.91	0.19	0.82
24.24	146.57	128.37	1.18	151.04	1.82	0.21	0.81
24.31	160.64	141.05	1.09	154.34	1.76	0.27	0.82
24.35	176.31	155.27	1.00	155.27	1.70	0.32	0.84
24.42	190.03	167.62	1.00	167.62	1.65	0.49	0.86
24.48	204.35	180.44	1.00	180.44	1.61	0.71	0.87
24.55	215.76	190.51	1.00	190.51	1.60	0.92	0.88
24.62	225.25	198.74	1.00	198.74	1.60	0.93	0.89
24.69	231.95	204.43	1.00	204.43	1.61	0.93	0.90
24.77	235.71	207.43	1.00	207.43	1.62	0.94	0.90
24.84	237.39	208.59	1.00	208.59	1.63	0.94	0.90
24.87	238.88	209.73	1.00	209.73	1.64	0.94	0.90
24.94	240.90	211.29	1.00	211.29	1.64	0.94	0.91
25.00	243.40	213.27	1.00	213.27	1.64	0.94	0.91
25.07	246.37	215.64	1.00	215.64	1.64	0.94	0.91
25.14	249.78	218.40	1.00	218.40	1.64	0.94	0.91
25.21	253.89	221.80	1.00	221.80	1.64	0.95	0.92

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
25.28	257.46	224.96	1.00	224.96	1.62	0.95	0.92
25.35	259.93	227.29	1.00	227.29	1.59	0.95	0.92
25.42	260.81	228.16	1.00	228.16	1.56	0.95	0.92
25.49	261.29	228.32	1.00	228.32	1.56	0.95	0.92
25.56	261.89	228.44	1.00	228.44	1.58	0.95	0.92
25.60	263.56	229.67	1.00	229.67	1.58	0.95	0.93
25.67	263.06	228.88	1.00	228.88	1.59	0.95	0.93
25.73	261.48	227.19	1.00	227.19	1.60	0.95	0.92
25.80	259.74	225.41	1.00	225.41	1.60	0.95	0.92
25.86	259.33	224.88	1.00	224.88	1.60	0.95	0.92
25.93	260.09	225.37	1.00	225.37	1.60	0.95	0.92
26.00	261.99	226.87	1.00	226.87	1.59	0.95	0.92
26.06	268.47	232.56	1.00	232.56	1.57	0.95	0.93
26.12	280.13	242.93	1.00	242.93	1.55	0.96	0.94
26.19	295.40	256.56	1.00	256.56	1.51	0.97	0.95
26.25	311.62	271.06	1.00	271.06	1.48	0.98	0.96
26.33	326.50	284.38	1.00	284.38	1.45	0.99	0.97
26.39	338.74	295.32	1.00	295.32	1.42	0.99	0.98
26.46	347.37	302.95	1.00	302.95	1.40	1.00	0.99
26.53	352.43	307.28	1.00	307.28	1.40	1.00	0.99
26.60	354.08	308.41	1.00	308.41	1.40	1.00	0.99
26.67	352.91	306.82	1.00	306.82	1.41	1.00	0.99
26.74	350.44	304.04	1.00	304.04	1.43	1.00	0.99
26.77	348.45	301.85	1.00	301.85	1.45	1.00	0.99
26.84	349.33	302.24	1.00	302.24	1.45	1.00	0.99
26.91	351.83	304.13	1.00	304.13	1.45	1.00	0.99
26.98	355.24	306.88	1.00	306.88	1.45	1.00	0.99
27.06	359.32	310.23	1.00	310.23	1.44	1.00	0.99
27.12	364.98	315.07	1.00	315.07	1.43	1.00	1.00
27.20	371.84	320.99	1.00	320.99	1.42	1.01	1.00
27.27	377.15	325.51	1.00	325.51	1.41	1.01	1.01
27.30	380.98	328.78	1.00	328.78	1.41	1.01	1.01
27.37	382.59	329.86	1.00	329.86	1.41	1.01	1.01
27.44	382.12	329.03	1.00	329.03	1.42	1.01	1.01
27.50	378.51	325.49	1.00	325.49	1.42	1.01	1.01
27.57	371.91	319.90	1.00	319.90	1.41	1.01	1.00
27.64	362.90	312.18	1.00	312.18	1.39	1.00	1.00
27.71	351.39	302.17	1.00	302.17	1.39	1.00	0.99
27.78	338.56	290.25	1.00	290.25	1.41	0.99	0.98
27.85	321.58	274.61	1.00	274.61	1.45	0.98	0.97
27.91	305.62	259.96	1.00	259.96	1.48	0.97	0.95
27.97	295.82	250.93	1.00	250.93	1.51	0.97	0.94
28.03	293.39	248.51	1.00	248.51	1.51	0.96	0.95
28.11	293.99	248.76	1.00	248.76	1.51	0.96	0.95
28.16	292.03	246.78	1.00	246.78	1.52	0.96	0.95
28.23	290.39	245.03	1.00	245.03	1.53	0.96	0.94
28.29	289.85	244.29	1.00	244.29	1.53	0.96	0.94
28.36	291.81	245.78	1.00	245.78	1.53	0.96	0.94

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
28.43	294.56	248.02	1.00	248.02	1.52	0.96	0.95
28.50	295.41	248.55	1.00	248.55	1.52	0.96	0.95
28.56	291.71	244.96	1.00	244.96	1.53	0.96	0.95
28.64	285.23	238.88	1.00	238.88	1.55	0.96	0.94
28.71	279.04	233.10	1.00	233.10	1.57	0.95	0.93
28.74	273.98	228.48	1.00	228.48	1.58	0.95	0.93
28.81	269.24	224.02	1.00	224.02	1.60	0.95	0.93
28.87	264.22	219.28	1.00	219.28	1.61	0.94	0.92
28.95	260.74	215.90	1.00	215.90	1.63	0.94	0.92
29.01	259.32	214.34	1.00	214.34	1.63	0.94	0.92
29.08	260.01	214.67	1.00	214.67	1.64	0.94	0.92
29.15	262.00	216.68	1.00	216.68	1.61	0.94	0.92
29.22	265.32	220.18	1.00	220.18	1.56	0.94	0.92
29.29	269.02	223.84	1.00	223.84	1.52	0.95	0.92
29.36	272.19	226.29	1.00	226.29	1.52	0.95	0.93
29.40	275.13	228.28	1.00	228.28	1.54	0.95	0.93
29.47	276.90	229.40	1.00	229.40	1.55	0.95	0.93
29.54	276.97	229.12	1.00	229.12	1.55	0.95	0.93
29.60	274.76	226.98	1.00	226.98	1.56	0.95	0.93
29.69	272.83	225.04	1.00	225.04	1.56	0.95	0.93
29.75	271.39	223.55	1.00	223.55	1.57	0.95	0.93
29.82	270.00	222.00	1.00	222.00	1.58	0.95	0.92
29.89	267.91	219.76	1.00	219.76	1.59	0.94	0.92
29.92	265.61	217.38	1.00	217.38	1.61	0.94	0.92
29.99	263.71	215.28	1.00	215.28	1.62	0.94	0.92
30.07	260.83	212.33	1.00	212.33	1.64	0.94	0.92
30.14	257.04	208.67	1.00	208.67	1.66	0.94	0.91
30.21	252.62	204.59	1.00	204.59	1.67	0.93	0.91
30.28	249.14	201.44	1.00	201.44	1.67	0.93	0.90
30.32	247.12	199.75	1.00	199.75	1.67	0.93	0.90
30.39	245.82	198.62	1.00	198.62	1.67	0.93	0.90
30.45	243.44	196.65	1.00	196.65	1.66	0.93	0.90
30.52	240.18	193.89	1.00	193.89	1.65	0.92	0.90
30.59	237.13	191.27	1.00	191.27	1.65	0.92	0.89
30.66	235.60	190.45	1.00	190.45	1.62	0.92	0.89
30.73	235.37	190.92	1.00	190.92	1.58	0.92	0.89
30.80	235.63	191.75	1.00	191.75	1.54	0.92	0.89
30.86	236.27	192.08	1.00	192.08	1.55	0.92	0.89
30.93	237.78	192.86	1.00	192.86	1.56	0.92	0.89
31.00	238.50	193.06	1.00	193.06	1.57	0.92	0.89
31.04	238.69	192.96	1.00	192.96	1.58	0.92	0.89
31.10	237.77	191.87	1.00	191.87	1.59	0.92	0.89
31.19	237.96	191.71	1.00	191.71	1.59	0.92	0.89
31.25	238.58	192.05	1.00	192.05	1.59	0.92	0.89
31.32	239.71	192.90	1.00	192.90	1.59	0.92	0.89
31.37	240.08	193.24	1.00	193.24	1.58	0.92	0.89
31.45	239.38	192.59	1.00	192.59	1.58	0.92	0.89
31.51	239.01	192.22	1.00	192.22	1.57	0.92	0.89

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
31.58	237.59	190.79	1.00	190.79	1.58	0.92	0.89
31.65	238.25	191.21	1.00	191.21	1.57	0.92	0.89
31.72	238.64	191.43	1.00	191.43	1.57	0.92	0.89
31.79	240.00	192.49	1.00	192.49	1.57	0.92	0.89
31.82	238.76	191.34	1.00	191.34	1.57	0.92	0.89
31.89	235.25	188.14	1.00	188.14	1.58	0.92	0.89
31.96	230.45	183.85	1.00	183.85	1.59	0.92	0.88
32.03	225.20	179.14	1.00	179.14	1.61	0.86	0.88
32.10	220.81	175.07	1.00	175.07	1.63	0.73	0.87
32.17	218.00	172.28	1.00	172.28	1.64	0.66	0.87
32.25	217.15	171.21	1.00	171.21	1.66	0.65	0.87
32.32	217.21	171.04	1.00	171.04	1.66	0.67	0.87
32.35	216.64	170.60	1.00	170.60	1.65	0.66	0.87
32.42	214.84	169.15	1.00	169.15	1.65	0.62	0.87
32.48	212.02	166.94	1.00	166.94	1.64	0.57	0.86
32.55	210.00	165.34	1.00	165.34	1.63	0.52	0.86
32.63	208.96	164.39	1.00	164.39	1.63	0.52	0.86
32.69	209.02	164.28	1.00	164.28	1.63	0.52	0.86
32.76	209.43	164.90	1.00	164.90	1.61	0.52	0.86
32.83	209.40	165.65	1.00	165.65	1.57	0.53	0.86
32.90	208.77	165.99	1.00	165.99	1.52	0.51	0.86
32.97	207.25	164.93	1.00	164.93	1.50	0.49	0.86
33.01	205.00	162.59	1.00	162.59	1.53	0.47	0.86
33.08	202.22	159.60	1.00	159.60	1.56	0.43	0.85
33.15	190.18	148.68	1.00	148.68	1.62	0.40	0.85
33.21	184.33	143.25	1.00	143.25	1.66	0.23	0.81
33.29	179.17	138.57	1.00	138.57	1.69	0.30	0.83
33.35	183.22	141.82	1.00	141.82	1.68	0.29	0.83
33.40	181.42	140.20	1.00	140.20	1.68	0.28	0.83
33.48	179.36	138.35	1.00	138.35	1.69	0.27	0.82
33.54	177.34	136.50	1.00	136.50	1.70	0.26	0.82
33.61	176.01	135.14	1.01	136.76	1.71	0.25	0.82
33.66	176.42	135.21	1.03	139.38	1.72	0.25	0.82
33.73	177.97	136.30	1.03	140.35	1.72	0.26	0.82
33.81	180.25	138.12	1.01	138.92	1.71	0.27	0.82
33.87	183.69	141.10	1.00	141.10	1.69	0.28	0.83
33.95	189.22	145.77	1.00	145.77	1.66	0.31	0.83
34.00	198.26	153.34	1.00	153.34	1.63	0.37	0.84
34.06	212.17	164.85	1.00	164.85	1.60	0.49	0.86
34.13	229.62	179.20	1.00	179.20	1.56	0.91	0.88
34.20	247.32	193.78	1.00	193.78	1.53	0.92	0.90
34.26	260.50	204.67	1.00	204.67	1.51	0.93	0.91
34.32	269.23	211.96	1.00	211.96	1.49	0.94	0.92
34.39	274.85	216.60	1.00	216.60	1.48	0.94	0.92
34.47	279.94	220.53	1.00	220.53	1.48	0.94	0.93
34.53	285.95	225.01	1.00	225.01	1.48	0.95	0.93
34.60	293.35	230.53	1.00	230.53	1.49	0.95	0.94
34.66	300.65	235.96	1.00	235.96	1.49	0.96	0.94

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
34.73	306.15	239.79	1.00	239.79	1.50	0.96	0.95
34.79	308.52	241.56	1.00	241.56	1.50	0.96	0.95
34.85	307.26	241.44	1.00	241.44	1.47	0.96	0.95
34.92	303.46	239.59	1.00	239.59	1.43	0.96	0.94
34.98	298.22	236.03	1.00	236.03	1.41	0.96	0.94
35.05	294.14	231.97	1.00	231.97	1.43	0.95	0.94
35.12	281.81	220.70	1.00	220.70	1.47	0.95	0.93
35.17	276.66	215.65	1.00	215.65	1.49	0.94	0.91
35.25	273.34	212.18	1.00	212.18	1.52	0.94	0.92
35.31	278.43	215.96	1.00	215.96	1.52	0.94	0.93
35.37	274.35	211.97	1.00	211.97	1.54	0.94	0.92
35.45	264.59	203.30	1.00	203.30	1.57	0.93	0.91
35.50	251.21	191.94	1.00	191.94	1.60	0.92	0.90
35.57	237.18	180.29	1.00	180.29	1.63	0.91	0.88
35.64	223.36	168.99	1.00	168.99	1.65	0.67	0.87
35.72	210.34	158.37	1.00	158.37	1.67	0.48	0.86
35.79	197.89	148.18	1.00	148.18	1.70	0.35	0.84
35.86	186.04	138.44	1.05	145.20	1.73	0.28	0.83
35.92	175.01	129.36	1.11	143.16	1.76	0.24	0.81
35.99	166.57	122.38	1.15	140.28	1.79	0.21	0.80
36.03	159.55	116.49	1.18	137.78	1.83	0.20	0.81
36.10	154.97	112.35	1.21	136.37	1.87	0.20	0.81
36.17	152.06	109.45	1.24	135.88	1.91	0.20	0.82
36.23	152.85	109.93	1.24	136.43	1.91	0.20	0.82
36.30	156.77	113.59	1.20	136.70	1.85	0.20	0.81
36.37	162.55	119.17	1.12	133.46	1.77	0.20	0.80
36.44	168.65	124.85	1.00	125.16	1.71	0.21	0.80
36.51	173.90	129.15	1.00	129.15	1.68	0.23	0.81
36.55	179.21	133.47	1.00	133.47	1.66	0.24	0.82
36.62	177.85	132.09	1.00	132.09	1.68	0.27	0.82
36.70	183.38	136.23	1.00	136.23	1.67	0.21	0.81
36.75	190.11	141.19	1.00	141.19	1.67	0.32	0.84
36.82	203.45	151.50	1.00	151.50	1.66	0.40	0.85
36.89	209.80	156.04	1.00	156.04	1.66	0.46	0.85
36.96	212.39	157.64	1.00	157.64	1.67	0.49	0.86
37.03	211.38	156.43	1.00	156.43	1.68	0.48	0.86
37.10	207.52	153.02	1.00	153.02	1.70	0.42	0.85
37.17	202.46	148.69	1.02	151.79	1.72	0.37	0.84
37.24	198.22	145.07	1.05	152.47	1.73	0.34	0.84
37.27	194.31	141.81	1.07	152.41	1.74	0.32	0.84
37.34	190.93	138.98	1.09	151.57	1.75	0.30	0.83
37.41	187.54	136.23	1.10	149.88	1.76	0.28	0.83
37.48	185.27	134.41	1.10	148.02	1.76	0.27	0.82
37.56	184.06	133.39	1.10	147.06	1.76	0.26	0.82
37.63	184.35	133.32	1.11	148.42	1.77	0.27	0.82
37.70	186.18	134.24	1.13	151.99	1.78	0.28	0.82
37.77	188.78	135.70	1.15	155.92	1.80	0.30	0.83
37.80	192.86	138.39	1.16	160.52	1.81	0.32	0.83

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
37.87	197.44	141.52	1.16	164.61	1.81	0.36	0.84
37.93	202.12	144.88	1.16	167.88	1.81	0.40	0.85
38.00	205.44	147.48	1.14	168.60	1.79	0.41	0.85
38.07	206.99	149.68	1.07	160.39	1.74	0.41	0.85
38.14	207.02	151.73	1.00	151.73	1.66	0.41	0.85
38.21	205.75	152.81	1.00	152.81	1.57	0.39	0.85
38.28	204.08	152.13	1.00	152.13	1.54	0.37	0.84
38.32	201.99	149.49	1.00	149.49	1.58	0.36	0.84
38.39	199.24	146.33	1.00	146.33	1.62	0.34	0.84
38.46	184.92	133.82	1.00	133.82	1.70	0.31	0.83
38.52	178.35	128.00	1.07	137.51	1.74	0.18	0.79
38.59	172.56	123.08	1.12	137.82	1.77	0.24	0.82
38.66	177.12	126.52	1.10	139.43	1.76	0.24	0.81
38.72	173.64	123.43	1.13	139.89	1.78	0.22	0.81
38.78	168.61	118.72	1.19	140.81	1.83	0.22	0.81
38.86	162.63	113.01	1.24	139.87	1.90	0.23	0.83
38.92	154.32	105.57	1.29	136.53	1.98	0.23	0.85
38.98	143.00	96.26	1.37	131.95	2.06	0.23	0.85
39.04	125.56	82.86	1.52	126.21	2.16	0.21	0.85
39.12	106.37	68.59	1.81	123.89	2.27	0.16	0.82
39.17	86.76	54.40	2.33	126.59	2.39	0.15	0.80
39.25	72.63	44.41	2.95	131.16	2.50	0.13	0.78
39.30	60.78	36.26	3.69	133.94	2.59	0.12	0.77
39.38	53.29	31.22	4.25	132.64	2.65	0.11	0.62
39.45	49.08	28.48	4.50	128.05	2.68	0.11	0.62
39.52	48.29	28.04	4.33	121.43	2.66	0.11	0.62
39.59	48.64	28.36	4.05	114.93	2.63	0.11	0.62
39.63	48.80	28.55	3.84	109.73	2.61	0.11	0.62
39.70	47.97	28.03	3.81	106.92	2.61	0.10	0.62
39.77	46.61	27.11	3.91	105.90	2.62	0.10	0.62
39.84	45.25	26.15	4.09	106.89	2.64	0.10	0.62
39.91	44.59	25.66	4.18	107.34	2.65	0.10	0.62
39.98	44.43	25.54	4.16	106.19	2.64	0.10	0.62
40.03	44.43	25.58	4.04	103.32	2.63	0.10	0.62
40.11	44.65	25.74	3.91	100.63	2.62	0.10	0.62
40.19	44.75	25.85	3.76	97.08	2.60	0.10	0.62
40.24	44.56	25.79	3.60	92.81	2.58	0.10	0.74
40.30	43.71	25.26	3.58	90.45	2.58	0.10	0.73
40.38	42.79	24.60	3.70	90.93	2.59	0.10	0.73
40.43	42.38	24.23	3.89	94.23	2.62	0.10	0.62
40.51	41.81	23.76	4.09	97.06	2.64	0.10	0.62
40.56	42.06	23.88	4.11	98.18	2.64	0.10	0.62
40.63	41.97	23.78	4.12	98.01	2.64	0.10	0.62
40.70	42.35	24.03	4.02	96.67	2.63	0.10	0.62
40.76	42.06	23.83	4.04	96.14	2.63	0.10	0.62
40.84	41.91	23.70	4.04	95.72	2.63	0.10	0.62
40.89	41.87	23.67	4.02	95.08	2.63	0.10	0.62
40.95	41.84	23.65	3.98	94.01	2.63	0.10	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
41.03	41.81	23.61	3.94	93.00	2.62	0.10	0.62
41.08	41.78	23.58	3.91	92.25	2.62	0.10	0.62
41.17	41.72	23.52	3.91	91.88	2.62	0.10	0.62
41.22	41.56	23.38	3.93	91.89	2.62	0.10	0.62
41.28	41.62	23.40	3.94	92.08	2.62	0.10	0.62
41.37	41.75	23.44	3.93	92.08	2.62	0.10	0.62
41.44	41.94	23.54	3.91	91.94	2.62	0.10	0.62
41.50	41.97	23.53	3.91	91.92	2.62	0.10	0.62
41.57	41.94	23.47	3.93	92.28	2.62	0.10	0.62
41.60	41.97	23.47	3.94	92.54	2.62	0.10	0.62
41.67	42.06	23.51	3.92	92.19	2.62	0.10	0.62
41.74	42.22	23.60	3.87	91.29	2.61	0.10	0.62
41.81	42.41	23.72	3.79	90.02	2.60	0.10	0.62
41.88	42.63	23.87	3.73	88.90	2.60	0.10	0.73
41.95	42.85	24.00	3.67	88.00	2.59	0.10	0.73
42.02	43.01	24.09	3.63	87.55	2.59	0.10	0.73
42.08	43.01	24.05	3.64	87.61	2.59	0.10	0.73
42.15	43.01	24.01	3.67	88.09	2.59	0.10	0.73
42.22	43.04	23.98	3.71	88.91	2.59	0.10	0.73
42.29	43.08	23.95	3.74	89.70	2.60	0.10	0.73
42.33	43.11	23.93	3.78	90.53	2.60	0.10	0.62
42.39	43.11	23.89	3.82	91.20	2.61	0.10	0.62
42.46	43.11	23.85	3.84	91.64	2.61	0.10	0.62
42.53	43.23	23.89	3.86	92.14	2.61	0.10	0.62
42.61	43.65	24.09	3.87	93.30	2.61	0.10	0.62
42.67	44.22	24.41	3.85	94.08	2.61	0.10	0.62
42.74	44.91	24.93	3.61	89.96	2.58	0.10	0.73
42.81	45.45	25.41	3.30	83.77	2.54	0.10	0.73
42.85	46.18	25.85	3.26	84.18	2.54	0.10	0.73
42.92	47.35	26.26	3.65	95.79	2.59	0.10	0.74
42.99	48.29	26.43	4.26	112.65	2.66	0.11	0.62
43.06	43.68	23.14	5.62	130.13	2.78	0.11	0.62
43.11	45.73	24.27	5.63	136.77	2.78	0.09	0.62
43.19	48.90	26.18	5.27	137.94	2.75	0.12	0.62
43.25	56.23	30.84	4.31	132.98	2.66	0.12	0.62
43.33	55.22	30.15	4.43	133.43	2.67	0.11	0.62
43.38	52.34	28.26	4.81	135.85	2.71	0.11	0.62
43.47	50.51	27.03	5.10	137.95	2.74	0.11	0.62
43.52	49.66	26.44	5.27	139.47	2.75	0.11	0.62
43.58	50.80	27.13	5.11	138.70	2.74	0.11	0.62
43.66	52.82	28.37	4.84	137.33	2.71	0.11	0.62
43.72	55.19	29.82	4.58	136.69	2.69	0.11	0.62
43.77	56.42	30.50	4.58	139.58	2.69	0.12	0.62
43.85	56.77	30.59	4.68	143.03	2.70	0.12	0.62
43.90	57.40	30.89	4.71	145.64	2.70	0.12	0.62
43.98	58.07	31.24	4.69	146.35	2.70	0.12	0.62
44.03	58.89	31.74	4.57	145.04	2.69	0.12	0.62
44.12	58.92	31.75	4.51	143.13	2.68	0.12	0.62

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
44.17	59.17	31.93	4.39	140.30	2.67	0.12	0.62
44.23	58.76	31.66	4.41	139.46	2.67	0.12	0.62
44.30	57.91	31.09	4.48	139.33	2.68	0.12	0.62
44.38	56.58	30.23	4.60	139.01	2.69	0.11	0.62
44.45	56.01	29.86	4.62	137.81	2.69	0.11	0.62
44.52	56.36	30.06	4.54	136.41	2.68	0.11	0.62
44.58	57.02	30.45	4.45	135.63	2.68	0.11	0.62
44.62	57.81	30.92	4.37	135.10	2.67	0.11	0.62
44.69	59.02	31.63	4.26	134.81	2.66	0.12	0.62
44.76	60.09	32.23	4.22	135.83	2.65	0.12	0.62
44.83	60.50	32.36	4.29	138.83	2.66	0.12	0.62
44.90	60.40	32.15	4.47	143.59	2.68	0.12	0.62
44.97	60.94	32.32	4.59	148.37	2.69	0.12	0.62
45.04	62.18	32.94	4.62	152.29	2.69	0.12	0.62
45.08	64.33	34.16	4.55	155.29	2.68	0.12	0.62
45.15	69.04	36.99	4.21	155.80	2.65	0.13	0.62
45.21	77.25	42.06	3.67	154.35	2.59	0.14	0.79
45.28	89.67	49.88	3.04	151.38	2.51	0.15	0.80
45.35	108.74	62.15	2.38	147.64	2.40	0.17	0.82
45.41	133.87	78.73	1.87	147.55	2.29	0.23	0.86
45.48	158.08	94.95	1.61	152.72	2.20	0.35	0.89
45.54	178.72	108.90	1.48	160.84	2.14	0.42	0.90
45.62	196.52	121.07	1.40	169.40	2.09	0.60	0.91
45.67	217.79	135.96	1.33	181.03	2.03	0.87	0.92
45.75	237.80	150.28	1.28	193.03	1.97	0.89	0.93
45.80	255.34	163.32	1.25	203.63	1.91	0.90	0.93
45.87	268.53	173.63	1.21	210.21	1.86	0.91	0.92
45.94	279.08	182.13	1.17	213.41	1.82	0.92	0.92
46.00	286.83	188.19	1.14	215.00	1.79	0.92	0.92
46.07	291.67	191.78	1.13	215.87	1.78	0.92	0.92
46.14	295.31	193.96	1.13	218.70	1.78	0.92	0.92
46.21	297.17	194.68	1.14	221.39	1.79	0.93	0.93
46.26	298.94	194.92	1.16	225.89	1.81	0.93	0.93
46.33	300.99	195.40	1.18	229.68	1.82	0.93	0.94
46.40	303.78	196.27	1.19	233.89	1.84	0.93	0.94
46.48	306.75	197.30	1.20	237.72	1.86	0.93	0.95
46.53	309.91	198.44	1.22	241.72	1.87	0.93	0.96
46.60	313.86	200.16	1.23	245.79	1.89	0.93	0.97
46.68	318.41	202.45	1.23	249.89	1.90	0.93	0.97
46.73	322.17	204.45	1.24	253.17	1.90	0.93	0.98
46.80	324.55	205.54	1.24	255.16	1.91	0.93	0.98
46.85	325.49	205.58	1.25	256.42	1.92	0.93	0.98
46.93	325.09	204.49	1.26	256.83	1.93	0.93	0.99
47.00	324.52	203.34	1.26	257.05	1.94	0.93	0.99
47.05	323.51	204.48	1.24	252.83	1.90	0.93	0.98
47.13	319.40	204.53	1.19	243.17	1.84	0.93	0.96
47.20	310.70	201.26	1.13	227.17	1.78	0.93	0.94
47.28	300.11	193.28	1.15	222.86	1.80	0.92	0.93

:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$
47.31	289.46	184.16	1.20	221.09	1.85	0.92	0.94
47.39	279.57	175.54	1.24	217.34	1.90	0.91	0.94
47.46	214.93	128.02	1.44	184.39	2.11	0.86	0.98
47.51	201.87	117.84	1.60	188.80	2.20	0.13	0.80
47.58	184.68	105.38	1.86	196.30	2.28	0.83	0.97
47.66	215.59	125.54	1.61	202.46	2.20	0.86	0.94
47.72	190.59	108.42	1.88	203.92	2.29	0.75	0.92
47.79	167.70	93.21	2.24	208.63	2.37	0.45	0.90
47.85	148.23	80.63	2.66	214.79	2.45	0.33	0.88
47.92	133.56	71.35	3.08	219.42	2.51	0.26	0.86
47.99	122.18	64.34	3.43	221.00	2.56	0.23	0.85
48.06	114.79	59.96	3.62	216.82	2.58	0.21	0.84
48.13	109.67	57.04	3.68	209.92	2.59	0.19	0.83
48.16	105.40	54.74	3.67	200.93	2.59	0.19	0.83
48.23	102.74	53.25	3.67	195.34	2.59	0.18	0.82
48.31	102.14	52.95	3.61	191.00	2.58	0.17	0.82
48.38	102.62	53.24	3.54	188.21	2.57	0.18	0.83
48.45	100.59	52.11	3.53	183.80	2.57	0.18	0.82
48.50	94.59	48.73	3.61	176.15	2.58	0.16	0.81
48.57	86.02	43.87	3.82	167.45	2.61	0.15	0.66
48.64	77.61	39.14	4.06	158.71	2.63	0.14	0.64
48.70	70.22	35.00	4.30	150.38	2.66	0.13	0.62
48.77	64.82	32.11	4.35	139.75	2.67	0.12	0.62
48.84	60.74	29.92	4.40	131.66	2.67	0.12	0.62
48.91	58.11	28.63	4.24	121.45	2.65	0.11	0.62
48.98	56.63	27.85	4.20	117.11	2.65	0.11	0.62
49.02	58.52	28.79	4.24	122.17	2.65	0.11	0.62
49.09	69.59	34.75	3.95	137.33	2.62	0.12	0.62
49.16	92.31	47.65	3.16	150.53	2.53	0.15	0.80
49.23	121.96	65.27	2.40	156.39	2.40	0.21	0.85
49.28	154.49	85.19	1.93	164.02	2.30	0.30	0.88
49.35	178.64	99.97	1.74	173.89	2.25	0.62	0.91
49.42	200.99	113.75	1.62	184.36	2.20	0.75	0.92
49.48	217.30	123.72	1.56	193.38	2.18	0.86	0.94
49.55	232.89	133.17	1.52	202.92	2.16	0.87	0.95
49.62	241.04	137.63	1.53	210.86	2.16	0.87	0.96
49.69	238.07	135.00	1.58	213.64	2.19	0.87	0.96
49.75	222.51	124.69	1.69	210.39	2.23	0.86	0.95
49.82	197.86	108.98	1.87	204.20	2.29	0.84	0.93
49.87	165.33	91.52	1.75	160.34	2.25	0.40	0.89
49.95	134.13	75.67	1.50	113.77	2.15	0.18	0.83
50.00	106.56	51.32	54.25	2783.79	4.06	0.20	3.67
50.07	89.68	42.92	54.25	2328.56	4.06	0.16	3.07
50.13	79.76	37.99	54.25	2060.70	4.06	0.15	2.71
50.20	73.22	34.73	54.25	1883.95	4.06	0.14	2.48
50.28	69.39	32.81	54.25	1780.09	4.06	0.13	2.34

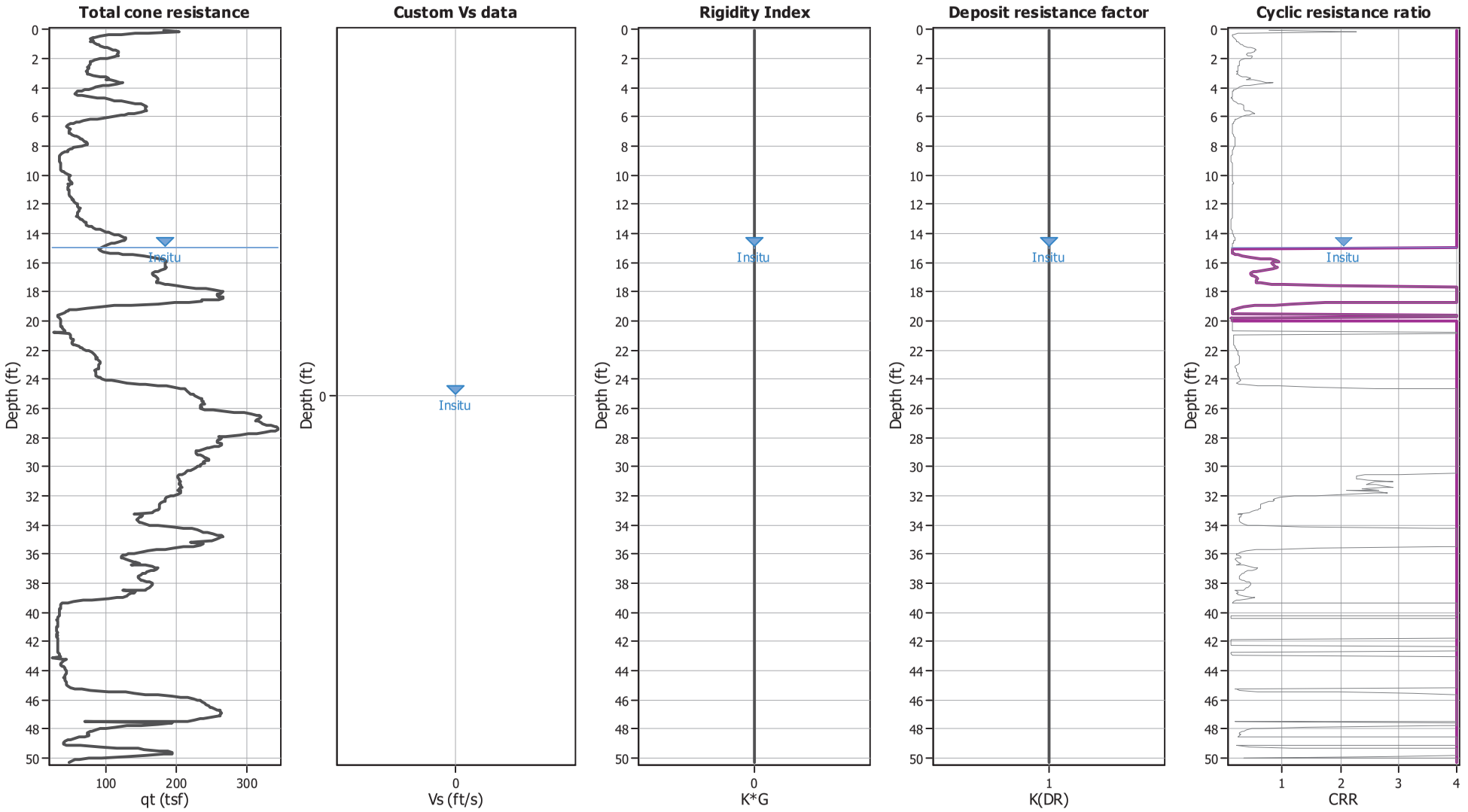
:: Strength loss calculation (Idriss & Boulanger (2008) :: (continued)

Depth (ft)	q_t (tsf)	Q_{tn}	K_c	$Q_{tn,cs}$	I_c	$S_{u(liq)}/\sigma'_v$	$S_{u(peak)}/\sigma'_v$

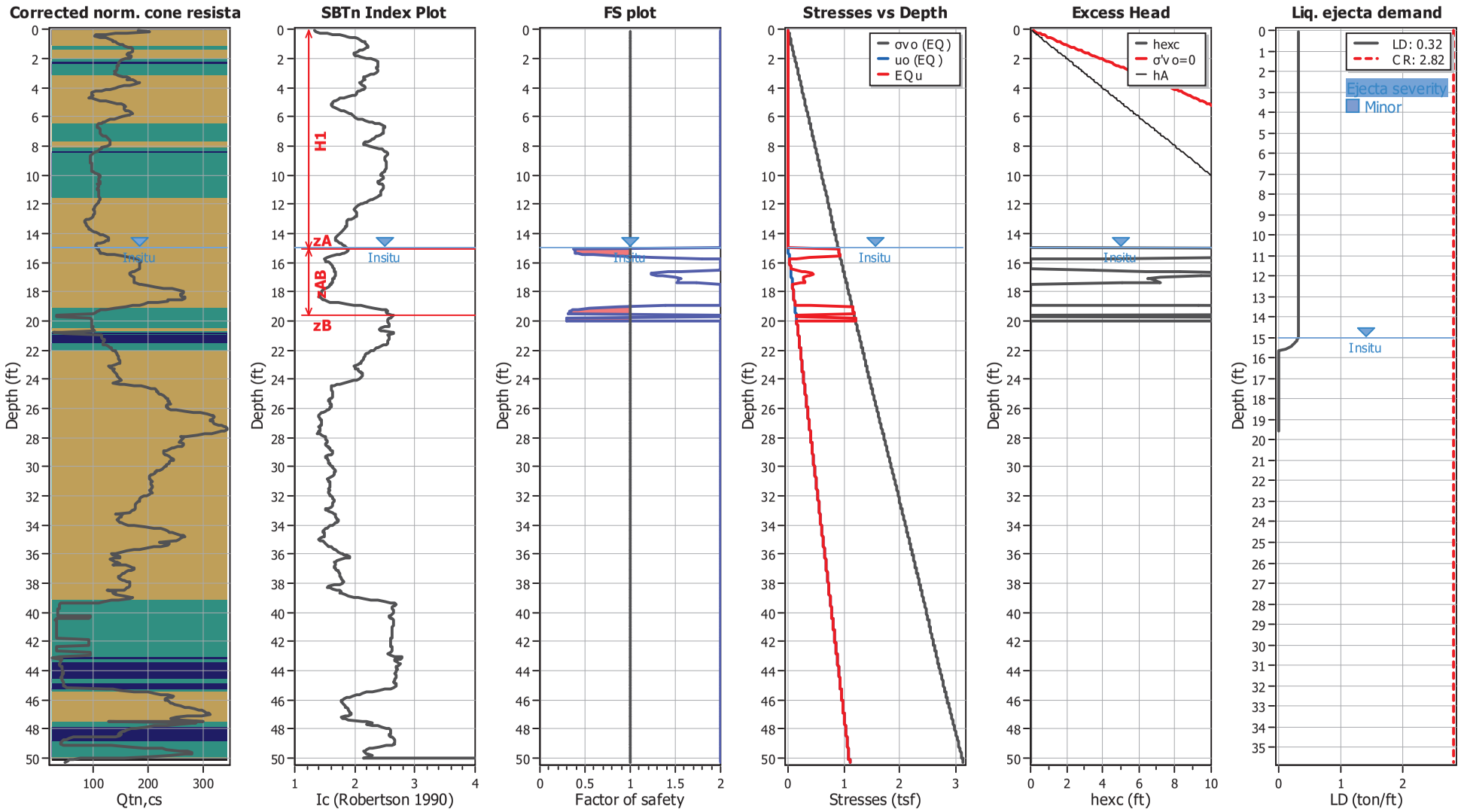
Abbreviations

q_t:	Total cone resistance
K_c:	Cone resistance correction factor due to fines
$Q_{tn,cs}$:	Adjusted and corrected cone resistance due to fines
I_c:	Soil behavior type index
$S_{u(liq)}/\sigma'_v$:	Calculated liquefied undrained strength ratio
$S_{u(peak)}/\sigma'_v$:	Calculated peak undrained strength ratio

Aging Calculation Estimation

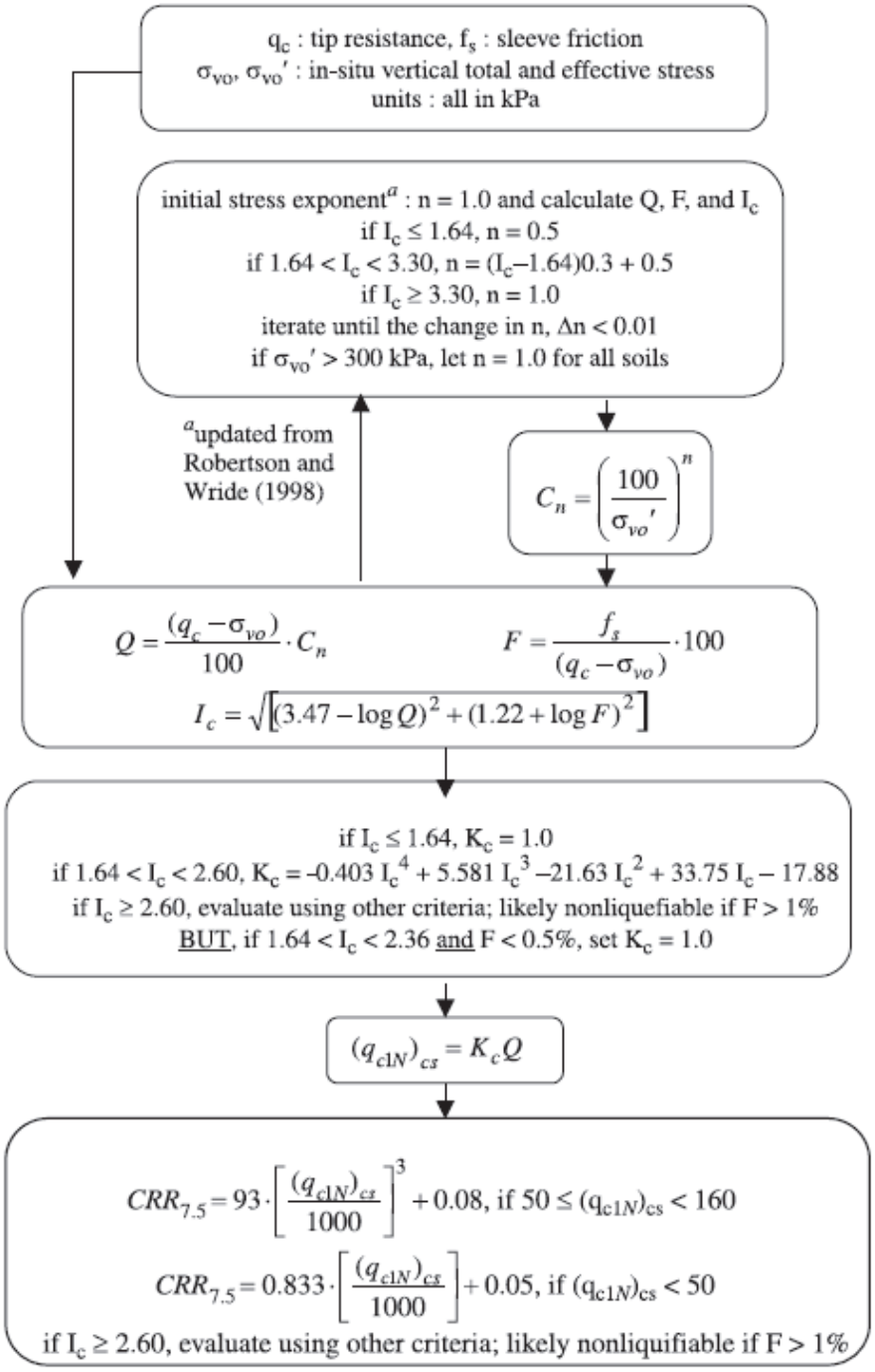


Ejecta Severity Estimation



Procedure for the evaluation of soil liquefaction resistance, NCEER (1998)

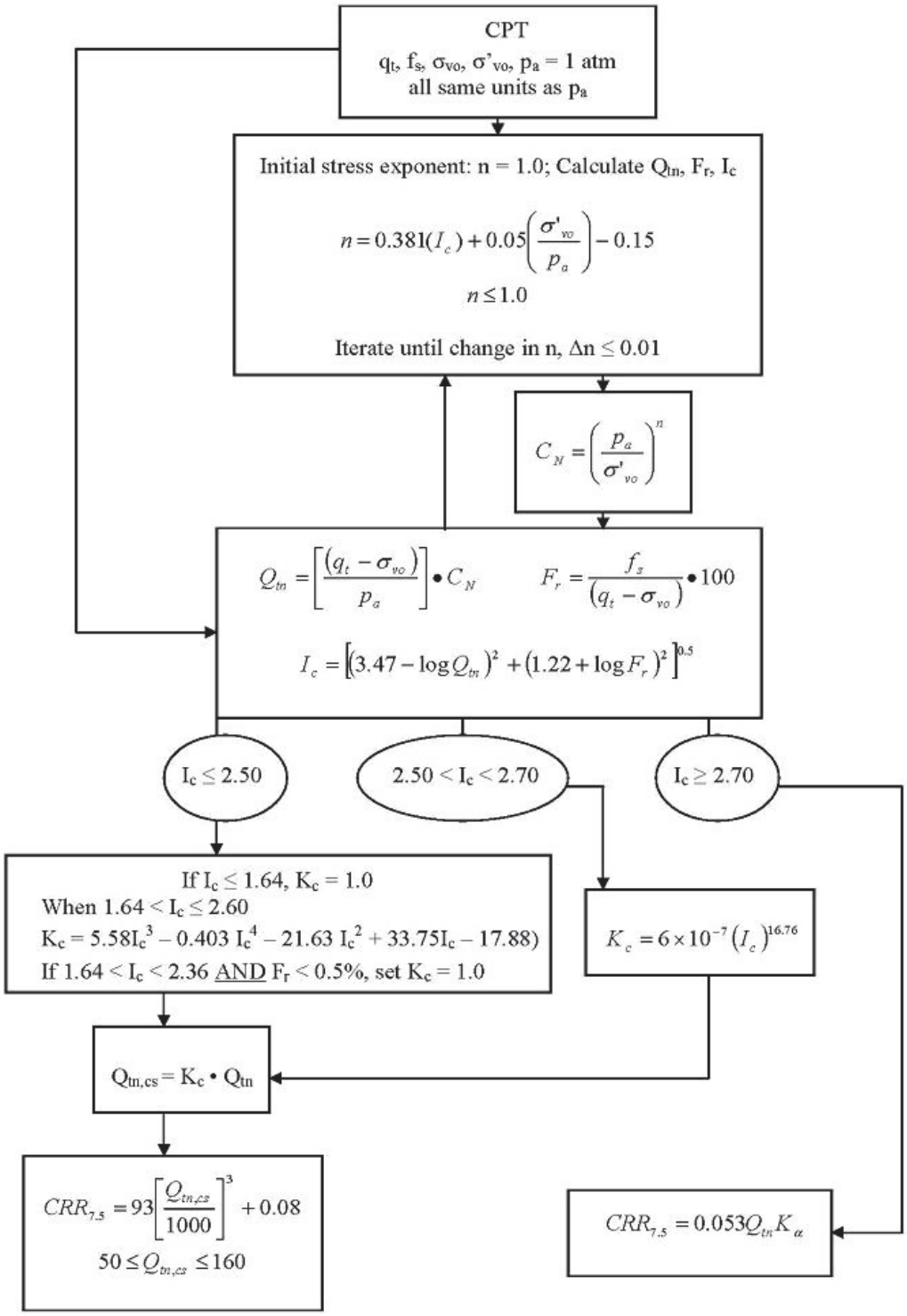
Calculation of soil resistance against liquefaction is performed according to the Robertson & Wride (1998) procedure. The procedure used in the software, slightly differs from the one originally published in NCEER-97-0022 (Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils). The revised procedure is presented below in the form of a flowchart[1]:



[1] "Estimating liquefaction-induced ground settlements from CPT for level ground", G. Zhang, P.K. Robertson, and R.W.I. Brachman

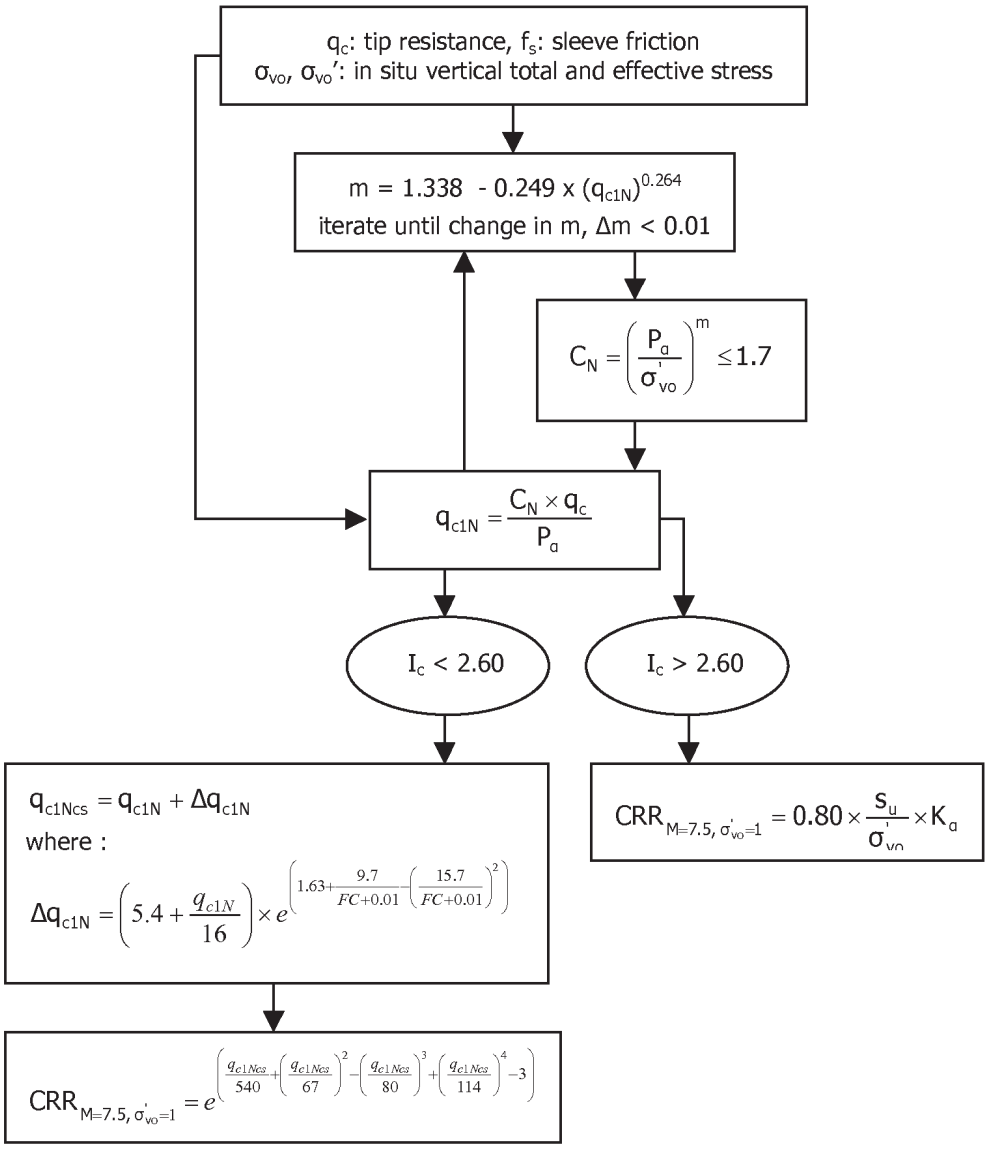
Procedure for the evaluation of soil liquefaction resistance (all soils), Robertson (2010)

Calculation of soil resistance against liquefaction is performed according to the Robertson & Wride (1998) procedure. This procedure used in the software, slightly differs from the one originally published in NCEER-97-0022 (Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils). The revised procedure is presented below in the form of a flowchart[1]:

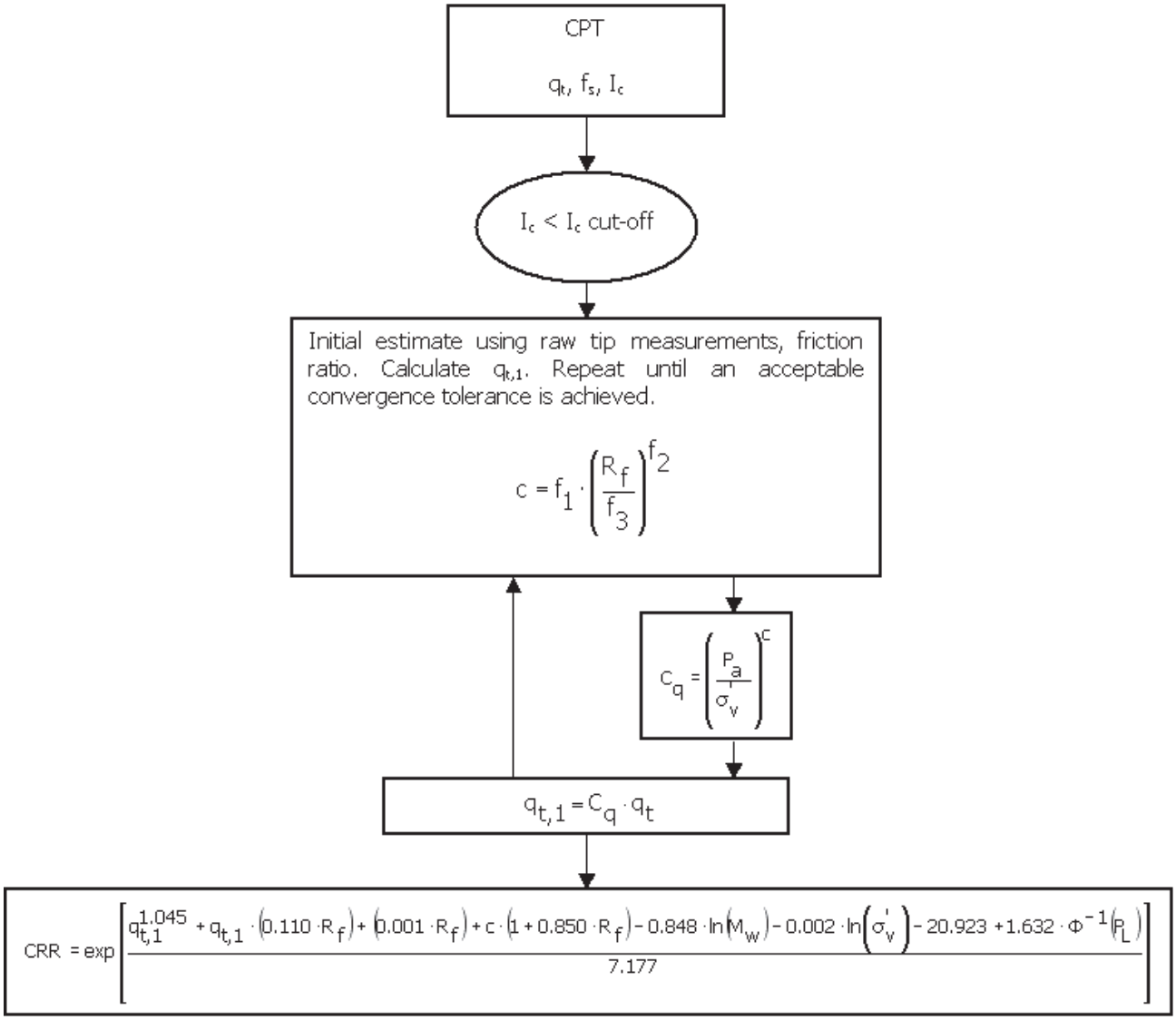


[1] P.K. Robertson, 2009. "Performance based earthquake design using the CPT", Keynote Lecture, International Conference on Performance-based Design in Earthquake Geotechnical Engineering – from case history to practice, IS-Tokyo, June 2009

Procedure for the evaluation of soil liquefaction resistance, Idriss & Boulanger (2008)



Procedure for the evaluation of soil liquefaction resistance (sandy soils), Moss et al. (2006)



Procedure for the evaluation of soil liquefaction resistance, Boulanger & Idriss(2014)

$$FS_{liq} = \frac{CRR_{M=7.5,\sigma'_v=1atm}}{CSR_{M=7.5,\sigma'_v=1atm}}$$

$$CSR_{M=7.5,\sigma'_v=1atm} = 0.65 \frac{\sigma_v}{\sigma'_v} \frac{a_{max}}{g} r_d \frac{1}{MSF} \frac{1}{K_\sigma}$$

$$r_d = \exp\left[\alpha(z) + \beta(z) \cdot M\right]$$

$$\alpha(z) = -1.012 - 1.126 \sin\left(\frac{z}{11.73} + 5.133\right)$$

$$\beta(z) = 0.106 + 0.118 \sin\left(\frac{z}{11.28} + 5.142\right)$$

$$K_\sigma = 1 - C_\sigma \ln\left(\frac{\sigma'_v}{P_a}\right) \le 1.1$$

$$C_\sigma = \frac{1}{37.3 - 8.27\left(q_{c1Ncs}\right)^{0.264}} \le 0.3$$

$$MSF = 1 + (MSF_{max} - 1)\left(8.64 \exp\left(\frac{-M}{4}\right) - 1.325\right)$$

$$MSF_{max} = 1.09 + \left(\frac{q_{c1Ncs}}{180}\right)^3 \le 2.2$$

σ'_v *and* σ_v *at start of earthquake shaking*

$$CRR_{M=7.5,\sigma'_v=1atm} = \exp\left(\frac{q_{c1Ncs}}{113} + \left(\frac{q_{c1Ncs}}{1000}\right)^2 - \left(\frac{q_{c1Ncs}}{140}\right)^3 + \left(\frac{q_{c1Ncs}}{137}\right)^4 - 2.80\right)$$

$$q_{c1Ncs} = q_{c1N} + \Delta q_{c1N}$$

$$\Delta q_{c1N} = \left(11.9 + \frac{q_{c1N}}{14.6}\right) \exp\left(1.63 - \frac{9.7}{FC+2} - \left(\frac{15.7}{FC+2}\right)^2\right)$$

$$q_{c1N} = C_{Ne} \frac{q_c}{P_a}$$

$$C_{Ne} = \left(\frac{P_a}{\sigma'_v}\right)^m \le 1.7$$

$$m = 1.338 - 0.249\left(q_{c1Ncs}\right)^{0.264} \quad with \quad 0.264 \le m \le 0.782$$

$$FC = 80\left(I_C + C_{FC}\right) - 137 \quad with \quad 0\% \le FC \le 100\%$$

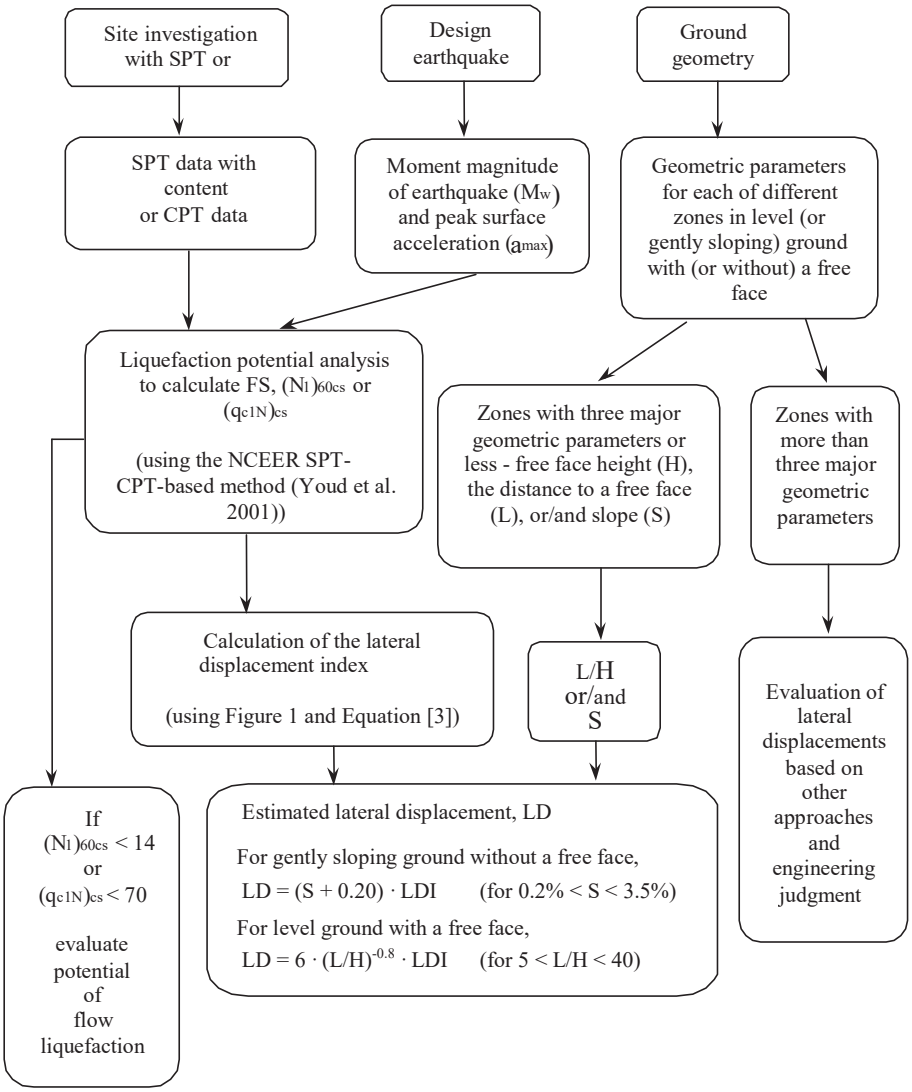
$$I_c = \left[\left(3.47 - \log\left(Q\right)\right)^2 + \left(1.22 + \log\left(F\right)\right)^2\right]^{0.5}$$

$$Q = \left(\frac{q_c - \sigma_{vc}}{P_a}\right)\left(\frac{P_a}{\sigma'_{vc}}\right)^n \; with \; 0.5 \le n \le 1.0 \; per \; Robertson \; \& \; Wride \; (1998)$$

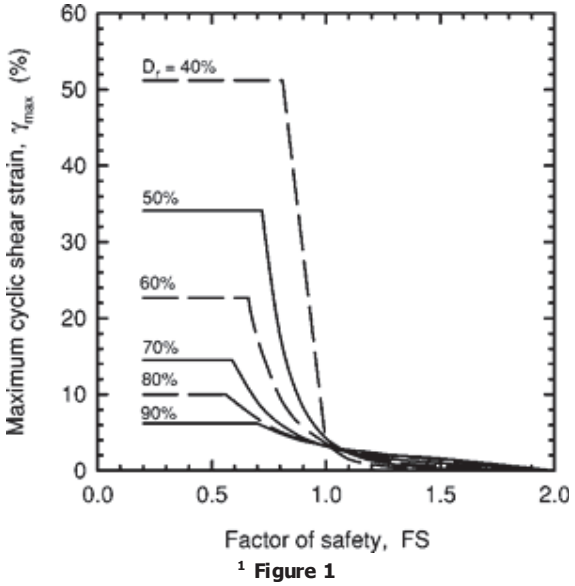
$$F = \left(\frac{f_s}{q_c - \sigma_{vc}}\right) \cdot 100\%$$

σ'_v *at time of CPT sounding*

Procedure for the evaluation of liquefaction-induced lateral spreading displacements



[1] Flow chart illustrating major steps in estimating liquefaction-induced lateral spreading displacements using the proposed approach



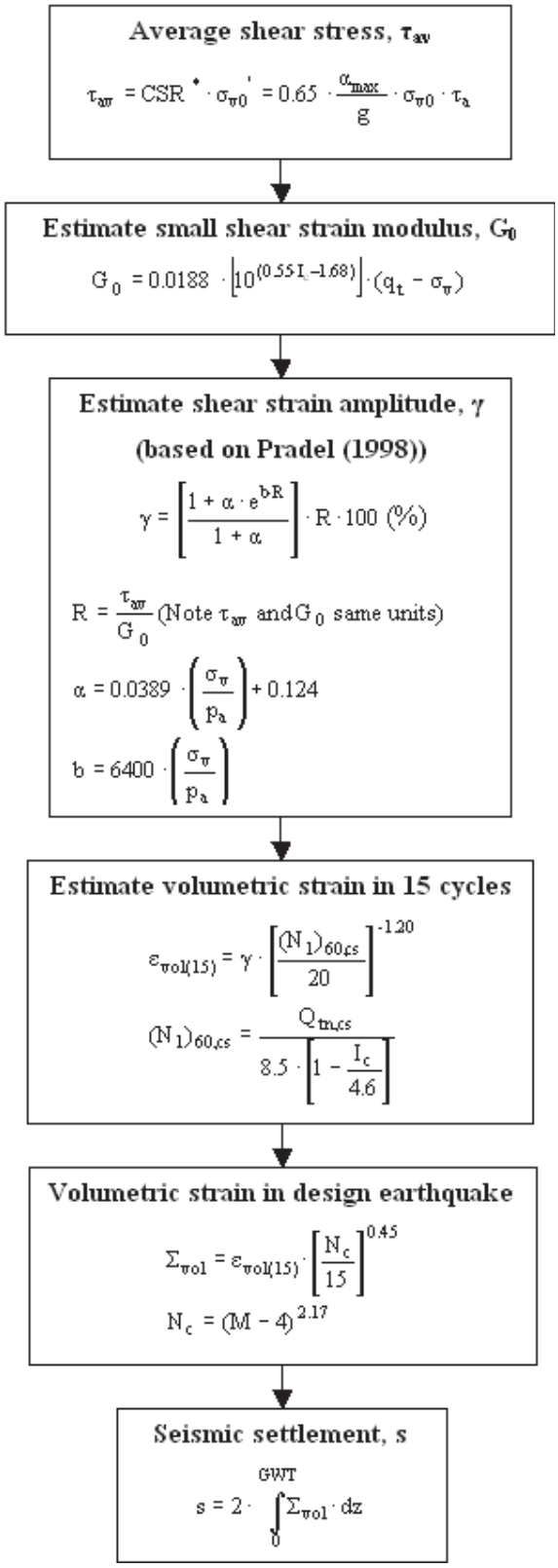
[1] **Figure 1**

$$LDI = \int_0^{z_{max}} \gamma_{max} dz$$

[1] **Equation [3]**

[1] "Estimating liquefaction-induced ground settlements from CPT for level ground", G. Zhang, P.K. Robertson, and R.W.I. Brachman

Procedure for the estimation of seismic induced settlements in dry sands



Robertson, P.K. and Lisheng, S., 2010, "Estimation of seismic compression in dry soils using the CPT" FIFTH INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN GEOTECHNICAL EARTHQUAKE ENGINEERING AND SOIL DYNAMICS, Symposium in honor of professor I. M. Idriss, San Diego, CA

Liquefaction Potential Index (LPI) calculation procedure

Calculation of the Liquefaction Potential Index (LPI) is used to interpret the liquefaction assessment calculations in terms of severity over depth. The calculation procedure is based on the methology developed by Iwasaki (1982) and is adopted by AFPS.

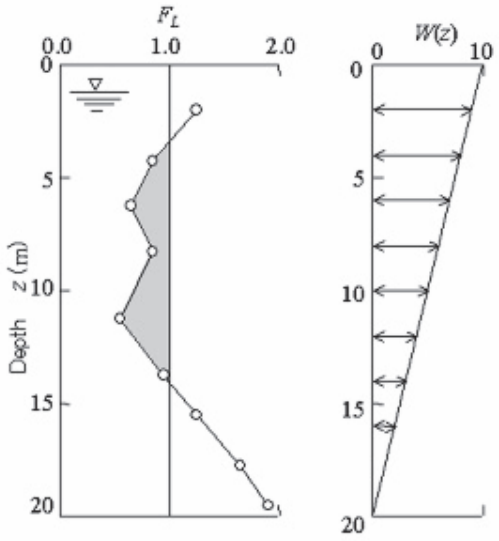
To estimate the severity of liquefaction extent at a given site, LPI is calculated based on the following equation:

$$\mathbf{LPI} = \int_0^{20} (10 - 0{,}5z) \times F_L \times dz$$

where:
F_L = 1 - F.S. when F.S. less than 1
F_L = 0 when F.S. greater than 1
z depth of measurment in meters

Values of LPI range between zero (0) when no test point is characterized as liquefiable and 100 when all points are characterized as susceptible to liquefaction. Iwasaki proposed four (4) discrete categories based on the numeric value of LPI:

- LPI = 0 : Liquefaction risk is very low
- 0 < LPI <= 5 : Liquefaction risk is low
- 5 < LPI <= 15 : Liquefaction risk is high
- LPI > 15 : Liquefaction risk is very high



Graphical presentation of the LPI calculation procedure

Shear-Induced Building Settlement (Ds) calculation procedure

The shear-induced building settlement (Ds) due to liquefaction below the building can be estimated using the relationship developed by Bray and Macedo (2017):

$$Ln(Ds) = c1 + c2 * LBS + 0.58 * Ln\left(Tanh\left(\frac{HL}{6}\right)\right) + 4.59 * Ln(Q) - 0.42 * Ln(Q)^2 - 0.02 * B + 0.84 * Ln(CAVdp) + 0.41 * Ln(Sa1) + \varepsilon$$

where Ds is in the units of mm, c1= -8.35 and c2= 0.072 for LBS ≤ 16, and c1= -7.48 and c2= 0.014 otherwise. Q is the building contact pressure in units of kPa, HL is the cumulative thickness of the liquefiable layers in the units of m, B is the building width in the units of m, CAVdp is a standardized version of the cumulative absolute velocity in the units of g-s, Sa1 is 5%-damped pseudo-acceleration response spectral value at a period of 1 s in the units of g, and ε is a normal random variable with zero mean and 0.50 standard deviation in Ln units. The liquefaction-induced building settlement index (LBS) is:

$$LBS = \sum W * \frac{\varepsilon_{shear}}{z} dz$$

where z (m) is the depth measured from the ground surface > 0, W is a foundation-weighting factor wherein W = 0.0 for z less than Df, which is the embedment depth of the foundation, and W = 1.0 otherwise. The shear strain parameter (ε_shear) is the liquefaction-induced free-field shear strain (in %) estimated using Zhang et al. (2004). It is calculated based on the estimated Dr of the liquefied soil layer and the calculated safety factor against liquefaction triggering (FSL).

References

- Lunne, T., Robertson, P.K., and Powell, J.J.M 1997. Cone penetration testing in geotechnical practice, E & FN Spon Routledge, 352 p, ISBN 0-7514-0393-8.
- Boulanger, R.W. and Idriss, I. M., 2007. Evaluation of Cyclic Softening in Silts and Clays. ASCE Journal of Geotechnical and Geoenvironmental Engineering June, Vol. 133, No. 6 pp 641-652
- Boulanger, R.W. and Idriss, I. M., 2014. CPT AND SPT BASED LIQUEFACTION TRIGGERING PROCEDURES. DEPARTMENT OF CIVIL & ENVIRONMENTAL ENGINEERING COLLEGE OF ENGINEERING UNIVERSITY OF CALIFORNIA AT DAVIS
- Robertson, P.K. and Cabal, K.L., 2007, Guide to Cone Penetration Testing for Geotechnical Engineering. Available at no cost at http://www.geologismiki.gr/
- Robertson, P.K. 1990. Soil classification using the cone penetration test. Canadian Geotechnical Journal, 27 (1), 151-8.
- Robertson, P.K. and Wride, C.E., 1998. Cyclic Liquefaction and its Evaluation based on the CPT Canadian Geotechnical Journal, 1998, Vol. 35, August.
- Youd, T.L., Idriss, I.M., Andrus, R.D., Arango, I., Castro, G., Christian, J.T., Dobry, R., Finn, W.D.L., Harder, L.F., Hynes, M.E., Ishihara, K., Koester, J., Liao, S., Marcuson III, W.F., Martin, G.R., Mitchell, J.K., Moriwaki, Y., Power, M.S., Robertson, P.K., Seed, R., and Stokoe, K.H., Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshop on Evaluation of Liquefaction Resistance of Soils, ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 127, October, pp 817-833
- Zhang, G., Robertson. P.K., Brachman, R., 2002, Estimating Liquefaction Induced Ground Settlements from the CPT, Canadian Geotechnical Journal, 39: pp 1168-1180
- Zhang, G., Robertson. P.K., Brachman, R., 2004, Estimating Liquefaction Induced Lateral Displacements using the SPT and CPT, ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 130, No. 8, 861-871
- Pradel, D., 1998, Procedure to Evaluate Earthquake-Induced Settlements in Dry Sandy Soils, ASCE, Journal of Geotechnical & Geoenvironmental Engineering, Vol. 124, No. 4, 364-368
- Iwasaki, T., 1986, Soil liquefaction studies in Japan: state-of-the-art, Soil Dynamics and Earthquake Engineering, Vol. 5, No. 1, 2-70
- Papathanassiou G., 2008, LPI-based approach for calibrating the severity of liquefaction-induced failures and for assessing the probability of liquefaction surface evidence, Eng. Geol. 96:94–104
- P.K. Robertson, 2009, Interpretation of Cone Penetration Tests - a unified approach., Canadian Geotechnical Journal, Vol. 46, No. 11, pp 1337-1355
- P.K. Robertson, 2009. "Performance based earthquake design using the CPT", Keynote Lecture, International Conference on Performance-based Design in Earthquake Geotechnical Engineering - from case history to practice, IS-Tokyo, June 2009
- Robertson, P.K. and Lisheng, S., 2010, "Estimation of seismic compression in dry soils using the CPT" FIFTH INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN GEOTECHNICAL EARTHQUAKE ENGINEERING AND SOIL DYNAMICS, *Symposium in honor of professor I. M. Idriss,* SAN diego, CA
- R. E. S. Moss, R. B. Seed, R. E. Kayen, J. P. Stewart, A. Der Kiureghian, K. O. Cetin, CPT-Based Probabilistic and Deterministic Assessment of In Situ Seismic Soil Liquefaction Potential, Journal of Geotechnical and Geoenvironmental Engineering, Vol. 132, No. 8, August 1, 2006
- I. M. Idriss and R. W. Boulanger, 2008. Soil liquefaction during earthquakes, Earthquake Engineering Research Institute MNO-12
- Jonathan D. Bray & Jorge Macedo, Department of Civil & Environmental Engineering, Univ. of California, Berkeley, CA, USA, Simplified procedure for estimating liquefaction-induced building settlement, *Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering, Seoul 201*

APPENDIX D
LABORATORY TESTING

Laboratory tests were performed in accordance with the generally accepted American Society for Testing and Materials (ASTM) test methods or suggested procedures. Brief descriptions of the tests performed are presented below:

- **CLASSIFICATION:** *Field classifications were verified in the laboratory by visual examination. The final soil classifications are in accordance with the Unified Soils Classification System and are presented on the exploration logs in Appendix B.*

- **MOISTURE CONTENT (ASTM D2216):** *Tests were performed on a selected representative soil sample to evaluate the water (moisture) content by mass of soil, rock, and similar materials where the reduction in mass by drying is due to loss of water. The test sample was dried in an oven at a temperature of 110° ± 5°C to a constant mass. The loss of mass due to drying is considered to be water. The water (moisture) content were determined in general accordance with ASTM D2216.*

- **DENSITY OF SOIL IN PLACE (ASTM D2937):** *In-place moisture content and dry density were determined for a representative soil sample. This information was an aid to classification and permitted recognition of variations in material consistency with depth. The dry unit weight is determined in pounds per cubic foot, and the in-place moisture content is determined as a percentage of the soil's dry weight. The results are summarized in the exploration logs presented in Appendix B.*

- **GRADATION ANALYSIS (ASTM D6913):** *Gradation analyses were performed on representative soil samples in general accordance with ASTM D6913. The grain size distributions of the samples was determined in general accordance with ASTM D6913.*

- **ATTERBERG LIMITS (ASTM D4318):** *Tests were performed on selected representative fine-grained soil samples to evaluate the liquid limits, plastic limits, and plasticity indexes in general accordance with ASTM D4318. These test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System.*

- **EXPANSION INDEX (ASTM D4829):** *The expansion indexes of selected materials were evaluated in general accordance with ASTM D4829. Specimens were molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimens were loaded with a surcharge of 144 pounds per square foot and were inundated with tap water. Readings of volumetric swell were made for a period of 24 hours.*

- **R-VALUE (CT 301 and ASTM D 2844):** *The resistance value, or R-Value, for near-surface site soil was evaluated in general accordance with California Test (CT) 301 and ASTM D 2844. A sample was prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-Value is reported as the lesser or more conservative of the two calculated results.*

- **CORROSIVITY TEST (CAL. TEST METHOD 417, 422, 643):** *Soil pH and minimum resistivity tests were performed on representative soil samples in general accordance with test method CT 643. The sulfate and chloride contents of the selected samples were evaluated in general accordance with CT 417 and CT 422, respectively.*

Soil samples not tested are now stored in our laboratory for future reference and evaluation, if needed. Unless notified to the contrary, samples will be disposed of 90 days from the date of this report.

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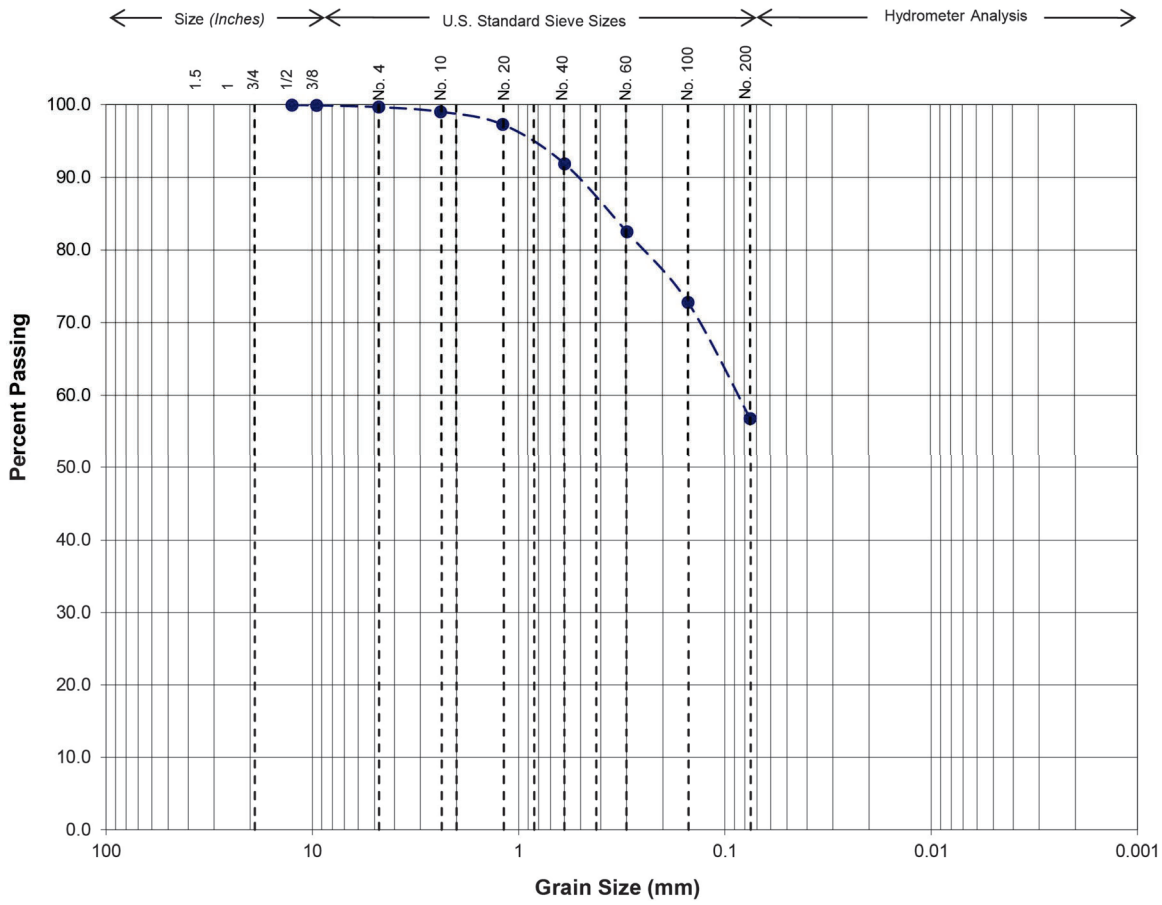
LAB TEST SUMMARY

BUNKER HILL MULTI-DWELLING UNITS
APNs 424-321-03 AND 424-321-04
BUNKER HILL STREET
SAN DIEGO, CA 92109

DRAFTED BY: DTB	REVIEWED BY: GD	PROJECT: 2022168	FIGURE: D.1



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample Location:	B-1	Atterberg Limits (ASTM D4318):	
Depth (ft):	½- 5	Liquid Limit, LL:	20
USCS Soil Type:	CL-ML	Plastic Limit, PL:	13
Passing No. 200 (%):	57	Plasticity Index, PI:	7

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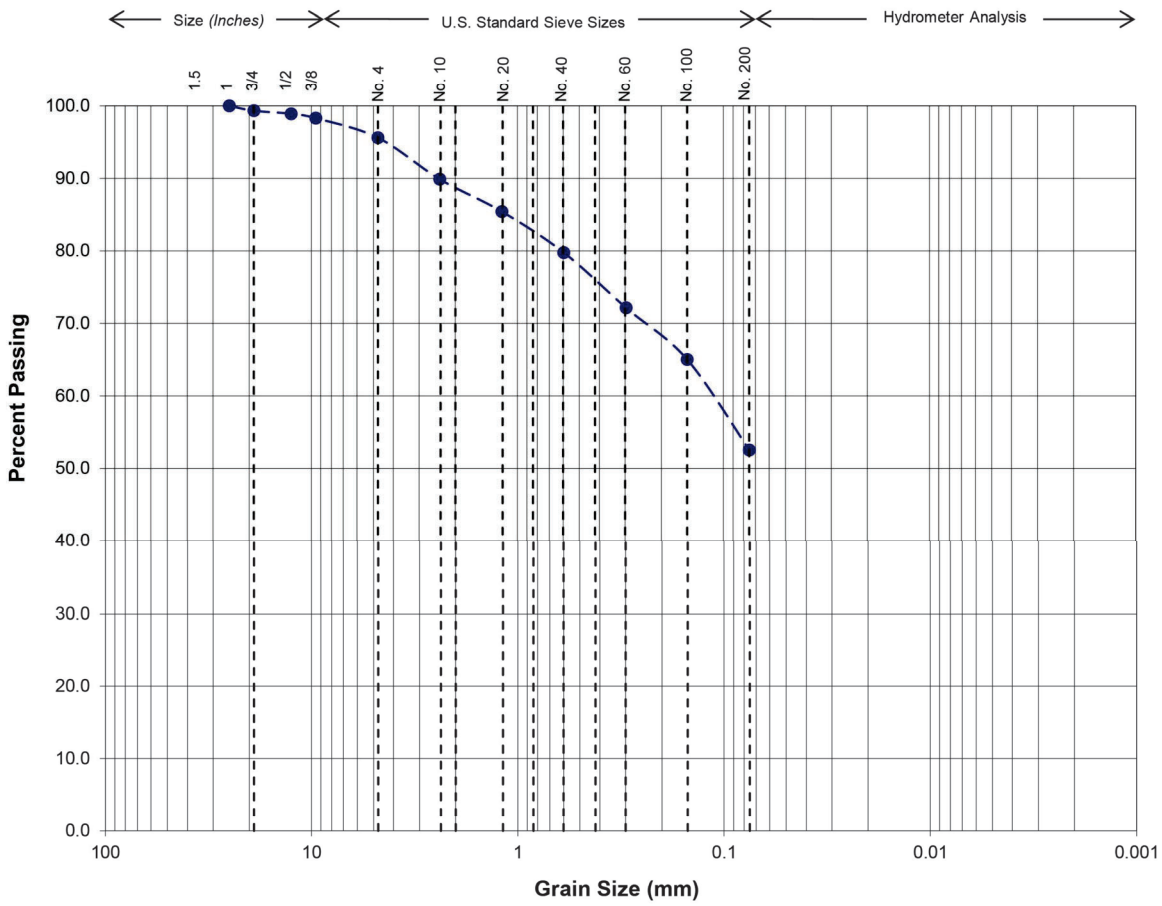
CLASSIFICATION TEST RESULTS

BUNKER HILL MULTI-DWELLING UNITS
APNs 424-321-03 AND 424-321-04
BUNKER HILL STREET
SAN DIEGO, CA 92109

DRAFTED BY: DTB	REVIEWED BY: GD	PROJECT: 2022168	FIGURE: D.2



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample Location:	B-2	Atterberg Limits (ASTM D4318):	
Depth (ft):	½ - 7	Liquid Limit, LL:	25
USCS Soil Type:	CL	Plastic Limit, PL:	11
Passing No. 200 (%):	53	Plasticity Index, PI:	14

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CLASSIFICATION TEST RESULTS

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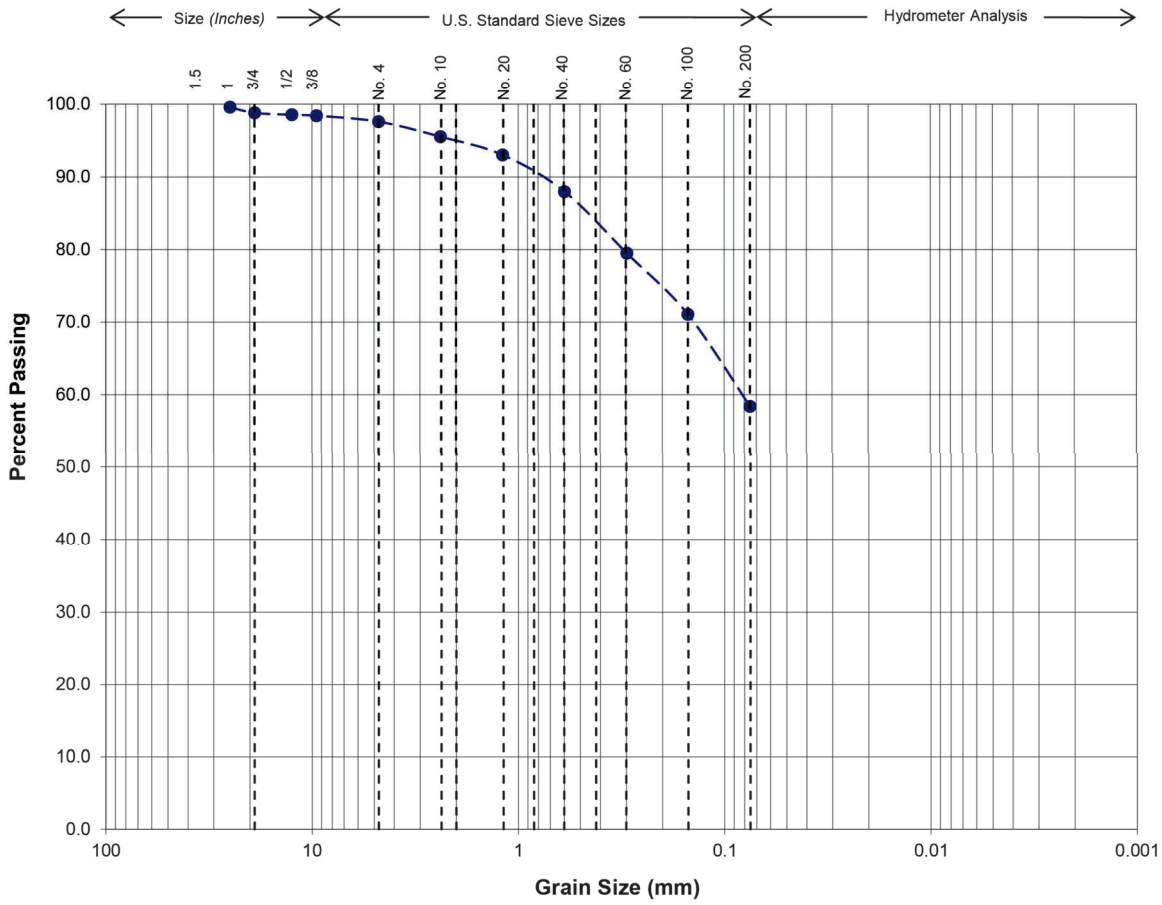
DRAFTED BY: DTB	REVIEWED BY: GD	PROJECT: 2022168	FIGURE: D.3



Gravel		Sand			Silt or Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample Location:	P-3	Atterberg Limits (ASTM D4318):	
Depth (ft):	3 - 5½	Liquid Limit, LL:	29
USCS Soil Type:	CL	Plastic Limit, PL:	12
Passing No. 200 (%):	58	Plasticity Index, PI:	17

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CLASSIFICATION TEST RESULTS

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Expansion Index (ASTM D4829)

Sample Location	Sample Depth (ft.)	Expansion Index	Expansion Potential
B-1	½ - 5	0	Very Low
B-2	½ - 7	13	Very Low

Classification of Expansive Soil (ASTM D4829)

Expansion Index	Expansion Potential
0-20	Very Low
21-50	Low
51-90	Medium
91-130	High
>130	Very High

R-Value (Cal. Test Method 301 & ASTM D2844)

Sample Location	Sample Depth (ft.)	R-Value
B-2	½ - 7	8

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LAB TEST RESULTS

BUNKER HILL MULTI-DWELLING UNITS
APNs 424-321-03 AND 424-321-04
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Corrosivity (Cal. Test Method 417,422,643)

Sample Location	Sample Depth (ft.)	pH	Resistivity (Ohm-cm)	Sulfate Content (ppm)	Sulfate Content (%)	Chloride Content (ppm)	Chloride Content (%)
B-1	½ - 5	7.3	3700	<30	<0.003	21	0.002
B-2	½ - 7	8.0	1300	48	0.005	64	0.006

Water-Soluble Sulfate Exposure (ACI 318 Table 19.3.1.1 and Table 19.3.2.1)

Water-Soluble Sulfate (SO_4) in Soil (% by Weight)	Exposure Severity	Exposure Class	Cement Type (ASTM C150)	Max. W/C	Min. f_c' (psi)
$SO_4 < 0.10$	N/A	S0	No type restriction	N/A	2,500
$0.10 \le SO_4 < 0.20$	Moderate	S1	II	0.50	4,000
$0.20 \le SO_4 \le 0.20$	Severe	S2	V	0.45	4,500
$SO_4 > 2.00$	Very Severe	S3	V plus pozzolan or slag cement	0.45	4,500

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LAB TEST RESULTS

BUNKER HILL MULTI-DWELLING UNITS
APNs 424-321-03 AND 424-321-04
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DRAFTED BY: DTB	REVIEWED BY: GD	PROJECT: 2022168	FIGURE: D.6

APPENDIX E
INFILTRATION TEST RESULTS

REPORT OF BOREHOLE PERCOLATION TESTING
Storm Water Infiltration

Project Name:	Bunker Hill Apartments	Test Number:	**P-1**
Job Number:	2022168	Tested By:	DTB/GN
Date Drilled:	8/24/2022	Date Tested:	8/25/2022
Drilling Method:	8-Inch Hollow Stem Auger	Presoak Time:	24 HR
Drilled Depth (feet):	5.3		
Test Hole Diameter (inches):	9½		
Gravel Pack:	Y		
Pipe Diameter (inches):	3		

Trial No.	Time	Time Interval, ΔT (min)	Initial Water Height, H_o (ft)	Final Water Height, H_f (ft)	Change in Water Height, ΔH (in)	Percolation Rate (min/in)
1	9:00 9:30	0:30	3.98	3.93	0.60	50.0
2	9:31 10:01	0:30	3.98	3.93	0.60	50.0
3	10:02 10:32	0:30	3.98	3.93	0.60	50.0
4	10:33 11:03	0:30	3.98	3.93	0.60	50.0
5	11:04 11:34	0:30	3.98	3.93	0.60	50.0
6	11:35 12:05	0:30	3.98	3.93	0.60	50.0
7	12:06 12:36	0:30	3.98	3.93	0.60	50.0
8	12:37 13:07	0:30	3.98	3.93	0.60	50.0
9	13:08 13:38	0:30	3.98	3.93	0.60	50.0
10	13:39 14:09	0:30	3.98	3.94	0.48	62.5
11	14:10 14:40	0:30	3.98	3.94	0.48	62.5
12	14:41 15:11	0:30	3.98	3.94	0.48	62.5
				Observed Percolation Rate:		62.5 min/in 0.96 in/hr
				Tested Infiltation Rate Using Porchet Method, I_t:		**0.05 in/hr**
				Infiltation Rate with Factor of Safety FS=2:		**0.02 in/hr**

PORCHET METHOD CALCULATION:

$$I_t = \frac{\Delta H(60r)}{\Delta T(r + 2H_{avg})}$$

	Values from Last Trial
ΔH = Change in water head height over the time interval	= 0.5 in
r = Test hole radius	= 5 in
ΔT = Time interval	= 30 min
H_{avg}= Average water height over time interval=12(H_o + H_f)/2	= 47.52 in

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Bunker Hill Multi-Dwelling Units
APNs 424-321-03 and 424-321-04
Bunker Hill Street, San Diego, CA 92109

By:	DTB	Date:	July 2023
Job No:	2022168	Figure:	E-1

REPORT OF BOREHOLE PERCOLATION TESTING
Storm Water Infiltration

Project Name:	Bunker Hill Apartments	Test Number:	**P-2**
Job Number:	2022168	Tested By:	DTB/GN
Date Drilled:	8/24/2022	Date Tested:	8/24/2022
Drilling Method:	8-Inch Hollow Stem Auger	Presoak Time:	24 HR
Drilled Depth (feet):	5.0		
Test Hole Diameter (inches):	10		
Gravel Pack:	Y		
Pipe Diameter (inches):	3		

Trial No.	Time	Time Interval, ΔT (min)	Initial Water Height, H_o (ft)	Final Water Height, H_f (ft)	Change in Water Height, ΔH (in)	Percolation Rate (min/in)
1	9:03 9:33	0:30	4.15	4.13	0.24	125
2	9:34 10:04	0:30	4.15	4.13	0.24	125
3	10:05 10:35	0:30	4.15	4.13	0.24	125
4	10:36 11:06	0:30	4.15	4.13	0.24	125
5	11:07 11:37	0:30	4.15	4.13	0.24	125
6	11:38 12:08	0:30	4.15	4.13	0.24	125
7	12:09 12:39	0:30	4.15	4.13	0.24	125
8	12:40 13:10	0:30	4.15	4.13	0.24	125
9	13:11 13:41	0:30	4.15	4.13	0.24	125
10	13:42 14:12	0:30	4.15	4.13	0.24	125
14:40	14:13 14:43	0:30	4.15	4.13	0.24	125
14:41	14:44 15:14	0:30	4.15	4.13	0.24	125
					Observed Percolation Rate:	125.0 min/in 0.48 in/hr
					Tested Infiltation Rate Using Porchet Method, I_t:	**0.02 in/hr**
					Infiltation Rate with Factor of Safety FS=2:	**0.01 in/hr**

PORCHET METHOD CALCULATION:

$$I_t = \frac{\Delta H(60r)}{\Delta T(r + 2H_{avg})}$$

	Values from Last Trial
ΔH = Change in water head height over the time interval	= 0.24 in
r = Test hole radius	= 5.0 in
ΔT = Time interval	= 30 min
H_{avg}= Average water height over time interval=12(H_o + H_f)/2	= 49.64 in

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Bunker Hill Multi-Dwelling Units
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Bunker Hill Street, San Diego, CA 92109

By:	DTB	Date:	July 2023
Job No:	2022168	Figure:	E-2

REPORT OF BOREHOLE PERCOLATION TESTING
Storm Water Infiltration

Project Name:	Bunker Hill Apartments	Test Number:	**P-3**
Job Number:	2022168	Tested By:	DTB/GN
Date Drilled:	8/24/2022	Date Tested:	8/24/2022
Drilling Method:	8-Inch Hollow Stem Auger	Presoak Time:	24 HR
Drilled Depth (feet):	5.5		
Test Hole Diameter (inches):	8		
Gravel Pack:	Y		
Pipe Diameter (inches):	3		

Trial No.	Time	Time Interval, ΔT (min)	Initial Water Height, H_o (ft)	Final Water Height, H_f (ft)	Change in Water Height, ΔH (in)	Percolation Rate (min/in)
1	9:01 9:31	0:30	4.22	4.22	0.00	0.00
2	9:32 10:02	0:30	4.22	4.22	0.00	0.00
3	10:03 10:33	0:30	4.22	4.22	0.00	0.00
4	10:34 11:04	0:30	4.22	4.22	0.00	0.00
5	11:05 11:35	0:30	4.22	4.22	0.00	0.00
6	11:36 12:06	0:30	4.22	4.22	0.00	0.00
7	12:07 12:37	0:30	4.22	4.22	0.00	0.00
8	12:38 13:08	0:30	4.22	4.22	0.00	0.00
9	13:09 13:39	0:30	4.22	4.22	0.00	0.00
10	13:40 14:10	0:30	4.22	4.22	0.00	0.00
14:40	14:11 14:41	0:30	4.22	4.22	0.00	0.00
14:41	14:42 15:12	0:30	4.22	4.22	0.00	0.00
				Observed Percolation Rate:		N/A min/in 0.00 in/hr
				Tested Infiltation Rate Using Porchet Method, I_t:		**0.00 in/hr**
				Infiltation Rate with Factor of Safety FS=2:		**0.00 in/hr**

PORCHET METHOD CALCULATION:

$$I_t = \frac{\Delta H(60r)}{\Delta T(r + 2H_{avg})}$$

	Values from Last Trial
ΔH = Change in water head height over the time interval	= 0.0 in
r = Test hole radius	= 4 in
ΔT = Time interval	= 30 min
H_{avg}= Average water height over time interval=12(H_o + H_f)/2	= 50.60 in

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Bunker Hill Street, San Diego, CA 92109

By:	DTB	Date:	July 2023
Job No:	2022168	Figure:	E-3

REPORT OF BOREHOLE PERCOLATION TESTING
Storm Water Infiltration

Project Name:	Bunker Hill Apartments	Test Number:	**P-4**
Job Number:	2022168	Tested By:	DTB/GN
Date Drilled:	8/24/2022	Date Tested:	8/24/2022
Drilling Method:	8-Inch Hollow Stem Auger	Presoak Time:	24 HR
Drilled Depth (feet):	5.0		
Test Hole Diameter (inches):	9		
Gravel Pack:	Y		
Pipe Diameter (inches):	3		

Trial No.	Time	Time Interval, ΔT (min)	Initial Water Height, H_o (ft)	Final Water Height, H_f (ft)	Change in Water Height, ΔH (in)	Percolation Rate (min/in)
1	9:00 9:30	0:30	3.40	3.40	0.00	0.00
2	9:31 10:01	0:30	3.40	3.40	0.00	0.00
3	10:02 10:32	0:30	3.40	3.40	0.00	0.00
4	10:33 11:03	0:30	3.40	3.40	0.00	0.00
5	11:04 11:34	0:30	3.40	3.40	0.00	0.00
6	11:35 12:05	0:30	3.40	3.40	0.00	0.00
7	12:06 12:36	0:30	3.40	3.40	0.00	0.00
8	12:37 13:07	0:30	3.40	3.40	0.00	0.00
9	13:08 13:38	0:30	3.40	3.40	0.00	0.00
10	13:39 14:09	0:30	3.40	3.40	0.00	0.00
14:40	14:10 14:40	0:30	3.40	3.40	0.00	0.00
14:41	14:41 15:11	0:30	3.40	3.40	0.00	0.00
				Observed Percolation Rate:		0.0 min/in 0.00 in/hr
				Tested Infiltation Rate Using Porchet Method, I_t:		**0.00 in/hr**
				Infiltation Rate with Factor of Safety FS=2:		**0.00 in/hr**

PORCHET METHOD CALCULATION:

$$I_t = \frac{\Delta H(60r)}{\Delta T(r + 2H_{avg})}$$

	Values from Last Trial
ΔH = Change in water head height over the time interval	= 0.0 in
r = Test hole radius	= 4.5 in
ΔT = Time interval	= 30 min
H_{avg}= Average water height over time interval=12(H_o + H_f)/2	= 40.80 in

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By:	DTB	Date:	July 2023
Job No:	2022168	Figure:	E-4

APPENDIX F
WORKSHEET C.4-1: CATEGORIZATION OF INFILTRATION FEASIBILITY CONDITION

Worksheet C.4-1: Categorization of Infiltration Feasibility Condition Based on Geotechnical Conditions[9]

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A[10]
Part 1 - Full Infiltration Feasibility Screening Criteria		
DMA(s) Being Analyzed:		Project Phase:
Locations at P-1 through P-4		Planning Phase
Criteria 1: Infiltration Rate Screening		
1A	Is the mapped hydrologic soil group according to the NRCS Web Soil Survey or UC Davis Soil Web Mapper Type A or B and corroborated by available site soil data[11]? ☐ Yes; the DMA may feasibly support full infiltration. Answer "Yes" to Criteria 1 Result or continue to Step 1B if the applicant elects to perform infiltration testing. ☐ No; the mapped soil types are A or B but is not corroborated by available site soil data (continue to Step 1B). ☒ No; the mapped soil types are C, D, or "urban/unclassified" and is corroborated by available site soil data. Answer "No" to Criteria 1 Result. ☐ No; the mapped soil types are C, D, or "urban/unclassified" but is not corroborated by available site soil data (continue to Step 1B).	
1B	Is the reliable infiltration rate calculated using planning phase methods from Table D.3-1? ☐ Yes; Continue to Step 1C. ☐ No; Skip to Step 1D.	
1C	Is the reliable infiltration rate calculated using planning phase methods from Table D.3-1 greater than 0.5 inches per hour? ☐ Yes; the DMA may feasibly support full infiltration. Answer "Yes" to Criteria 1 Result. ☐ No; full infiltration is not required. Answer "No" to Criteria 1 Result.	
1D	**Infiltration Testing Method.** Is the selected infiltration testing method suitable during the design phase (see Appendix D.3)? Note: Alternative testing standards may be allowed with appropriate rationales and documentation. ☐ Yes; continue to Step 1E. ☐ No; select an appropriate infiltration testing method.	

[9] Note that it is not required to investigate each and every criterion in the worksheet, a single "no" answer in Part 1, Part 2, Part 3, or Part 4 determines a full, partial, or no infiltration condition.

[10] This form must be completed each time there is a change to the site layout that would affect the infiltration feasibility condition. Previously completed forms shall be retained to document the evolution of the site stormwater design.

[11] Available data includes site-specific sampling or observation of soil types or texture classes, such as obtained from borings or test pits necessary to support other design elements.

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions	Worksheet C.4-1: Form I-8A[10]
1E	**Number of Percolation/Infiltration Tests.** Does the infiltration testing method performed satisfy the minimum number of tests specified in Table D.3-2? ☐ Yes; continue to Step 1F. ☐ No; conduct appropriate number of tests.
IF	**Factor of Safety.** Is the suitable Factor of Safety selected for full infiltration design? See guidance in D.5; Tables D.5-1 and D.5-2; and Worksheet D.5-1 (Form I-9). ☐ Yes; continue to Step 1G. ☐ No; select appropriate factor of safety.
1G	**Full Infiltration Feasibility.** Is the average measured infiltration rate divided by the Factor of Safety greater than 0.5 inches per hour? ☐ Yes; answer "Yes" to Criteria 1 Result. ☐ No; answer "No" to Criteria 1 Result.
Criteria 1 Result	Is the estimated reliable infiltration rate greater than 0.5 inches per hour within the DMA where runoff can reasonably be routed to a BMP? ☐ Yes; the DMA may feasibly support full infiltration. Continue to Criteria 2. ☒ No; full infiltration is not required. Skip to Part 1 Result.

Summarize infiltration testing methods, testing locations, replicates, and results and summarize estimates of reliable infiltration rates according to procedures outlined in D.5. Documentation should be included in project geotechnical report.

The findings of this geotechnical investigation and infiltration assessment are detailed in NOVA 2023.

A qualified representative of NOVA observed the drilling of four percolation test borings to depths between about 5 and 5½ ft below ground surface (bgs).

The tests were conducted in compliance with the Borehole Percolation Test method (D.3.3.2) of the BMP Manual. The percolation rates were converted to infiltration rates by the Porchet Method. Percolation testing indicated infiltration rates of 0.02, 0.01, 0.00 and 0.00 inches per hour utilizing a factor of safety of FS=2, for P-1 through P-4, respectively.

The mapped hydrologic soil group according to the NRCS Web Soil Survey is "Heurheuro" (HuC), 50% Huerhuero and 30% urban. Full BMPs are not required on sites mapped as urban.

Full and partial BMPs are not required on sites with infiltration rates less than 0.05 inches per hour.

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A[10]	
Criteria 2: Geologic/Geotechnical Screening			
2A	If all questions in Step 2A are answered "Yes," continue to Step 2B. For any "No" answer in Step 2A answer "No" to Criteria 2, and submit an "Infiltration Feasibility Condition Letter" that meets the requirements in Appendix C.1.1. The geologic/geotechnical analyses listed in Appendix C.2.1 do not apply to the DMA because one of the following setbacks cannot be avoided and therefore result in the DMA being in a no infiltration condition. The setbacks must be the closest horizontal radial distance from the surface edge (at the overflow elevation) of the BMP.		
2A-1	Can the proposed full infiltration BMP(s) avoid areas with existing fill materials greater than 5 feet thick below the infiltrating surface?	☐ Yes	☐ No
2A-2	Can the proposed full infiltration BMP(s) avoid placement within 10 feet of existing underground utilities, structures, or retaining walls?	☐ Yes	☐ No
2A-3	Can the proposed full infiltration BMP(s) avoid placement within 50 feet of a natural slope (>25%) or within a distance of 1.5H from fill slopes where H is the height of the fill slope?	☐ Yes	☐ No
2B	When full infiltration is determined to be feasible, a geotechnical investigation report must be prepared that considers the relevant factors identified in Appendix C.2.1. If all questions in Step 2B are answered "Yes," then answer "Yes" to Criteria 2 Result. If there are "No" answers continue to Step 2C.		
2B-1	**Hydroconsolidation.** Analyze hydroconsolidation potential per approved ASTM standard due to a proposed full infiltration BMP. Can full infiltration BMPs be proposed within the DMA without increasing hydroconsolidation risks?	☐ Yes	☐ No
2B-2	**Expansive Soils.** Identify expansive soils (soils with an expansion index greater than 20) and the extent of such soils due to proposed full infiltration BMPs. Can full infiltration BMPs be proposed within the DMA without increasing expansive soil risks?	☐ Yes	☐ No

SKIP

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A[10]	
2B-3	**Liquefaction**. If applicable, identify mapped liquefaction areas. Evaluate liquefaction hazards in accordance with Section 6.4.2 of the City of San Diego's Guidelines for Geotechnical Reports (2011 or most recent edition). Liquefaction hazard assessment shall take into account any increase in groundwater elevation or groundwater mounding that could occur as a result of proposed infiltration or percolation facilities. Can full infiltration BMPs be proposed within the DMA without increasing liquefaction risks?	☐ Yes	☐ No
2B-4	**Slope Stability**. If applicable, perform a slope stability analysis in accordance with the ASCE and Southern California Earthquake Center (2002) Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California to determine minimum slope setbacks for full infiltration BMPs. See the City of San Diego's Guidelines for Geotechnical Reports (2011) to determine which type of slope stability analysis is required. Can full infiltration BMPs be proposed within the DMA without increasing slope stability risks?	☐ Yes	☐ No
2B-5	**Other Geotechnical Hazards.** Identify site-specific geotechnical hazards not already mentioned (refer to Appendix C.2.1). Can full infiltration BMPs be proposed within the DMA without increasing risk of geologic or geotechnical hazards not already mentioned?	☐ Yes	☐ No
2B-6	**Setbacks.** Establish setbacks from underground utilities, structures, and/or retaining walls. Reference applicable ASTM or other recognized standard in the geotechnical report. Can full infiltration BMPs be proposed within the DMA using established setbacks from underground utilities, structures, and/or retaining walls?	☐ Yes	☐ No

SKIP

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A[10]	
2C	**Mitigation Measures.** Propose mitigation measures for each geologic/geotechnical hazard identified in Step 2B. Provide a discussion of geologic/geotechnical hazards that would prevent full infiltration BMPs that cannot be reasonably mitigated in the geotechnical report. See Appendix C.2.1.8 for a list of typically reasonable and typically unreasonable mitigation measures. Can mitigation measures be proposed to allow for full infiltration BMPs? If the question in Step 2 is answered "Yes," then answer "Yes" to Criteria 2 Result. If the question in Step 2C is answered "No," then answer "No" to Criteria 2 Result.	☐ Yes	☐ No
Criteria 2 Result	Can infiltration greater than 0.5 inches per hour be allowed without increasing risk of geologic or geotechnical hazards that cannot be reasonably mitigated to an acceptable level?	☐ Yes	☐ No

The findings of this geotechnical investigation and infiltration assessment are detailed in NOVA 2023.

A qualified representative of NOVA observed the drilling of four percolation test borings to depths between about 5 and 5½ ft below ground surface (bgs).

The tests were conducted in compliance with the Borehole Percolation Test method (D.3.3.2) of the BMP Manual. The percolation rates were converted to infiltration rates by the Porchet Method. Percolation testing indicated infiltration rates of 0.02, 0.01, 0.00 and 0.00 inches per hour utilizing a factor of safety of FS=2, for P-1 through P-4, respectively.

Full and partial BMPs are not required on sites with infiltration rates less than 0.05 inches per hour.

Part 1 Result – Full Infiltration Geotechnical Screening [12]	Result
If answers to both Criteria 1 and Criteria 2 are "Yes", a full infiltration design is potentially feasible based on Geotechnical conditions only. If either answer to Criteria 1 or Criteria 2 is "No", a full infiltration design is not required.	☐ Full infiltration Condition ☒ Complete Part 2

[12] To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions	Worksheet C.4-1: Form I-8A[10]
Part 2 – Partial vs. No Infiltration Feasibility Screening Criteria	
DMA(s) Being Analyzed:	Project Phase:
Locations at P-1 through P-4	Planning Phase
Criteria 3 : Infiltration Rate Screening	
3A	**NRCS Type C, D, or "urban/unclassified":** Is the mapped hydrologic soil group according to the NRCS Web Soil Survey or UC Davis Soil Web Mapper is Type C, D, or "urban/unclassified" and corroborated by available site soil data? ☐ Yes; the site is mapped as C soils and a reliable infiltration rate of 0.15 in/hr. is used to size partial infiltration BMPS. Answer "Yes" to Criteria 3 Result. ☐ Yes; the site is mapped as D soils or "urban/unclassified" and a reliable infiltration rate of 0.05 in/hr. is used to size partial infiltration BMPS. Answer "Yes" to Criteria 3 Result. ☒ No; infiltration testing is conducted (refer to Table D.3-1), continue to Step 3B.
3B	**Infiltration Testing Result:** Is the reliable infiltration rate (i.e. average measured infiltration rate/2) greater than 0.05 in/hr. and less than or equal to 0.5 in/hr? ☐ Yes; the site may support partial infiltration. Answer "Yes" to Criteria 3 Result. ☒ No; the reliable infiltration rate (i.e. average measured rate/2) is less than 0.05 in/hr., partial infiltration is not required. Answer "No" to Criteria 3 Result.
Criteria 3 Result	Is the estimated reliable infiltration rate (i.e., average measured infiltration rate/2) greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour at any location within each DMA where runoff can reasonably be routed to a BMP? ☐ Yes; Continue to Criteria 4. ☒ No: Skip to Part 2 Result.
Summarize infiltration testing and/or mapping results (i.e. soil maps and series description used for infiltration rate). The findings of this geotechnical investigation and infiltration assessment are detailed in NOVA 2023. A qualified representative of NOVA observed the drilling of four percolation test borings to depths between about 5 and 5½ ft below ground surface (bgs). The tests were conducted in compliance with the Borehole Percolation Test method (D.3.3.2) of the BMP Manual. The percolation rates were converted to infiltration rates by the Porchet Method. Percolation testing indicated infiltration rates of 0.02, 0.01, 0.00 and 0.00 inches per hour utilizing a factor of safety of FS=2, for P-1 through P-4, respectively. Full and partial BMPs are not required on sites with infiltration rates less than 0.05 inches per hour.	

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A[10]	
Criteria 4: Geologic/Geotechnical Screening			
4A	If all questions in Step 4A are answered "Yes," continue to Step 2B. For any "No" answer in Step 4A answer "No" to Criteria 4 Result, and submit an "Infiltration Feasibility Condition Letter" that meets the requirements in Appendix C.1.1. The geologic/geotechnical analyses listed in Appendix C.2.1 do not apply to the DMA because one of the following setbacks cannot be avoided and therefore result in the DMA being in a no infiltration condition. The setbacks must be the closest horizontal radial distance from the surface edge (at the overflow elevation) of the BMP.		
4A-1	Can the proposed partial infiltration BMP(s) avoid areas with existing fill materials greater than 5 feet thick?	☐ Yes	☐ No
4A-2	Can the proposed partial infiltration BMP(s) avoid placement within 10 feet of existing underground utilities, structures, or retaining walls?	☐ Yes	☐ No
4A-3	Can the proposed partial infiltration BMP(s) avoid placement within 50 feet of a natural slope (>25%) or within a distance of 1.5H from fill slopes where H is the height of the fill slope?	☐ Yes	☐ No
4B	When full infiltration is determined to be feasible, a geotechnical investigation report must be prepared that considers the relevant factors identified in Appendix C.2.1 If all questions in Step 4B are answered "Yes," then answer "Yes" to Criteria 4 Result. If there are any "No" answers continue to Step 4C.		
4B-1	**Hydroconsolidation.** Analyze hydroconsolidation potential per approved ASTM standard due to a proposed full infiltration BMP. Can partial infiltration BMPs be proposed within the DMA without increasing hydroconsolidation risks?	☐ Yes	☐ No
4B-2	**Expansive Soils.** Identify expansive soils (soils with an expansion index greater than 20) and the extent of such soils due to proposed full infiltration BMPs. Can partial infiltration BMPs be proposed within the DMA without increasing expansive soil risks?	☐ Yes	☐ No
4B-3	**Liquefaction**. If applicable, identify mapped liquefaction areas. Evaluate liquefaction hazards in accordance with Section 6.4.2 of the City of San Diego's Guidelines for Geotechnical Reports (2011). Liquefaction hazard assessment shall take into account any increase in groundwater elevation or groundwater mounding that could occur as a result of proposed infiltration or percolation facilities. Can partial infiltration BMPs be proposed within the DMA without increasing liquefaction risks?	☐ Yes	☐ No

SKIP

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions		Worksheet C.4-1: Form I-8A[10]	
4B-4	**Slope Stability**. If applicable, perform a slope stability analysis in accordance with the ASCE and Southern California Earthquake Center (2002) Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California to determine minimum slope setbacks for full infiltration BMPs. See the City of San Diego's Guidelines for Geotechnical Reports (2011) to determine which type of slope stability analysis is required. Can partial infiltration BMPs be proposed within the DMA without increasing slope stability risks?	☐ Yes	☐ No
4B-5	**Other Geotechnical Hazards.** Identify site-specific geotechnical hazards not already mentioned (refer to Appendix C.2.1). Can partial infiltration BMPs be proposed within the DMA without increasing risk of geologic or geotechnical hazards not already mentioned?	☐ Yes	☐ No
4B-6	**Setbacks.** Establish setbacks from underground utilities, structures, and/or retaining walls. Reference applicable ASTM or other recognized standard in the geotechnical report. Can partial infiltration BMPs be proposed within the DMA using recommended setbacks from underground utilities, structures, and/or retaining walls?	☐ Yes	☐ No
4C	**Mitigation Measures.** Propose mitigation measures for each geologic/geotechnical hazard identified in Step 4B. Provide a discussion on geologic/geotechnical hazards that would prevent partial infiltration BMPs that cannot be reasonably mitigated in the geotechnical report. See Appendix C.2.1.8 for a list of typically reasonable and typically unreasonable mitigation measures. Can mitigation measures be proposed to allow for partial infiltration BMPs? If the question in Step 4C is answered "Yes," then answer "Yes" to Criteria 4 Result. If the question in Step 4C is answered "No," then answer "No" to Criteria 4 Result.	☐ Yes	☐ No
Criteria 4 Result	Can infiltration of greater than or equal to 0.05 inches/hour and less than or equal to 0.5 inches/hour be allowed without increasing the risk of geologic or geotechnical hazards that cannot be reasonably mitigated to an acceptable level?	☐ Yes	☐ No

SKIP

Categorization of Infiltration Feasibility Condition based on Geotechnical Conditions	Worksheet C.4-1: Form I-8A[10]

Summarize findings and basis; provide references to related reports or exhibits.

The findings of this geotechnical investigation and infiltration assessment are detailed in NOVA 2023.

A qualified representative of NOVA observed the drilling of four percolation test borings to depths between about 5 and 5½ ft below ground surface (bgs).

The tests were conducted in compliance with the Borehole Percolation Test method (D.3.3.2) of the BMP Manual. The percolation rates were converted to infiltration rates by the Porchet Method. Percolation testing indicated infiltration rates of 0.02, 0.01, 0.00 and 0.00 inches per hour utilizing a factor of safety of FS=2, for P-1 through P-4, respectively.

Full and partial BMPs are not required on sites with infiltration rates less than 0.05 inches per hour.

Part 2 – Partial Infiltration Geotechnical Screening Result[13]	Result
If answers to both Criteria 3 and Criteria 4 are "Yes", a partial infiltration design is potentially feasible based on geotechnical conditions only. If answers to either Criteria 3 or Criteria 4 is "No", then infiltration of any volume is considered to be infeasible within the site.	☐ Partial Infiltration Condition ☒ No Infiltration Condition

[13] To be completed using gathered site information and best professional judgement considering the definition of MEP in the MS4 Permit. Additional testing and/or studies may be required by City Engineer to substantiate findings.

APPENDIX G
SITE-SPECIFIC GROUND MOTION HAZARD ANALYSIS

SITE-SPECIFIC GROUND MOTION ANALYSIS (ASCE 7-16)

Project: Bunker Hill Multi-Dwelling Units
Client: Gerber Group
Job No: 2022168

Latitude: 32.80297 deg
Longitude: -117.21560 deg
Vs_{30}: 259 m/s (Measured)

Calculated By: GCD
Date: 6/1/23

Period T (sec)	PROBABILISTIC (RISK-TARGETED) GROUND MOTION ANALYSIS				DETERMINISTIC (84TH-PERCENTILE) GROUND MOTION ANALYSIS			CODE-BASED (LOWER LIMIT) ASCE 7-16 SECTION 11.4.6		SITE-SPECIFIC DESIGN RESPONSE		
	Uniform Hazard Ground Motion (g)	Risk Targeted Ground Motion (g)	Maximum Direction Scale Factor	Maximum Directional Probabilistic Sa (g)	84th Percentile Spectral Accelaration (g)	Maximum Direction Scale Factor	Maximum Directional Deterministic Sa (g)	Code Based S_a (g)	80% of Code Based S_a (g)	Design S_{aM} (g)	Design S_a (g)	T x S_a (T>1s)
PGA	0.683	0.603	1.1	0.663	0.845	1.1	0.930	0.375	0.300	0.663	0.442	---
0.10	1.088	0.991	1.1	1.090	1.237	1.1	1.361	0.823	0.658	1.090	0.727	---
0.20	1.480	1.333	1.1	1.466	1.661	1.1	1.827	0.938	0.750	1.466	0.978	---
0.30	1.650	1.477	1.125	1.662	1.994	1.125	2.243	0.938	0.750	1.662	1.108	---
0.50	1.596	1.415	1.175	1.663	2.122	1.175	2.493	0.938	0.750	1.663	1.108	---
0.75	1.309	1.158	1.2375	1.433	1.864	1.2375	2.307	0.786	0.629	1.433	0.955	---
1.00	1.079	0.954	1.3	1.240	1.617	1.3	2.102	0.590	0.472	1.240	0.827	0.827
2.00	0.545	0.487	1.35	0.657	0.885	1.35	1.195	0.295	0.236	0.657	0.438	0.877
3.00	0.337	0.302	1.4	0.423	0.564	1.4	0.790	0.197	0.157	0.423	0.282	0.846
4.00	0.224	0.202	1.45	0.293	0.369	1.45	0.535	0.147	0.118	0.293	0.195	0.781
5.00	0.161	0.144	1.5	0.216	0.255	1.5	0.383	0.118	0.094	0.216	0.144	0.720

INPUT PARAMETERS - SEAOC (https://seismicmaps.org/)

Site Class=	D	
F_a=	1.000	Short Period Site Coefficient
S_S=	1.407	Mapped MCE_R, 5% Damped at T=0.2s
S_1=	0.488	Mapped MCE_R, 5% Damped at T=1s
S_{DS}=	0.938	Design, 5% Damped at Short Periods
S_{MS}=	1.407	The MCE_R, 5% Damped at Short Periods
T_L (sec)=	8.0	Long Period Transition (Sect 11.4.6)
F_{PGA} (g)=	1.1	Site Coefficient for PGA
PGA_M (g)=	0.708	
F_v=	1.812	Used Only for Calculation of T_o and T_s
S_{M1}=	0.884	
S_{D1}=	0.590	Design, 5% Damped at T=1s
T_o (sec)=	0.126	Defined in ASCE 7-16 Sect 11.4.6
T_S (sec)=	0.628	Defined in ASCE 7-16 Sect 11.4.6

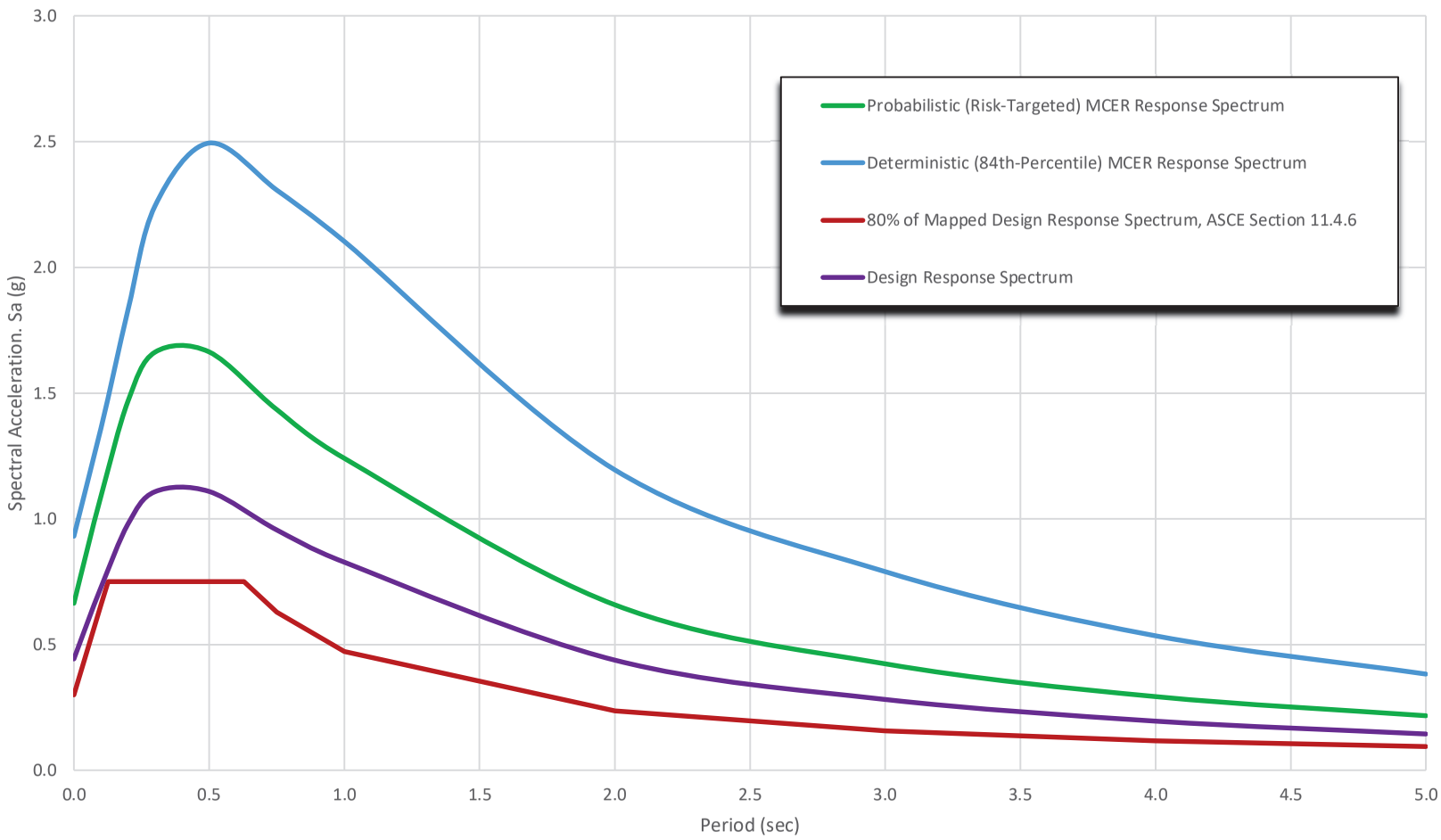
SITE-SPECIFIC DESIGN PARAMETERS

S_{DS}=	**0.998**	90% of max S_a (ASCE 7-16 Sect 21.4)
S_{MS}=	**1.496**	MCE_R, 5% Damped, adjusted for Site Class
S_{D1}=	**0.877**	Design, 5% Damped, at T=1s (Sect 11.4.5)
S_{M1}=	**1.315**	MCE_R, 5% Damped, at T=1s, adjusted for Site
F_a=	**1.000**	Short Period Site Coefficient
F_v=	**1.812**	Long Period Site Coefficient (7-16 Sect 21.3)
S_S=	**1.496**	MCE_R, 5% Damped at T=0.2s
S_1=	**0.726**	MCE_R, 5% Damped at T=1s
$PGA_{Probabilistic}$ (g)=	**0.683**	Peak Ground Acceleration, Probabilistic
$PGA_{Deterministic}$ (g)=	**0.845**	Peak Ground Acceleration, Deterministic
F_{PGA} (g)=	**1.1**	Site Coefficient for PGA
0.5*F_{PGA} (g)=	**0.550**	OK (Check $PGA_{Deterministic} > 0.5 \times F_{PGA}$)
0.8*PGA_M (g)=	**0.566**	PGA_M (g) (Determined from ASCE 7-16 Eq. 11.8-1)
Site Specific PGA_M (g) =	**0.683**	(Check $PGA_{Site\ Specific} > 0.8 \times PGA_M$)

NOVA Services
GEOTECHNICAL
MATERIALS
SPECIAL INSPECTION

Bunker Hill Multi-Dwelling Units
APNs 424-321-03 and 424-321-04, Bunker Hill Street, San Diego, CA, 92109

By:	GCD	Date:	July 2023
Job Number:	2022168	Figure:	G.1



NOVA Services

GEOTECHNICAL
MATERIALS
SPECIAL INSPECTION

Bunker Hill Multi-Dwelling Units
APNs 424-321-03 and 424-321-04, Bunker Hill Street, San Diego, CA, 92109

By:	GCD	Date:	July 2023
Job Number:	2022168	Figure:	G.2