REPORT OF GEOTECHNICAL INVESTIGATION
PROPOSED HOSPITAL TOWERS

NORTHWEST CORNER OF BARTON ROAD AND ANDERSON STREET
LOMA LINDA UNIVERSITY MEDICAL CENTER
LOMA LINDA, CALIFORNIA

Prepared for:

LOMA LINDA UNIVERSITY MEDICAL CENTER

Loma Linda, California

July 13, 2011

MACTEC Project 4953-10-0911

MACTEC

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engineering and constructing a better tomorrow

July 13, 2011

Loma Linda University Medical Center
c/o Mr. Brian Fling
Loma Linda University
Collaborative Project Management
11234 Anderson Street
Loma Linda, California 92354

Subject: **LETTER OF TRANSMITTAL**
Report of Geotechnical Investigation
Proposed Hospital Towers
Loma Linda University Medical Center
Northwest Corner of Barton Road and Anderson Street
Loma Linda, California
MACTEC Project 495310-0911

Dear Mr. Fling:

We are pleased to submit the results of our geotechnical investigation for the proposed hospital towers to be constructed adjacent to the east side of the existing main hospital building on the campus of Loma Linda University Medical Center in the city of Loma Linda, California. We submitted a report in draft form for this project on May 12, 2011. This report incorporates comments from the design team on our draft report. This investigation was conducted in general accordance with our proposal dated April 1, 2010 with addenda dated April 9, 2010, June 18, 2010, and February 7, 2011 and the agreement between Loma Linda Construction Management and MACTEC Engineering and Consulting, Inc., dated April 23, 2010.

The scope of our services was planned with you and you have provided us with plans and a description of the project. The detailed structural features of the project are not available at this time.

The results of our investigation and design recommendations are presented in this report. Please note that you or your representative should submit copies of this report to the appropriate governmental agencies for their review and approval prior to obtaining a building permit.

MACTEC Engineering and Consulting, Inc.
5628 East Slauson • Los Angeles, CA 90040-1554 • Phone: 323.889.5300 • 323.889-5398

It has been a pleasure to be of professional service to you. Please contact us if you have any questions or if we can be of further assistance.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Ethan Tsai
Project Engineer

Paul Elliott
Principal Engineering Geologist

Mark A. Murphy
Senior Engineer
Project Manager

Martin B. Hudson, Ph.D.
Chief Engineer

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PROPOSED HOSPITAL TOWERS

NORWEST CORNER OF BARTON ROAD AND ANDERSON STREET
LOMA LINDA UNIVERSITY HOSPITAL
LOMA LINDA, CALIFORNIA

Prepared for:

LOMA LINDA UNIVERSITY MEDICAL CENTER

Loma Linda, California

MACTEC Engineering and Consulting, Inc.

Los Angeles, California

July 13, 2011

Project 4953-10-0911

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EXECUTIVE SUMMARY

We have completed our geotechnical investigation of the site of the proposed hospital towers to be constructed on the campus of Loma Linda University Medical Center in Loma Linda, California. Our subsurface explorations, engineering analyses, and foundation design recommendations are summarized below.

It is proposed to construct dual hospital towers, designated as the University Hospital (UH)/Adult Care tower and the Children's Hospital tower, on the campus of Loma Linda University Medical Center in Loma Linda, California. The UH/Adult Care tower will consist of six levels above grade and one subterranean level. The Children's Hospital tower will consist of nine levels above grade and one subterranean level. The basement level (A Level), Level 1, and Level 2 of both proposed towers will be connected to provide access between the two towers and the A Level will extend to the existing main hospital building. The total footprint area at the base of the two towers will be approximately 120,000 to 125,000 square feet. In addition, new landscaping, hardscape, some possible short retaining walls and free-standing walls, and possibly a small amphitheater-like structure are planned for the area immediately to the northeast of the proposed Children's Hospital.

We explored the soil conditions by drilling nine borings and 13 Cone Penetration Tests (CPTs) at the site; fill soils, up to 4 feet thick, were encountered in our borings. Deeper fill could occur between borings, particularly near existing structures and underground utilities. The natural soils consist of loose to medium dense silty sand and sand with varying amounts of gravel. The upper soils are susceptible to hydroconsolidation and may become weaker and more compressible when wet. Ground water was not encountered within the 81-foot depth explored. The results of the corrosion studies indicate that the on-site soils are corrosive to ferrous metals, non-aggressive to copper, and that the potential for sulfate attack on portland cement concrete is considered negligible.

Based on the available geologic data, active or potentially active faults with the potential for surface fault rupture are not known to be located beneath or projecting toward the site. In our opinion, the potential for surface rupture at the site due to fault plane displacement propagating to the ground surface during the design life of the project is considered low. Although the site could be subjected to strong ground shaking in the event of an earthquake, this hazard is common in Southern California and the effects of ground shaking can be mitigated by proper engineering design and construction in conformance with current building codes and engineering practices.

Based on the historic-high ground-water level and the measurements from our prior borings, the potential for liquefaction and liquefaction-induced settlement is considered low; however, we estimate that the seismically-induced settlement above the historic-high ground-water level could be up to 2 inches beneath the site. The site is relatively level and the absence of nearby slopes precludes slope stability hazards. The potential for other geologic hazards such as tsunamis, seiches, flooding, and subsidence affecting the site is considered low. The site could be susceptible to subsidence due to nearby groundwater withdrawal based on USGS data. Such subsidence would be expected to be distributed over a wide region. The thickness of the sediments beneath the site which could be subject to subsidence is anticipated to be relatively thin so the potential for subsidence to impact structures at the site is considered relatively low. The potential for inundation at the site as a result of an earthquake-induced dam failure is considered low.

The existing fill soils are not considered suitable for support of foundations, floor slabs on grade, hardscape, or paving. However, the existing fill soils are anticipated to be automatically removed by the excavation for the lower levels of the proposed hospital towers. Therefore, the proposed hospital towers may be supported on a mat foundation established in the undisturbed natural soils at the planned excavation level. As an alternative to the use of a mat foundation, the proposed hospital towers could be supported on conventional spread footings established in the undisturbed natural soils at the planned excavation level, provided that the estimated total and differential settlements (both static and seismic) provided herein are acceptable to the structural engineer. Minor structures that are structurally separate from the proposed hospital towers, such as short retaining walls, free-standing walls, and the possible small amphitheater-like structure to be constructed to the northeast of the proposed Children's Hospital tower may be supported on conventional spread footings underlain by at least two feet of properly compacted fill soil if these structures are able to accommodate the estimated static and seismically-induced settlements discussed herein. If such structures will not be able to accommodate the estimated static and seismically-induced settlements, additional investigation and study may be necessary for specific structures.

All existing fill and the upper natural soils should be removed to allow for the placement of at least two feet of properly compacted fill beneath hardscape, concrete walkways, and paving. The required fill should be uniformly well compacted and observed and tested during placement. The on-site soils may be used in the required fill.

1.0 SCOPE

This report provides foundation design information for the proposed hospital towers. The location of the site is shown on Figure 1, Vicinity Map. The locations of the proposed hospital towers, existing buildings, and our exploration borings are shown on Figure 2, Plot Plan. The proposed Central Parking Structure and the Proposed East Parking Structure depicted on Figure 2 are not included in scope of this report; geotechnical recommendations will be provided for these structures in separate reports.

We previously performed a geotechnical investigation for the adjacent existing main hospital building and presented the results in a report dated September 18, 1964 (our Job No. 63628, issued under the name of a MACTEC legacy company, LeRoy Crandall & Associates). We also performed a geotechnical investigation for the nearby existing south wing of the existing main hospital building and presented the results in a report dated April 20, 1988 (our Job No. A-87027). We have reviewed the prior reports issued by LeRoy Crandall & Associates. We accept responsibility for the use and interpretation of the data presented in those reports, and we concur with the interpretation of data as presented in those reports.

This investigation was authorized to determine the static physical characteristics of the soils at the site of the proposed hospital towers, and to provide recommendations for foundation and retaining wall design, for floor slab and paving support, for temporary shoring, and for grading for the development. More specifically, the scope of our services included the following:

- Evaluate the existing surface and subsurface conditions within the area of the proposed construction;
- Perform a geologic-seismic hazards evaluation in conformance with Title 24 of the California Code of Regulations and with the California Geologic Survey (formerly the California Division of Mines and Geology, CDMG) Checklist for Review of Geologic/Seismic Reports for California Public Schools, Hospitals, and Essential Services Buildings (CDMG Note 48) to address geologic and seismic hazard considerations;
- Recommend appropriate foundation systems together with the necessary design parameters, including friction and passive resistance;
- Perform a site-specific ground motion hazard analysis;

- Determine the applicable seismic design parameters based on the California Building Code;
- Provide recommendations for floor slab support;
- Provide recommendations for excavation and temporary shoring;
- Provide recommendations for design of retaining walls and walls below grade;
- Provide recommendations for design of asphalt and portland cement concrete paving; and
- Provide recommendations relating to earthwork and grading.

The scope of this investigation did not include the assessment of general site environmental conditions for the presence of contaminants in the soils and ground water of the site.

Our recommendations are based on the results of our current and previous field explorations, laboratory tests, and appropriate engineering analyses. The results of our current field explorations and laboratory tests, which, together with our previous field exploration and laboratory tests, form the basis of our recommendations, are presented in Appendices A and B. The results of our previous explorations and laboratory tests are presented in Appendix C.

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, express or implied, is made as to the professional advice included in this report. This report has been prepared for Loma Linda University Medical Center and their design consultants to be used solely in the design of the proposed hospital towers. This report has not been prepared for use by other parties, and may not contain sufficient information for purpose of other parties or other uses.

2.0 PROJECT DESCRIPTION

It is proposed to construct dual hospital towers, designated as the University Hospital (UH)/Adult Care Tower and the Children's Hospital Tower, on the campus of Loma Linda University Medical Center in Loma Linda, California. The UH/Adult Care Tower will consist of six levels above grade and one subterranean level. The Children's Hospital Tower will consist of nine levels above grade and one subterranean level. The A level basement, Level 1, and Level 2 of both proposed towers will be connected to provide access between the two towers, and the A level will extend to the existing main hospital building. The existing utility tunnel that traverses the site of the proposed UH/Adult Care Tower is about at the same elevation as the proposed A Level of the new building; the existing tunnel is proposed to be left in place with the proposed building constructed around (over and adjacent to) the existing tunnel. Constructing the building in this manner will result in an interruption in the A Level at the location of the tunnel. The total footprint area at the base of the two towers will be approximately 120,000 to 125,000 square feet. In addition, new landscaping, hardscape, some possible short retaining walls and free-standing walls, and possibly a small amphitheater-like structure are planned for the area immediately to the northeast of the proposed Children's Hospital.

The dead-plus-live interior and perimeter column loads for the UH/Adult Care Tower are estimated by the design team to be 800 kips and 500 kips, respectively. The dead-plus-live interior and exterior column loads for the Children's Hospital Tower are estimated by the design team to be 1,100 kips and 750 kips, respectively. The typical column spacing for both towers will be 30 feet, with a maximum of about 36 feet. The lowest finished floor elevation (FFE) at the A Level is planned to be established at Elevation 1123. The ground surface of the site slopes down from the southeast to the northwest. Therefore, the basement walls (and the associated excavation) will be deeper toward the south. Accordingly, approximately 17 feet of excavation will be required to establish the lower level of the proposed hospital towers.

3.0 SITE CONDITIONS

The site is located immediately adjacent east to the existing main hospital building. The site is currently used as an asphalt-paved parking lot. The site slopes down from the southeast to northwest, with a difference in elevation of approximately 20 feet across the site of the proposed hospital towers. The proposed landscape/hardscape area to the northeast of the proposed Children's Hospital tower also slopes down from the southeast to the northwest, with a difference in elevation of approximately 16 feet across the site. Several existing one-story buildings are located at the site of the proposed landscape/hardscape area. Various underground utilities cross the site. An existing utility tunnel traverses the site, as shown on Figure 2.

4.0 EXPLORATIONS AND LABORATORY TESTS

The soil conditions beneath the site were explored by drilling nine borings to depths of 40 to 81 feet below the existing grade. To supplement the data obtained from borings, 13 cone penetrometer tests (CPTs) were advanced to depths of 31 to 60 feet. The CPTs were originally planned to extend to depths ranging from 60 to 80 feet below the existing grade; however, the majority of CPTs encountered refusal prior to achieving their target depth. Data were also available from our previous investigations for the adjacent sites. The locations of our current and prior borings and CPTs are presented on Figure 2. Details of the current explorations and the logs of the borings are presented in Appendix A. The results of the current CPTs are presented in Appendix B. The results of the prior field explorations are presented in Appendix C.

Laboratory tests were performed on selected samples obtained from the borings to aid in the classification of the soils and to determine the pertinent engineering properties of the foundation soils. The following tests were performed:

- Moisture content and dry density determinations.
- Percent passing No. 200 sieve.
- Direct shear.
- Consolidation.
- Hydroconsolidation.
- Compaction.
- Expansion Index.
- Stabilometer (R-Value).

All testing was done in general accordance with applicable ASTM specifications. Details of the current laboratory testing program and test results are presented in Appendix A. Details of the laboratory testing program and test results from the prior applicable borings are presented in Appendix C.

In addition, we performed field permeability tests at two selected locations. Details of the testing procedures and results are presented in Appendix D.

A soil corrosivity study, including soil corrosivity tests on five samples of the on-site soils, was performed by Schiff Associates (Schiff). The results of the soil corrosivity study are presented in Appendix E.

5.0 SOIL CONDITIONS

Fill soils, up to 4 feet thick, were encountered in the borings. The fill soils consist predominantly of silty sand and are not uniformly well compacted. Records of placement of the fill are not available and therefore the fill should be considered to be uncertified. Deeper fill could occur between borings, particularly near existing structures and underground utilities such as the existing utility tunnel. The fill next to the existing hospital basement (wall backfill) was placed under our observation; therefore, that fill can be considered to be certified fill.

The natural soils consist of loose to medium dense silty sand and sand with varying amounts of gravel. The upper soils are susceptible to hydroconsolidation and may become weaker and more compressible when wet.

Ground water was not encountered within the 81-foot depth explored.

The results of the corrosion studies indicate that the on-site soils are corrosive to ferrous metals, non-aggressive to copper, and that the potential for sulfate attack on portland cement concrete is considered negligible.

6.0 GEOLOGY

6.1 GEOLOGIC SETTING

Regionally, the site is located in a zone that straddles the Peninsular and Transverse geomorphic provinces. The Peninsular Range province is characterized by northwest/southeast trending alignments of mountains, hills and intervening basins (known as badlands), reflecting the influence of northwest trending major faults and folds, such as the nearby San Jacinto and Elsinore fault zones. These faults control the general geologic structural fabric of the region. This province extends northwesterly from Baja California into the Los Angeles basin and Western San Bernardino County. Its western and eastern extents are the Southern California offshore islands and Mojave Desert, respectively. The northern boundary of the province is the Transverse Ranges. The Transverse Ranges geomorphic province is characterized by east-west trending mountain ranges that include the San Gabriel and San Bernardino Mountains. The eastern boundary of the province is the Colorado Desert geomorphic province along the San Jacinto fault system.

Locally, the proposed site is located in the San Bernardino Valley on a broad alluvial fan bordering the San Timoteo Badlands to the south. He San Bernardino Mountains border the north side of the valley. Unconsolidated alluvium is the predominant surficial material (California Geological Survey, 2010). Consolidated Tertiary age sedimentary rocks underlie the alluvial deposits below the young sediments (USGS, 1963; USGS, 1991).

The San Bernardino area is a region of large-scale neo-tectonism, a result of the intersection of the east-west trending Transverse Ranges Province represented by the San Bernardino Mountains and the northwest trending Peninsular Ranges Province. The San Bernardino Valley is a structural depression between the San Jacinto Fault on the west and the San Bernardino Mountains on the north and northeast. The San Andreas Fault is located at the base of the San Bernardino Mountains. The relationship of the site to the local geologic conditions is depicted on Figure 3, Local Geology; geology in the vicinity of the site is shown on Figure 4, Regional Geology; the location of major faults and earthquake epicenters in Southern California are shown on the Regional Faults and Seismicity Map, Figure 5.

6.2 GEOLOGIC MATERIALS

The proposed site is primarily underlain by unconsolidated alluvial material overlain by shallow artificial fill associated with previous grading at the site. The alluvial deposits are Holocene detrital material shed from the San Bernardino Mountains to the north.

Artificial fill was measured to be a maximum of about four feet thick in our borings and consists primarily of silty sand. Holocene age alluvial deposits below the fill consist primarily of light brown to gray poorly graded sand and silty sand with discontinuous gravelly and cobbly layers. Densities of the material range from medium dense to dense with minor very dense zones. Beneath the younger alluvial deposits are older alluvial deposits consisting primarily of indurated clay-bearing deposits with gravelly, pebbly, and cobbly zones (USGS, 1963; USGS, 1991).

6.3 GROUND WATER

The site is in Section 26, Township 1 South, Range 4 West near the southern boundary of the Bunker Hill Ground Water Basin. The alluvial materials beneath the site are part of the water-bearing deposits of the basin. Historical high ground-water levels in the area occurred in 1945 when ground-water levels were roughly between Elevations 1050 to 1075 north of the University campus corresponding to a depth of approximately 90 to 65 feet, respectively, below the site's existing ground surface. (USGS, 1963)

According to our prior borings drilled in the vicinity of the site, ground water was encountered in borings drilled in 1963 at an Elevation of 1076 corresponding to a depth of 64 feet at the proposed site (LeRoy Crandall & Associates, 1963). Ground water was not encountered in the borings drilled in 1984 to a maximum depth of 61 feet, corresponding to about Elevation 1080 (LeRoy Crandall & Associates, 1984). Water was not encountered in the borings drilled in 1987 to a maximum depth of 80 feet, corresponding to about Elevation 1057 (LeRoy Crandall & Associates, 1987). Current borings in the site vicinity also encountered no ground water to a maximum depth of 80 feet below the existing ground surface.

Ground-water Level Data for Well No. 01S04W25E007S, located 0.5 mile north of the site, indicated a maximum high ground-water level at a depth of 39.7 feet in 2005 (2010, California

Department of Water Resources). This measurement corresponds to an Elevation of 1040.3 feet above mean sea level, corresponding to 99.7 feet below the ground surface at the proposed site.

Based on the data discussed above, the historical maximum high ground-water level for the site is conservatively estimated to be deeper than 60 feet below the existing ground surface.

6.4 FAULTS

The numerous faults in Southern California include active, potentially active, and inactive faults. The criteria for these major groups are based on criteria developed by the California Geological Survey (previously the California Division of Mines and Geology) for the Alquist-Priolo Earthquake Fault Zoning Program (Hart, 1999). By definition, an active fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault is a fault that has demonstrated surface displacement of Quaternary age deposits (last 1.6 million years). Inactive faults have not moved in the last 1.6 million years. A list of nearby active faults and the distance in kilometers between the site and the nearest point on the fault, the maximum magnitude, and the slip rate for the fault is given in Table 1. A similar list for potentially active faults is presented in Table 2. The faults in the vicinity of the site are shown in Figure 5.

Active Faults

San Jacinto Fault Zone

The active San Jacinto fault zone, considered one of the most seismically active faults in Southern California, is located approximately 0.35 miles southwest of the site. This fault zone includes several en echelon branches or segments and displays many features characteristic of recent activity such as fault line scarps, sag ponds, and ground-water barriers. Historically, the San Jacinto fault zone has triggered a number of small to moderate-sized earthquakes and at least four large tremors of local magnitudes greater than 6.0. These four tremors were the Imperial Valley earthquake of May 18, 1940 (local magnitude of 7.1), the Borrego Mountain earthquake of April 9, 1968 (local magnitude of 6.5), and the November 23 and 24, 1987 Westmorland earthquakes (respective local magnitudes of 6.0 and 6.3). The Imperial Valley and the Borrego Mountain earthquakes occurred on the Imperial fault and the Coyote Creek fault, respectively, wich are both considered to be part of the San Jacinto fault zone. The Westmorland earthquakes resulted from movement on the Superstition Hills fault, which is considered to be part of the San Jacinto fault

zone. The California Geological Survey (2003) has assigned a maximum moment magnitude of 6.6 to 7.2 to the several segments of the San Jacinto fault zone. A maximum moment magnitude of 7.2 has been assigned to the Anza segment.

San Andreas Fault Zone

The active San Andreas fault zone is located about 7.2 miles north of the site. This fault zone, California's most prominent geological feature, trends generally northwest for almost the entire length of the state. The southern segment of the fault is approximately 280 miles long and extends from the Transverse Ranges west of Tejon Pass on the north to the Mexican border and beyond on the south. Wallace (1968) estimated the recurrence interval for a magnitude 8.0 earthquake along the entire fault zone to be between 50 and 200 years. Sieh (1984) estimated a recurrence interval of 140 to 200 years. The 1857 Fort Tejon earthquake was the last major earthquake along the San Andreas fault zone in Southern California.

Cucamonga Fault

The active Cucamonga fault is located approximately 13.8 miles northwest of the site. This fault zone borders the southern front of the San Gabriel Mountains and consists of an approximately ½ mile wide east-striking thrust fault complex. Although the east and west terminations of the Cucamonga fault are not well defined, the fault is generally considered to extend from San Antonio Canyon eastward to Lytle Creek. Along its 15½ mile extent, movement on the Cucamonga fault zone has created prominent fault scarps that disrupt Quaternary alluvial fans flanking the southern margin of the San Gabriel Mountains (Morton and Matti, 1987). Recent studies indicate alluvial deposits as young as 1,750 to 1,000 years old have been offset by the fault. Also, fault scarp morphology and relations with alluvial units suggest that the eastern 9 miles of the Cucamonga fault zone may have been more seismically active than the western portion over the last 4,000 years.

Blind Thrust Fault Zones

Several buried thrust faults, commonly referred to as blind thrusts, underlie the Los Angeles Basin at depth. These faults are not exposed at the ground surface and are typically identified at depths greater than 1.86 miles. These faults do not present a potential surface fault rupture hazard.

However, the following described blind thrust faults are considered active and potential sources for future earthquakes.

Puente Hills Blind Thrust

The Puente Hills Blind Thrust fault (PHBT) is defined based on seismic reflection profiles, petroleum well data, and precisely located seismicity (Shaw et al., 2002). This blind thrust fault system extends eastward from downtown Los Angeles to Brea (in northern Orange County) and overlies the Elysian Park Thrust. The PHBT includes three north-dipping segments, named from east to west as the Coyote Hills segment, the Santa Fe Springs segment, and the Los Angeles segment. These segments are overlain by folds expressed at the surface as the Coyote Hills, Santa Fe Springs Anticline, and the Montebello Hills. The Santa Fe Springs segment of the PHBT is believed to be the causative fault of the October 1, 1987 Whittier Narrows Earthquake (Shaw et al., 2002). The PHBT underlies the site at depth. Postulated earthquake scenarios for the PHBT include single segment fault ruptures capable of producing an earthquake of magnitude 6.5 to 6.6 (M_w) and a multiple segment fault rupture capable of producing an earthquake of magnitude 7.1 (M_w). The PHBT is not exposed at the ground surface and does not present a potential for surface fault rupture. However, based on deformation of late Quaternary age sediments above this fault system and the occurrence of the Whittier Narrows earthquake, the PHBT is considered an active fault capable of generating future earthquakes beneath the Los Angeles Basin. An average slip rate of 0.03 inches per year and a maximum magnitude of 7.1 are estimated by the California Geological Survey (2003) for the Puente Hills Blind Thrust. The vertical surface projection of the postulated Puente Hills Blind Thrust is about 35 miles west of the site at the closest point.

San Joaquin Hills Thrust

Until recently, the southern Los Angeles Basin has been estimated to have a low seismic hazard relative to the greater Los Angeles region (Working Group on California Earthquake Probabilities, 1995; Dolan et al., 1995). This estimation is generally based on the fewer number of known active faults and the lower rates of historic seismicity for this area. However, several recent studies by Grant et al. (2000, 2002) suggest that an active blind thrust fault system underlies the San Joaquin Hills. This postulated blind thrust fault is believed to be a faulted anticlinal fold, parallel to the Newport-Inglewood fault zone (NIFZ) but considered a distinctly separate seismic source (Grant et al., 2002). The recency of movement and Holocene slip rate of this fault are not known.

However, the fault, if it exists, has been estimated to be capable of producing a Magnitude 6.8 to 7.3 earthquake (Grant et al., 2002). This estimation is based primarily on coastal geomorphology and age-dating of marsh deposits that are elevated above the current coastline.

The vertical surface projection of the postulated San Joaquin Hills Thrust is about 39 miles southwest of the site at the closest point. This thrust fault is not exposed at the surface and does not present a potential surface fault rupture hazard. The California Geological Survey (2003) considers this postulated fault to be active and estimates an average slip rate of 0.02 inches per year and a maximum moment magnitude of 6.6 for the San Joaquin Hills Thrust.

Potentially Active Faults

Arrowhead Fault

The closest potentially active fault to the site is the Arrowhead fault located about 10.4 miles to the northeast. The Arrowhead is a reverse fault approximately 9.3 miles in length.

Santa Ana Fault

The potentially active Santa Ana fault is located about 10.8 miles northeast of the site. This north-dipping reverse fault trends west to east from Running Springs to Pipes Wash, a distance of about 25 miles. The Santa Ana fault, Waterman Canyon fault, and Pipes Canyon fault form a north-dipping thrust zone along the southern flank of the San Bernardino Mountains. The latest offset in portions of this thrust zone are Pleistocene age (Meisling, 1984). The Santa Ana fault is considered potentially active (Jennings, 1994).

6.5 GEOLOGIC-SEISMIC HAZARDS

Fault Rupture

The site is not within a currently established Alquist-Priolo Earthquake Fault (AP) Zone for surface fault rupture hazards. The closest active fault to the site with the potential for surface fault rupture is the San Jacinto fault zone located approximately 1,000 feet to the southwest. Based on the available geologic data, active or potentially active faults with the potential for surface fault rupture are not known to be located directly beneath or projecting toward the site. Therefore, the potential for

surface rupture due to fault plane displacement propagating to the surface at the site during the design life of the project is considered low.

Seismicity

Earthquake Catalog Data

The seismicity of the region surrounding the site was determined from research of an electronic database of seismic data (Southern California Seismographic Network, 2010). This database includes earthquake data compiled by the California Institute of Technology from 1932 through 2010 and data for 1812 to 1931 compiled by Richter and the U.S. National Oceanic Atmospheric Administration (NOAA). The search for earthquakes that occurred within 100 kilometers of the site indicates that 656 earthquakes of Richter magnitude 4.0 and greater occurred from 1932 through 2010; four earthquakes of magnitude 6.0 or greater occurred between 1906 and 1931; and two earthquake of magnitude 7.0 or greater occurred between 1812 and 1905. A list of these earthquakes is presented as Table 3. Epicenters of moderate and major earthquakes (greater than magnitude 6.0) are shown in Figure 5.

The information for each earthquake includes date and time in Greenwich Civil Time (GCT), location of the epicenter in latitude and longitude, quality of epicentral determination (Q), depth in kilometers, distance from the site in kilometers, and magnitude. Where a depth of 0.0 is given, the solution was based on an assumed 16-kilometer focal depth. The explanation of the letter code for the quality factor of the data is presented on the first page of the table.

Historic Earthquakes

A number of earthquakes of moderate to major magnitude have occurred in the Southern California area within the last 100 years. A partial list of these earthquakes is included in the table on the following page.

List of Historic Earthquakes

Earthquake (Oldest to Youngest)	Date of Earthquake	Magnitude	Distance to Epicenter (Miles)	Direction to Epicenter
San Bernardino Mtns.	September 20, 1907	6.0	12	NE
Lake Elsinore	May 15, 1910	6.0	26	SSW
San Jacinto-Hemet area	April 21, 1918	6.8	31	SSE
Loma Linda area	July 23, 1923	6.3	4	S
Long Beach	March 11, 1933	6.4	50	SW
San Clemente Island	December 26, 1951	5.9	106	SW
Tehachapi	July 21, 1952	7.5	123	NW
San Fernando	February 9, 1971	6.6	70	NW
Whittier Narrows	October 1, 1987	5.9	47	W
Sierra Madre	June 28, 1991	5.8	45	NW
Landers	June 28, 1992	7.3	48	ENE
Big Bear	June 28, 1992	6.4	27	ENE
Northridge	January 17, 1994	6.7	74	WNW
Hector Mine	October 16, 1999	7.1	68	NE

Prepared by PER 5/4/11
Checked by PJE 5/5/11

The site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in Southern California and the effects of ground shaking can be mitigated by proper engineering design and construction in conformance with current building codes and engineering practices.

Slope Stability

According to the County of San Bernardino Seismic Safety Element (2005) and the City of Loma Linda Seismic Safety Element (2009), the site is not located within an area of steep slopes and slope instability. The site of the proposed towers is located on gently sloping ground with no slope stability problems. There is no potential for lurching (movement at right angles to a steep slope during strong ground shaking). The slopes on Loma Linda Hill appear to be stable. Additionally, the property is not known to be on or in the path of any existing or potential landslide.

Liquefaction and Seismically-Induced Settlement

Liquefaction potential is greatest where the ground water level is shallow, and submerged loose, fine sands occur within a depth of about 50 feet or less. Liquefaction potential decreases as grain

size and clay and gravel content increase. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases.

According to the County of San Bernardino Seismic Safety Element (2005) and the City of Loma Linda Seismic Safety Element (2009), the site is not located within an area that has a potential for liquefaction. In addition, as previously stated, the historic-high ground-water level is conservatively estimated to be deeper than 60 feet beneath the site. Accordingly, due to the dense nature of geologic materials below a depth of 60 feet, the potential for liquefaction adversely impacting the proposed project is considered to be low.

Seismic settlement is often caused by loose to medium-dense granular soils densified during ground shaking. Uniform settlement beneath a given structure would cause minimal damage. Dry and partially saturated soils as well as saturated granular soils are subject to seismically-induced settlement. Generally, differential settlements induced by ground failures such as liquefaction, flow slides, and surface ruptures would be much more severe than those caused by densification alone. To evaluate the site-specific potential for seismically-induced settlement above the historic-high ground-water level, we have computed the peak ground acceleration (PGA) for the ground motion with a 2% probability of being exceeded in 50 years. This ground motion, which has a return period of 2,475 years, was corrected to be compatible with a Magnitude 7.5 earthquake. The Magnitude-7.5 compatible PGA was computed probabilistically using EZ-FRISK. The details of the attenuation equations used are described in Section 7.4. We have used a PGA for our liquefaction analyses that is ⅔ of the Magnitude-7.5 compatible PGA computed using EZ-FRISK for equivalence with the design level earthquake as defined in the 2010 California Building Code and ASCE 7-05. The Magnitude 7.5-compatible PGA computed in this manner for the subject site is 0.69g.

We have computed the potential for seismically-induced settlement above the postulated historic-high ground-water level in accordance with the methodology of Tokimatsu and Seed (1987) using both the results of the Standard Penetration Tests (SPTs) performed in our borings and the results of our Cone Penetration Tests (CPTs) performed at the site. Based on the results of our analyses, we estimate that the seismically-induced settlement could be up to 2 inches beneath the foundations. Differential seismically-induced settlement could be up to 1 inch across the width of the proposed hospital towers.

Subsidence

Extensive subsidence has occurred in the western portion of the Bunker Hill Ground Water Basin as a result of extraction of ground water and reduction in artesian head. This subsidence extends to the University as determined by the United States Geological Survey (Lofgren, 1971). Total subsidence in the vicinity of Loma Linda was measured at 1.3 feet from 1943 to 1968-1969 (Lofgren, 1971). Large scale subsidence is not expected to cause extensive damage to individual structures. Recent measures by water authorizes have mitigated the over-extraction of ground water to minimize broad areal subsidence. The potential for significant additional subsidence occurring beneath the site is considered low.

Tsunamis, Inundation, Seiches, and Flooding

The site is not within a potential tsunami inundation hazard zone and the risk of tsunami affecting the site is low. The site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced seiches (wave oscillations in an enclosed or semi-enclosed body of water). The site is not in an area of flooding potential as defined by the County of San Bernardino Seismic Safety Element.

6.6 CONCLUSIONS

Based on the available geologic data, active or potentially active faults with the potential for surface fault rupture are not known to be located beneath or projecting toward the site. In our opinion, the potential for surface rupture at the site due to fault plane displacement propagating to the ground surface during the design life of the project is considered low. Although the site could be subjected to strong ground shaking in the event of an earthquake, this hazard is common in Southern California and the effects of ground shaking can be mitigated by proper engineering design and construction in conformance with current building codes and engineering practices.

Based on the historic-high ground-water level and the measurements from our current and prior explorations, the potential for liquefaction and liquefaction-induced settlement is considered low; however, we estimate that the seismically-induced settlement above the historic-high ground-water level could be up to 2 inches beneath the foundations. The site is relatively level and the absence of nearby slopes precludes slope stability hazards. The potential for other geologic hazards such as tsunamis, seiches, flooding, and subsidence affecting the site is considered low. The site could be

susceptible to subsidence due to nearby groundwater withdrawal based on USGS data. Such subsidence would be expected to be distributed over a wide region. The thickness of the sediments beneath the site which could be subject to subsidence is anticipated to be relatively thin so the potential for subsidence to impact structures at the site is considered relatively low. The potential for inundation at the site as a result of an earthquake-induced dam failure is considered low.

7.0 RECOMMENDATIONS

7.1 GENERAL

The existing fill soils are not considered suitable for support of foundations, floor slabs on grade, hardscape, or paving. However, the existing fill soils are anticipated to be automatically removed by the excavation for the lower level of the proposed hospital towers. Therefore, the proposed hospital towers may be supported on a mat foundation established in the undisturbed natural soils at the planned excavation level. As an alternative to the use of a mat foundation, the proposed hospital towers could be supported on conventional spread footings established in the undisturbed natural soils at the planned excavation level, provided that the estimated total and differential settlements (both static and seismic) provided herein are acceptable to the structural engineer.

If a mat foundation is used, a layer of properly compacted fill up to 12 inches in thickness would still allow the bottom of the excavation to be treated as "undisturbed natural soils" for the purpose of mat support.

The foundations and utility connections to the proposed hospital towers, in addition to the connection to the existing main hospital building and the existing utility tunnel, should be designed to accommodate the estimated total and differential settlements (both static and seismic) discussed herein. If a mat foundation is utilized, a layer of properly compacted fill can be placed between the top of mat foundation and bottom of floor slab-on-grade to accommodate the necessary subslab utilities.

The existing utility tunnel should either be bridged-over by the new structure such that structural loads are not imposed from the new structure on the utility tunnel, or the existing tunnel should be evaluated for the effects of new surcharge loads.

If any portion of an existing structure, particularly the existing hospital building, extends below a plane extending downward at an inclination of 1:1 (horizontal to vertical) from the bottom of the new foundations, the ability of that structure to resist the lateral surcharge pressure imposed by the new foundations should be evaluated. We can provide recommendations for the lateral surcharge pressures when the actual loads and foundation configurations are finalized.

Minor structures that are structurally separate from the proposed hospital towers, such as short retaining walls, free-standing walls, and the possible small amphitheater-like structure to be constructed to the northeast of the proposed Children's Hospital tower may be supported on conventional spread footings underlain by at least two feet of properly compacted fill soil if these structures are able to accommodate the estimated static and seismically-induced settlements discussed herein. If such structures will not be able to accommodate the estimated static and seismically-induced settlements, additional investigation and study may be necessary for specific structures.

All existing fill and the upper natural soils should be removed to allow for the placement of at least 2 feet of properly compacted fill beneath hardscape, concrete walkways, and paving. The required fill should be uniformly well compacted and observed and tested during placement. The on-site soils may be used in the required fill.

7.2 FOUNDATIONS

Recommendations are provided below for support of the hospital towers on a mat foundation or on spread footing foundations. In addition, recommendations are provided for foundation suppot for new minor structures at the site.

Bearing Value – Hospital Towers (Mat Foundation)

We have assumed that the proposed hospital towers, supported on mat foundations, will not impose an average dead-plus-live load pressure of more than 2,000 pounds per square foot on the underlying soils. The undisturbed natural soils at the planned foundation level will be more than adequate to support this level of loading. Note, however, that a layer of properly compacted fill up to 12 inches in thickness would still allow the bottom of the excavation to be treated as "undisturbed natural soil" for the purpose of mat support. Static dead-plus-live load pressures in localized areas should be limited to 4,000 pounds per square foot. The excavation should be deepened as necessary to extend into satisfactory soils.

A one-third increase may be used for wind or seismic loads. The recommended bearing value is a net value, and the weight of concrete in the footings can be taken as 50 pounds per cubic foot; the weight of soil backfill can be neglected when determining the downward loads.

Bearing Value – Hospital Towers (Spread Footings)

Spread footings carried at least 1 foot into the undisturbed natural soils and at least 2 feet below the lowest adjacent grade or floor level may be designed to impose a net dead-plus-live load pressure of 4,000 pounds per square foot. The excavations should be deepened as necessary to extend into satisfactory soils.

A one-third increase may be used for wind or seismic loads. The recommended bearing value is a net value, and the weight of concrete in the footings can be taken as 50 pounds per cubic foot; the weight of soil backfill can be neglected when determining the downward loads.

Bearing Value – Minor Structures (Spread Footings)

For support of minor structures, spread footings carried at least 2 feet below the lowest adjacent grade or floor level and underlain by at least 2 feet of properly compacted fill compacted to 95% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction may be designed to impose a net dead-plus-live load pressure of 4,000 pounds per square foot. The excavations should be deepened as necessary to extend into satisfactory soils.

A one-third increase may be used for wind or seismic loads. The recommended bearing value is a net value, and the weight of concrete in the footings can be taken as 50 pounds per cubic foot; the weight of soil backfill can be neglected when determining the downward loads.

Settlement

We estimate that the static settlement of the proposed hospital towers, supported on mat foundations in the manner described above, will be on the order of 1 inch. Differential settlement between localized areas of high and low bearing pressures is expected to be about ½ inch or less; however, more detailed estimates of deformations of the mat due to dead-plus-live loads can be obtained using a computation using the modulus of subgrade reaction given below.

If supported on spread footings in the manner recommended, we estimate that the static settlement of the UH/Adult Care Tower would be on the order of ¾ inch with a differential settlement of ½ inch between adjacent columns. If supported on spread footings in the manner recommended, we

estimate that the static settlement of the Children's Hospital Tower would be on the order of 1¼ inches with a differential settlement of ¾ inch between adjacent columns.

We anticipate that the static total and differential settlement of proposed minor structures will be within acceptable limits; however, we should be provided with the structural loads and details of the proposed structures when available so that modifications can be made to our recommendations, if necessary. In addition, the proposed hospital towers and minor structures should be designed to accommodate the seismically-induced settlement (2 inches total and 1 inch differential), as discussed previously, in addition to the static settlement given above.

Lateral Resistance

Lateral loads may be resisted by soil friction and by the passive resistance of the soils. A coefficient of friction of 0.4 may be used between the mat foundations or footings and the supporting soils. The passive resistance of natural soils or properly compacted fill soils may be assumed to be equal to the pressure developed by a fluid with a density of 300 pounds per cubic foot. A one-third increase in the passive value may be used for wind or seismic loads. The frictional resistance and the passive resistance of the soils may be combined without reduction in determining the total lateral resistance.

Modulus of Subgrade Reaction

For structural analyses of the foundations, an average vertical modulus of subgrade reaction of 150 pounds per cubic inch may be used. This value is a unit value for use with a 1-foot-square area. The modulus should be reduced in accordance with the following equation when used with larger foundations:

$$K_R = K\left[\frac{B+1}{2B}\right]^2$$

where:

K	=	unit subgrade modulus
K_R	=	reduced subgrade modulus
B	=	foundation width (in feet)

Ultimate Values

The recommended bearing and lateral load design values above are for use with loadings determined by a conventional working stress design. When considering an ultimate design approach, the recommended design values shall be multiplied by the following factors:

Design Item	Ultimate Design Factor
Bearing Value	3.0
Passive Pressure	1.5
Coefficient of Friction	1.5

In no event, however, shall foundation sizes be less than those required for dead-plus-live loads when using the working stress design values.

7.3 DYNAMIC SITE CHARACTERISTICS

Mapped Seismic Design Parameters

We have determined the mapped seismic design parameters in accordance with the Section 1613A of the 2010 edition of the California Building Code (2010 CBC) and Section 11.4 of ASCE 7-05 Standard (ASCE, 2005) using the United States Geological Survey (USGS, 2011) program, Earthquake Ground Motion Parameters, Version 5.1.0. The mapped seismic design parameters may be taken as presented in the following table:

Parameter	Mapped Value
S_S (0.2 second period, Site Class B)	1.85g
S_1 (1.0 second period, Site Class B)	0.65g
Site Class	C
F_a	1.0
F_v	1.3
$S_{MS} = F_a S_S$ (0.2 second period)	1.85g
$S_{M1} = F_v S_1$ (1.0 second period)	0.85g
$S_{DS} = 2/3 \times S_{MS}$ (0.2 second period)	1.23g
$S_{D1} = 2/3 \times S_{M1}$ (1.0 second period)	0.57g

Site-Specific Response Spectra

We have performed a Probabilistic Seismic Hazard Analyses (PSHA) and a Deterministic Seismic Hazard Analyses (DSHA) using the computer program EZ-FRISK (Risk Engineering, 2010) in order to develop site-specific response spectra in accordance with the 2010 CBC and Chapter 21 of ASCE 7-05. The nearby faults are summarized in Tables 1 and 2, along with the maximum magnitude and the slip rate assigned to each fault. In addition to known fault sources, background seismicity was also included in the PSHA. For the DSHA, a composite deterministic response spectrum was compiled from the maximum of the 84th percentile spectral ordinates computed for known nearby faults. The probabilistic and deterministic response spectra were computed using the maximum rotated component methodology of Huang, Whittaker and Luco (2008).

The site-specific probabilistic and deterministic response spectra were developed using the average ground motions obtained from the Next Generation Attenuation (NGA) relationships of Abrahamson and Silva (2008), Boore and Atkinson (2008), Campbell and Bozorgnia (2008) and Chiou and Youngs (2008). For all four NGA relationships, we have used an average shear wave velocity in the upper 30 meters equal to 440 meters per second based on our current seismic shear wave velocity measurements. We have used a depth to a shear wave velocity of 1,000 meters per second beneath the site ($Z_{1.0}$) of 500 meters and a depth to a shear wave velocity of 2,500 meters per second ($Z_{2.5}$) of 1 kilometer based on the available geologic data. To account for the uncertainty in the ground motion attenuation relationships, each relationship was integrated to three standard deviations beyond the median.

In accordance with Chapter 21 of ASCE 7-05, the probabilistic Maximum Considered Earthquake (MCE) response spectrum was taken as response spectrum with a 2% probability of being exceeded in 50 years. ASCE 7-05 defines the deterministic MCE response spectrum as the maximum of the composite deterministic response spectrum and the deterministic lower limit, as defined on Figure 21.2-1 of ASCE 7-05. The site-specific MCE response spectrum was then taken as a composite of the probabilistic and deterministic MCE response spectra, determined as described above, which consisted of the lesser of the spectral ordinates between the two spectra. The deterministic spectrum was controlled at all periods analyzed by a Magnitude 7.88 rupture of the combined San Bernardino Valley, San Jacinto Valley, Anza, Coyote Creek, Borrego, and Superstition Mountain segments of the San Jacinto fault. The site-specific MCE response spectra are presented on Figures

6.1, each for 2%, 5%, and 10% of critical structural damping. The components of the 5% damped site-specific MCE response spectrum are shown on Figures 6.2 through 6.5. The site-specific design response spectrum was computed by multiplying the ordinates of the site-specific MCE response spectrum by two-thirds, with a lower limit at all periods of 80% of the spectral ordinates of the design response spectrum in ASCE 7-05. The site-specific design response spectra are presented on Figures 7.1, each for 2%, 5%, and 10% of critical structural damping. The components of the 5% damped site-specific design response spectrum are shown on Figures 7.2 through 7.4. The site-specific MCE and design earthquake response spectra in digitized form are shown on Tables 4 and 5.

Based on the results of our analyses, the site-specific design acceleration parameters, as defined in Section 21.4 of ASCE 7-05, S_{DS} and S_{D1}, may be taken as 1.69g, and 1.52g, respectively. The site-specific MCE acceleration parameters, S_{MS} and S_{M1}, may be taken as 2.54g and 1.28g, respectively.

7.4 FLOOR SLAB SUPPORT

If a mat foundation is utilized, the lower floor slab for the proposed hospital towers may be supported on a layer of fill above the top of the mat (to allow utilities to be placed in the fill layer). Alternatively, the top of the mat could be used as the floor slab. The natural soils at the bottom of the planned excavation will offer adequate support for the mat foundation at the lower subterranean level. Note, however, that a layer of properly compacted fill up to 12 inches in thickness would still allow the bottom of the excavation to be treated as “natural soil” for the purpose of mat support.

If spread footings are utilized and if the subgrade is prepared as recommended in the grading section of this report, the building floor slabs may be supported on grade.

Construction activities and exposure to the environment can cause deterioration of the prepared subgrade. Therefore, we recommend our that our field representative observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade.

For floor slabs over soils with connection to soils below the foundations or adjacent to the building, if vinyl or other moisture-sensitive floor covering is planned, we recommend that the floor slab in

those areas be underlain by a capillary break consisting of a vapor-retarding membrane over a 4-inch-thick layer of gravel. A 2-inch-thick layer of sand should be placed between the gravel and the membrane to decrease the possibility of damage to the membrane. We suggest the following gradation for the gravel:

Sieve Size	Percent Passing
¾"	90 - 100
No. 4	0 - 10
No. 100	0 - 3

A low-slump concrete should be used to reduce possible curling of the slab. A 2-inch-thick layer of coarse sand can be placed over the vapor retarding membrane to reduce slab curling. If this 2-inch-thick layer of sand is placed over the vapor barrier, care should be taken that water is not introduced into the sand layer prior to placement of the slab (such as due to rainfall or other reasons), and the sand layer should not extend continuously to the soils exterior to the building such that water could migrate through the sand under the floor slab. If this sand bedding is used, care should be taken during the placement of the concrete to prevent displacement of the sand. The concrete slab should be allowed to cure properly before placing vinyl or other moisture-sensitive floor covering.

Floor slabs placed on a layer of compacted fill above mat foundations, where that compacted fill is not continuous with soils below or adjacent to the building, do not need to have a vapor barrier.

7.5 EXCAVATION AND SLOPES

Based on information provided to us, excavation of up to approximately 17 feet is currently planned for the construction of the proposed basement level. Ground water was not encountered within the approximately 80-foot depth of our current explorations and the historic-high ground-water level is at a depth deeper than 60 feet below the existing grade. Therefore, we do not anticipate ground water impacting the proposed construction.

Where the necessary space is available, temporary unsurcharged embankments with slope height of less than 15 feet may be sloped back at 1:1 (horizontal to vertical) or flatter without shoring. Where the excavation depth exceeds 15 feet, the temporary unsurcharged embankment may be sloped back at 1½:1 or flatter without shoring. Unshored excavations should not extend below a 2:1 plane extending downward from the bottoms of adjacent building foundations. Where such situations

exist, we should be given the opportunity to review the conditions and make any necessary modifications to this recommendation.

The excavations should be observed by personnel of our firm so that any necessary modifications based on variations in the soil conditions encountered can be made. All applicable safety requirements and regulations, including OSHA regulations, should be met.

Where sloped embankments are used, the tops of the slopes should be barricaded to prevent vehicles and storage loads within 5 feet of the tops of the slopes. A greater setback may be necessary when considering heavy vehicles, such as concrete trucks and cranes. We should be advised of such heavy vehicle loadings so that specific setback requirements can be established. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces.

7.6 SHORING

General

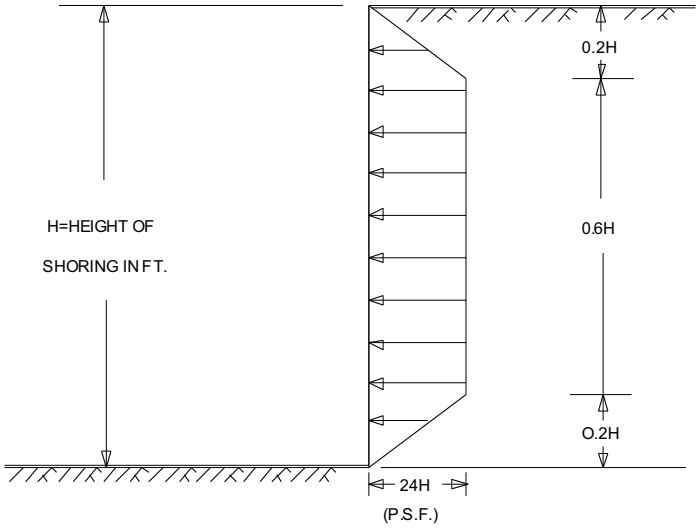
Where there is not sufficient space for sloped embankments, shoring will be required. One method of shoring would consist of steel soldier piles placed in drilled holes, backfilled with concrete, and either cantilevered or tied back with earth anchors. Some difficulty may be encountered in the drilling of the soldier piles and the anchors because of caving in the sandy and gravelly deposits. Special techniques and measures may be necessary in some areas to permit the proper installation of the soldier piles and/or tie-back anchors. In addition, if there is not sufficient space to install the tie-back anchors to the desired lengths on any side of the excavation, the soldier piles of the shoring system may be internally braced.

The following information on the design and installation of the shoring is as complete as possible at this time. We can furnish any additional required data as the design progresses. Also, we suggest that our firm review the final shoring plans and specifications prior to bidding or negotiating with a shoring contractor.

Lateral Pressures

For design of cantilevered shoring, a triangular distribution of lateral earth pressure may be used. It may be assumed that the retained soils with a level surface behind the cantilevered shoring will exert a lateral pressure equal to that developed by a fluid with a density of 35 pounds per cubic foot. Where retained soils are sloped at 1:1 above the shoring, it may be assumed that the soils will exert lateral pressures equal to that developed by a fluid with a density of 70 pounds per cubic foot.

For the design of tied-back or braced shoring, we recommend the use of a trapezoidal distribution of earth pressure. The recommended pressure distribution, for the case where the grade is level behind the shoring, is illustrated in the following diagram with the maximum pressure equal to 24H in pounds per square foot, where H is the height of the shoring in feet. Where a combination of sloped embankment and shoring is used, the pressure would be greater and must be determined for each combination. However, where the required soils are sloped at 1:1 above the shoring, it may be assumed that the soils will exert a lateral pressure equal to 48H pounds per square foot.



In addition to the recommended earth pressure, the upper 10 feet of shoring adjacent to the streets and vehicular traffic areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the shoring due to normal street traffic. If the traffic is kept back at least 10 feet from the shoring, the traffic surcharge may be neglected. Furthermore, adjacent to existing structures, the shoring system

should be designed for the appropriate lateral surcharge pressures imposed by the adjacent foundations of the structures unless the foundations are underpinned or the proper setback is incorporated. Any lateral surcharge pressures imposed by the adjacent foundations could be computed when the relative locations, sizes, and loads of these foundations are known. Furthermore, the shoring system should be designed to support the lateral surcharge pressures imposed by concrete trucks and other heavy construction equipment placed near the shoring system.

Design of Soldier Piles

For the design of soldier piles spaced at least two diameters on centers, the allowable lateral bearing value (passive value) of the soils below the level of excavation may be assumed to be 600 pounds per square foot per foot of depth at the excavated surface, up to a maximum of 6,000 pounds per square foot. To develop the full lateral value, provisions should be taken to assure firm contact between the soldier piles and the undisturbed soils. The concrete placed in the soldier pile excavations may be a lean-mix concrete. However, the concrete used in the portion of the soldier pile which is below the planned excavated level should be of sufficient strength to adequately transfer the imposed loads to the surrounding soils.

The frictional resistance between the soldier piles and the retained earth may be used in resisting the downward component of the anchor load. The coefficient of friction between the soldier piles and the retained earth may be taken as 0.4. This value is based on the assumption that uniform full bearing will be developed between the steel soldier beam and the lean-mix concrete and between the lean-mix concrete and the retained earth. In addition, provided that the portion of the soldier piles below the excavated level is backfilled with structural concrete, the soldier piles below the excavated level may be used to resist downward loads. For resisting downward loads, the frictional resistance between the concrete soldier piles and the soils below the excavated level may be taken as 225 pounds per square foot.

Lagging

Continuous lagging will be required between the soldier piles. The soldier piles and anchors 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 clear spans of up to 8 feet, we recommend that the lagging be

designed for a semi-circular distribution of earth pressure where the maximum pressure is 400 pounds per square foot at the mid-line between soldier piles, and 0 pounds per square foot at the soldier piles.

Anchor Design

Tie-back friction anchors may be used to resist lateral loads. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a plane drawn at 35 degrees with the vertical through the bottom of the excavation. The anchors should extend at least 9 feet beyond the potential active wedge and to a greater length if necessary to develop the desired capacities.

The capacities of anchors should be determined by testing of the initial anchors as outlined in a following section. For design purposes, we estimate that drilled friction anchors will develop an average friction value of 340 pounds per square foot. For post-grouted anchors, it may be estimated that the anchors will develop an average friction of 1,000 pounds per square foot. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads. If the anchors are spaced at least 6 feet on centers, no reduction in the capacity of the anchors needs to be considered due to group action.

Anchor Installation

The anchors may be installed at angles of 15 to 40 degrees below the horizontal. Caving of the anchor holes may occur and provisions should be made to minimize such caving. The anchors should be filled with concrete placed by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. If there is significant caving of the anchor shaft, we suggest that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill may contain a small amount of cement to allow the sand to be placed by pumping. For post-grouted anchors of 8-inch diameter or less, the anchor may be filled with concrete to the surface of the shoring.

Anchor Testing

Our representative should select at least four of the initial anchors for 24-hour 200% tests (distributed evenly throughout the walls of the excavation), and eight additional anchors for quick 200% tests. The purpose of the 200% test is to verify the friction value assumed in design. The anchors should be tested to develop twice the assumed friction value. Where satisfactory tests are not achieved on the initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

For post-grouted anchors where concrete is used to backfill the anchor along its entire length, the test load should be computed as that required to develop the appropriate friction along the entire bonded length of the anchor. If the friction assumed in the post-grouted portion, f_p, divided by the friction assumed in the non-post-grouted portion, f_n, is x:

$$f_p/f_n = x$$

then the test load can be taken as:

$$P_{test} = P_{design} * \frac{\frac{1}{x} L_u + L_a}{L_a} * M$$

where L_a = Post-grouted length of Anchor
L_u = Non-post-grouted length of Anchor
M = 150% or 200%, depending on the test performed
x = 1,400/470 = 3 (see Anchor Design section for values)

The total deflection during the 24-hour 200% test should not exceed 12 inches during loading; the anchor deflection should not exceed 0.75 inch during the 24-hour period, measured after the 200% test load is applied. If the anchor movement after the 200% load has been applied for 12 hours is less than 0.5 inch, and the movement over the previous 4 hours has been less than 0.1 inch, the test may be terminated.

For the quick 200% tests, the 200% test load should be maintained for 30 minutes. The total deflection of the anchor during the 200% quick test should not exceed 12 inches; the deflection after the 200% test load has been applied should not exceed 0.25 inch during the 30-minute period. Where satisfactory tests are not achieved on the initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

All of the production anchors should be pre-tested to at least 150% of the design load; the total deflection during the tests should not exceed 12 inches. The rate of creep under the 150% test should not exceed 0.1 inch over a 15-minute period for the anchor to be approved for the design loading.

After a satisfactory test, each production anchor should be locked-off at the design load. The locked-off load should be verified by rechecking the load in the anchor. If the locked-off load varies by more than 10% from the design load, the load should be reset until the anchor is locked-off within 10% of the design load.

The installation of the anchors and the testing of the completed anchors should be observed by our firm.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized, however, that some deflection will occur. We estimate that this deflection could be on the order of 1 inch at the top of the shored embankment. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement of the utilities in the adjacent streets. If it is desired to reduce the deflection of the shoring, a greater active pressure could be used in the shoring design.

Monitoring

Some means of monitoring the performance of the shoring system is recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all the soldier piles. We will be pleased to discuss this further with the design consultants and the contractor when the design of the shoring system has been finalized.

We recommend that the adjacent existing buildings be surveyed for horizontal and vertical locations. Also, a careful survey of existing cracks and offsets in the adjacent buildings and streets should be performed and recorded and photographic records made.

7.7 RETAINING WALLS AND WALLS BELOW GRADE

Lateral Earth Pressure

For design of cantilevered retaining walls (unrestrained along the height of the wall), where the surface of the backfill is level, it may be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 35 pounds per cubic foot. In addition to the recommended earth pressure, the walls should be designed to resist any applicable surcharges due to foundation, storage, or traffic loads. Where retained soils are sloped at 2:1 (horizontal to vertical) above the wall, it may be assumed that the soils will exert lateral pressures equal to that developed by a fluid with a density of 53 pounds per cubic foot.

As required by the 2010 California Building Code, braced basement walls must be designed to resist at-rest earth pressures. Accordingly, for the case where the grade is level behind the walls, a triangular distribution of lateral earth pressure equivalent to that developed by a fluid with a density of 59 pounds per cubic foot plus any surcharge loadings occurring as a result of traffic and adjacent foundations should be used.

In addition to the recommended earth pressures, walls adjacent to areas subject to vehicular traffic should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal vehicular traffic. If the traffic is kept back at least 10 feet from the walls, the traffic surcharge can be neglected. Also, lateral surcharge pressures should be added from adjacent footings above a 1:1 (horizontal to vertical) plane extending upward from the bottom of the basement wall.

Seismic Lateral Earth Pressure

In addition to the above-mentioned lateral earth pressures, retaining walls with a height of more than 12 feet and walls below grade with more than 6 feet of unbalanced earth (where the difference in height of retained soil from one side of the building to the other is greater than 6 feet) should be designed to support a seismic earth pressure in addition to the lateral earth pressure given above. The recommended seismic pressure may taken as a uniform pressure equal to 10H pounds per square foot, where H is the wall height in feet.

Drainage

We recommend that a drainage system be placed behind the basement walls of the proposed hospital towers and behind any minor retaining walls to help dissipate the hydrostatic forces that may develop behind the walls.

Where the walls are formed, drainage may be provided by a 1-foot wide vertical strip of granular soils or continuous geosynthetic drainage panels, such as Miradrain 6000 (or equivalent), attached to the back of the wall before backfilling. The geosynthetic drainage panels should be terminated at 4 feet below the ground surface. A drainage collection system, such as Quickdrain (or equivalent) should be placed at the base of the wall and connected to the drainage panels and discharge to a solid pipe at least 4 inches in diameter. As an alternative, the drainage collection system may consist of a 4-inch-diameter perforated pipe placed at the base of the wall with the perforations down and surrounded by at least 4 inches of crushed rock. The rock should be separated from the adjacent soils by an appropriate filter fabric. The 1-foot strip of granular soils or the drainage panels should extend to the drainage collection system.

If the basement walls are not formed and are shotcreted (single-formed), the drainage system may consist of continuous geosynthetic drainage panels, such as Miradrain 6000 (or equivalent), placed at a depth starting at about 4 feet below the existing grade. The drainage panels should be connected to a drainage collection system, such as Quickdrain (or equivalent) placed at the base of the wall and connected to a solid discharge pipe at least 4 inches in diameter. As an alternative, the drainage panels could be connected to weep holes at the bottom of the excavation. The weep holes should consist of solid pipes that are spaced at 10 feet on centers. At the connection of the weep holes and the drainage panels, the weep holes should be embedded in 1 cubic foot of crushed rock placed into the face of the excavation. The crushed rock should be surrounded by an appropriate filter fabric. The weep holes should drain into a solid pipe, at least 4 inches in diameter, placed beneath the edges of the floor slab.

The solid discharge pipes may drain by gravity into the nearest storm drain or into a sump-pump system that drains into the storm drain. The flow of water to the nearest storm drain should meet the requirements of the appropriate governmental agencies. The installed drainage system should

be observed by personnel from our firm prior to being backfilled. Inspection of the drainage system may also be required by the reviewing governmental agencies.

The basement walls and any retaining walls should be waterproofed.

7.8 PAVING

To provide support for paving, the subgrade soils should be prepared as recommended in the following section on grading. Compaction of the subgrade, including trench backfills, to at least 90%, and achieving a firm, hard, and unyielding surface will be important for paving support. The preparation of the paving area subgrade should be performed immediately prior to placement of the base course. Proper drainage of the paved areas should be provided since this will reduce moisture infiltration into the subgrade and increase the life of the paving.

To provide data for design of paving sections, the R-value of two samples of the upper soils were determined. The test results, which indicate an R-value of 66 and 69, are presented in Appendix A. We have used an assumed R-value of 40 for the subgrade soils for design of paving sections.

Asphalt Concrete Paving

The required paving and base thicknesses will depend on the expected wheel loads and volume of traffic (Traffic Index or TI). Assuming that the paving subgrade will consist of the on-site or comparable soils compacted to at least 90% as recommended, the minimum recommended paving thicknesses are presented in the following table.

Traffic Use	Traffic Index	Asphalt Concrete (inches)	Base Course (inches)
Automobile Parking	4	3	4
Driveways with Light Truck Traffic	5	3	4
Roadways with Heavy Truck Traffic	6	4	5
Fire Truck Traffic	7	4	7

The asphalt paving sections were determined using the Caltrans design method. We can determine the recommended paving and base course thicknesses for other Traffic Indices if required. Careful inspection is recommended to verify that the recommended thicknesses or greater are achieved, and that proper construction procedures are followed.

Portland Cement Concrete Paving

Portland cement concrete paving sections were determined in accordance with procedures developed by the Portland Cement Association. Concrete paving sections for a range of Traffic Indices are presented in the table on the following page. We have assumed that the Portland cement concrete will have a compressive strength of at least 3,000 pounds per square inch.

Traffic Use	Traffic Index	Asphalt Concrete (inches)	Base Course (inches)
Automobile Parking	4	6½	4
Driveways with Light Truck Traffic	5	7	4
Roadways with Heavy Truck Traffic	6	7½	4
Fire Truck Traffic	7	7½	4

The paving should be provided with expansion joints at regular intervals no more than 15 feet in each direction. Load transfer devices, such as dowels or keys, are recommended at joints in the paving to reduce possible offsets. The paving sections in the above table have been developed based on the strength of unreinforced concrete. Steel reinforcing may be added to the paving to reduce cracking and to prolong the life of the paving.

Base Course

The base course for both asphaltic and concrete paving should meet the specifications for Class 2 Aggregate Base as defined in Section 26 of the latest edition of the State of California, Department of Transportation, Standard Specifications. Alternatively, the base course could meet the specifications for untreated base as defined in Section 200-2 of the latest edition of the Standard Specifications for Public Works Construction. The base course should be compacted to at least 95%.

7.9 GRADING

The existing fill soils (except for fill soils where records of placement are available) are not considered suitable for support of foundations, floor slabs on grade, hardscape, or paving. However, the existing fill soils are anticipated to be automatically removed by the excavation for the lower levels of the proposed hospital towers.

All existing fill and the upper natural soils should be removed to allow for the placement of at least two feet of properly compacted fill beneath footings for minor structures and for hardscape,

concrete walkways, and paving. The required fill should be uniformly well compacted and observed and tested during placement. The on-site soils may be used in the required fill. All concrete, steel, and other construction materials and debris from previous construction on the site should be removed prior to the new construction.

Site Preparation

After the site is cleared and the existing fill and upper natural soils are excavated as recommended, the exposed natural soils should be carefully observed for the removal of all unsuitable deposits. Next, the exposed soils should be scarified to a depth of 6 inches, brought to near-optimum moisture content, and rolled with heavy compaction equipment. At least the upper 6 inches of the exposed soils should be compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction, except beneath footings for minor structures, where the fill should be compacted to 95%. The 95% compacted fill zone should extend at least two feet beyond the footings in plan.

Compaction

Any required fill should be placed in loose lifts not more than 8-inches-thick and compacted. The fill should be compacted to at least 90% of the maximum density obtainable by the ASTM Designation D1557 method of compaction, except beneath footings for minor structures where the fill should be compacted to 95%. The 95% compacted fill zone should extend at least two feet beyond the footings in plan. The moisture content of the on-site soils at the time of compaction should vary no more than 2% below or above optimum moisture content.

Backfill

All required backfill should be mechanically compacted in layers; flooding should not be permitted. Proper compaction of backfill will be necessary to reduce settlement of the backfill and to reduce settlement of overlying slabs and paving. Backfill should be compacted to at least 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction. The on-site soils may be used in the compacted backfill. The exterior grades should be sloped to drain away from the foundations to prevent ponding of water.

Some settlement of the backfill should be expected, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the building. Also, provisions should be made for some settlement of concrete walks supported on backfill.

Material for Fill

The on-site soils, less any debris or organic matter, may be used in required fills. Cobbles larger than 4 inches in diameter should not be used in the fill. Any required import material should consist of relatively non-expansive soils with an expansion index of less than 35. The imported materials should contain sufficient fines (binder material) so as to be relatively impermeable and result in a stable subgrade when compacted. All proposed import materials should be approved by our personnel prior to being placed at the site.

7.10 GEOTECHNICAL OBSERVATION

The reworking of the upper soils and the compaction of all required fill should be observed and tested during placement by a representative of our firm. This representative should perform at least the following duties:

- Observe and document the shoring installation and tie-back testing process, if used.
- Observe and document the excavation and monitoring of shoring and adjacent improvements.
- Observe the clearing and grubbing operations for proper removal of all unsuitable materials.
- Observe the exposed subgrade in areas to receive fill and in areas where excavation has resulted in the desired finished subgrade. The representative should also observe proofrolling and delineation of areas requiring overexcavation.
- Evaluate the suitability of on-site and import soils for fill placement; collect and submit soil samples for required or recommended laboratory testing where necessary.
- Observe the fill and backfill for uniformity during placement.
- Test backfill for field density and compaction to determine the percentage of compaction achieved during backfill placement.
- Observe and probe foundation materials to confirm that suitable bearing materials are present at the design foundation depths.

The governmental agencies having jurisdiction over the project should be notified prior to commencement of grading so that the necessary grading permits can be obtained and arrangements

can be made for required inspection(s). The contractor should be familiar with the inspection requirements of the reviewing agencies.

8.0 BASIS FOR RECOMMENDATIONS

The recommendations provided in this report are based upon our understanding of the described project information and on our interpretation of the data collected during our current and previous subsurface explorations. We have made our recommendations based upon experience with similar subsurface conditions under similar loading conditions. The recommendations apply to the specific project discussed in this report; therefore, any change in the structure configuration, loads, location, or the site grades should be provided to us so that we can review our conclusions and recommendations and make any necessary modifications.

The recommendations provided in this report are also based upon the assumption that the necessary geotechnical observations and testing during construction will be performed by representatives of our firm. The field observation services are considered a continuation of the geotechnical investigation and essential to verify that the actual soil conditions are as expected. This also provides for the procedure whereby the client can be advised of unexpected or changed conditions that would require modifications of our original recommendations. If another firm is retained for the geotechnical observation services, our professional responsibility and liability would be limited to the extent that we would not be the geotechnical engineer of record.

9.0 REFERENCES

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TABLES

Table 1
Major Named Faults Considered to be Active
in Southern California

Fault (in increasing distance)	Maximum Magnitude			Slip Rate (mm/yr.)	Distance From Site (miles)	Direction From Site
San Jacinto (San Bernardino Segment)	6.7	(a)	SS	12.0	0.35	SW
San Jacinto (San Jacinto Valley Segment)	6.9	(a)	SS	12.0	2.2	SSE
San Andreas (San Bernardino Segment)	7.5	(a)	SS	24.0	7.2	N
Cucamonga	6.9	(a)	RO	5.0	13.8	NW
Cleghorn	6.5	(a)	SS	3.0	15.5	NNW
North Frontal (Western Segment)	7.2	(a)	RO	1.0	19	NNE
Elsinore (Glen Ivy Segment)	6.8	(a)	SS	5.0	23	SW
San Andreas (Mojave Segment)	7.4	(a)	SS	30.0	23	NW
Chino-Central Avenue	6.7	(a)	NO	1.0	24	SW
San Jacinto (Anza Segment)	7.2	(a)	SS	12.0	29	SE
Elsinore (Temecula Segment)	6.8	(a)	SS	5.0	29	S
San Jose	6.4	(a)	RO	0.5	25	WNW
Sierra Madre	7.2	(a)	RO	2.0	26	WNW
San Gabriel	7.2	(a)	SS	1.0	26	NW
Whittier	6.8	(a)	SS	2.5	27	SW
Pinto Mountain	7.2	(a)	SS	2.5	31	E
Helendale	7.3	(a)	SS	0.6	32	NNE
Puente Hills Blind Thrust	7.1	(a)	BT	0.7	35	W
San Joaquin Hills	6.6	(a)	BT	0.5	39	SW
Clamshell-Sawpit	6.5	(a)	RO	0.5	40	WNW
Lenwood	7.5	(a)	SS	0.6	44	NNE
Johnson Valley (Northern Segment)	6.7	(a)	SS	0.6	48	NE
Newport-Inglewood Zone	7.1	(a)	SS	1.0	48	SW
Upper Elysian Park	6.4	(a)	BT	1.3	48	W
Burnt Mountain	6.5	(a)	SS	0.6	49	ENE
Palos Verdes	7.3	(a)	SS	3.0	60	SW
Hollywood	6.4	(a)	RO	1.0	61	W

(a) California Geological Survey, 2003
(b) Mark, 1977
(c) Slemmons, 1979
(d) Wesnousky, 1986
(e) Hummon et al., 1994
SS Strike Slip
NO Normal Oblique
RO Reverse Oblique
BT Blind Thrust

Prepared by PER 5/4/11
Checked by PJE 5/5/11

Table 2
Major Named Faults Considered to be Potentially Active
in Southern California

Fault (in increasing distance)	Maximum Magnitude			Slip Rate (mm/yr.)	Distance From Site (miles)	Direction From Site
Arrowhead	6.9	(f)	RO	1.0	10.4	NE
Santa Ana	6.9	(f)	RO	1.0	10.8	NE
Waterman Canyon	6.9	(f)	RO	1.0	11.2	N
Indian Hill	6.6	(b)	RO	0.1	25	WNW
Garnet Hill	7.0	(f)	SS	0.1	34	ESE
Peralta Hills	6.5	(b)	RO	0.1	34	SW
El Modeno	6.5	(b)	NO	0.1	34	SW
Duarte	6.7	(c)	RO	0.1	36	WNW
Pipes Canyon	6.4	(c)	SS	0.6	37	ENE
Norwalk	6.7	(c)	RO	0.1	41	WSW
Pelican Hill	6.3	(b)	SS	0.1	45	SW
Los Alamitos	6.2	(b)	SS	0.1	50	SW
MacArthur Park	5.7	(e)	RO	0.1	57	W

(a) California Geological Survey, 2003
(b) Mark, 1977
(c) Slemmons, 1979
(d) Wesnousky, 1986
(e) Hummon et al., 1994
(f) Wells and Coppersmith, 1994
SS Strike Slip
NO Normal Oblique
RO Reverse Oblique
BT Blind Thrust

Prepared by PER 5/4/11
Checked by 5/5/11

Table 3
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
02-11-1932	23:11:20	34.42 N	116.85 W	B	56	.0	4.0
11-01-1932	04:45:00	34.00 N	117.25 W	E	6	.0	4.0
01-25-1933	14:44:00	33.92 N	116.75 W	E	50	.0	4.0
03-11-1933	01:54:07	33.62 N	117.97 W	A	81	.0	6.4
03-11-1933	02:04:00	33.75 N	118.08 W	C	83	.0	4.9
03-11-1933	02:05:00	33.75 N	118.08 W	C	83	.0	4.3
03-11-1933	02:09:00	33.75 N	118.08 W	C	83	.0	5.0
03-11-1933	02:10:00	33.75 N	118.08 W	C	83	.0	4.6
03-11-1933	02:11:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	02:16:00	33.75 N	118.08 W	C	83	.0	4.8
03-11-1933	02:17:00	33.60 N	118.00 W	E	84	.0	4.5
03-11-1933	02:22:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	02:27:00	33.75 N	118.08 W	C	83	.0	4.6
03-11-1933	02:30:00	33.75 N	118.08 W	C	83	.0	5.1
03-11-1933	02:31:00	33.60 N	118.00 W	E	84	.0	4.4
03-11-1933	02:52:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	02:57:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	02:58:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	02:59:00	33.75 N	118.08 W	C	83	.0	4.6
03-11-1933	03:05:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	03:09:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	03:11:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	03:23:00	33.75 N	118.08 W	C	83	.0	5.0
03-11-1933	03:36:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	03:39:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	03:47:00	33.75 N	118.08 W	C	83	.0	4.1
03-11-1933	04:36:00	33.75 N	118.08 W	C	83	.0	4.6
03-11-1933	04:39:00	33.75 N	118.08 W	C	83	.0	4.9
03-11-1933	04:40:00	33.75 N	118.08 W	C	83	.0	4.7
03-11-1933	05:10:22	33.70 N	118.07 W	C	84	.0	5.1
03-11-1933	05:13:00	33.75 N	118.08 W	C	83	.0	4.7
03-11-1933	05:15:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	05:18:04	33.58 N	117.98 W	C	85	.0	5.2
03-11-1933	05:21:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	05:24:00	33.75 N	118.08 W	C	83	.0	4.2

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A = +- 1 km horizontal distance; +- 2 km depth
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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
03-11-1933	05:53:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	05:55:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	06:11:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	06:18:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	06:29:00	33.85 N	118.27 W	C	95	.0	4.4
03-11-1933	06:35:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	06:58:03	33.68 N	118.05 W	C	83	.0	5.5
03-11-1933	07:51:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	07:59:00	33.75 N	118.08 W	C	83	.0	4.1
03-11-1933	08:08:00	33.75 N	118.08 W	C	83	.0	4.5
03-11-1933	08:32:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	08:37:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	08:54:57	33.70 N	118.07 W	C	84	.0	5.1
03-11-1933	09:10:00	33.75 N	118.08 W	C	83	.0	5.1
03-11-1933	09:11:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	09:26:00	33.75 N	118.08 W	C	83	.0	4.1
03-11-1933	10:25:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	10:45:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	11:00:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	11:04:00	33.75 N	118.13 W	C	87	.0	4.6
03-11-1933	11:29:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	11:38:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	11:41:00	33.75 N	118.08 W	C	83	.0	4.2
03-11-1933	11:47:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	12:50:00	33.68 N	118.05 W	C	83	.0	4.4
03-11-1933	13:50:00	33.73 N	118.10 W	C	85	.0	4.4
03-11-1933	13:57:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	14:25:00	33.85 N	118.27 W	C	95	.0	5.0
03-11-1933	14:47:00	33.73 N	118.10 W	C	85	.0	4.4
03-11-1933	14:57:00	33.88 N	118.32 W	C	99	.0	4.9
03-11-1933	15:09:00	33.73 N	118.10 W	C	85	.0	4.4
03-11-1933	15:47:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	16:53:00	33.75 N	118.08 W	C	83	.0	4.8
03-11-1933	19:44:00	33.75 N	118.08 W	C	83	.0	4.0
03-11-1933	19:56:00	33.75 N	118.08 W	C	83	.0	4.2

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A = +- 1 km horizontal distance; +- 2 km depth
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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
03-11-1933	22:00:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	22:31:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	22:32:00	33.75 N	118.08 W	C	83	.0	4.1
03-11-1933	22:40:00	33.75 N	118.08 W	C	83	.0	4.4
03-11-1933	23:05:00	33.75 N	118.08 W	C	83	.0	4.2
03-12-1933	00:27:00	33.75 N	118.08 W	C	83	.0	4.4
03-12-1933	00:34:00	33.75 N	118.08 W	C	83	.0	4.0
03-12-1933	04:48:00	33.75 N	118.08 W	C	83	.0	4.0
03-12-1933	05:46:00	33.75 N	118.08 W	C	83	.0	4.4
03-12-1933	06:01:00	33.75 N	118.08 W	C	83	.0	4.2
03-12-1933	06:16:00	33.75 N	118.08 W	C	83	.0	4.6
03-12-1933	07:40:00	33.75 N	118.08 W	C	83	.0	4.2
03-12-1933	08:35:00	33.75 N	118.08 W	C	83	.0	4.2
03-12-1933	15:02:00	33.75 N	118.08 W	C	83	.0	4.2
03-12-1933	16:51:00	33.75 N	118.08 W	C	83	.0	4.0
03-12-1933	17:38:00	33.75 N	118.08 W	C	83	.0	4.5
03-12-1933	18:25:00	33.75 N	118.08 W	C	83	.0	4.1
03-12-1933	21:28:00	33.75 N	118.08 W	C	83	.0	4.1
03-12-1933	23:54:00	33.75 N	118.08 W	C	83	.0	4.5
03-13-1933	03:43:00	33.75 N	118.08 W	C	83	.0	4.1
03-13-1933	04:32:00	33.75 N	118.08 W	C	83	.0	4.7
03-13-1933	06:17:00	33.75 N	118.08 W	C	83	.0	4.0
03-13-1933	13:18:28	33.75 N	118.08 W	C	83	.0	5.3
03-13-1933	15:32:00	33.75 N	118.08 W	C	83	.0	4.1
03-13-1933	19:29:00	33.75 N	118.08 W	C	83	.0	4.2
03-14-1933	00:36:00	33.75 N	118.08 W	C	83	.0	4.2
03-14-1933	12:19:00	33.75 N	118.08 W	C	83	.0	4.5
03-14-1933	19:01:50	33.62 N	118.02 W	C	85	.0	5.1
03-14-1933	22:42:00	33.75 N	118.08 W	C	83	.0	4.1
03-15-1933	02:08:00	33.75 N	118.08 W	C	83	.0	4.1
03-15-1933	04:32:00	33.75 N	118.08 W	C	83	.0	4.1
03-15-1933	05:40:00	33.75 N	118.08 W	C	83	.0	4.2
03-15-1933	11:13:32	33.62 N	118.02 W	C	85	.0	4.9
03-16-1933	14:56:00	33.75 N	118.08 W	C	83	.0	4.0
03-16-1933	15:29:00	33.75 N	118.08 W	C	83	.0	4.2

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
03-16-1933	15:30:00	33.75 N	118.08 W	C	83	.0	4.1
03-17-1933	16:51:00	33.75 N	118.08 W	C	83	.0	4.1
03-18-1933	20:52:00	33.75 N	118.08 W	C	83	.0	4.2
03-19-1933	21:23:00	33.75 N	118.08 W	C	83	.0	4.2
03-20-1933	13:58:00	33.75 N	118.08 W	C	83	.0	4.1
03-21-1933	03:26:00	33.75 N	118.08 W	C	83	.0	4.1
03-23-1933	08:40:00	33.75 N	118.08 W	C	83	.0	4.1
03-23-1933	18:31:00	33.75 N	118.08 W	C	83	.0	4.1
03-25-1933	13:46:00	33.75 N	118.08 W	C	83	.0	4.1
03-30-1933	12:25:00	33.75 N	118.08 W	C	83	.0	4.4
03-31-1933	10:49:00	33.75 N	118.08 W	C	83	.0	4.1
04-01-1933	06:42:00	33.75 N	118.08 W	C	83	.0	4.2
04-02-1933	08:00:00	33.75 N	118.08 W	C	83	.0	4.0
04-02-1933	15:36:00	33.75 N	118.08 W	C	83	.0	4.0
05-16-1933	20:58:55	33.75 N	118.17 W	C	90	.0	4.0
08-04-1933	04:17:48	33.75 N	118.18 W	C	91	.0	4.0
10-02-1933	09:10:17	33.78 N	118.13 W	A	86	.0	5.4
10-02-1933	13:26:01	33.62 N	118.02 W	C	85	.0	4.0
10-25-1933	07:00:46	33.95 N	118.13 W	C	81	.0	4.3
11-13-1933	21:28:00	33.87 N	118.20 W	C	89	.0	4.0
11-20-1933	10:32:00	33.78 N	118.13 W	B	86	.0	4.0
01-09-1934	14:10:00	34.10 N	117.68 W	A	39	.0	4.5
01-18-1934	02:14:00	34.10 N	117.68 W	A	39	.0	4.0
01-20-1934	21:17:00	33.62 N	118.12 W	B	92	.0	4.5
01-26-1934	18:44:00	34.08 N	116.47 W	C	74	.0	4.0
02-20-1934	10:35:00	33.47 N	116.63 W	B	87	.0	4.0
04-17-1934	18:33:00	33.57 N	117.98 W	C	85	.0	4.0
11-16-1934	21:26:00	33.75 N	118.00 W	B	76	.0	4.0
06-07-1935	16:33:00	33.27 N	117.02 W	B	90	.0	4.0
06-19-1935	11:17:00	33.72 N	117.52 W	B	44	.0	4.0
07-13-1935	10:54:16	34.20 N	117.90 W	A	61	.0	4.7
09-03-1935	06:47:00	34.03 N	117.32 W	B	5	.0	4.5
10-24-1935	14:48:07	34.10 N	116.80 W	A	43	.0	5.1
10-24-1935	14:51:00	34.10 N	116.88 W	C	35	.0	4.5
10-24-1935	14:52:00	34.10 N	116.88 W	C	35	.0	4.5

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
10-24-1935	15:27:00	34.10 N	116.88 W	C	35	.0	4.0
11-04-1935	03:55:00	33.50 N	116.92 W	B	69	.0	4.5
12-25-1935	17:15:00	33.60 N	118.02 W	B	86	.0	4.5
02-23-1936	22:20:42	34.13 N	117.34 W	A	11	10.0	4.5
02-26-1936	09:33:27	34.14 N	117.34 W	A	12	10.0	4.0
07-29-1936	14:22:52	33.45 N	116.90 W	C	74	10.0	4.0
08-22-1936	05:21:00	33.77 N	117.82 W	B	60	.0	4.0
01-15-1937	18:35:47	33.56 N	118.06 W	B	91	10.0	4.0
03-04-1937	16:04:00	33.78 N	116.28 W	B	95	.0	4.0
03-19-1937	01:23:38	34.11 N	117.43 W	A	17	10.0	4.0
03-26-1937	21:24:00	33.47 N	116.58 W	C	90	.0	4.0
03-27-1937	05:28:00	33.47 N	116.58 W	C	90	.0	4.0
03-27-1937	07:42:00	33.47 N	116.58 W	C	90	.0	4.5
03-29-1937	17:03:16	33.42 N	116.49 W	C	100	10.0	4.0
06-01-1937	15:41:44	34.58 N	116.60 W	B	85	10.0	4.0
07-07-1937	11:12:00	33.57 N	117.98 W	B	85	.0	4.0
09-01-1937	13:48:08	34.21 N	117.53 W	A	30	10.0	4.5
09-01-1937	16:35:33	34.18 N	117.55 W	A	30	10.0	4.5
01-04-1938	00:29:00	33.47 N	116.58 W	C	90	.0	4.5
02-08-1938	07:39:00	34.05 N	116.43 W	B	77	.0	4.0
02-15-1938	07:45:39	34.17 N	116.26 W	C	94	10.0	4.5
05-21-1938	09:44:00	33.62 N	118.03 W	B	86	.0	4.0
05-31-1938	08:34:55	33.70 N	117.51 W	B	45	10.0	5.2
06-10-1938	14:40:00	34.13 N	116.95 W	B	30	.0	4.0
06-16-1938	05:59:16	33.46 N	116.90 W	B	74	10.0	4.0
07-05-1938	18:06:55	33.68 N	117.55 W	A	49	10.0	4.5
08-06-1938	02:28:00	33.93 N	116.75 W	B	49	.0	4.0
08-06-1938	22:00:55	33.72 N	117.51 W	B	43	10.0	4.0
08-31-1938	03:18:14	33.76 N	118.25 W	A	97	10.0	4.5
12-27-1938	10:09:28	34.13 N	117.52 W	B	25	10.0	4.0
04-03-1939	02:50:44	34.04 N	117.23 W	A	3	10.0	4.0
11-04-1939	21:41:00	33.77 N	118.12 W	B	85	.0	4.0
11-07-1939	18:52:08	34.00 N	117.28 W	A	6	.0	4.7
12-27-1939	19:28:49	33.78 N	118.20 W	A	91	.0	4.7
01-13-1940	07:49:07	33.78 N	118.13 W	B	86	.0	4.0

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
02-08-1940	16:56:17	33.70 N	118.07 W	B	84	.0	4.0
02-11-1940	19:24:10	33.98 N	118.30 W	B	96	.0	4.0
02-19-1940	12:06:55	34.02 N	117.05 W	A	20	.0	4.6
04-18-1940	18:43:43	34.03 N	117.35 W	A	8	.0	4.4
05-18-1940	05:03:58	34.08 N	116.30 W	A	89	.0	5.3
05-18-1940	05:51:20	34.07 N	116.33 W	A	86	.0	5.2
05-18-1940	06:04:30	34.07 N	116.32 W	A	87	.0	4.6
05-18-1940	07:21:32	34.07 N	116.33 W	A	86	.0	5.0
05-18-1940	13:47:19	34.05 N	116.28 W	C	90	.0	4.5
05-19-1940	02:26:02	34.05 N	116.28 W	C	90	.0	4.5
05-19-1940	02:27:30	34.05 N	116.28 W	C	90	.0	4.5
05-19-1940	03:51:45	34.05 N	116.28 W	C	90	.0	4.0
05-19-1940	19:39:41	34.05 N	116.28 W	C	90	.0	4.0
05-22-1940	06:31:37	34.05 N	116.28 W	C	90	.0	4.0
05-22-1940	14:10:05	34.05 N	116.28 W	C	90	.0	4.0
05-27-1940	03:27:27	34.05 N	116.28 W	C	90	.0	4.0
06-01-1940	05:27:01	34.08 N	116.33 W	A	86	.0	4.7
06-01-1940	05:56:46	34.05 N	116.28 W	C	90	.0	4.0
06-01-1940	06:54:28	34.10 N	116.33 W	A	86	.0	4.3
06-02-1940	06:13:10	34.08 N	116.33 W	A	86	.0	4.5
06-05-1940	08:27:27	33.83 N	117.40 W	B	27	.0	4.0
06-06-1940	22:21:15	34.00 N	116.32 W	A	88	.0	4.3
06-06-1940	23:48:49	34.05 N	116.28 W	C	90	.0	4.0
06-06-1940	23:56:37	34.02 N	116.37 W	A	83	.0	4.4
06-08-1940	17:10:32	34.05 N	116.28 W	C	90	.0	4.0
06-11-1940	19:51:18	34.03 N	116.32 W	A	87	.0	4.4
06-14-1940	21:58:50	34.05 N	116.28 W	C	90	.0	4.0
06-24-1940	16:39:36	34.05 N	116.28 W	C	90	.0	4.0
07-20-1940	04:01:13	33.70 N	118.07 W	B	84	.0	4.0
08-01-1940	19:31:40	34.05 N	116.28 W	C	90	.0	4.0
08-04-1940	18:15:20	34.05 N	116.28 W	B	90	.0	4.0
11-01-1940	20:00:46	33.63 N	118.20 W	B	98	.0	4.0
01-30-1941	01:34:46	33.97 N	118.05 W	A	73	.0	4.1
02-23-1941	18:36:14	33.50 N	116.48 W	C	94	.0	4.5
03-22-1941	08:22:40	33.52 N	118.10 W	B	97	.0	4.0

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
03-25-1941	23:43:41	34.22 N	117.47 W	B	26	.0	4.0
04-11-1941	01:20:24	33.95 N	117.58 W	B	32	.0	4.0
10-22-1941	06:57:18	33.82 N	118.22 W	A	92	.0	4.8
11-14-1941	08:41:36	33.78 N	118.25 W	A	96	.0	4.8
01-25-1942	21:51:33	34.40 N	116.92 W	B	50	.0	4.0
02-01-1942	15:15:55	34.40 N	116.92 W	B	50	.0	4.0
02-01-1942	15:18:28	34.40 N	116.92 W	B	50	.0	4.5
02-01-1942	16:03:34	34.40 N	116.92 W	B	50	.0	4.5
02-27-1942	01:08:53	34.33 N	117.00 W	B	40	.0	4.0
03-01-1942	10:46:31	34.08 N	116.47 W	C	74	.0	4.0
04-26-1942	15:10:23	33.95 N	116.73 W	C	50	.0	4.0
05-22-1942	15:18:29	34.45 N	116.78 W	C	63	.0	4.0
08-07-1942	01:15:33	34.30 N	116.42 W	C	83	.0	4.5
08-07-1942	01:23:58	34.30 N	116.42 W	C	83	.0	4.0
08-07-1942	01:53:14	34.30 N	116.42 W	C	83	.0	4.0
08-22-1942	12:59:13	34.12 N	116.75 W	C	48	.0	4.0
09-20-1942	16:14:14	34.35 N	116.28 W	C	96	.0	4.0
09-21-1942	07:07:54	33.53 N	116.63 W	C	82	.0	4.0
08-29-1943	03:45:13	34.27 N	116.97 W	C	36	.0	5.3
08-29-1943	03:57:54	34.27 N	116.97 W	C	36	.0	4.0
08-29-1943	05:16:30	34.27 N	116.97 W	C	36	.0	4.0
10-14-1943	14:28:44	34.33 N	116.88 W	C	47	.0	4.5
10-15-1943	16:50:01	34.35 N	116.87 W	C	50	.0	4.5
10-24-1943	00:29:21	33.93 N	117.37 W	C	16	.0	4.0
11-17-1943	11:28:41	33.92 N	116.70 W	C	54	.0	4.5
05-05-1944	13:47:15	34.00 N	116.38 W	C	81	.0	4.0
06-10-1944	11:11:50	34.01 N	116.77 W	A	46	10.0	4.5
06-10-1944	11:15:31	33.97 N	116.77 W	B	46	10.0	4.0
06-12-1944	10:45:34	33.98 N	116.72 W	A	51	10.0	5.0
06-12-1944	11:16:35	33.99 N	116.71 W	A	51	10.0	5.2
06-12-1944	22:21:19	33.98 N	116.70 W	A	52	10.0	4.2
06-19-1944	00:03:33	33.87 N	118.22 W	B	90	.0	4.5
06-19-1944	03:06:07	33.87 N	118.22 W	C	90	.0	4.4
08-25-1944	07:30:25	34.00 N	116.70 W	C	52	.0	4.2
10-28-1944	18:30:16	33.93 N	116.75 W	B	49	.0	4.4

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
04-18-1945	04:58:02	34.43 N	116.98 W	B	50	.0	4.3
09-07-1945	15:34:24	33.97 N	116.80 W	B	44	.0	4.3
02-24-1946	06:07:52	34.40 N	117.80 W	C	63	.0	4.1
08-15-1946	19:01:08	33.92 N	116.25 W	C	95	.0	4.0
09-28-1946	07:19:09	33.95 N	116.85 W	B	40	.0	4.8
05-11-1947	05:06:20	34.23 N	116.33 W	B	88	.0	4.6
07-24-1947	22:10:46	34.02 N	116.50 W	A	71	.0	5.3
07-24-1947	22:53:41	34.02 N	116.50 W	C	71	.0	4.3
07-24-1947	22:54:26	34.02 N	116.50 W	C	71	.0	4.7
07-25-1947	00:46:31	34.02 N	116.50 W	C	71	.0	4.8
07-25-1947	01:56:47	34.02 N	116.50 W	C	71	.0	4.6
07-25-1947	05:17:52	34.02 N	116.50 W	C	71	.0	4.3
07-25-1947	06:19:49	34.02 N	116.50 W	C	71	.0	5.2
07-25-1947	07:57:30	34.02 N	116.50 W	C	71	.0	4.2
07-25-1947	16:14:53	34.02 N	116.50 W	C	71	.0	4.5
07-26-1947	01:24:15	34.02 N	116.50 W	C	71	.0	4.2
07-26-1947	02:49:41	34.02 N	116.50 W	C	71	.0	4.9
07-26-1947	23:04:25	34.02 N	116.50 W	C	71	.0	4.5
07-26-1947	23:13:51	34.02 N	116.50 W	C	71	.0	4.1
07-29-1947	16:36:15	34.02 N	116.50 W	C	71	.0	4.2
07-30-1947	05:22:17	34.02 N	116.50 W	C	71	.0	4.2
08-01-1947	17:01:37	34.02 N	116.50 W	C	71	.0	4.1
08-08-1947	06:47:45	34.02 N	116.50 W	C	71	.0	4.0
11-10-1947	02:22:55	34.40 N	116.42 W	B	87	.0	4.5
03-01-1948	08:12:13	34.17 N	117.53 W	B	28	.0	4.7
10-03-1948	02:46:28	34.18 N	117.58 W	A	33	.0	4.0
12-04-1948	23:43:17	33.93 N	116.38 W	A	82	.0	6.0
12-05-1948	00:07:21	33.93 N	116.37 W	A	84	.0	4.9
12-05-1948	00:40:32	33.93 N	116.35 W	A	85	.0	4.4
12-05-1948	00:42:35	33.97 N	116.43 W	A	77	.0	4.6
12-05-1948	00:50:57	34.00 N	116.47 W	A	74	.0	4.4
12-06-1948	02:46:08	34.00 N	116.47 W	A	74	.0	4.3
12-10-1948	20:42:57	33.93 N	116.40 W	A	81	.0	4.4
12-11-1948	16:12:20	33.97 N	116.45 W	A	76	.0	4.5
12-28-1948	12:53:41	33.48 N	116.70 W	B	81	.0	4.0

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
09-23-1949	21:44:40	33.96 N	116.65 W	A	57	12.2	4.0
01-11-1950	21:41:35	33.94 N	118.20 W	A	88	.4	4.1
01-13-1950	05:07:19	33.96 N	116.43 W	A	78	5.9	4.1
08-12-1950	02:17:17	34.32 N	116.80 W	B	52	.0	4.3
08-28-1950	19:45:26	34.31 N	116.84 W	A	49	11.7	4.2
09-05-1950	19:19:56	33.65 N	116.75 W	B	65	.0	4.7
12-22-1950	02:05:36	33.42 N	116.57 W	B	95	.0	4.0
02-15-1951	10:47:59	33.48 N	116.50 W	B	94	.0	4.8
02-15-1951	10:49:57	33.48 N	116.50 W	B	94	.0	4.6
09-22-1951	08:22:39	34.12 N	117.34 W	A	11	11.9	4.3
10-16-1951	12:41:05	34.17 N	116.98 W	B	29	.0	4.0
01-08-1952	06:34:27	33.96 N	116.35 W	B	85	11.4	4.4
02-17-1952	12:36:58	34.00 N	117.27 W	A	6	16.0	4.5
02-04-1953	04:36:16	33.40 N	116.57 W	C	97	.0	4.3
04-30-1954	00:36:23	34.03 N	116.79 W	A	44	11.1	4.2
10-26-1954	16:22:26	33.73 N	117.47 W	B	40	.0	4.1
04-25-1955	02:55:15	33.45 N	116.68 W	B	85	.0	4.0
05-15-1955	17:03:25	34.12 N	117.48 W	A	22	7.6	4.0
07-02-1955	16:29:38	34.41 N	116.67 W	A	68	10.0	4.2
01-03-1956	00:25:48	33.72 N	117.50 W	B	42	13.7	4.7
03-16-1956	20:29:33	34.31 N	116.76 W	A	55	1.3	4.8
03-16-1956	20:33:44	34.25 N	116.77 W	A	51	.8	4.0
03-16-1956	20:36:13	34.26 N	116.76 W	A	53	3.3	4.0
03-16-1956	23:34:56	34.34 N	116.74 W	A	58	1.7	4.4
03-18-1956	02:42:17	34.30 N	116.78 W	A	52	6.3	4.0
05-11-1956	16:30:50	34.23 N	116.80 W	B	48	13.3	4.7
09-23-1956	11:24:41	33.53 N	116.56 W	A	86	12.2	4.3
02-01-1957	07:52:15	33.98 N	116.34 W	B	86	11.0	4.6
12-04-1957	02:51:44	34.07 N	116.43 W	B	77	3.7	4.3
04-17-1959	16:19:00	33.88 N	116.44 W	A	79	22.2	4.2
06-12-1959	11:03:12	33.49 N	116.78 W	A	77	5.7	4.0
06-27-1959	16:22:11	33.97 N	116.88 W	A	36	13.8	4.0
08-26-1959	05:32:50	34.07 N	116.57 W	A	64	16.7	4.3
06-28-1960	20:00:48	34.12 N	117.47 W	A	21	12.0	4.1
10-04-1961	02:21:31	33.85 N	117.75 W	B	50	4.3	4.1

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
10-20-1961	19:49:50	33.65 N	117.99 W	B	81	4.6	4.3
10-20-1961	20:07:14	33.66 N	117.98 W	B	79	6.1	4.0
10-20-1961	21:42:40	33.67 N	117.98 W	B	79	7.2	4.0
10-20-1961	22:35:34	33.67 N	118.01 W	B	81	5.6	4.1
11-20-1961	08:53:34	33.68 N	117.99 W	B	79	4.4	4.0
04-27-1962	09:12:32	33.74 N	117.19 W	B	35	5.7	4.1
10-29-1962	02:42:53	34.33 N	116.86 W	B	48	8.6	5.0
11-30-1962	23:51:05	34.34 N	116.91 W	B	46	7.0	4.3
12-01-1962	00:35:48	34.32 N	116.88 W	B	46	9.6	4.3
12-02-1962	00:41:38	34.33 N	116.88 W	B	47	6.7	4.4
07-30-1963	06:34:57	34.15 N	116.21 W	B	98	12.9	4.7
08-22-1963	04:33:55	34.16 N	116.19 W	B	99	5.8	4.4
09-23-1963	14:41:52	33.71 N	116.93 W	B	49	16.5	5.1
01-06-1964	23:47:12	34.38 N	116.47 W	B	82	12.3	4.5
11-17-1964	14:52:28	33.90 N	116.57 W	B	66	10.3	4.0
01-01-1965	08:04:18	34.14 N	117.52 W	B	25	5.9	4.4
04-15-1965	20:08:33	34.13 N	117.43 W	B	18	5.5	4.5
10-17-1965	09:45:18	33.98 N	116.77 W	B	46	17.0	4.9
05-21-1967	14:42:34	33.51 N	116.58 W	B	87	19.4	4.7
06-15-1967	04:58:05	34.00 N	117.97 W	B	66	10.0	4.1
08-11-1967	00:57:11	33.51 N	116.63 W	B	84	10.7	4.1
04-18-1968	17:42:13	34.32 N	116.93 W	B	43	4.7	4.0
02-28-1969	04:56:12	34.57 N	118.11 W	A	97	5.3	4.3
05-05-1969	16:02:09	34.30 N	117.57 W	B	40	8.8	4.4
10-27-1969	13:16:02	33.55 N	117.81 W	B	75	6.5	4.5
09-12-1970	14:10:11	34.27 N	117.52 W	A	34	8.0	4.1
09-12-1970	14:30:52	34.27 N	117.54 W	A	35	8.0	5.2
09-13-1970	04:47:48	34.28 N	117.55 W	A	37	8.0	4.4
02-23-1971	00:07:39	33.50 N	116.43 W	B	98	8.0	4.2
06-22-1971	10:41:19	33.75 N	117.48 W	B	39	8.0	4.2
01-31-1972	01:55:04	34.31 N	116.88 W	B	46	8.0	4.0
07-14-1973	08:00:20	34.44 N	116.83 W	A	58	8.0	4.6
04-05-1974	10:42:50	34.52 N	116.45 W	B	91	4.8	4.1
02-10-1975	12:51:17	34.40 N	116.64 W	A	69	8.0	4.4
06-01-1975	01:38:49	34.52 N	116.50 W	A	88	4.5	5.0

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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
08-02-1975	00:14:07	33.52 N	116.56 W	A	88	13.4	4.7
08-14-1975	08:08:49	34.02 N	116.43 W	B	77	10.9	4.0
11-15-1975	06:13:27	34.30 N	116.34 W	B	90	5.8	4.6
12-14-1975	18:16:20	34.29 N	116.32 W	A	91	1.8	4.7
01-01-1976	17:20:12	33.97 N	117.89 W	A	58	6.2	4.2
08-11-1976	15:24:55	33.48 N	116.51 W	P	93	15.4	4.3
04-01-1978	10:52:27	34.20 N	116.96 W	A	32	8.0	4.0
06-05-1978	16:03:03	33.42 N	116.70 W	A	87	11.9	4.4
11-20-1978	06:55:09	34.15 N	116.97 W	A	29	6.1	4.3
03-15-1979	20:17:49	34.31 N	116.44 W	A	81	2.0	4.9
03-15-1979	21:07:16	34.33 N	116.44 W	A	82	2.5	5.3
03-15-1979	21:34:25	34.35 N	116.45 W	A	82	1.5	4.5
03-15-1979	23:07:58	34.33 N	116.44 W	A	82	2.8	4.8
03-16-1979	17:36:59	34.33 N	116.40 W	C	86	5.0	4.0
03-18-1979	22:53:02	34.23 N	116.36 W	A	85	3.4	4.2
03-31-1979	00:16:08	34.30 N	116.50 W	B	76	.1	4.2
06-29-1979	05:53:20	34.25 N	116.90 W	B	40	5.7	4.6
06-30-1979	00:34:11	34.24 N	116.90 W	B	40	5.8	4.7
06-30-1979	07:03:52	34.25 N	116.90 W	B	40	5.6	4.5
07-13-1979	02:26:03	34.26 N	116.44 W	C	80	5.0	4.0
08-22-1979	02:01:36	33.70 N	116.84 W	B	55	5.0	4.1
10-19-1979	12:22:37	34.21 N	117.53 W	B	31	4.9	4.1
02-25-1980	10:47:38	33.50 N	116.51 W	A	92	13.6	5.5
02-09-1982	23:41:17	33.85 N	116.96 W	D	35	6.0	4.1
06-15-1982	23:49:21	33.55 N	116.68 W	A	77	13.1	4.8
06-16-1982	00:03:01	33.57 N	116.66 W	C	77	9.0	4.2
11-10-1982	11:21:25	34.06 N	116.67 W	A	55	11.4	4.1
01-08-1983	07:19:30	34.13 N	117.45 W	A	20	7.8	4.1
02-27-1984	10:18:15	33.47 N	118.06 W	C	98	6.0	4.0
06-11-1984	22:21:10	34.38 N	116.61 W	A	70	1.8	4.0
08-06-1984	08:14:36	33.98 N	116.71 W	A	51	14.2	4.3
02-15-1985	23:26:26	33.98 N	116.40 W	A	80	2.3	4.0
07-18-1985	14:05:25	34.42 N	116.54 W	C	78	6.0	4.2
08-29-1985	07:59:08	34.32 N	116.82 W	A	51	6.1	4.1
10-02-1985	23:44:12	34.02 N	117.25 W	A	3	15.2	4.8

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(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
07-08-1986	09:20:44	34.00 N	116.61 W	A	61	10.4	5.6
07-08-1986	09:24:12	34.03 N	116.65 W	C	56	9.1	4.4
07-08-1986	09:28:13	33.95 N	116.53 W	C	68	17.8	4.0
07-08-1986	10:09:02	33.98 N	116.58 W	A	64	8.1	4.4
07-08-1986	10:11:00	34.02 N	116.67 W	A	55	3.9	4.1
07-08-1986	10:22:39	34.03 N	116.63 W	A	59	10.9	4.4
07-08-1986	19:36:20	34.02 N	116.61 W	A	60	11.7	4.0
07-09-1986	00:12:32	33.98 N	116.57 W	A	65	8.7	4.2
07-12-1986	05:45:27	33.99 N	116.65 W	A	57	6.6	4.0
07-17-1986	20:35:14	33.99 N	116.65 W	A	57	6.7	4.6
07-17-1986	21:54:45	33.99 N	116.65 W	A	57	7.3	4.4
08-29-1986	07:46:54	33.95 N	116.60 W	A	62	5.3	4.0
10-15-1986	02:28:47	33.95 N	116.58 W	A	64	6.6	4.1
02-21-1987	23:15:29	34.13 N	117.45 W	A	19	8.5	4.0
05-11-1987	15:10:10	34.31 N	116.92 W	A	43	5.3	4.1
10-01-1987	14:42:20	34.06 N	118.08 W	A	75	9.5	5.9
10-01-1987	14:45:41	34.05 N	118.10 W	A	77	13.6	4.7
10-01-1987	14:48:03	34.08 N	118.09 W	A	76	11.7	4.1
10-01-1987	14:49:05	34.06 N	118.10 W	A	77	11.7	4.7
10-01-1987	15:12:31	34.05 N	118.09 W	A	76	10.8	4.7
10-01-1987	15:59:53	34.05 N	118.09 W	A	76	10.4	4.0
10-04-1987	10:59:38	34.07 N	118.10 W	A	77	8.3	5.3
02-11-1988	15:25:55	34.08 N	118.05 W	A	73	12.5	4.7
06-26-1988	15:04:58	34.14 N	117.71 W	A	42	7.9	4.7
07-02-1988	00:26:58	33.48 N	116.44 W	A	99	12.6	4.3
11-20-1988	05:39:28	33.51 N	118.07 W	C	96	6.0	4.9
12-03-1988	11:38:26	34.15 N	118.13 W	A	81	14.3	5.0
12-16-1988	05:53:05	33.98 N	116.68 W	A	54	8.1	4.9
02-18-1989	07:17:04	34.01 N	117.74 W	A	44	3.3	4.1
04-07-1989	20:07:30	33.62 N	117.90 W	A	76	12.9	4.7
06-04-1989	21:33:59	34.60 N	116.84 W	A	72	1.9	4.3
06-12-1989	16:57:18	34.03 N	118.18 W	A	85	15.6	4.6
06-12-1989	17:22:25	34.02 N	118.18 W	A	85	15.5	4.4
12-02-1989	23:16:47	33.65 N	116.74 W	A	66	14.5	4.2
12-28-1989	09:41:08	34.19 N	117.39 W	A	20	14.6	4.3

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List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
02-18-1990	15:52:59	33.51 N	116.45 W	A	96	9.2	4.2
02-28-1990	23:43:36	34.14 N	117.70 W	A	41	4.5	5.4
03-01-1990	00:34:57	34.13 N	117.70 W	A	41	4.4	4.0
03-01-1990	03:23:03	34.15 N	117.72 W	A	44	11.4	4.7
03-02-1990	17:26:25	34.15 N	117.69 W	A	41	5.6	4.7
04-17-1990	22:32:27	34.11 N	117.72 W	A	43	3.6	4.8
06-28-1991	14:43:54	34.27 N	117.99 W	A	72	9.1	5.8
06-28-1991	17:00:55	34.25 N	117.99 W	A	71	9.5	4.3
12-04-1991	08:17:03	34.18 N	117.02 W	A	26	10.7	4.0
04-23-1992	02:25:29	33.96 N	116.32 W	A	88	11.5	4.6
04-23-1992	04:50:23	33.96 N	116.32 W	A	88	12.4	6.1
04-23-1992	05:10:10	34.01 N	116.32 W	A	87	3.0	4.3
04-23-1992	05:10:28	33.96 N	116.33 W	A	87	3.2	4.4
04-23-1992	11:32:33	33.97 N	116.32 W	B	87	.8	4.0
05-02-1992	12:46:41	33.99 N	116.29 W	A	90	4.0	4.1
05-04-1992	01:16:02	33.94 N	116.34 W	A	86	5.8	4.1
05-04-1992	16:19:49	33.94 N	116.30 W	A	89	12.4	4.8
05-06-1992	02:38:43	33.94 N	116.31 W	A	88	6.8	4.7
05-12-1992	02:31:11	33.98 N	116.26 W	A	93	6.7	4.5
05-12-1992	02:31:27	33.98 N	116.26 W	A	93	.2	4.4
05-12-1992	02:32:52	33.98 N	116.26 W	A	93	4.9	4.0
05-18-1992	15:44:17	33.95 N	116.34 W	A	86	6.6	5.0
06-11-1992	00:24:19	34.17 N	116.35 W	A	85	.8	4.4
06-28-1992	11:57:34	34.20 N	116.44 W	A	78	1.0	7.3
06-28-1992	12:00:45	34.13 N	116.41 W	B	79	.0	5.6
06-28-1992	12:01:16	34.12 N	116.32 W	C	87	6.0	5.4
06-28-1992	12:17:49	34.51 N	116.63 W	C	78	5.5	4.6
06-28-1992	12:18:51	34.17 N	116.79 W	A	46	.0	4.3
06-28-1992	12:36:40	34.13 N	116.43 W	C	77	7.4	5.3
06-28-1992	12:40:53	34.33 N	116.55 W	D	73	6.0	5.4
06-28-1992	12:43:58	34.11 N	116.43 W	A	77	3.0	4.4
06-28-1992	12:56:09	34.48 N	116.52 W	D	83	6.0	4.3
06-28-1992	13:10:50	34.42 N	116.45 W	C	85	6.0	4.7
06-28-1992	13:17:47	34.14 N	116.41 W	C	80	6.0	4.1
06-28-1992	13:18:15	34.09 N	116.39 W	A	81	.0	4.4

NOTE: Q IS A FACTOR RELATING THE QUALITY OF EPICENTRAL DETERMINATION

A = +- 1 km horizontal distance; +- 2 km depth
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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
06-28-1992	13:26:05	34.16 N	116.41 W	C	80	6.0	4.8
06-28-1992	13:35:38	33.97 N	116.51 W	D	70	6.0	4.0
06-28-1992	13:40:55	34.19 N	116.43 W	C	79	6.0	4.2
06-28-1992	13:50:16	34.07 N	116.39 W	C	81	6.0	4.1
06-28-1992	13:50:46	34.11 N	116.40 W	C	80	6.0	4.9
06-28-1992	14:09:28	34.11 N	116.65 W	C	57	6.0	4.1
06-28-1992	14:39:06	34.09 N	116.43 W	A	77	.2	4.3
06-28-1992	14:43:21	34.16 N	116.85 W	B	40	11.1	5.5
06-28-1992	15:04:51	34.16 N	116.83 W	A	42	12.2	4.4
06-28-1992	15:05:30	34.20 N	116.83 W	C	44	5.2	6.4
06-28-1992	15:17:00	34.13 N	116.86 W	B	38	17.9	4.0
06-28-1992	15:17:13	34.10 N	116.87 W	B	37	2.9	4.6
06-28-1992	15:18:33	34.20 N	116.76 W	B	49	2.2	4.6
06-28-1992	15:24:29	34.21 N	116.76 W	C	50	6.0	4.7
06-28-1992	15:25:20	34.21 N	116.80 W	C	46	6.0	4.2
06-28-1992	15:45:54	34.08 N	116.40 W	A	80	2.6	4.2
06-28-1992	15:53:14	34.22 N	116.73 W	B	53	.8	4.1
06-28-1992	15:56:11	34.22 N	116.75 W	A	51	1.4	4.0
06-28-1992	16:01:15	34.03 N	116.38 W	C	82	1.7	4.3
06-28-1992	16:08:37	34.22 N	116.75 W	A	51	4.9	4.1
06-28-1992	16:09:53	34.06 N	116.37 W	A	82	3.8	4.1
06-28-1992	16:17:19	34.21 N	116.76 W	C	50	6.0	4.2
06-28-1992	16:32:10	34.60 N	116.62 W	C	85	6.0	4.4
06-28-1992	16:33:08	34.59 N	116.64 W	C	83	6.0	4.1
06-28-1992	17:01:31	34.18 N	116.92 W	A	35	13.7	5.1
06-28-1992	17:05:57	34.26 N	116.91 W	A	40	7.7	5.0
06-28-1992	17:18:29	34.19 N	116.81 W	A	45	9.1	4.1
06-28-1992	17:18:42	34.25 N	116.78 W	C	50	.0	4.0
06-28-1992	17:21:27	34.22 N	116.86 W	A	42	1.4	4.2
06-28-1992	17:31:21	34.29 N	116.45 W	B	80	6.8	4.1
06-28-1992	17:32:30	34.20 N	116.82 W	A	44	2.2	4.0
06-28-1992	17:39:51	34.38 N	116.47 W	C	82	6.0	4.0
06-28-1992	17:42:32	34.24 N	116.90 W	B	39	6.5	4.0
06-28-1992	17:44:30	34.16 N	116.85 W	A	40	5.3	4.1
06-28-1992	17:48:32	34.22 N	116.75 W	A	51	1.2	4.4

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A = +- 1 km horizontal distance; +- 2 km depth
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Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
06-28-1992	19:26:37	34.18 N	116.80 W	A	45	1.0	4.2
06-28-1992	20:51:31	34.21 N	116.78 W	A	48	11.1	4.1
06-28-1992	21:13:16	34.10 N	116.43 W	A	77	3.8	4.6
06-28-1992	22:13:12	34.06 N	116.36 W	B	84	7.0	4.0
06-28-1992	22:48:22	34.15 N	116.47 W	A	74	11.0	4.1
06-29-1992	03:01:56	34.24 N	116.44 W	A	79	7.5	4.4
06-29-1992	11:07:06	34.50 N	116.53 W	C	84	6.0	4.2
06-29-1992	11:13:18	34.24 N	116.74 W	A	53	3.0	4.1
06-29-1992	11:44:47	34.20 N	116.79 W	A	47	.8	4.3
06-29-1992	11:44:56	34.60 N	116.62 W	C	86	6.0	4.4
06-29-1992	13:20:03	34.64 N	116.49 W	C	97	6.0	4.1
06-29-1992	14:08:37	34.10 N	116.40 W	A	80	10.4	5.5
06-29-1992	14:12:06	34.10 N	116.40 W	B	80	7.1	4.0
06-29-1992	14:13:38	34.11 N	116.40 W	A	80	9.9	5.0
06-29-1992	14:31:30	34.08 N	116.39 W	A	81	4.9	4.6
06-29-1992	14:41:26	34.12 N	117.00 W	A	26	4.7	4.6
06-29-1992	14:54:06	34.10 N	116.42 W	A	78	3.7	4.2
06-29-1992	16:01:42	33.88 N	116.27 W	A	94	1.8	4.8
06-29-1992	16:25:29	34.09 N	116.42 W	A	78	3.0	4.2
06-29-1992	16:41:41	34.25 N	116.72 W	A	55	1.6	4.5
06-29-1992	19:23:20	34.17 N	116.77 W	A	47	8.0	4.0
06-29-1992	20:07:35	33.89 N	116.29 W	A	92	2.5	4.1
06-29-1992	20:44:25	34.66 N	116.70 W	C	85	6.0	4.4
06-30-1992	00:06:08	34.13 N	116.40 W	A	80	3.2	4.4
06-30-1992	11:30:29	34.09 N	116.42 W	A	78	11.6	4.4
06-30-1992	12:14:49	34.09 N	116.42 W	A	78	11.9	4.2
06-30-1992	12:34:54	34.32 N	116.45 W	A	81	4.6	4.2
06-30-1992	14:38:11	34.00 N	116.36 W	A	83	.9	4.9
06-30-1992	15:19:05	34.17 N	116.41 W	A	80	.4	4.1
06-30-1992	15:20:08	34.26 N	116.74 W	C	53	6.0	4.2
06-30-1992	17:14:21	34.06 N	116.37 W	A	82	.0	4.1
06-30-1992	17:26:30	34.64 N	116.66 W	C	86	6.0	4.4
06-30-1992	20:00:25	34.64 N	116.65 W	C	86	6.0	4.3
06-30-1992	20:05:06	33.99 N	116.36 W	A	83	.6	4.1
06-30-1992	21:22:37	34.00 N	116.35 W	A	84	1.4	4.7

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(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
06-30-1992	21:22:54	34.13 N	116.73 W	A	50	11.9	4.8
06-30-1992	21:49:00	34.08 N	116.99 W	A	26	3.6	4.4
07-01-1992	07:01:49	34.10 N	116.38 W	A	81	.0	4.4
07-01-1992	07:40:29	34.33 N	116.46 W	C	80	6.0	5.3
07-01-1992	17:07:15	34.27 N	116.69 W	A	58	4.7	4.2
07-01-1992	17:45:46	34.28 N	116.69 W	B	59	5.9	4.4
07-01-1992	20:46:17	34.28 N	116.73 W	A	55	.7	4.2
07-01-1992	20:53:56	34.28 N	116.73 W	A	55	1.3	4.0
07-02-1992	00:16:22	34.31 N	116.44 W	A	81	6.0	4.0
07-03-1992	04:15:50	34.21 N	116.77 W	A	49	10.6	4.1
07-03-1992	17:17:06	34.26 N	116.90 W	A	41	7.6	4.1
07-05-1992	05:49:38	33.95 N	116.40 W	A	81	3.2	4.1
07-05-1992	20:03:03	34.30 N	116.80 W	A	51	3.1	4.1
07-06-1992	12:00:59	34.09 N	116.37 W	A	83	1.7	4.4
07-06-1992	18:06:36	34.46 N	116.48 W	A	86	.4	4.3
07-06-1992	19:41:37	34.08 N	116.38 W	A	82	3.2	4.4
07-07-1992	08:21:03	34.07 N	116.38 W	A	81	3.2	4.1
07-07-1992	22:09:28	34.34 N	116.47 W	A	80	2.5	4.4
07-09-1992	01:43:57	34.24 N	116.84 W	A	45	.0	4.9
07-09-1992	02:34:35	34.22 N	116.84 W	A	43	.5	4.2
07-09-1992	12:23:17	34.22 N	116.81 W	A	46	1.2	4.2
07-10-1992	01:29:40	34.23 N	116.85 W	A	44	.4	4.2
07-10-1992	02:41:14	34.12 N	116.39 W	A	81	3.4	4.0
07-15-1992	00:18:56	34.33 N	116.46 W	A	80	.0	4.0
07-18-1992	00:06:11	34.10 N	116.42 W	A	78	2.6	4.0
07-20-1992	04:08:23	34.20 N	116.43 W	C	79	6.0	4.1
07-21-1992	21:10:29	34.22 N	116.77 W	A	49	1.7	4.0
07-21-1992	23:22:10	34.13 N	116.60 W	A	62	1.6	4.1
07-24-1992	07:23:56	34.49 N	116.48 W	A	87	8.5	4.0
07-24-1992	18:14:36	33.90 N	116.28 W	A	92	8.2	5.0
07-24-1992	18:15:27	33.89 N	116.29 W	A	92	3.3	4.0
07-25-1992	04:31:59	33.94 N	116.31 W	A	89	4.7	4.8
07-28-1992	18:27:03	34.11 N	116.42 W	A	79	.0	4.6
07-31-1992	18:03:52	34.10 N	116.42 W	A	78	.0	4.0
08-04-1992	19:06:12	34.10 N	116.38 W	A	81	.0	4.0

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(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
08-05-1992	15:41:54	34.65 N	116.53 W	A	95	4.2	4.0
08-07-1992	00:43:28	34.27 N	116.77 W	A	51	1.7	4.0
08-08-1992	15:37:43	34.38 N	116.46 W	A	83	2.8	4.5
08-11-1992	06:11:17	34.06 N	116.37 W	A	82	.7	4.2
08-15-1992	08:24:14	34.09 N	116.40 W	A	80	.4	4.8
08-17-1992	20:41:52	34.19 N	116.86 W	A	40	11.3	5.0
08-18-1992	09:46:40	34.20 N	116.86 W	A	41	12.2	4.2
08-24-1992	13:51:46	34.27 N	116.77 W	A	52	1.8	4.3
08-31-1992	09:25:40	34.45 N	116.47 W	A	86	11.0	4.3
09-09-1992	12:50:45	33.95 N	116.33 W	A	87	5.3	4.3
09-15-1992	08:47:11	34.06 N	116.36 W	A	83	8.3	5.1
09-16-1992	19:23:54	34.33 N	116.39 W	B	86	10.9	4.0
09-18-1992	16:59:51	34.56 N	116.55 W	A	87	3.7	4.0
10-02-1992	07:19:57	34.60 N	116.64 W	A	84	3.4	4.6
10-05-1992	11:18:40	34.29 N	116.45 W	B	80	10.3	4.6
11-27-1992	16:00:57	34.34 N	116.90 W	A	47	1.4	5.4
11-27-1992	18:32:24	34.36 N	116.90 W	A	48	1.1	4.1
11-29-1992	14:21:20	34.37 N	116.88 W	A	50	3.4	4.0
12-04-1992	02:08:57	34.37 N	116.90 W	A	49	3.0	5.2
12-04-1992	05:25:11	34.38 N	116.92 W	A	48	2.7	4.7
12-04-1992	12:59:42	34.36 N	116.91 W	A	47	.7	4.3
12-07-1992	03:33:31	34.36 N	116.92 W	A	47	1.1	4.0
12-11-1992	01:38:34	34.27 N	116.40 W	A	83	2.7	4.1
12-21-1992	11:44:02	34.09 N	116.41 W	A	78	3.6	4.0
02-15-1993	07:59:33	34.40 N	116.46 W	C	84	6.0	4.2
05-31-1993	08:55:29	34.12 N	117.00 W	A	26	5.7	4.1
07-08-1993	22:57:44	34.25 N	116.43 W	A	80	2.4	4.0
08-21-1993	01:46:38	34.03 N	116.32 W	A	87	9.1	5.0
04-06-1994	19:01:04	34.19 N	117.10 W	A	22	7.3	4.8
06-16-1994	16:24:27	34.27 N	116.40 W	A	83	3.4	5.0
08-01-1994	21:34:31	34.64 N	116.52 W	A	95	9.1	4.9
08-07-1994	15:10:25	33.99 N	116.27 W	A	91	7.0	4.0
11-20-1994	04:31:43	34.01 N	116.32 W	A	87	6.3	4.2
05-07-1995	11:03:33	33.90 N	116.29 W	A	91	10.7	4.8
09-05-1995	20:27:18	34.20 N	116.44 W	A	78	.0	4.4

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(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
11-27-1996	01:42:43	33.95 N	116.31 W	A	88	6.0	4.1
06-28-1997	21:45:25	34.17 N	117.34 W	A	15	10.0	4.2
09-19-1997	22:37:14	34.14 N	116.86 W	A	39	10.3	4.1
09-28-1997	15:57:22	34.30 N	116.45 W	A	80	7.7	4.4
12-05-1997	17:04:38	34.10 N	117.00 W	A	25	4.5	4.1
12-21-1997	00:20:58	33.67 N	117.01 W	A	48	.0	4.0
01-05-1998	18:14:06	33.95 N	117.71 W	A	43	11.5	4.3
03-11-1998	12:18:51	34.02 N	117.23 W	A	4	14.9	4.5
08-16-1998	13:34:40	34.12 N	116.93 W	A	32	6.2	4.7
08-20-1998	23:49:58	34.37 N	117.65 W	A	51	9.0	4.4
10-01-1998	18:18:15	34.11 N	116.92 W	A	32	4.4	4.7
10-27-1998	01:08:40	34.32 N	116.84 W	A	49	5.9	4.9
10-27-1998	15:40:17	34.32 N	116.85 W	A	49	4.3	4.1
05-14-1999	07:54:03	34.06 N	116.37 W	A	83	1.9	4.9
05-14-1999	10:52:35	34.03 N	116.36 W	A	83	1.7	4.2
07-19-1999	22:09:27	33.63 N	116.72 W	A	68	14.0	4.2
09-20-1999	07:02:49	34.32 N	116.85 W	A	49	2.8	4.2
02-21-2000	13:49:43	34.05 N	117.26 W	A	1	15.0	4.5
03-07-2000	00:20:28	33.81 N	117.72 W	A	50	11.3	4.0
12-02-2000	08:28:07	34.27 N	116.77 W	A	51	3.3	4.1
02-10-2001	21:05:05	34.29 N	116.95 W	A	40	9.1	5.1
02-11-2001	00:39:15	34.29 N	116.94 W	A	40	8.1	4.2
10-28-2001	16:27:45	33.92 N	118.27 W	A	94	21.1	4.0
10-31-2001	07:56:16	33.51 N	116.51 W	A	92	15.2	5.1
12-14-2001	12:01:35	33.95 N	117.75 W	A	46	13.8	4.0
09-03-2002	07:08:51	33.92 N	117.78 W	A	50	12.9	4.8
02-22-2003	12:19:10	34.31 N	116.85 W	A	48	1.2	5.4
02-22-2003	12:20:15	34.31 N	116.85 W	A	48	4.4	4.0
02-22-2003	12:21:33	34.31 N	116.85 W	A	48	4.4	4.3
02-22-2003	12:25:13	34.33 N	116.86 W	C	48	9.3	4.0
02-22-2003	14:16:08	34.32 N	116.86 W	A	48	4.2	4.1
02-22-2003	19:33:45	34.31 N	116.85 W	A	48	3.0	4.5
02-25-2003	04:03:04	34.32 N	116.84 W	A	49	2.7	4.6
02-27-2003	05:00:21	34.30 N	116.84 W	A	48	4.6	4.0
07-15-2003	06:15:50	34.62 N	116.67 W	A	84	7.6	4.2

NOTE: Q IS A FACTOR RELATING THE QUALITY OF EPICENTRAL DETERMINATION

A = +- 1 km horizontal distance; +- 2 km depth
B = +- 2 km horizontal distance; +- 5 km depth
C = +- 5 km horizontal distance; no depth restriction
D = >+- 5 km horizontal distance

Event qualities are highly suspect prior to 1990. Many of these event qualities are based on incomplete information according to Caltech.

Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
11-13-2004	17:39:16	34.35 N	116.84 W	A	51	9.6	4.2
01-06-2005	14:35:27	34.13 N	117.44 W	A	18	4.2	4.4
01-12-2005	08:10:46	33.95 N	116.40 W	A	81	7.6	4.3
06-12-2005	15:41:46	33.53 N	116.57 W	A	86	14.2	5.2
06-16-2005	20:53:26	34.06 N	117.01 W	A	23	11.6	4.9
06-27-2005	22:17:33	34.05 N	117.03 W	A	21	12.1	4.0
10-18-2005	04:08:41	34.01 N	116.78 W	A	45	16.7	4.1
10-18-2005	07:31:03	34.01 N	116.78 W	A	45	18.6	4.4
12-03-2005	07:49:34	34.33 N	116.83 W	A	50	5.1	4.1
06-02-2007	05:11:26	33.87 N	116.21 W	A	99	4.8	4.3
08-09-2007	07:58:49	34.30 N	118.06 W	A	79	7.6	4.7
09-02-2007	17:29:14	33.73 N	117.48 W	A	40	12.6	4.7
10-16-2007	08:53:44	34.38 N	117.64 W	A	51	8.1	4.2
12-19-2007	12:14:09	34.16 N	116.98 W	A	29	9.3	4.1
03-09-2008	09:22:32	34.14 N	117.46 W	A	21	3.7	4.0
06-23-2008	14:14:57	34.05 N	117.25 W	A	2	14.4	4.0
07-29-2008	18:42:15	33.95 N	117.76 W	A	47	14.7	5.4
10-02-2008	09:41:49	34.08 N	116.97 W	A	27	12.5	4.1
01-09-2009	03:49:46	34.11 N	117.30 W	A	8	14.2	4.5
04-24-2009	03:27:50	33.89 N	117.79 W	A	52	4.2	4.0
05-18-2009	03:39:36	33.94 N	118.34 W	A	100	13.9	4.7
05-19-2009	22:49:11	33.93 N	118.33 W	A	99	12.8	4.0
01-12-2010	02:36:08	33.97 N	116.88 W	A	37	10.1	4.3
01-16-2010	12:03:25	33.93 N	117.02 W	A	26	13.9	4.3
02-13-2010	21:39:06	34.00 N	117.18 W	A	9	8.5	4.1
03-16-2010	11:04:00	33.99 N	118.08 W	A	76	18.9	4.4

NOTE: Q IS A FACTOR RELATING THE QUALITY OF EPICENTRAL DETERMINATION

A = +- 1 km horizontal distance; +- 2 km depth
B = +- 2 km horizontal distance; +- 5 km depth
C = +- 5 km horizontal distance; no depth restriction
D = >+- 5 km horizontal distance

Event qualities are highly suspect prior to 1990. Many of these event qualities are based on incomplete information according to Caltech.

Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(CAL TECH DATA 1932-2010)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE

S E A R C H O F E A R T H Q U A K E D A T A F I L E 1

SITE: Loma Linda University Medical Center, Loma Linda, CA

COORDINATES OF SITE	34.0490 N 117.2628 W
DISTANCE PER DEGREE	110.9 KM-N 92.3 KM-W
MAGNITUDE LIMITS	4.0 - 8.5
TEMPORAL LIMITS	1932 - 2010
SEARCH RADIUS (KM)	100
NUMBER OF YEARS OF DATA	78.25
NUMBER OF EARTHQUAKES IN FILE	4423
NUMBER OF EARTHQUAKES IN AREA	656

MACTEC Engineering and Consulting

Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(RICHTER DATA 1906-1931)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
09-20-1907	01:54:00	34.20 N	117.10 W	D	23	.0	6.0
05-15-1910	15:47:00	33.70 N	117.40 W	D	41	.0	6.0
04-21-1918	22:32:25	33.75 N	117.00 W	D	41	.0	6.8
07-23-1923	07:30:26	34.00 N	117.25 W	D	6	.0	6.3

S E A R C H O F E A R T H Q U A K E D A T A F I L E 2

SITE: Loma Linda University Medical Center, Loma Linda, CA

COORDINATES OF SITE ..... 34.0490 N 117.2628 W

DISTANCE PER DEGREE ..... 110.9 KM-N 92.3 KM-W

MAGNITUDE LIMITS ..... 6.0 - 8.5

TEMPORAL LIMITS ..... 1906 - 1931

SEARCH RADIUS (KM) 100

NUMBER OF YEARS OF DATA 26.00

NUMBER OF EARTHQUAKES IN FILE 35

NUMBER OF EARTHQUAKES IN AREA 4

MACTEC Engineering and Consulting

Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site
(NOAA/CDMG DATA 1812-1905)

DATE	TIME	LATITUDE	LONGITUDE	Q	DIST	DEPTH	MAGNITUDE
02-09-1890	04:06:00	34.00 N	117.50 W	D	23	.0	7.0
12-25-1899	04:25:00	33.50 N	116.50 W	D	93	.0	7.0

S E A R C H O F E A R T H Q U A K E D A T A F I L E 3

SITE: Loma Linda University Medical Center, Loma Linda, CA

COORDINATES OF SITE ..... 34.0490 N 117.2628 W
DISTANCE PER DEGREE ..... 110.9 KM-N 92.3 KM-W
MAGNITUDE LIMITS ..... 7.0 - 8.5
TEMPORAL LIMITS ..... 1812 - 1905
SEARCH RADIUS (KM) 100
NUMBER OF YEARS OF DATA 94.00
NUMBER OF EARTHQUAKES IN FILE 9
NUMBER OF EARTHQUAKES IN AREA 2

MACTEC Engineering and Consulting

Table 3 - continued
List of Historic Earthquakes of Magnitude 4.0 or Greater Within 100 Km of the Site

S U M M A R Y O F E A R T H Q U A K E S E A R C H

* * *

NUMBER OF HISTORIC EARTHQUAKES WITHIN 100 KM RADIUS OF SITE

MAGNITUDE RANGE	NUMBER
4.0 - 4.5	442
4.5 - 5.0	152
5.0 - 5.5	49
5.5 - 6.0	8
6.0 - 6.5	7
6.5 - 7.0	1
7.0 - 7.5	3
7.5 - 8.0	0
8.0 - 8.5	0

* * *

MACTEC Engineering and Consulting

Table 4, Site-Specific Response Spectra
Pseudospectral Velocity in Inches/Second

	2% Damping		5% Damping		10% Damping	
Period in Seconds	Maximum Considered Earthquake	Design	Maximum Considered Earthquake	Design	Maximum Considered Earthquake	Design
0.01	0.08	0.05	0.08	0.05	0.08	0.05
0.02	1.69	1.12	1.69	1.12	1.69	1.12
0.03	2.74	1.83	2.74	1.83	2.74	1.83
0.05	4.61	3.07	4.61	3.07	4.61	3.07
0.08	8.40	5.60	7.65	5.10	7.08	4.61
0.10	14.04	9.36	11.74	7.83	10.00	6.66
0.15	27.17	18.11	20.99	13.99	16.31	10.87
0.20	39.31	26.21	30.37	20.24	23.60	15.73
0.25	54.11	36.08	41.80	27.87	32.49	21.66
0.30	65.59	43.72	52.01	34.67	41.74	27.82
0.40	82.90	55.26	67.52	45.02	55.90	37.26
0.50	98.83	65.88	80.50	53.67	66.64	44.42
0.75	123.84	82.56	100.87	67.25	83.50	55.67
1.00	135.60	90.40	110.45	73.63	91.43	60.95
1.50	164.59	109.73	136.80	91.20	115.78	77.19
2.00	165.40	110.26	140.34	93.56	121.38	80.92
3.00	178.93	119.29	151.82	101.21	131.31	87.54
4.00	189.00	126.00	160.36	106.91	138.70	92.47

By: HP 8/10/10
Chkd: ET 5/10/11

Table 5, Site-Specific Response Spectra
Spectral Acceleration in g

	2% Damping		5% Damping		10% Damping	
Period in Seconds	Maximum Considered Earthquake	Design	Maximum Considered Earthquake	Design	Maximum Considered Earthquake	Design
0.01	1.34	0.89	1.34	0.89	1.34	0.89
0.02	1.37	0.91	1.37	0.91	1.37	0.91
0.03	1.49	0.99	1.49	0.99	1.49	0.99
0.05	1.50	1.00	1.50	1.00	1.50	1.00
0.08	1.82	1.21	1.66	1.11	1.53	1.00
0.10	2.28	1.52	1.91	1.27	1.63	1.08
0.15	2.95	1.96	2.28	1.52	1.77	1.18
0.20	3.20	2.13	2.47	1.65	1.92	1.28
0.25	3.52	2.35	2.72	1.81	2.11	1.41
0.30	3.56	2.37	2.82	1.88	2.26	1.51
0.40	3.37	2.25	2.75	1.83	2.27	1.51
0.50	3.21	2.14	2.62	1.75	2.17	1.44
0.75	2.68	1.79	2.19	1.46	1.81	1.21
1.00	2.20	1.47	1.80	1.20	1.49	0.99
1.50	1.78	1.19	1.48	0.99	1.26	0.84
2.00	1.34	0.90	1.14	0.76	0.99	0.66
3.00	0.97	0.65	0.82	0.55	0.71	0.47
4.00	0.77	0.51	0.65	0.43	0.56	0.38

By: HP 8/10/10
Chkd: ET 5/10/11

FIGURES

APPENDIX A

CURRENT EXPLORATIONS AND LABORATORY TESTS

APPENDIX A

CURRENT EXPLORATIONS AND LABORATORY TESTS

EXPLORATIONS

The soil conditions beneath the site were explored by drilling 16 borings at the locations shown on Figure 2. The borings were drilled to depths of 40 to 81 feet below the existing grade using 8-inch-diameter hollow-stem-auger-type drilling equipment.

The soils encountered were logged by our field technician, and undisturbed and bulk samples were obtained for laboratory inspection and testing. The logs of the borings are presented on Figures A-1.1 through A-1.16; the depths at which undisturbed samples were obtained are indicated to the left of the boring logs. The number of blows required to drive the Crandall sampler 12 inches using a 140-pound hammer falling 30 inches is indicated on the logs. In addition to obtaining undisturbed samples, standard penetration tests (SPT) were performed in 8 of the borings; the results of the tests are indicated on the logs. The soils are classified in the accordance with the Unified Soil Classification System described on Figure A-2.

LABORATORY TESTS

Laboratory tests were performed on selected samples obtained from the borings to aid in the classification of the soils and to determine their engineering properties.

The field moisture content and dry density of the soils encountered were determined by performing tests on the undisturbed samples. The results of the tests are shown to the left on the boring logs.

To determine the percentage of fines, passing No.200 sieve tests (material passing through a -200 sieve)in selected samples were performed. The results of these tests are presented on the boring logs.

Direct shear tests were performed on selected undisturbed samples to determine the strength of the soils. The tests were performed at field moisture content and after soaking to near-saturated moisture content and at various surcharge pressures. Remolded samples, compacted to 90% of the maximum dry density obtainable by the ASTM Designation D1557 method of compaction, were tested at optimum moisture content and after soaking to near-saturated moisture content. The yield-

point values determined from the direct shear tests are presented on Figure A-3, Direct Shear Test Data.

Confined consolidation tests were performed on five undisturbed samples and one remolded sample to determine the compressibility of the soils. Water was added to five of the samples during the tests to illustrate the effect of moisture on the compressibility. The results of the tests are presented on Figures A-4.1 through A-4.3, Consolidation Test Data.

The optimum moisture content and maximum dry density of the upper soils were determined by performing three compaction tests on samples obtained from Boring 5, 9 and 12. The tests were performed in accordance with the ASTM Designation D1557 method of compaction. The results of the tests are presented on Figure A-5.1 and 5.2, Compaction Test Data.

In addition to the normal consolidation tests, "quick" consolidation tests were performed on selected undisturbed samples to determine the hydroconsolidation potential of the soils. The tests were performed by confining the sample under a normal surcharge pressure, allowing the sample to consolidate at its field moisture content, and then saturating the sample and measuring the consolidation resulting from the addition of water. The test results (percent hydroconsolidation) of these tests are presented on Figure A-6, Hydroconsolidation Test Data.

The Expansion Index of the soils was determined by testing one sample in accordance with the Uniform Building Code Standard No. 29-2 method. The results of the test are shown on Figure A-7, Expansion Index Test Data.

To provide information for paving design, a stabilometer test ("R" value test) was performed on two samples of the upper soils. The test was performed for us by LaBelle·Marvin Professional Pavement Engineering. The results of the test are presented on Figures A-8.1 and A-8.2.

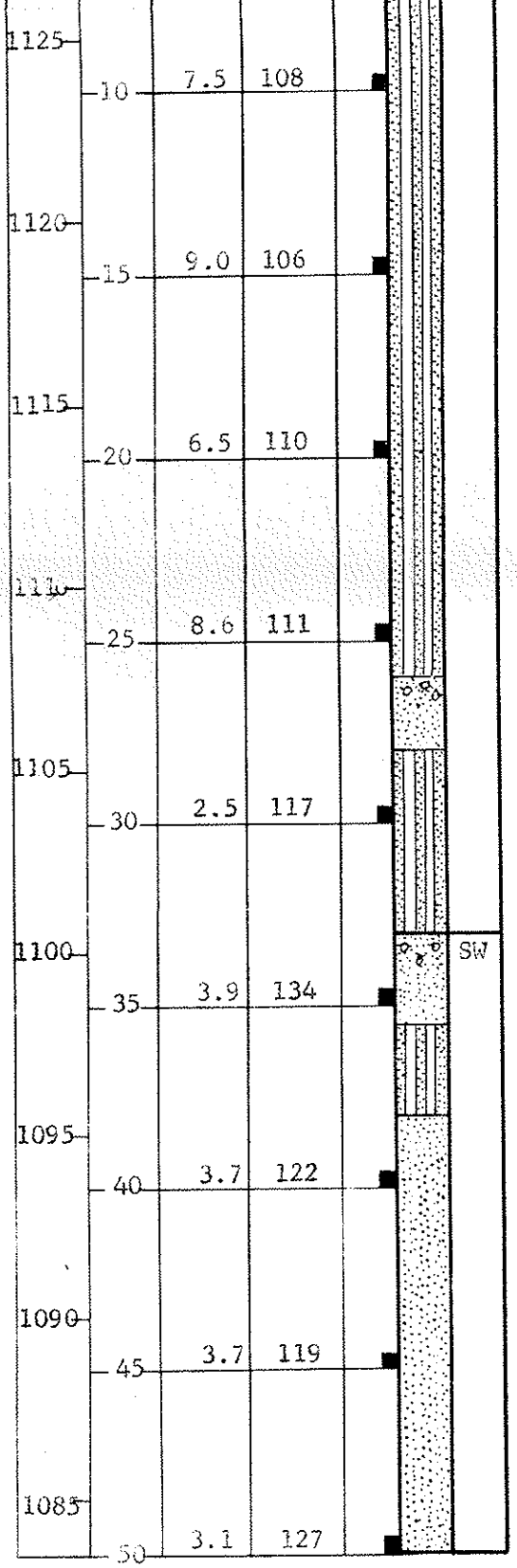
APPENDIX B

CURRENT CONE PENETROMETER TEST RESULTS

APPENDIX C

PRIOR EXPLORATIONS AND LABORATORY TESTS

Our Job No. 63628



Few gravel

Layer of SAND - well graded, 5% gravel, brown

SAND - well graded, few gravel, light brown

Layer of SILTY SAND

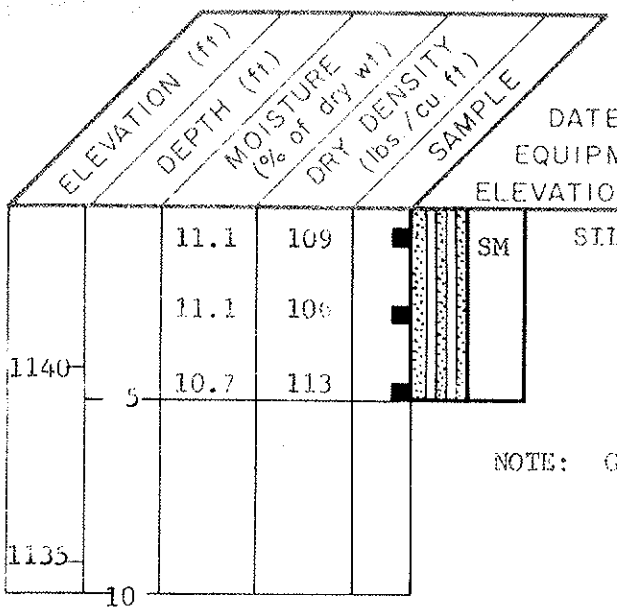
Lenses of SILTY SAND

NOTE: Groundwater not encountered; no caving.

JOB 63628 DATE 10-11-63 DR R.J.C. OE CHKD

BORING 13

DATE DRILLED: September 24, 1963
EQUIPMENT USED: 18"-Diameter Rotary Bucket
ELEVATION 1144.2

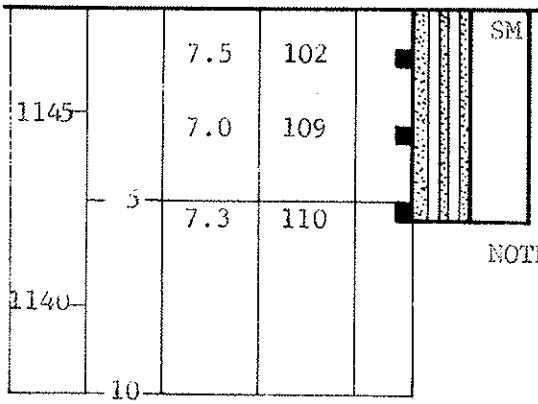


SILTY SAND - fine, brown

NOTE: Groundwater not encountered; no caving.

BORING 14

DATE DRILLED: September 24, 1963
EQUIPMENT USED: 18"-Diameter Rotary Bucket
ELEVATION 1147.6



SILTY SAND - fine, light brown

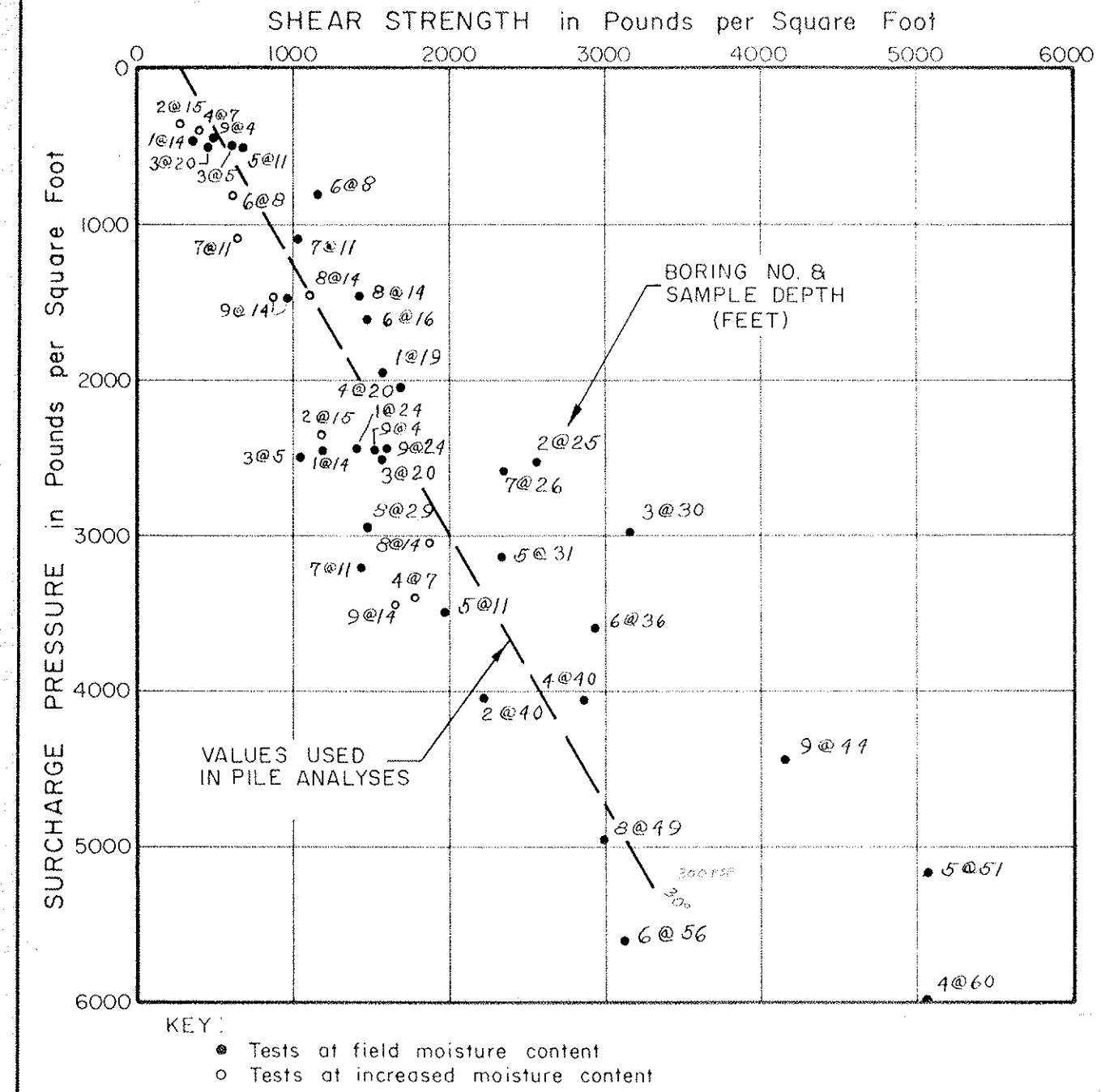
NOTE: Groundwater not encountered; no caving.

LOG OF BORING

LEROY CRANDALL & ASSOCIATES

PLATE A-1K

JOB 63628 DATE 10-9-63 DR R.J.C. O.E. ____ CHKD. ____

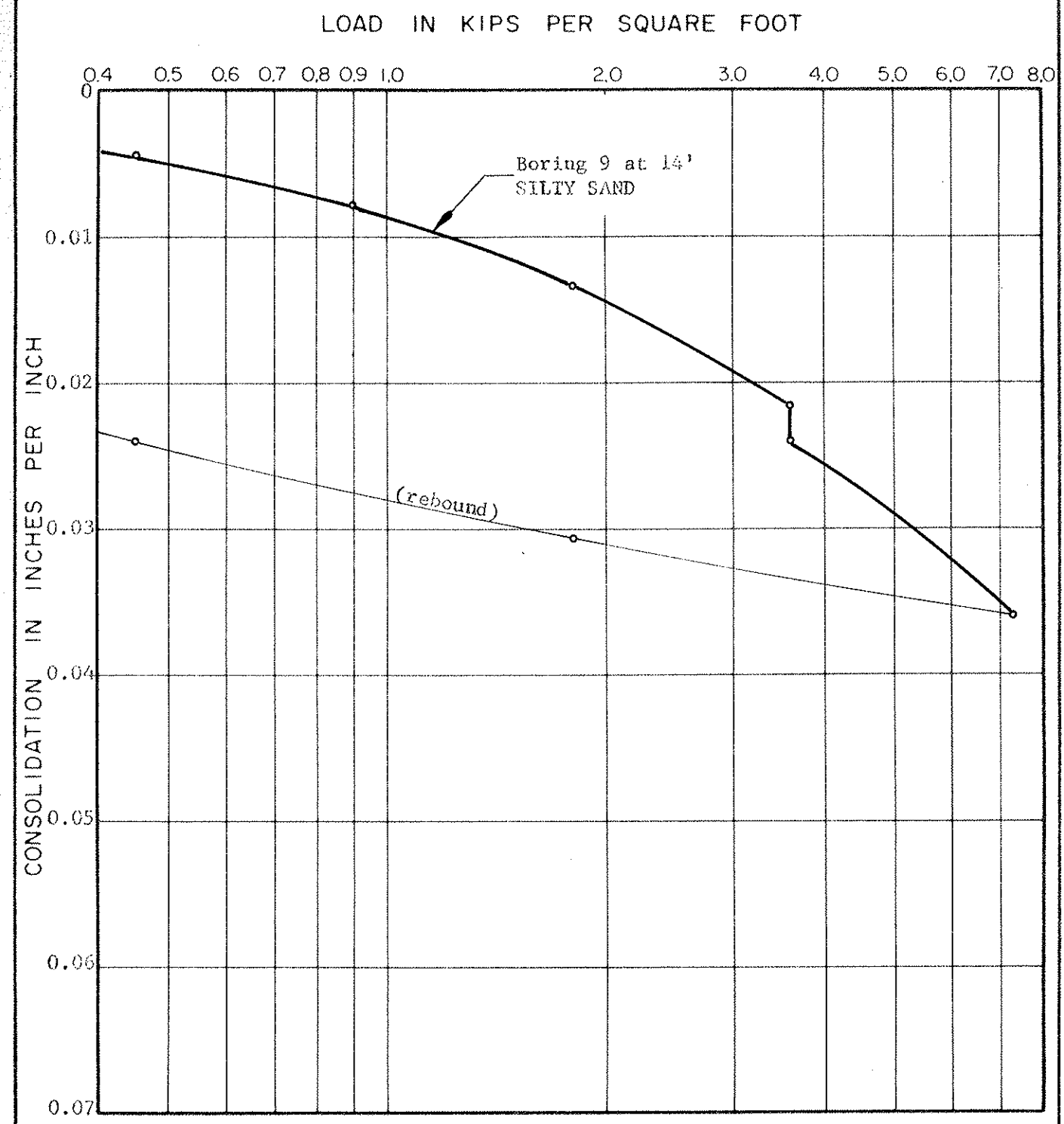


DIRECT SHEAR TEST DATA

LEROY CRANDALL & ASSOCIATES

PLATE A-3

JOB 63628 DATE 10-7-63 DR R. CLARK ms O.E. SL CHKD. CH



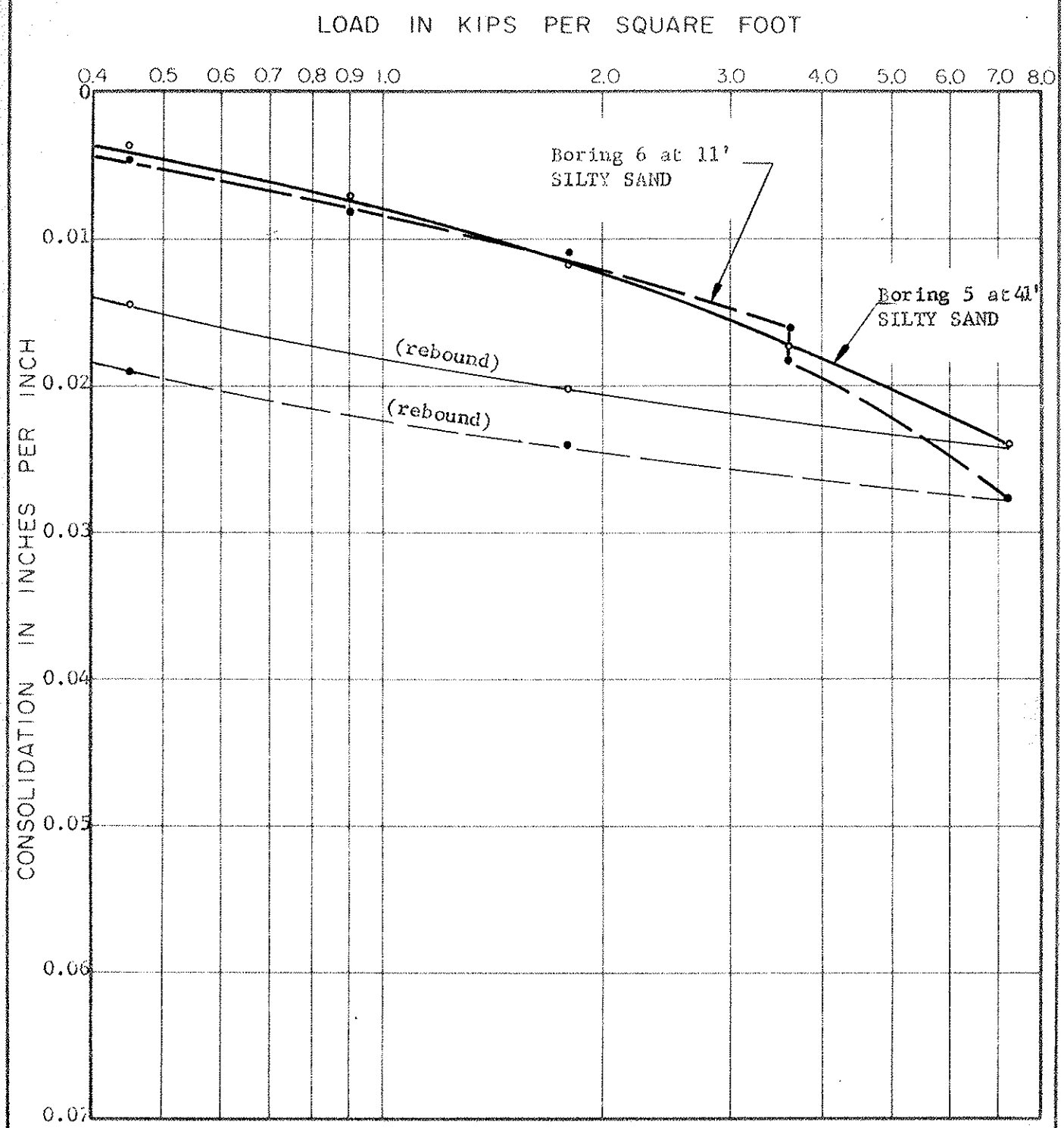
NOTE: Water added to sample after consolidation under a load of 3.6 kips per square foot.

CONSOLIDATION TEST DATA

LEROY CRANDALL & ASSOCIATES

PLATE A-48

JOB 63628 DATE 10-8-63 DR R.J.C. MS O.E. CHKD. G.V.



NOTE: Water added to sample from Boring 6 after consolidation under a load of 3.6 kips per square foot. The other sample tested at field moisture content.

CONSOLIDATION TEST DATA

LEROY CRANDALL & ASSOCIATES

PLATE A-4C

SOURCE & SAMPLE DEPTH:	Boring 10 from 0' to 1½'	Boring 14 from 0' to 1½'
SOIL TYPE:	Silty Sand	Silty Sand
OPTIMUM MOISTURE CONTENT*: (% of Dry Wt.)	10	9
MAXIMUM DRY DENSITY*: (Lbs./Cu.Ft.)	127	127
EXPANSION DUE TO SOAKING (%): (from Optimum to Saturated Moisture Content)	½	0
CBR (% of Standard)**:		
At 90% Compaction	13	11
At 95% Compaction	28	27

*TEST METHOD: ASTM Designation D1557-58T method of compaction modified to use three layers instead of five layers.

**TEST METHOD: ASTM Designation D1883-61T.

JOB 63628 DATE 10/14/63 BY ms

COMPACTION AND C.B.R. TEST DATA

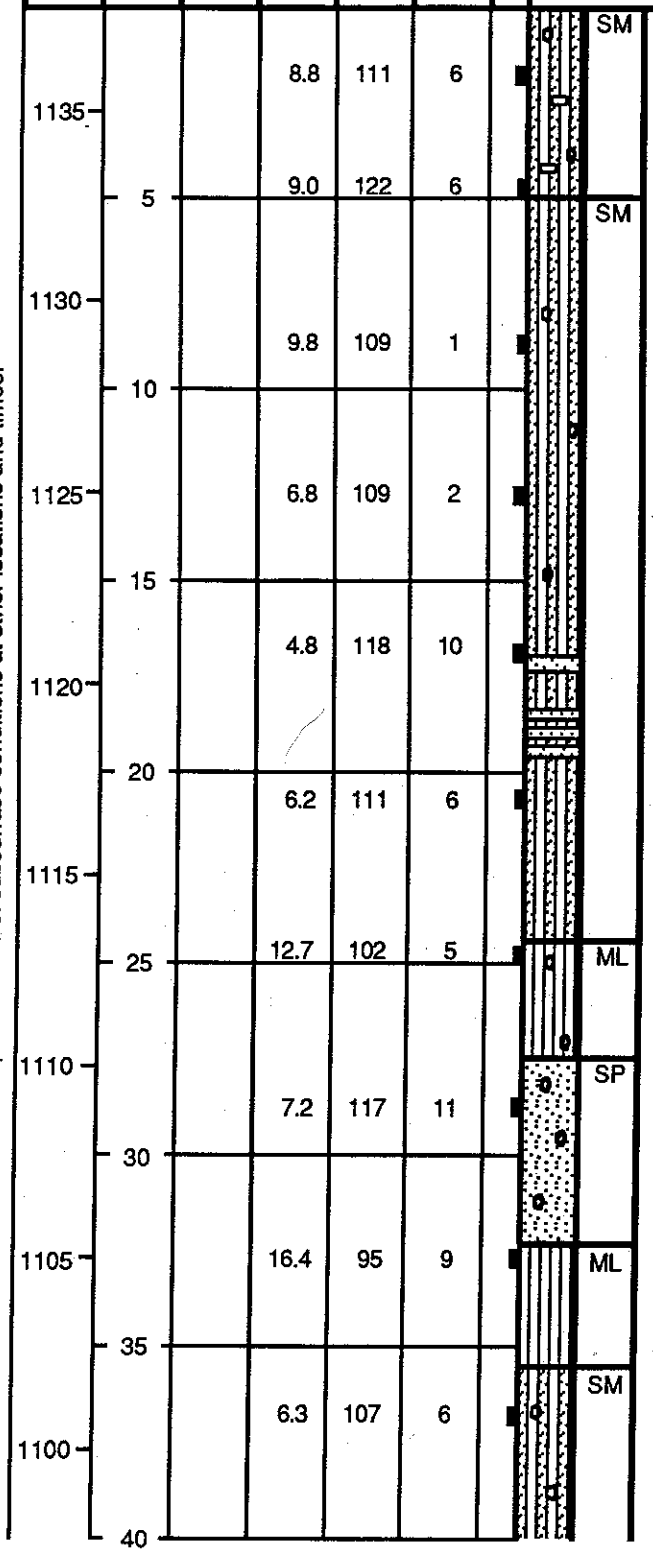
Our Job No. A-87027

JOB AE-87027 DATE 2/10/87 F.T. LS DR. dmh O.E. SK W.P. dmh CHKD PAA

BORING 1

DATE DRILLED: February 4, 1987
EQUIPMENT USED: 18"- Diameter Bucket

ELEVATION 1137.7 *



FILL - SILTY SAND - fine, few Gravel, brown

Pieces of wood

Dark brown

SILTY SAND - fine, light brown

Few Gravel, brown

Some medium

Lenses of Sand

* See Plate 1 for location and elevation of bench mark.

SANDY SILT - few Gravel, brown

SAND - fine to medium, some Silt, about 15% Gravel, light brown

SANDY SILT - light brown

SILTY SAND - fine to medium, few Gravel, light brown

Some coarse

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.

(CONTINUED ON FOLLOWING PLATE)

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

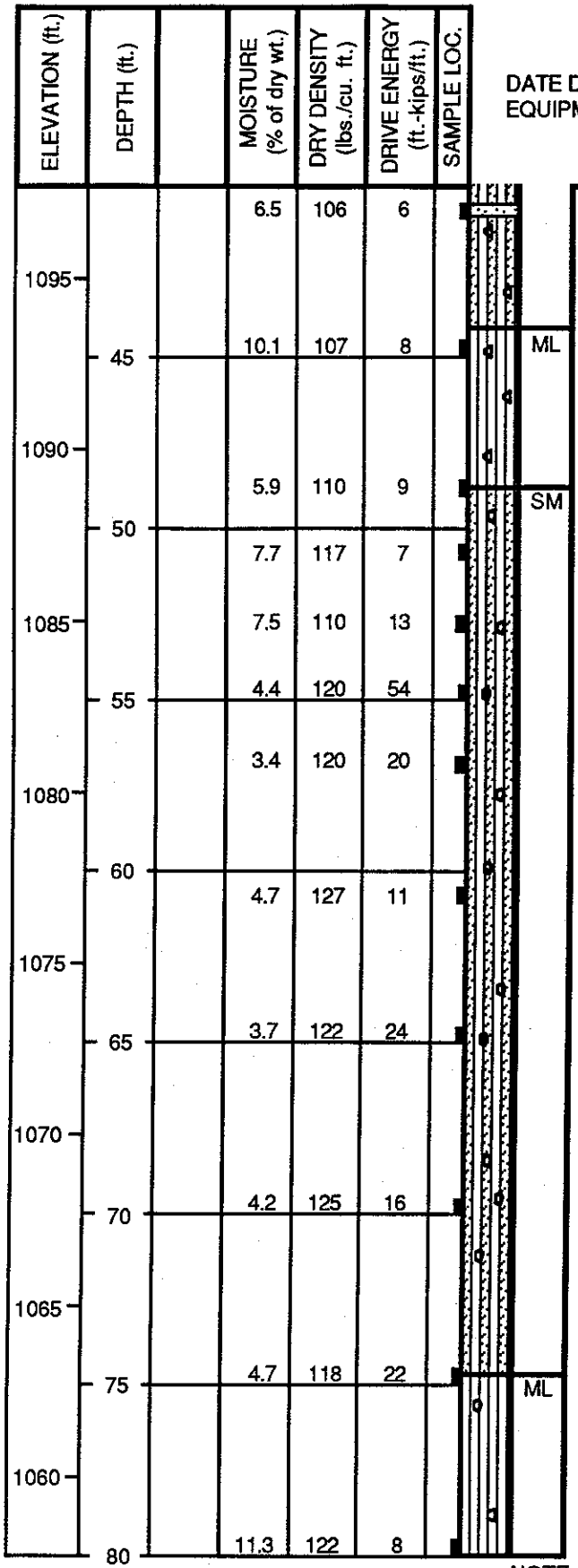
PLATE A - 1.1a

JOB AE-87027 DATE 2/10/87 F.T. LS DR. dmh O.E. SK W.P. dmh CHKD DM

BORING 1 (Continued)

DATE DRILLED: February 4, 1987
EQUIPMENT USED: 18"- Diameter Bucket

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.



Lens of Sand

SANDY SILT - light brown

About 10% Gravel

SILTY SAND - fine and medium, few Gravel, light brown

About 15% Gravel

Light reddish brown

Siltier

SANDY SILT - few Gravel, brown

NOTE: Water not encountered. Patchy raveling in the Sandy soils.

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

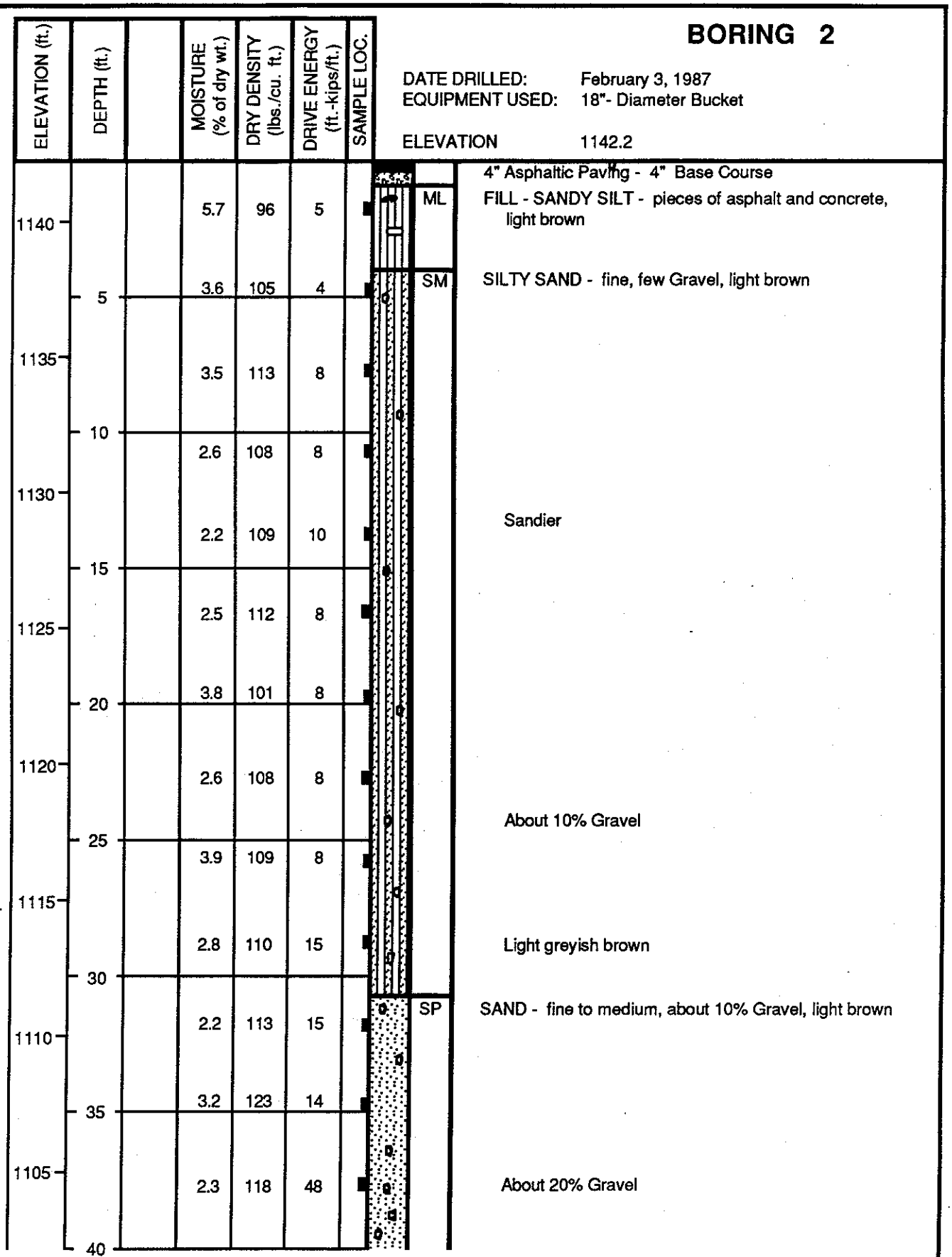
PLATE A - 1.1b

JOB AE-87027 DATE 2/10/87 F.T. LS DR. dmh O.E. SK W.P. dmh CHKD DAF

BORING 2

DATE DRILLED: February 3, 1987
EQUIPMENT USED: 18"- Diameter Bucket

ELEVATION 1142.2



4" Asphaltic Paving - 4" Base Course

FILL - SANDY SILT - pieces of asphalt and concrete, light brown

SILTY SAND - fine, few Gravel, light brown

Sandier

About 10% Gravel

Light greyish brown

SAND - fine to medium, about 10% Gravel, light brown

About 20% Gravel

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.

(CONTINUED ON FOLLOWING PLATE)

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

PLATE A - 1.2a

BORING 2 (Continued)

DATE DRILLED: February 3, 1987
EQUIPMENT USED: 18"- Diameter Bucket

ELEVATION (ft.)	DEPTH (ft.)	MOISTURE (% of dry wt.)	DRY DENSITY (lbs./cu. ft.)	DRIVE ENERGY (ft.-kips/ft.)	SAMPLE LOC.		
		2.2	122	19			Brown
1100		2.2	121	20		SM	SILTY SAND - fine and medium, about 25% Gravel and Cobbles, light brown
		5.7	110	6			
	45					ML	SANDY SILT - few Gravel, light brown to brown
1095		6.0	100	6			
		10.2	111	6			Brown
	50	10.3	109	13			Sandier
1090		5.6	109	8			Light reddish brown
		5.8	108	8			
	55					SM	SILTY SAND - fine, few Gravel, light reddish brown
1085		4.6	115	18			
	60						
		3.3	120	18			Light brown
1080						ML	SANDY SILT - fine, brown
		3.6	121	12		SP	SAND - fine to medium, few Gravel, light brown
	65						
1075						ML	SANDY SILT - few Gravel, reddish brown
		4.6	111	34			
	70						
1070						SP	SAND - fine to medium, about 20% Gravel, light brown
		2.5	123	16			
	75						
1065						SM	SILTY SAND - fine, reddish brown
		6.2	126	12			
	80						

NOTE: Water not encountered. No caving.

Note : The log of subsurface conditions shown hereon applies only at the specific boring location and at the date indicated. It is not warranted to be representative of subsurface conditions at other locations and times.

Job AE-87027 DATE 2/10/87 F.T. LS DR. dmh O.E. SK W.P. dmh CHKD DM

LOG OF BORING

LeROY CRANDALL AND ASSOCIATES

PLATE A - 1.2b

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amt. of fines)	GM	Silty gravels, gravel-sand-silt mixtures.
			GC	Clayey gravels, gravel-sand-clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)	CLEAN SANDS (Little or no fines)	SW	Well graded sands, gravelly sands, little or no fines.
			SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amt. of fines)	SM	Silty sands, sand-silt mixtures.
			SC	Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
			OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

PARTICLE SIZE LIMITS

SILT OR CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

NO. 200 NO. 40 NO. 10 NO. 4 3/4 in. 3 in. (12 in.)

U. S. STANDARD SIEVE SIZE

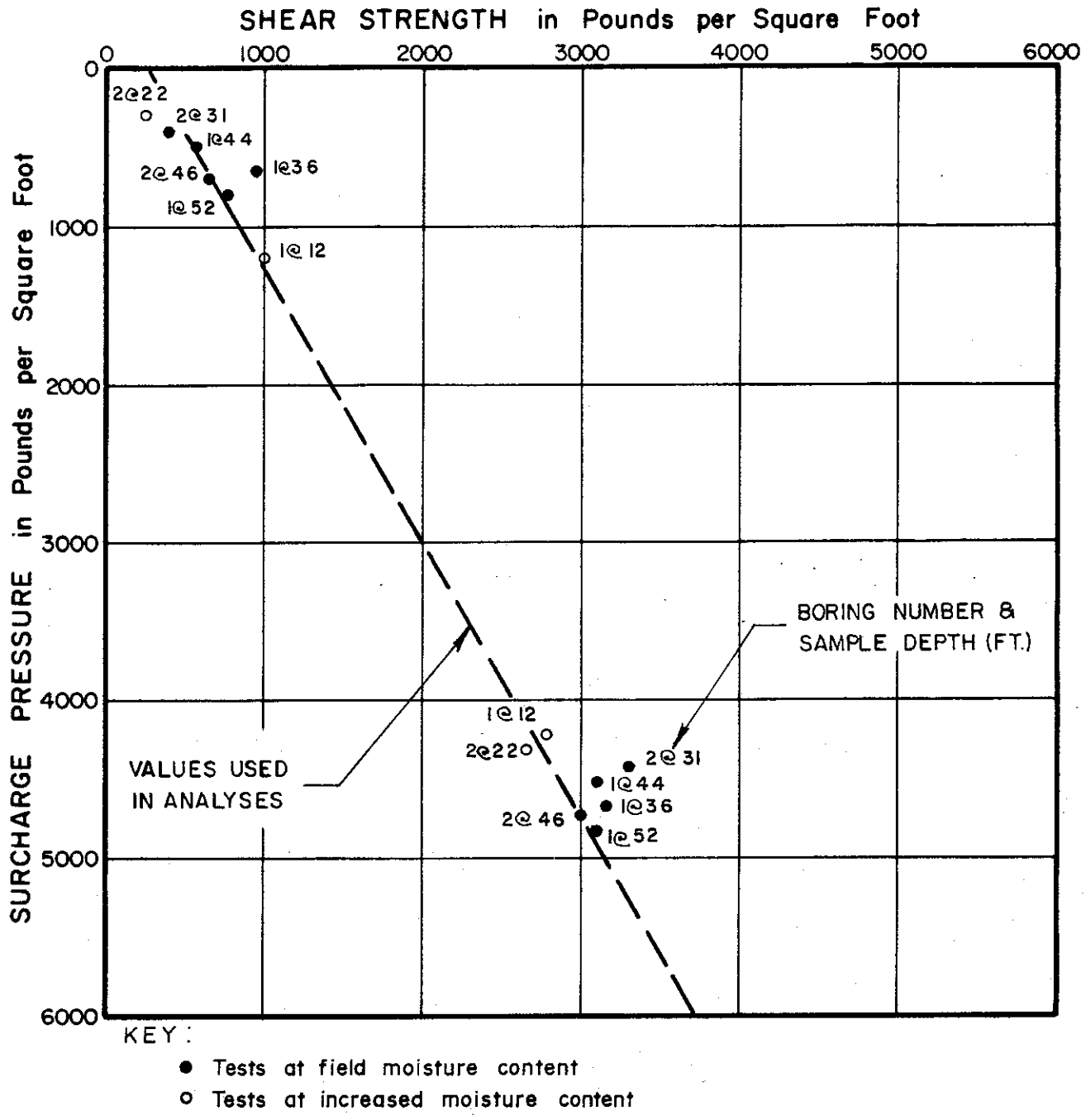
UNIFIED SOIL CLASSIFICATION SYSTEM

Reference:
The Unified Soil Classification System, Corps of Engineers, U. S. Army Technical Memorandum No. 3-357, Vol. I, March, 1953. (Revised April, 1960)

LeRoy Crandall and Associates

PLATE A-2

FORM 13

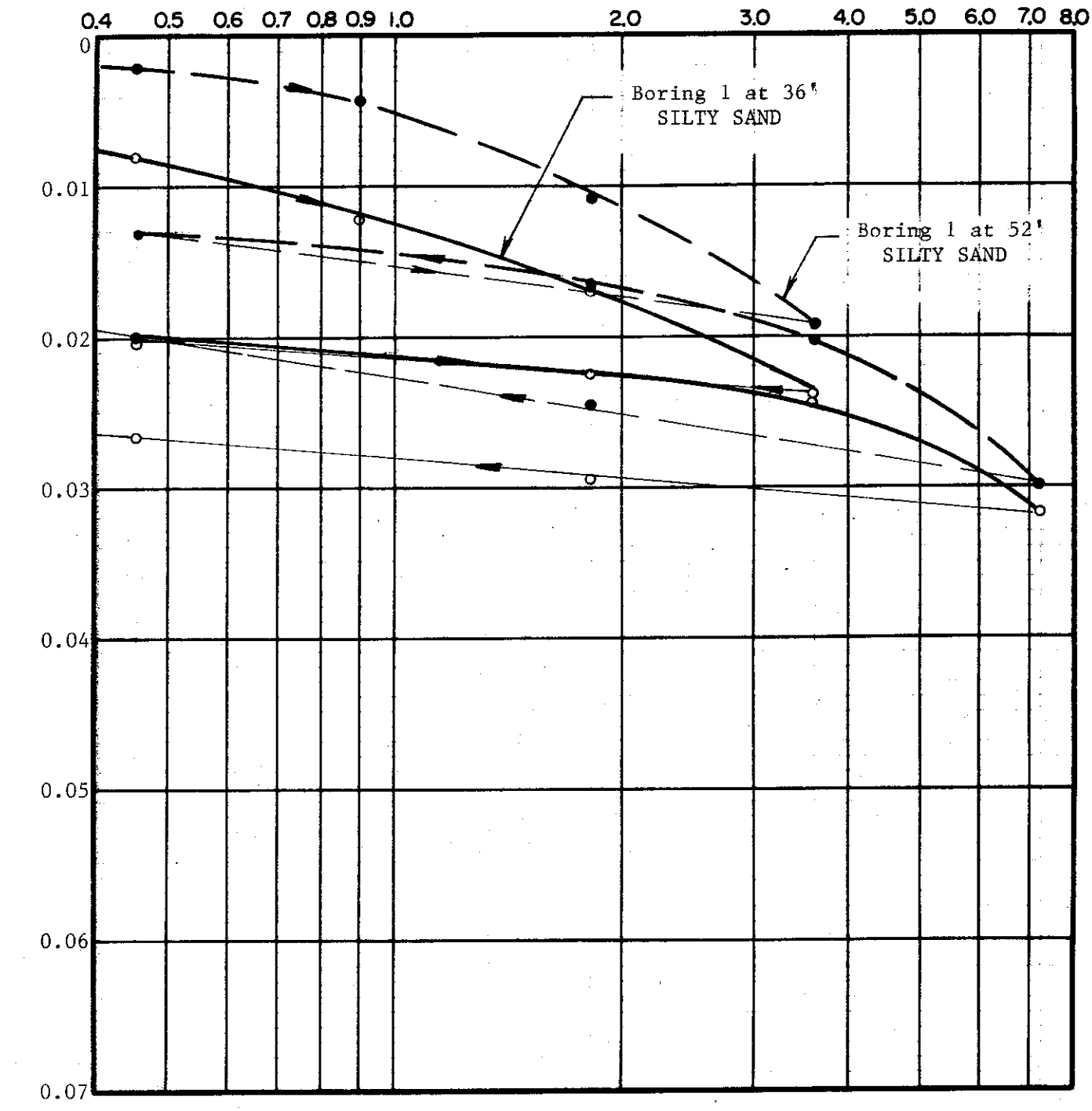


DIRECT SHEAR TEST DATA

LEROY CRANDALL & ASSOCIATES

PLATE A-3

108 JOB AE-87027 DATE 2/17/87 JOHN O.E. DM CHKD. SK



NOTE: Samples tested at field moisture content.

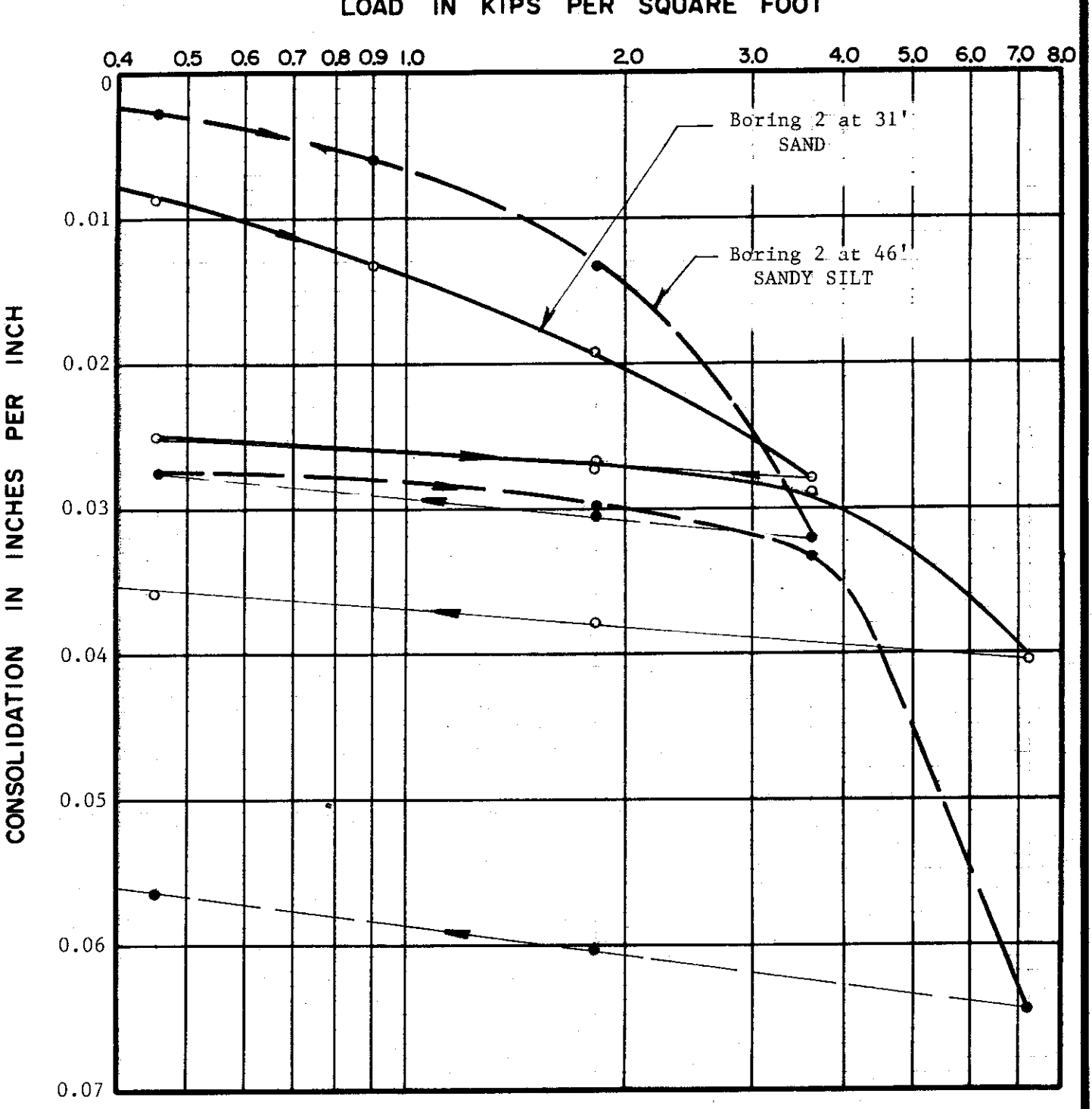
CONSOLIDATION TEST DATA

LeROY CRANDALL AND ASSOCIATES

PLATE A-4.1

JOB AE-87027 DATE 2/16/87 DR. JOHN E. SK W.P. lp CHKD DM

FORM 116



NOTE: Samples tested at field moisture content.

CONSOLIDATION TEST DATA

LeROY CRANDALL AND ASSOCIATES

PLATE A-4.2

JOB AE-87027 DATE 2/16/87 DR. JOHN E.K. W.P. lp CHKD DC

FORM 116

APPENDIX E

RESULTS OF FIELD PERMEABILITY TESTS

APPENDIX E

FIELD PERMEABILITY TESTING

Test Method

We tested the permeability of the soils at two selected locations using method USBR 7300-89, described in the United States Department of the Interior, Bureau of Reclamation (USBR), Earth Manual, 1990. The method consists of:

- Drilling a boring to the desired depth;
- Backfilling the boring with 4 inches of gravel;
- Adding relatively clean water into the borehole and maintaining it at a constant level;
- Measuring the volume of water added to the borehole to maintain the water level at a constant height;
- Using the amount of water added to the boring and the boring dimensions to calculate the permeability.

The test is run long enough to establish a steady state flow condition. Steady state condition is identified when consistent flow rates are observed during testing.

Test Preparation

Borings were drilled at two selected locations, as shown on Figure 2. The borings were drilled using 8-inch diameter hollow stem auger drilling equipment. The borings were drilled to the pre-determined depth and terminated for permeability testing. After completion of drilling, 4 inches of pea gravel were placed at the bottom of the boring and the boring was pre-soaked with water. The permeability test was performed in the borings on the following day.

An on-site water source was used to supply water to the borings and maintain a constant head. Water was released to the borings using a float-activated valve that automatically added water to maintain a constant level in the percolation test boring. The volume of water added to the borings was periodically obtained by recording from the water flow meter installed at the on-site water source. The test was continued until steady state seepage was established as indicated by a nearly constant flow rate.

Based on the results of our current and previous borings on the site and the historic-high ground-water level, the field permeability tests at the site are governed by Condition I (Low Water Table) as given in method USBR 7300-89.

Test Results

The soil permeability was calculated using the physical dimensions of the borings, flow rates, and equations shown in the USBR 7300-89 Test Procedure. The flow measurements used for the calculations were averaged for a period after equilibrium was reached. The permeability results are presented below.

Boring No.	Depth (ft)	Material	Permeability (inches per hour)
P-1	6 to 11	Silty Sand	0.6
P-2	6 to 11	Silty Sand	0.4

APPENDIX E

CORROSION STUDY RESULTS

REFERENCE:
MAPPOINT NORTH AMERICA, 2009

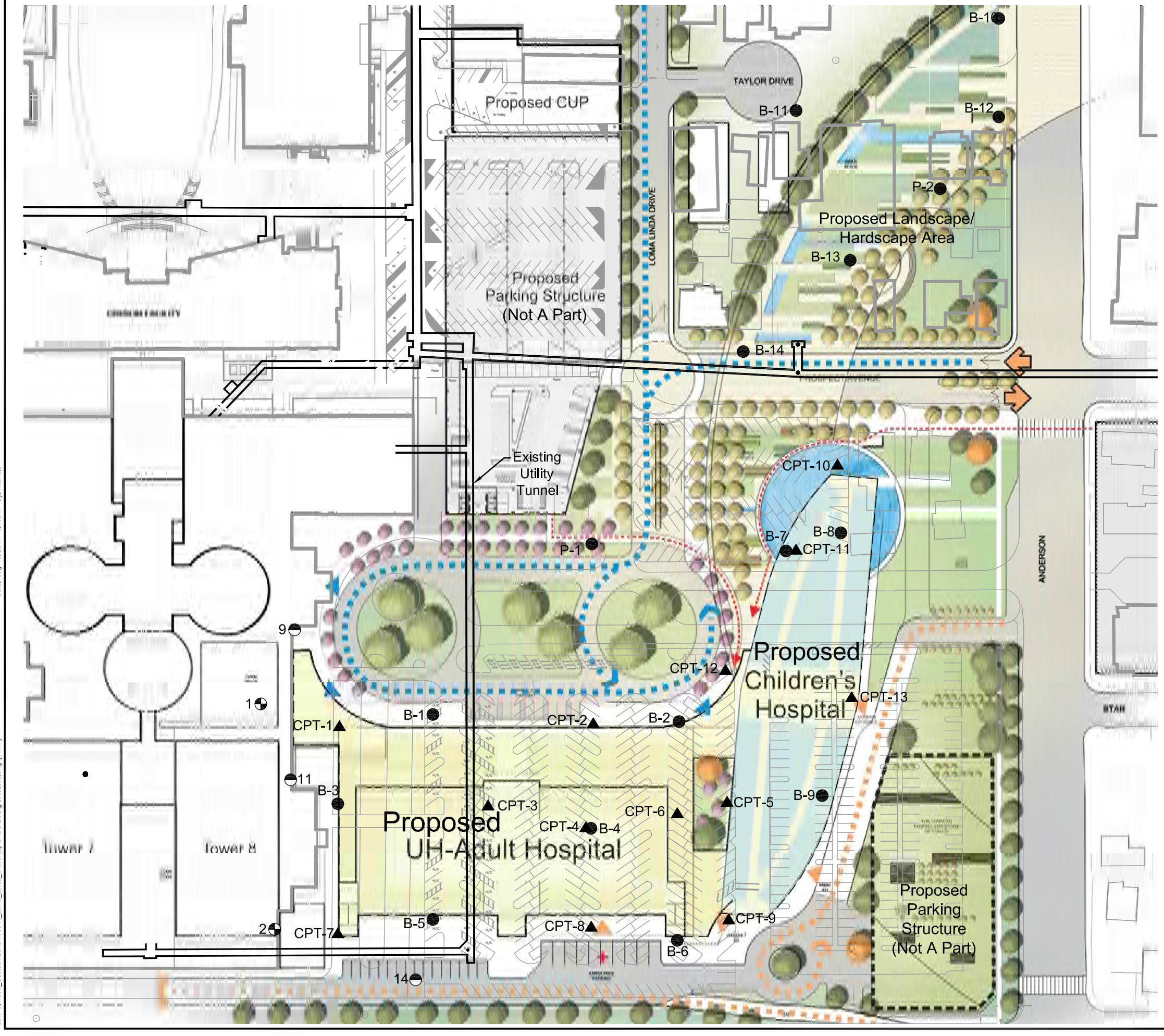
MACTEC
5628 E. SLAUSON AVENUE
LOS ANGELES, CALIFORNIA 90040
(323) 889-5300 FAX (323) 889-5398

VICINITY MAP

PROPOSED HOSPITAL TOWERS
LOMA LINDA UNIVERSITY MEDICAL CENTER

FIGURE 1

PROJECT NO.	4953-10-0911	REVISION:	
DATE:	05/10/2011		
SCALE:	AS NOTED		
DWG BY:	NH	CHECKED BY:	ET



REFERENCE:
SITE PLAN DATED DECEMBER 2, 2010 BY HMC ARCHITECTS.

LEGEND:

B-14 / P-2 ●	CURRENT BORING (PROJECT NO. 4953-10-0911; "P" DENOTES PERCOLATION TEST LOCATION)
CPT-13 ▲	CURRENT CPT (PROJECT NO. 4953-10-0911)
2 ◔	PRIOR BORING (PROJECT NO. A-87027)
14 ◓	PRIOR BORING (PROJECT NO. 63628)
└	EXPLORATION LOCATION AND NUMBER

N

0 50 100 200
Scale in Feet

MACTEC
5628 E. SLAUSON AVENUE
LOS ANGELES, CALIFORNIA 90040
(323) 889-5300 FAX (323) 889-5398

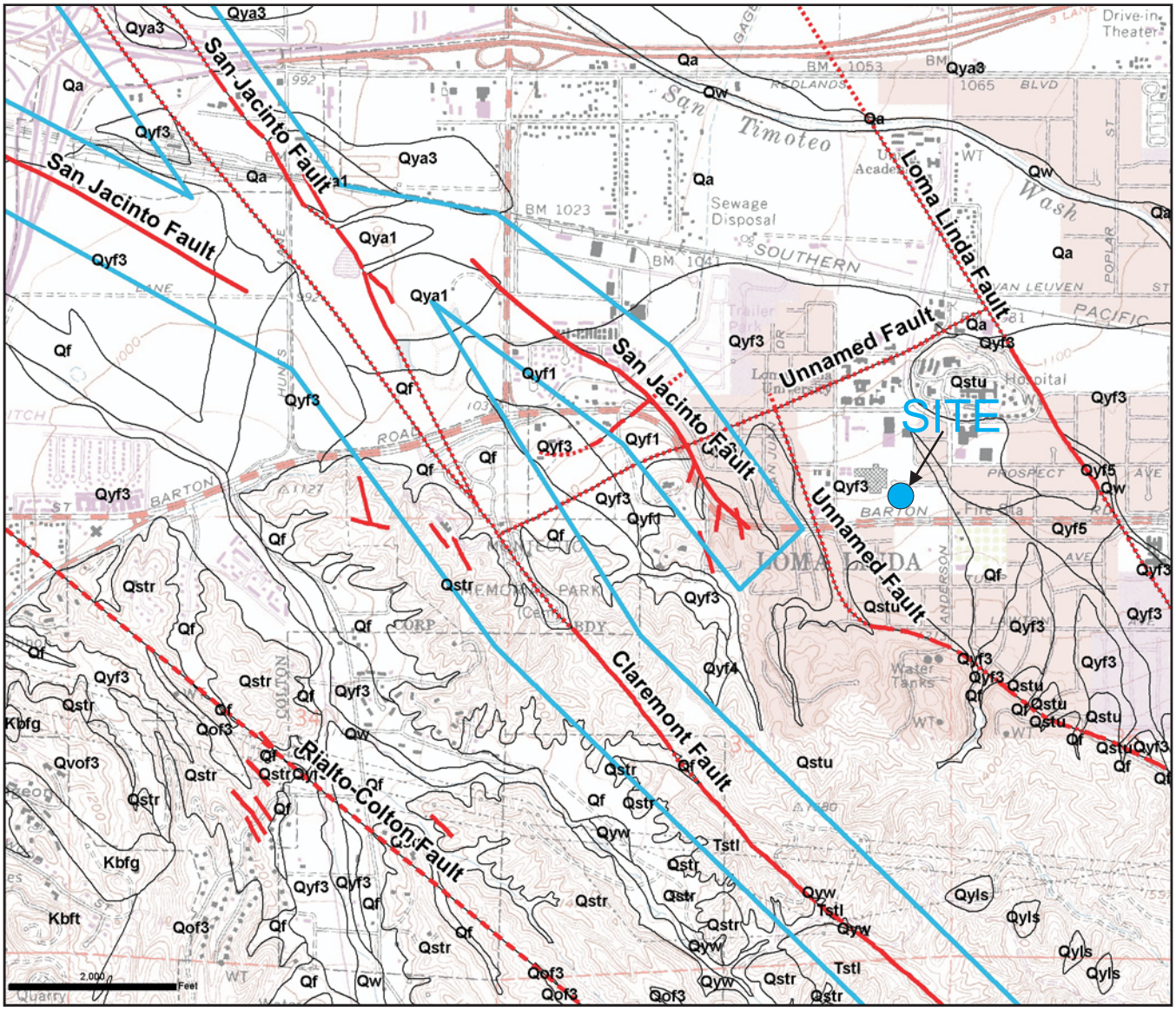
PLOT PLAN

FIGURE 2

PROPOSED HOSPITAL TOWERS
LOMA LINDA UNIVERSITY MEDICAL CENTER
11234 ANDERSON STREET, LOMA LINDA, CALIFORNIA

PROJECT NO.:	4953-10-0911	REVISION:	
DATE:	7/13/11		
SCALE:	1" = 100'		
DWG BY:	NH	CHECKED BY:	ET

Path: G:\4953_Geotech\2010\100911_Loma_Linda_University\CADD\Boring Locations.dwg [11x17] Date: July 13, 2011 - 6:46pm By: nharrold



EXPLANATION

Qf - Very young alluvial-fan deposits (late Holocene)

Qyls - Young landslide deposits

Qa - Very young alluvial-valley deposits (late Holocene)

Qyf - Young alluvial-fan deposits (Holocene and late Pleistocene), includes Unit 1,2,3,4 and 5

San Timoteo Beds

Qstu - Upper Member (Pleistocene), Medium-to thick-bedded, moderately to well sorted, moderately indurated, very fine- to oarse-grained sandstone interlayered with subordinate pebbly sandstone and pebble to small-cobble gravel.

Qstr - Reche Canyon Member (Pleistocene), pebbly, coarse-grained arkosic sandstone

Ttsl - Lower sandstone member (Pliocene)—Mostly gray, moderately well indurated, well-sorted fine-grained sandstone containing subordinate pebble lenses, and sparse medium-grained sandstone beds.

Kb - Box Springs plutonic complex (includes subunits)

Geologic contact

Fault; concealed beneath mapped covering unit

Fault; inferred by indirect methods; concealed beneath mapped covering unit

Fault; approximately located

Fault; accurately located

Alquist-Priolo Earthquake Fault Zone Study Area

COORDINATES

Latitude : 34.049036°

Longitude : -117.262787°

0 500 1000

Meter

0 2000 4000

Feet

N

References:

USGS 7.5 minute topographic map of the San Bernardino South Quadrangle (photorevised 1980).
Morton, D.M., Miller, F.K., Digital Files for the Geologic map of the San Bernardino and Santa Ana 30' x 60' quadrangles, California, USGS Open File Report 2006-1217, 2006, <http://pubs.usgs.gov/of/2006/1217/>.
CDMG, 2002, GIS files of Official Maps of Alquist-Priolo Earthquake Fault Zones, Southern Region, Earthquake Fault Zone Map of the San Bernardino South Quadrangle.

MACTEC ENGINEERING AND CONSULTING, INC.
5628 E. Slauson Ave., Los Angeles, California 90040
(323) 889-5300, fax (323) 889-5398

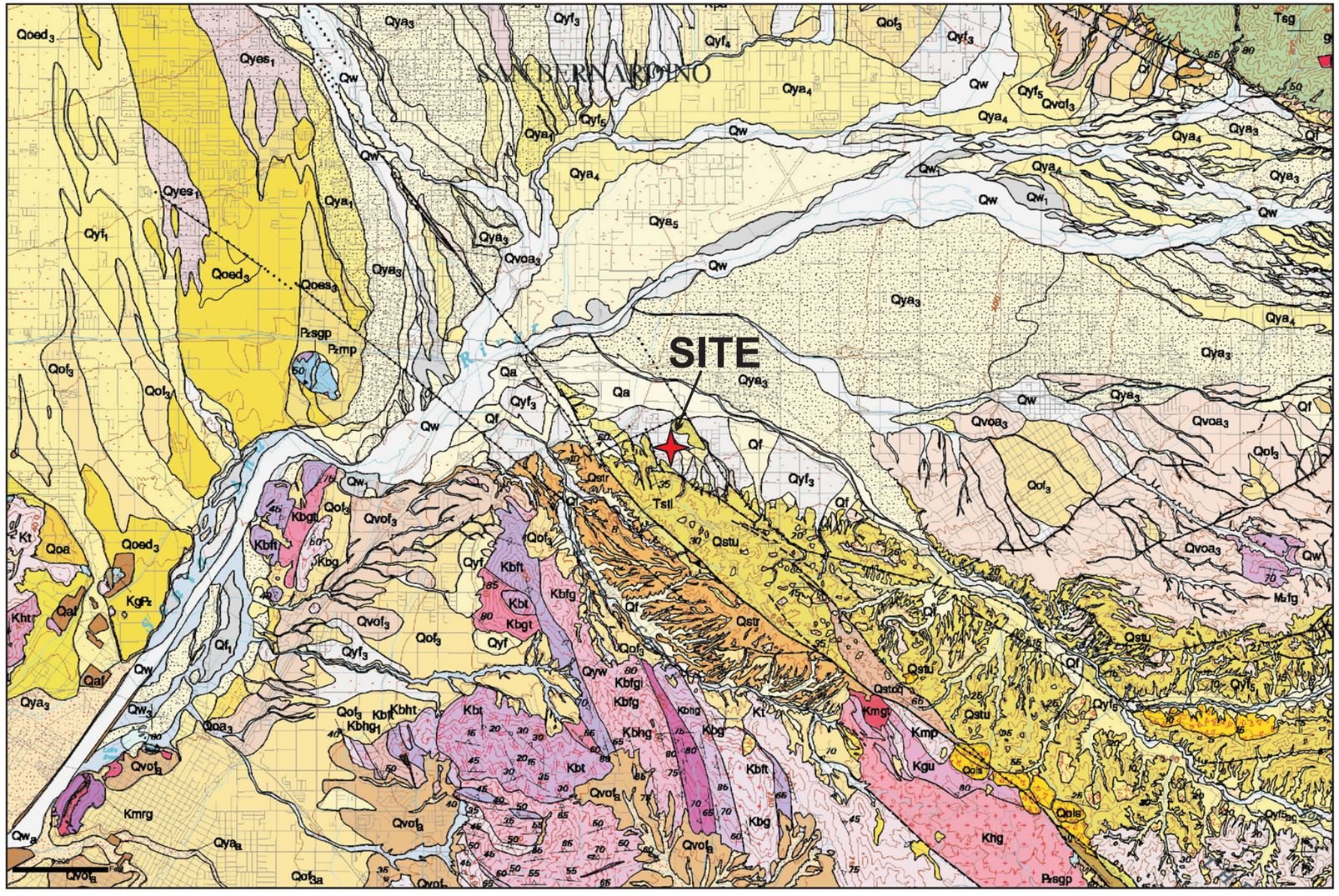
Figure 3. Local Geology

Proposed Hospital Towers
Loma Linda University Medical Center
Los Angeles, California

JOB NO.:	4953-10-0911	REVISIONS:
DATE:	05-5-10	
SCALE:	1:24,000	
DRAWN BY:	PWK	
CHECKED BY:	PER	

Description of Map Units

Qaf - Artificial fill
Qa - Very young axial-channel deposits
Qw - Very young wash deposits (includes subunits)
Qf - Very young alluvial-fan deposits (includes subunits)
Qls - Very young landslide deposits
Qye - Young eolian deposits (includes subunits)
Qya - Young axial-channel deposits (includes subunits)
Qyls - Young landslide deposits
Qyw - Young wash deposits
Qyf - Young alluvial-fan deposits (includes subunits)
Qoa - Old axial-channel deposits (includes subunits)
Qoed3 - Old eolian deposits (dune sand)
Qoes3 - Old eolian deposits (sheet sand)
Qof - Old alluvial-fan deposits (includes subunits)
Qst - San Timoteo Beds (includes subunits)
Qols - Old landslide deposits
Qstcq - San Timoteo Beds
Qvoa3 - Very old axial-channel deposits
Qvols - Very old landslide deposits
Qvor - Very old regolith
Qvos - Very old surficial deposits
Qvof - Very old alluvial-fan deposits (includes subunits)
Tgh - Hypabyssal granitic rocks
Tsg - Conglomerate, sandstone, and arkose
Tstl - San Timoteo Beds
Kb - Box Springs plutonic complex (includes subunits)
Kcc - Monzogranite of City Creek
Kdqd - Diorite and quartz diorite, undifferentiated
KgPz - Intermixed Paleozoic (?) schist and Cretaceous granitic rocks
Kgb - Gabbro, undifferentiated
Kgd - Granodiorite, undifferentiated
Kgu - Granite, undifferentiated
Khg - Heterogeneous granitic rocks
Kht - Heterogeneous tonalitic rocks
Kmgt - Monzogranite and tonalite, undifferentiated
Kpu - Pelona Schist, undifferentiated
Krg - Granite of Riverside area
Kt - Tonalite, undifferentiated
Kvt? - Val Verde Pluton
MzPrd - Gneiss of Devil Canyon
Pza - Amphibolite
Pzmp - Marble, Peninsular Ranges
Pzms - Marble and schist, undifferentiated
Pzsgp - Biotite schist and gneiss



Base: USGS 7.5 minute topographic quadrangles (NRCS stiched spatial version)
Preliminary Geologic Map of the San Bernandiono 30' x 60' Quadrangle, Southern California, Compiled 2002-2003, Version 1.0, 2003.

EXPLANATION

Contact—Accuracy of location ranges from well-located to approximately located

Fault—Solid where accurately located; dashed where approximately located or inferred; dotted where concealed; queried where location or existence uncertain. Includes strike-slip, normal and reverse dip-slip, oblique-slip, and thrust faults. Arrow and number indicate measured dip of fault plane

Anticline—Solid where accurately located; dotted where concealed. Arrowhead on axis shows direction of plunge

Syncline—Solid where accurately located; dotted where concealed. Arrowhead on axis shows direction of plunge

Strike and dip of beds

- Inclined
- Vertical
- Overturned
- Horizontal

N

SCALE 1:100,000

1 .5 0 1 2 MILES

1 .5 0 1 2 KILOMETERS

CONTOUR INTERVAL 50 METERS

MACTEC ENGINEERING AND CONSULTING, INC.
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Figure 4. Regional Geology
Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

JOB NO.:	4953-10-0911	REVISIONS:
DATE:	5-5-10	
SCALE:	1:100,000	
DRAWN BY:	PWK	
CHECKED BY:	PER	

1952
M 7.5
1988
M 5.4
1941
M 5.1
1857
M 8+
1916
M 6.0
1981
M 5.5
1952
M 5.1
1812
M 6.9
1971
M 6.6
1899
M 7.0
1962
M 5.0
1992
M 5.4
1943
M 5.3
2003
M 5.4
1997
M 5.1
1991
M 5.8
1978
M 5.1
1970
M 5.2
1943
M 5.3
1907
M 6.0
1925
M 6.3
1990
M 5.4
1992
M 6.4
1941
M 5.5
1994
M 6.7
1935
M 5.1
1968
M 5.3
1987
M 5.9
1890
M 7.0
SITE
2008
M 5.4
1973
M 5.3
1923
M 6.3
1979
M 5.2
1933
M 5.4
1910
M 6.0
1963
M 5.1
1938
M 5.5
1918
M 6.8
1933
M 6.4

APPROXIMATE EPICENTRAL AREA OF EARTHQUAKE

Year M8+

Year M7+

Year M6+

Year M5+

Site

Historic Fault Displacement

Holocene Fault Displacement Without Historic Record

0 10 20 KM

0 12 24 Miles

REFERENCES:

Jennings, C.W., 1994, "Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions," California Division of Mines and Geology, GDM-6.

Earthquake Catalogs: Richter, 1812-1905, National Oceanic and Atmospheric Administration, 1906-1931; Caltech, 1932-2005.

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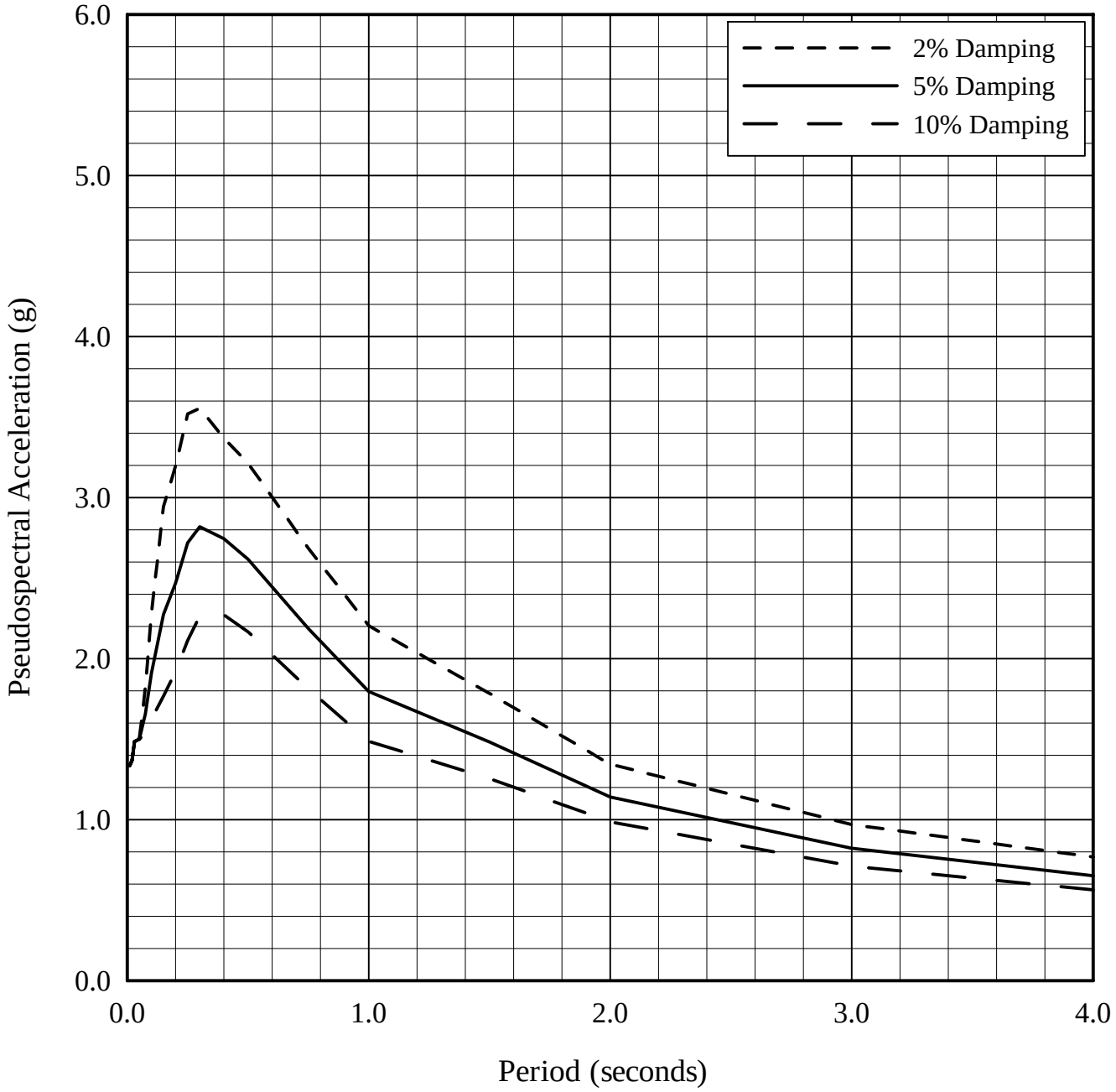
Figure 5. Regional Faults and Seismicity
Proposed Hospital Towers
Loma Lisa University Medical Center
Loma Linda, California

JOB NO.:	4953-10-0911	REVISIONS:
DATE:	07-22-10	
SCALE:	as shown	
DRAWN BY:	PWK	
CHECKED BY:	PER	

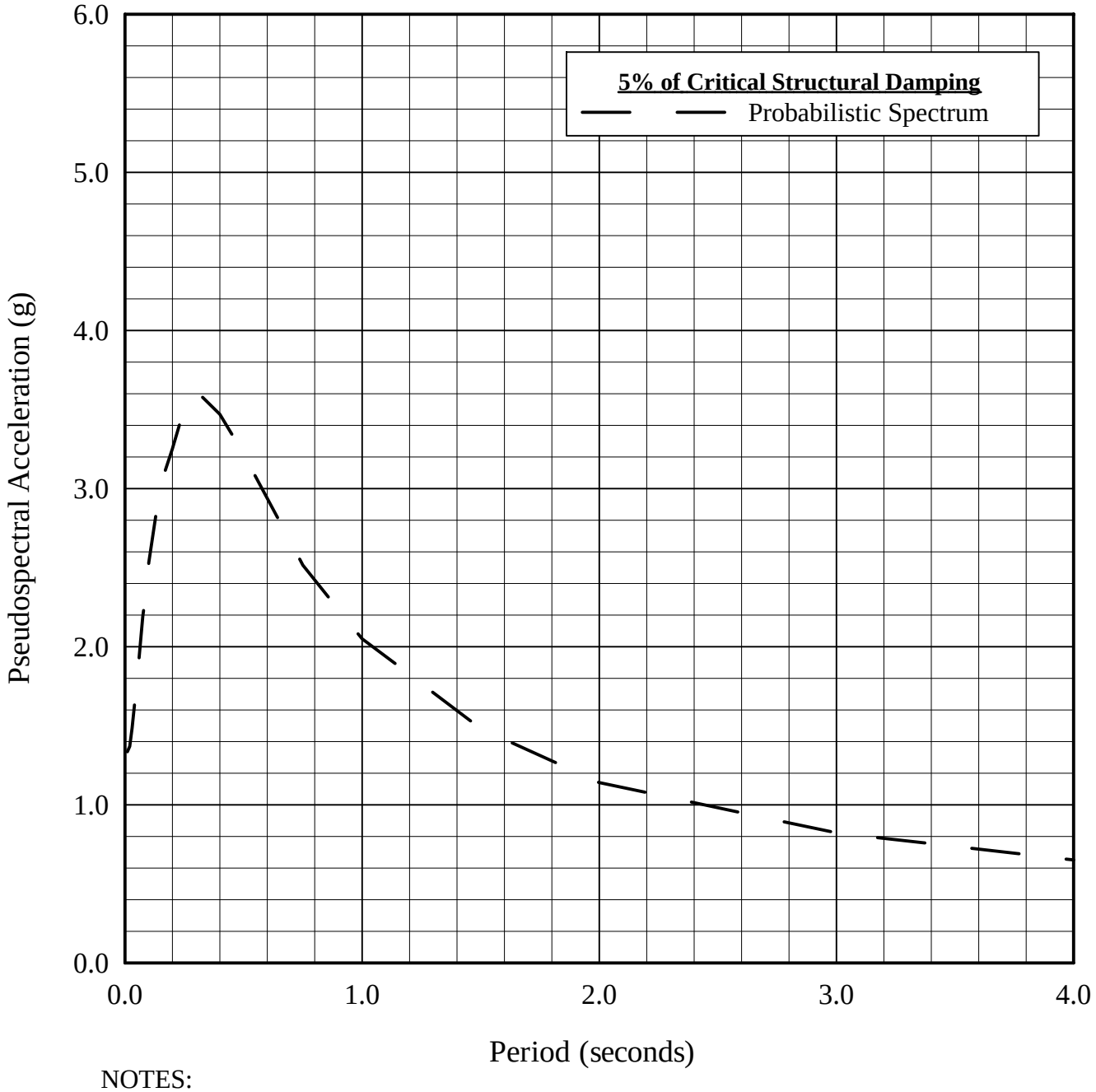


Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Tower
Loma Linda Medical Center
Loma Linda, California

MACTEC

HORIZONTAL RESPONSE SPECTRA
Site-Specific Maximum Considered Earthquake (MCE) Response Spectra
Project No. 4953-10-0911 Figure 6.1

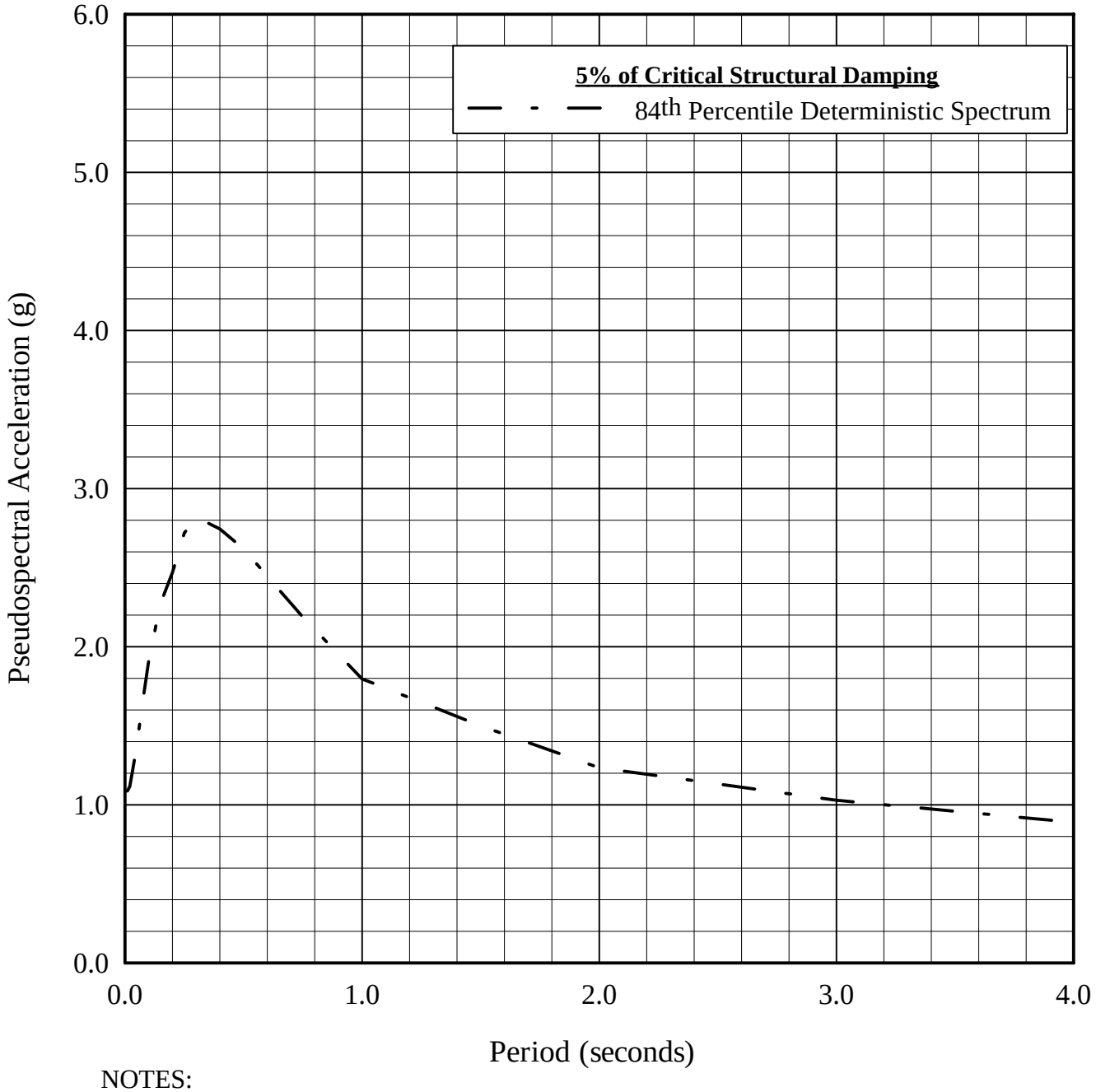


NOTES:

Probabilistic spectrum was computed for a ground motion level with a 2% probability of being exceeded in 50 years.

Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Tower Loma Linda Medical Center Loma Linda, California	MACTEC	HORIZONTAL RESPONSE SPECTRA Site-Specific Probabilistic Response Spectrum Project No. 4953-10-0911 Figure 6.2

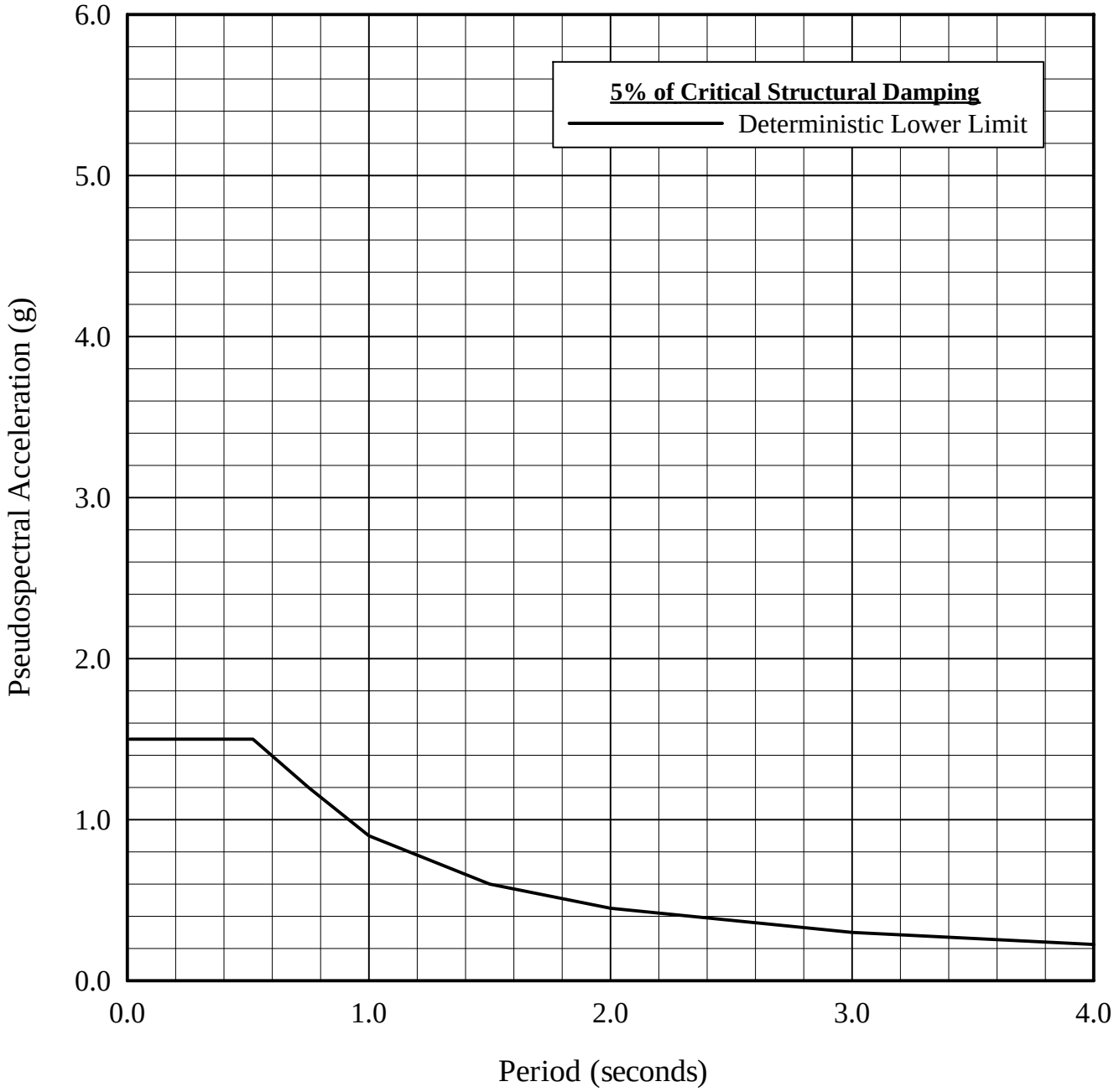


NOTES:

Deterministic spectrum is governed by the deterministic event on San Jacinto- SBV+SJV+A+CC+B+SM (Mw = 7.88)

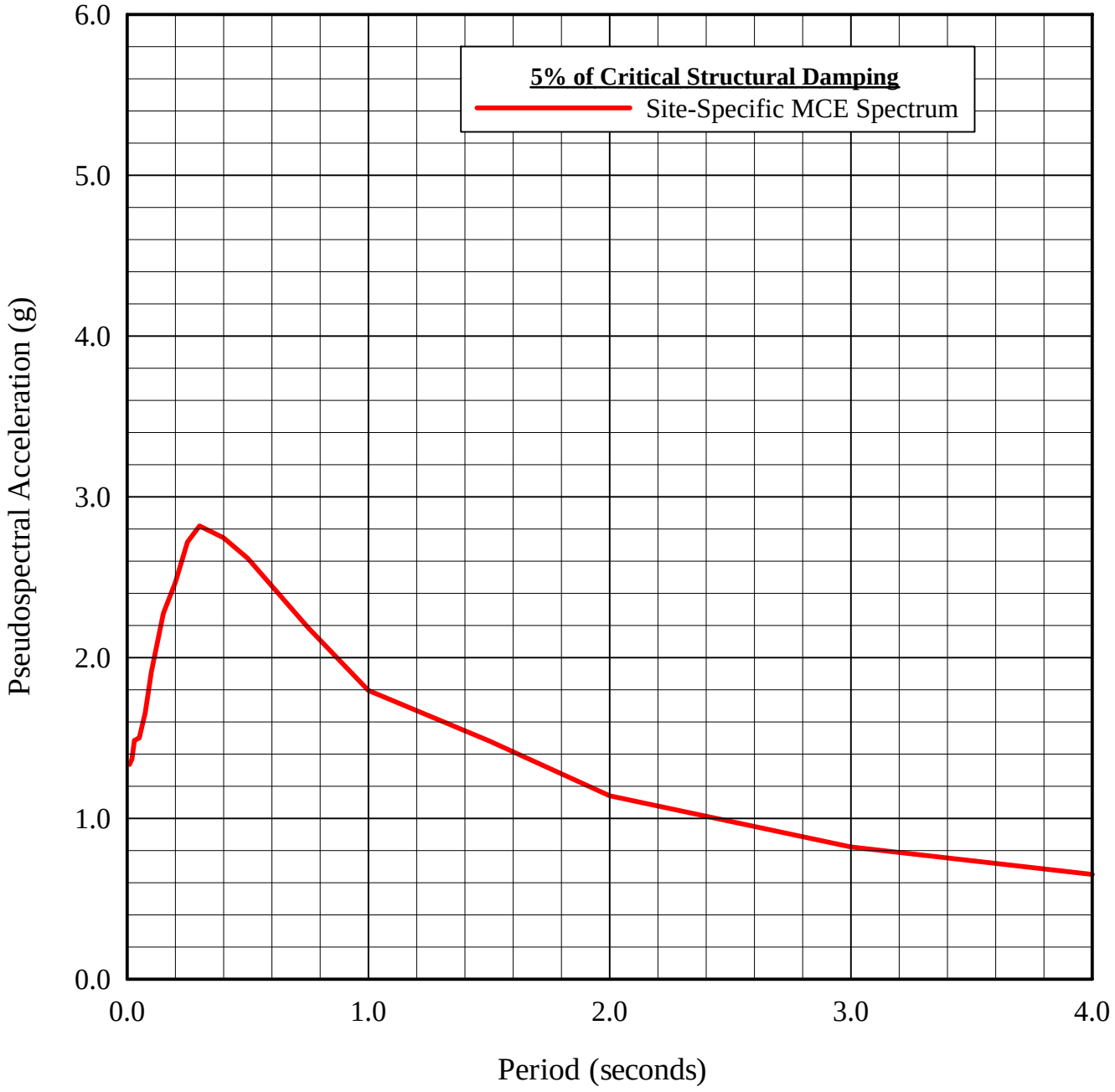
Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Tower Loma Linda Medical Center Loma Linda, California	MACTEC	HORIZONTAL RESPONSE SPECTRA Site-Specific Deterministic Response Spectrum Project No. 4953-10-0911 Figure 6.3



Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Tower Loma Linda Medical Center Loma Linda, California	MACTEC	HORIZONTAL RESPONSE SPECTRA Deterministic Lower Limit Response Spectrum Project No. 4953-10-0911 Figure 6.4

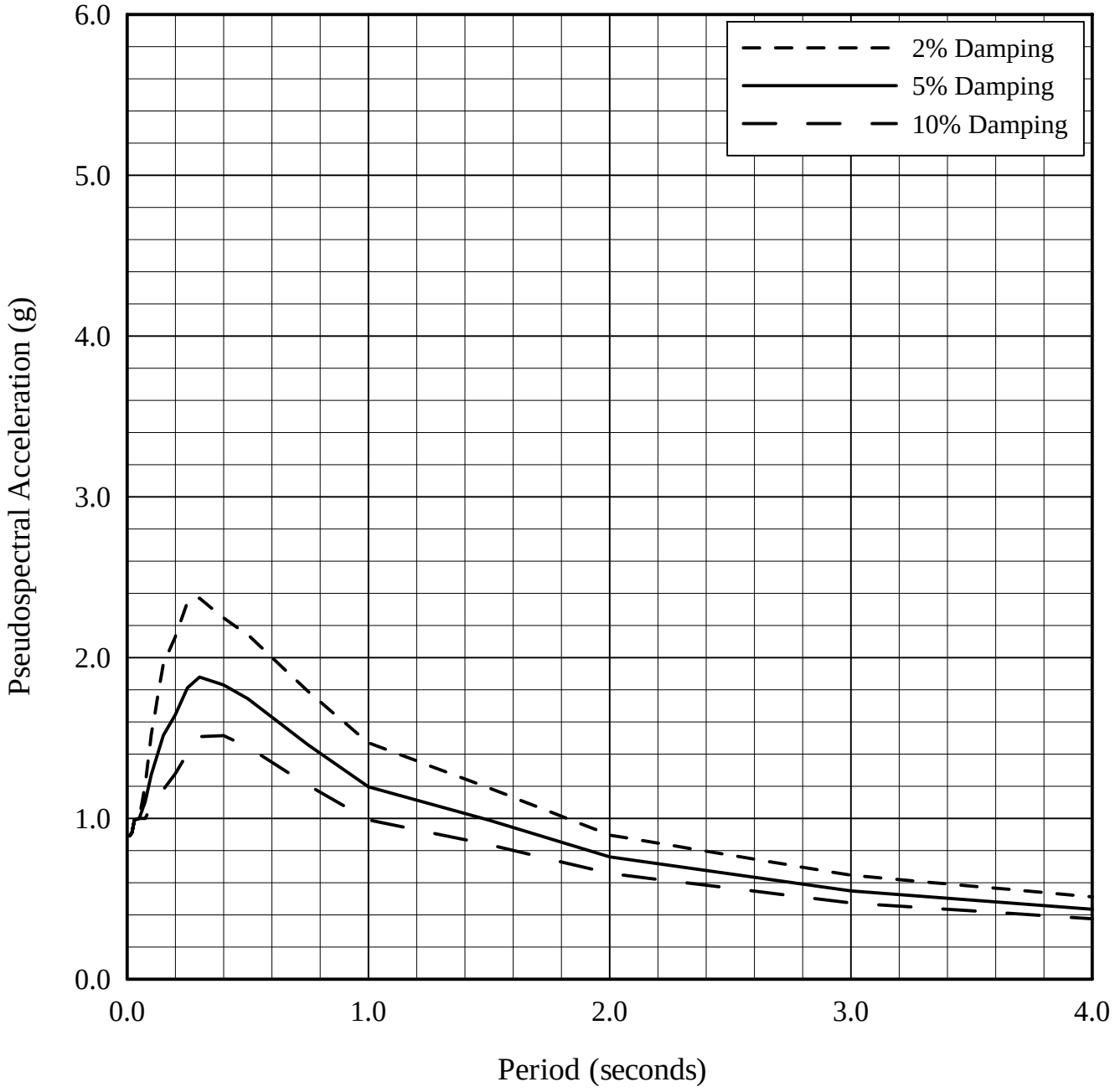


Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Tower
Loma Linda Medical Center
Loma Linda, California

MACTEC

HORIZONTAL RESPONSE SPECTRA
Site-Specific
Maximum Considered Earthquake (MCE)
Response Spectrum
Project No. 4953-10-0911 Figure 6.5



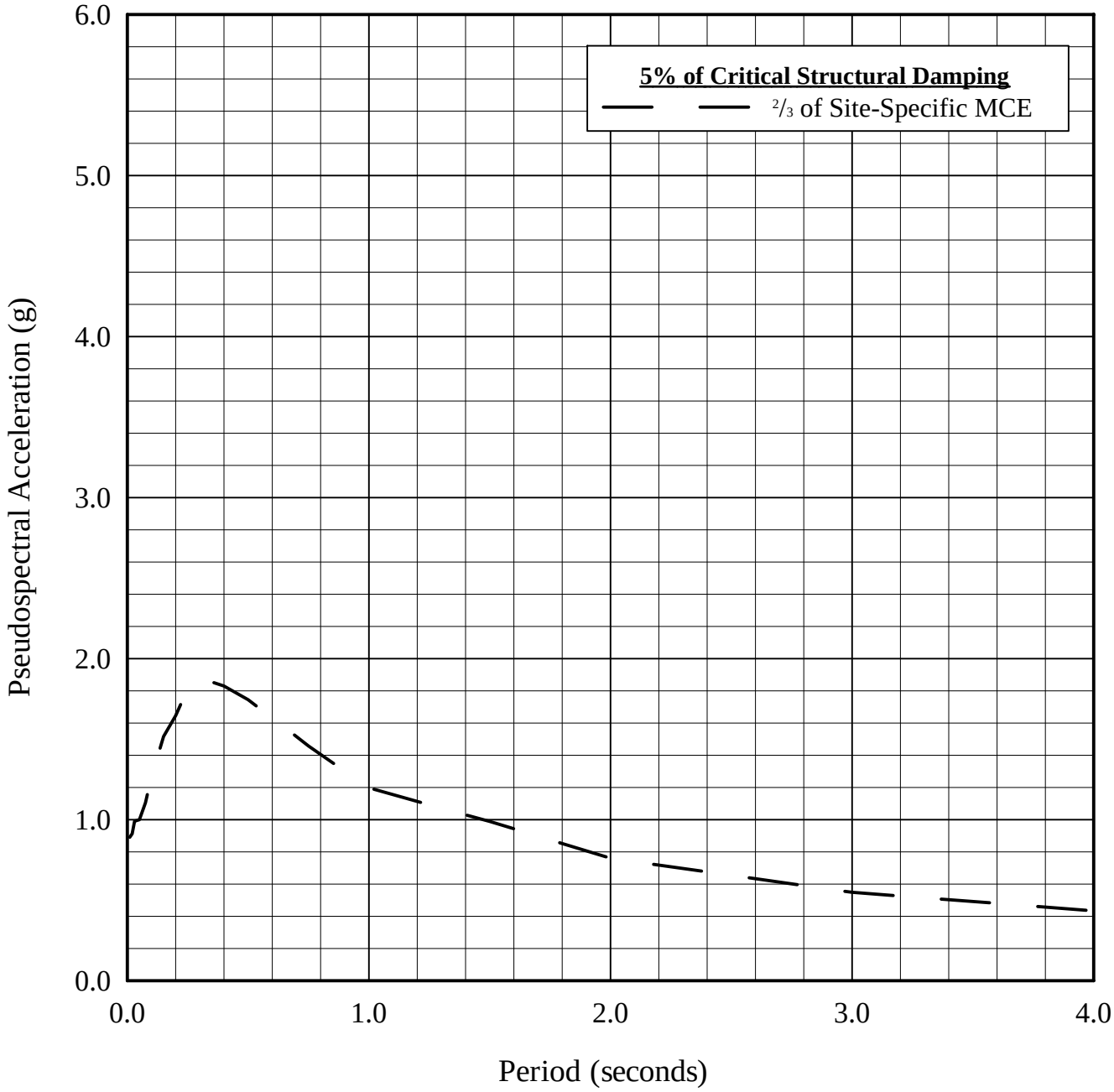
Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Towers
Loma Linda Medical Center
Loma Linda, California

MACTEC

HORIZONTAL RESPONSE SPECTRA
Site-Specific Design Response Spectra

Project No. 4953-10-0911 Figure 7.1

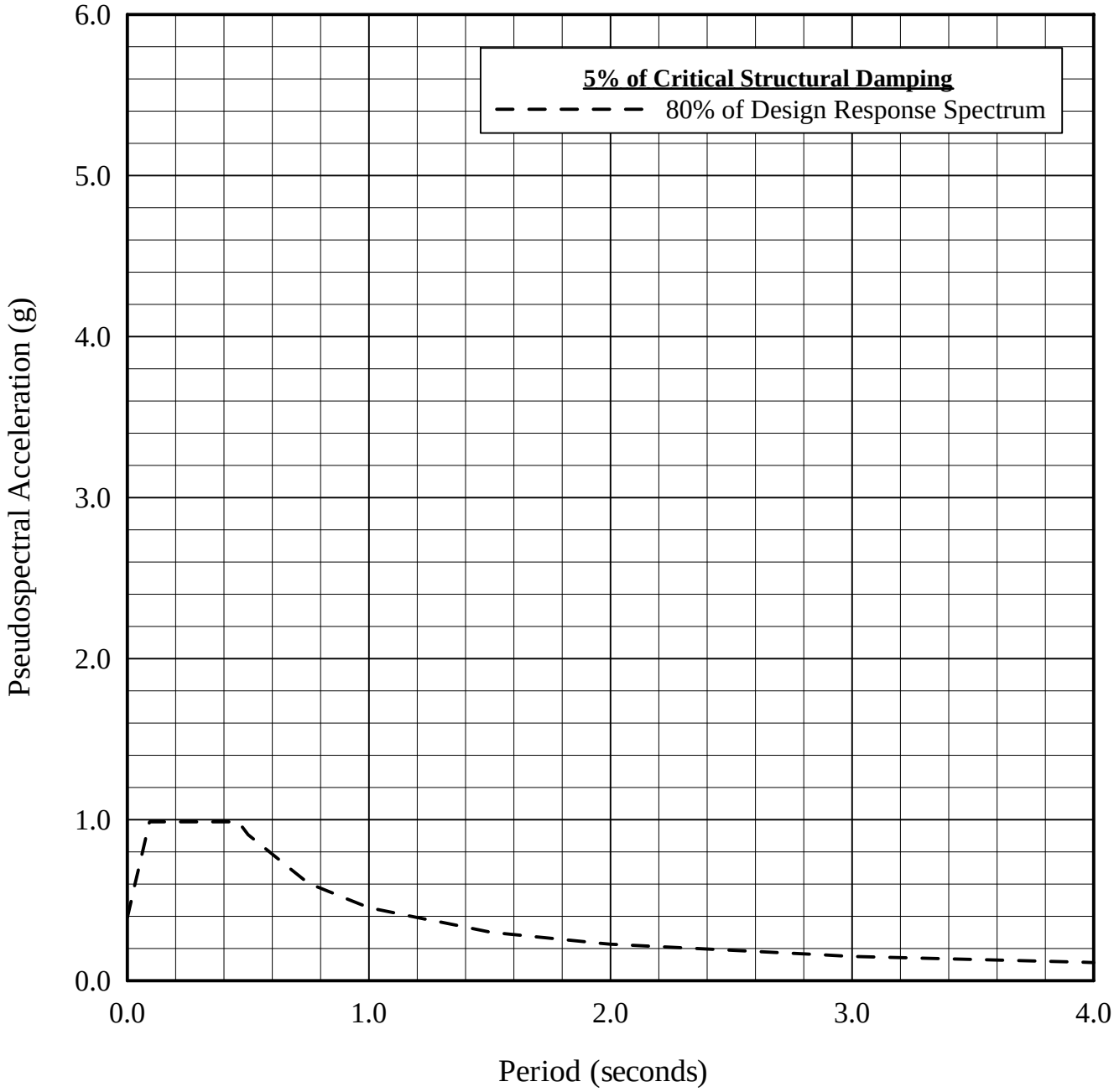


Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Towers
Loma Linda Medical Center
Loma Linda, California

MACTEC

HORIZONTAL RESPONSE SPECTRA
2/3 of Site-Specific MCE
Response Spectrum
Project No. 4953-10-0911 Figure 7.2

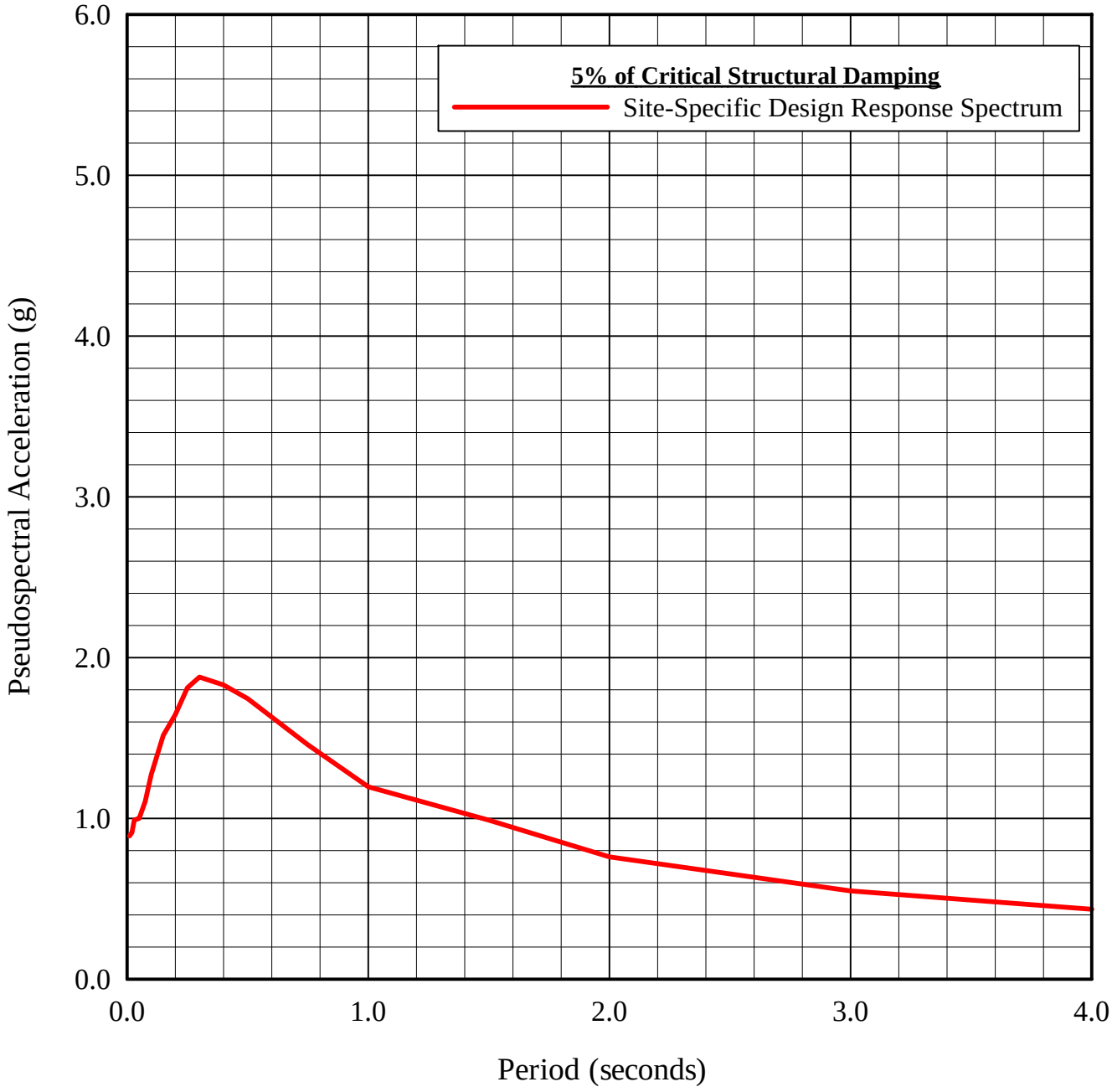


Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Towers
Loma Linda Medical Center
Loma Linda, California

MACTEC

HORIZONTAL RESPONSE SPECTRA
80% of Design Response Spectrum
Project No. 4953-10-0911 Figure 7.3



Prepared/Date: HP 8/4/10
Checked/Date: ET 5/10/11

Proposed Hospital Towers
Loma Linda Medical Center
Loma Linda, California

MACTEC

HORIZONTAL RESPONSE SPECTRA
Site-Specific
Design Response Spectrum
Project No. 4953-10-0911 Figure 7.4

BORING 1

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
								4-inch thick Asphalt Concrete and 6-inch thick Concrete Slurry
							SM	FILL - SILTY SAND - moist, light brownish gray
								3-inch diameter gravel in bit
							SM	SILTY SAND - loose, moist, brown to reddish brown
	5		5.3	107	6			
			7.9	108	7			Less silt
								Thin layer of Well Graded Sand, some gravel
	10							Becomes light brown, trace gravel
		5						
			6.7	103	9		SP-SM	POORLY GRADED SAND with Silt - loose, moist, light brown, fine- to medium-grained, alternating with thin layers of Silty Sand
	15							
		5						
			4.9	108	17			Becomes medium dense, brownish gray, trace gravel
	20							
		11					SM	SILTY SAND - medium dense, moist, brownish gray, alternating with thin layers of Poorly Graded Sand
	25		3.4	117	32			
		22						
	30							
			3.7	112	75		SW-SM	WELL GRADED SAND with Silt - dense, moist, light brownish gray, some gravel
		13					SP	POORLY GRADED SAND - medium dense, moist, brownish gray, fine- to coarse-grained, alternating with thin layers of Silty Sand
	35							
			9.2	106	18			
	40							

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.1a

BORING 1 (Continued)

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
	45	22				
	50					
	55					
	60					
	65					
	70					
	75					
	80					

END OF BORING AT 41.5 FEET

Notes:
Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings and tamped.

* Number of blows required to drive a Crandall sampler 12 inches using a 140 pound hammer falling 30 inches.

** Elevations not measured.

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Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.1b

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 2

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
	0						SM	3-inch thick Asphalt Concrete and 4-inch thick Concrete Slurry with gravel Disturbed natural soil
							SM	SILTY SAND - loose to medium dense, moist, light brown
	5		3.0	104	14			
			2.0	105	13			Alternating with thin layers of Poorly Graded Sand
	10	11						
			2.5	107	15			
	15	13					SP	POORLY GRADED SAND - medium dense, moist, light gray, fine- to coarse-grained, some gravel, alternating with thin layers of Well Graded Sand
								Thin layer of Silty Sand
	20		2.5	109	20		SP-SM	POORLY GRADED SAND with Silt - medium dense, moist, light brownish gray, fine- to medium-grained
		12						
	25		2.8	118	28			
		22					SM	SILTY SAND - medium dense, moist, light brownish gray
	30		1.8	109	34		SP-SM	POORLY GRADED SAND with Silt - medium dense to dense, moist, light brownish gray, fine- to medium-grained, some gravel
	35	33						END OF BORING AT 40 FEET
	40		1.2	118	75			

Notes:
Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings and tamped.

Field Tech: AR
Prepared By: NH
Checked By: ET

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911 TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.2

BORING 3

DATE DRILLED: July 6, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
							SM	2-inch thick Asphalt Concrete over 5-inch thick Base Course FILL - SILTY SAND - moist, light brown, some cobbles and gravel
							SM	SILTY SAND - loose, moist, light brown
	5		10.0	107	7			
			9.4	97	6			(40% Passing No. 200 Sieve)
	10		4.6	105	12			(16% Passing No. 200 Sieve)
			9.4	103	7			(29% Passing No. 200 Sieve)
	15	10						(25% Passing No. 200 Sieve)
	20		2.1	115	25		SP	POORLY GRADED SAND - medium dense, moist, light brown, medium- to coarse-grained
		20					SM	SILTY SAND - medium dense, moist, light brown (18% Passing No. 200 Sieve)
	25		3.2	119	29			Thin layer of coarse sand and gravel
		11						Trace gravel (42% Passing No. 200 Sieve)
	30		3.0	116	75		SP	POORLY GRADED SAND - dense, moist, light brown, medium- to coarse-grained, some gravel and silt
		30						Thin layer of Silty Sand
	35						SP-SM	POORLY GRADED SAND with Silt - medium dense, moist, light brown, fine- to coarse-grained
			4.8	110	30		SM	SILTY SAND - medium dense to dense, moist, light brown
	40							

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: ET
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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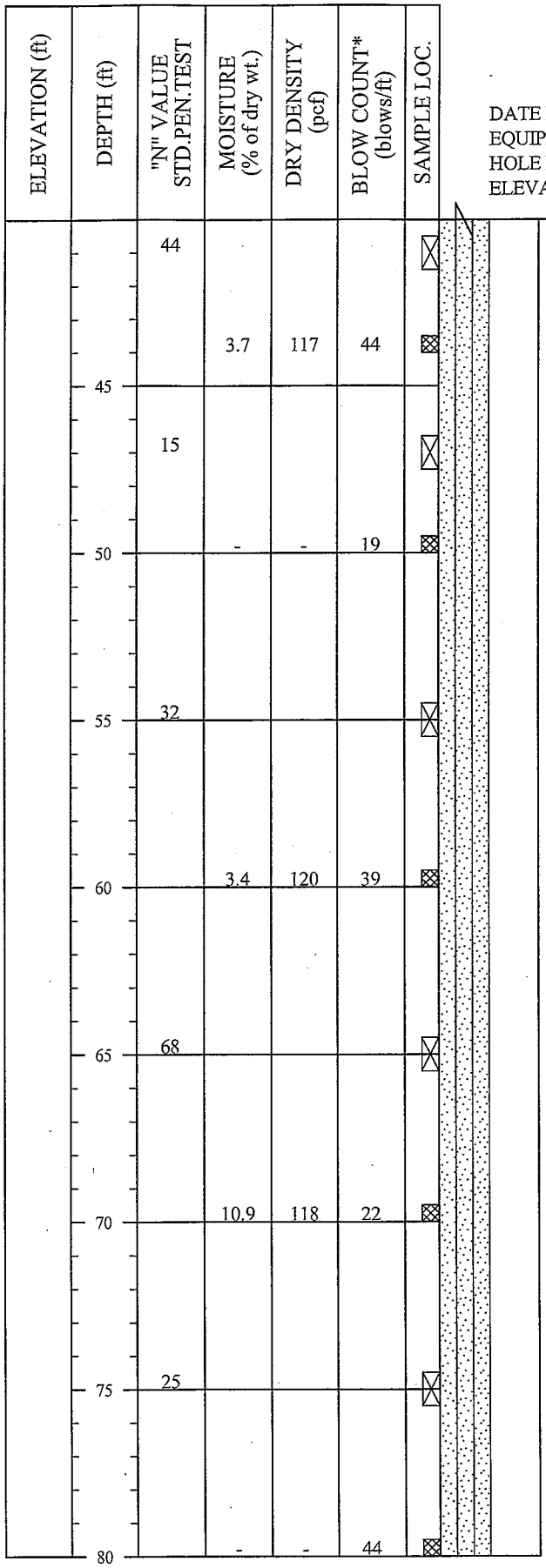
LOG OF BORING
Project: 4953-10-0911 Figure: A-1.3a

BORING 3 (Continued)

DATE DRILLED: July 6, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **



Thin layer of Poorly Graded Sand with Silt, medium- to coarse-grained, some gravel

Some gravel and coarse sand

Thin layer of medium dense Sandy Silt, reddish brown
(57% Passing No. 200 Sieve)

Some gravel

Becomes dense
(21% Passing No. 200 Sieve)

White rock fragment in bit

Thin layer of dense Well Graded Sand, some gravel

Becomes medium dense, light brown

END OF BORING AT 80 FEET

Notes:
Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings and tamped.

(50% Passing No. 200 Sieve)

Becomes dense

Field Tech: ET
Prepared By: NH
Checked By: ET

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B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING

Project: 4953-10-0911 Figure: A-1.3b

BORING 4

DATE DRILLED: July 6, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

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ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
							SM	2-inch thick Asphalt Concrete over 3-inch thick Base Course
							SM	Disturbed natural soil SILTY SAND - loose to medium dense, moist, light brown, trace gravel
	5		3.7	105	11			(31% Passing No. 200 Sieve)
			3.9	92	12			(46% Passing No. 200 Sieve)
	10		4.0	94	11			(48% Passing No. 200 Sieve)
			1.5	115	30			Thin layer of gravel
	15	20						(24% Passing No. 200 Sieve)
	20		-	-	63			Sample not recovered due to cobble in bit
		21						(41% Passing No. 200 Sieve)
	25		-	-	85/8"			Sample not recovered
		37					SP-SM	POORLY GRADED SAND with Silt - dense, moist, light brown, fine- to medium-grained
	30		1.0	97	50/4"		SM	SILTY SAND - dense to very dense, moist, light brown, some gravel
	35	36						No gravel
			2.7	107	32			Becomes medium dense
	40							

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: ET
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.4a

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 4 (Continued)

DATE DRILLED: July 6, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
	45	51	-	-	50/6"		SM	SILTY SAND with Gravel - very dense, moist, light brown Disturbed sample
		50/6"					SP-SM	POORLY GRADED SAND with Silt - very dense, moist, light brown, fine- to coarse-grained . More gravel
	50		1.8	118	71/10"			
	55	75					SM	SILTY SAND - dense, moist, brown to reddish brown
	60		4.8	106	50			
	65	61					SP	POORLY GRADED SAND - very dense, moist, light brown, fine- to coarse-grained, some fine gravel
	70		1.8	120	54		SM	SILTY SAND - very dense, moist, light brown
	75	76/11"						END OF BORING AT 80 FEET Notes: Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings and tamped.
	80		8.8	119	39			Becomes medium dense

Field Tech: ET
Prepared By: NH
Checked By: ET

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.4b

BORING 5

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
								_-inch thick Asphalt Concrete and _-inch thick Concrete Slurry
							SM	FILL - SILTY SAND - moist, brown
							SM	SILTY SAND - loose, moist, light brownish gray, trace gravel, alternating with thin layers of clean sand
	5		7.6	111	7			
			7.1	104	7			
	10	6						
			7.7	105	9		SP	POORLY GRADED SAND - loose, moist, brownish gray, fine- to coarse-grained, alternating with thin layers of Silty Sand
	15	7						
			9.4	101	14			
	20	36					SW	WELL GRADED SAND - medium dense, moist, light gray, some gravel
	25		2.7	115	40			
							SM	SILTY SAND - medium dense, moist, brownish gray, alternating with thin layers of clean sand
	30	24					SW	WELL GRADED SAND - dense, moist, brownish gray
			4.7	115	55			
	35							
	40	23						

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.5a

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 5 (Continued)

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
	45					
	50					
	55					
	60					
	65					
	70					
	75					
	80					

Thin layer of medium dense Silty Sand
END OF BORING AT 40½ FEET

Notes:
Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings and tamped.

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Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.5b

BORING 6

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
	5		2.9	109	12	
			3.8	103	14	
	10	10				
			6.3	96	12	
	15	49				
	20		2.5	106	33	
		34				
	25		2.9	111	32	
		36				
	30		1.6	106	31	
	35	27				
			1.5	116	46	
	40					

_-inch thick Asphalt Concrete and _-inch thick Concrete Slurry

SM Disturbed natural soil

SM SILTY SAND - loose, moist, light brown, trace gravel, alternating with thin layers of clean sand

SW WELL GRADED SAND - dense, moist, light gray, some gravel

SP-SM POORLY GRADED SAND with Silt - medium dense to dense, moist, brownish gray, fine- to coarse-grained

Alternating with thin layers of Silty Sand

Some gravel

Thin layer of gravel

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(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.6a

BORING 6 (Continued)

DATE DRILLED: July 2, 2010
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
	45	55	2.9	113	47	
	50	31				
	55		5.6	119	86	
	60	42				
	65					
	70					
	75					
	80					

Becomes very dense

Becomes golden brown

SM SILTY SAND - dense to very dense, moist, golden brown

END OF BORING AT 60½ FEET

Notes:
Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings and tamped.

Field Tech: AR
Prepared By: NH
Checked By: ET

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B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.6b

BORING 7

DATE DRILLED: March 9, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: 1,141 **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
1140	0						SM	2½-inch thick Asphalt Concrete over 4-inch thick Base Course SILTY SAND - very loose, moist, brown, fine- to medium-grained, trace gravel
	5		8.7	103	6			
1135			12.2	97	5			
	10	6						Alternating with cleaner sand layers
1130			13.1	101	6			
	15	3						
1125			8.0	104	10		SP	POORLY GRADED SAND - loose, moist, light brown, fine- to medium-grained
	20	8					SM	SILTY SAND - loose to medium dense, moist, light brown, fine-grained, trace gravel
1120								
	25	6	6.4	107	17			Alternating with cleaner sand layers
1115								
	30		2.8	116	39		SP	POORLY GRADED SAND - medium dense, moist, light brown, fine- to medium-grained
1110							SW	WELL GRADED SAND - moist, light brown, some gravel
	35	12					SM	SILTY SAND - medium dense, moist, light brown, fine- to medium-grained
1105			2.6	117	67		SP	POORLY GRADED SAND - dense, moist, light brownish gray, fine- to medium-grained, some gravel
	40							

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.7a

B12SOIL CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 7 (Continued)

DATE DRILLED: March 9, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: 1,141 **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
1100		24						Thin layer of Silty Sand
			6.1	117	90/11"			
	45						SW	WELL GRADED SAND - very dense, moist, brownish gray, some gravel
1095		50/3"						
							SP-SM	POORLY GRADED SAND with Silt - medium dense, moist, light brown, fine- to medium-grained, trace gravel
	50		6.7	106	16			
1090							SM	SILTY SAND - medium dense, moist, brown, fine- to medium-grained
	55							
1085		22						(42% Passing No. 200 Sieve)
	60							
1080			5.5	116	14			Trace gravel
							SP	POORLY GRADED SAND - very dense, moist, brownish gray, fine- to medium-grained, trace gravel
	65	50/5"						
1075								
	70							
1070			13.7	103	70/10"			(35% Passing No. 200 Sieve)
	75							
1065		43					SM	SILTY SAND - dense to very dense, moist, brown, fine- to medium-grained, trace gravel
	80							

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.7b

BORING 7 (Continued)

DATE DRILLED: March 9, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: 1,141 **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
1060			5.1	112	81/11"	
	85					
1055						
	90					
1050						
	95					
1045						
	100					
1040						
	105					
1035						
	110					
1030						
	115					
1025						
	120					

Layer of Well Graded Sand, moist, light brown
END OF BORING AT 81 FEET

NOTES:

Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.

** Elevations based on topographic map provided by Hicks & Hartwick, Inc.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: AR
Prepared By: NH
Checked By: ET

B12SOIL_CRANDALL (NO DECIMAL) 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.7c

BORING 8

DATE DRILLED: March 9, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): 1,143**

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
							3-inch thick Asphalt Concrete over 6½-inch thick Base Course
						SM	FILL - SILTY SAND - moist, brown, fine- to medium-grained, trace gravel
1140							
						SP	POORLY GRADED SAND - loose, moist, light brownish gray, fine- to coarse-grained, trace gravel
	5	3.8	108	9			
		8.9	103	4		SM	SILTY SAND - very loose to loose, moist, brown, fine- to medium-grained, trace gravel
1135							
	10	7.7	102	8			
						SP	POORLY GRADED SAND - medium dense, moist, light brown, fine- to medium-grained, trace gravel
1130		4.7	110	16			
	15					SM	SILTY SAND - loose, moist, light brown, fine- to medium-grained
		9.9	98	7			
1125							
	20	9.1	104	9			
						SP	POORLY GRADED SAND - medium dense, moist, light brown, fine- to medium-grained, trace gravel
1120							
	25	4.2	112	17			
1115							
	30	13.1	101	17			Thin layer of Sandy Silt (57% Passing No. 200 Sieve)
1110							
	35	7.2	108	19			
1105						SW	WELL GRADED SAND - meduim dense, moist, brownish gray
	40	5.1	113	24			

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.8a

B11SOIL_CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 8 (Continued)

DATE DRILLED: March 9, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): 1,143**

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.	
1100	45	4.5	109	22		SM — SILTY SAND - medium dense, moist, light brown, fine- to medium-grained
1095	50	7.3	106	28		SP — POORLY GRADED SAND - medium dense, moist, light brownish gray, fine- to medium-grained
1090	55					
1085	60					
1080	65					
1075	70					
1070	75					
1065	80					

END OF BORING AT 50 FEET

NOTES:

Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.

** Elevations based on topographic map provided by Hicks & Hartwick, Inc.

Field Tech: AR
Prepared By: NH
Checked By: ET

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

B11SOIL_CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.8b

BORING 9

DATE DRILLED: March 8, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: 1,151 **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
1150	0							3½-inch thick Asphalt Concrete over 3½-inch thick Base Course
							SM	SILTY SAND - loose, moist, brown, fine- to medium grained, trace gravel
	5		7.3	111	6			
1145			7.9	103	11			
	10	8						
1140			9.2	104	11			
	15	7						Thin layer of Sandy Silt (51% Passing No. 200 Sieve)
1135			3.1	108	15		SP	POORLY GRADED SAND - loose to medium dense, moist, light gray, fine- to medium-grained
	20	12						
1130								
	25		4.2	102	14			
1125		18					SM	SILTY SAND - medium dense, moist, light brown, fine-grained
	30							
1120			3.2	111	24		SP	POORLY GRADED SAND - medium dense to dense, moist, light brownish gray, fine- to medium-grained, trace gravel
	35	33						
1115			2.0	112	80/11"		SW	WELL GRADED SAND - very dense, moist, light brownish gray
	40							

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.9a

BORING 9 (Continued)

DATE DRILLED: March 8, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: 1,151 **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.		
1110	45	35	1.9	118	50/5"		SP	POORLY GRADED SAND - dense, moist, light brownish gray, fine- to medium-grained, trace gravel
							SW	WELL GRADED SAND - very dense, moist, light brownish gray, some gravel
1105		60	---	--	50			Sample not recovered due to rock in bit
1100	50						SM	SILTY SAND - medium dense, moist, light brown, fine- to medium-grained
1095	55	29						
1090	60		4.3	106	36		SP	POORLY GRADED SAND - very dense, moist, light gray, fine- to coarse-grained, some gravel, alternating with layers of Well Graded Sand
1085	65	63					SM	SILTY SAND - dense, moist, reddish brown, fine-grained
1080	70		11.5	121	67			Some gravel
1075	75	33						(37% Passing No. 200 Sieve)
	80							Becomes light brown, fine- to medium-grained

(CONTINUED ON FOLLOWING FIGURE)

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.9b

BORING 9 (Continued)

DATE DRILLED: March 8, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION: 1,151 **

ELEVATION (ft)	DEPTH (ft)	"N" VALUE STD.PEN.TEST	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
1070			5.6	112	58	
	85					
1065						
	90					
1060						
	95					
1055						
	100					
1050						
	105					
1045						
	110					
1040						
	115					
1035						
	120					

END OF BORING AT 81 FEET

NOTES:

Hand augered upper 5 feet due to utilities. Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.

** Elevations based on topographic map provided by Hicks & Hartwick, Inc.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.9c

BORING 10

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): **

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* . (blows/ft)	SAMPLE LOC.	
	0					4-inch thick Asphalt Concrete over 6-inch thick Sand/Gravel Base Course
					SM	FILL - SILTY SAND - moist, brown, fine- to medium-grained
					SM	SILTY SAND - very loose, moist, brown, fine-grained, trace gravel
		13.9	107	5		
	5					
		13.9	94	4		
		12.3	95	5		
	10					END OF BORING AT 10 FEET
	15					
	20					
	25					
	30					
	35					
	40					

NOTES:

Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.

** Elevations not measured.

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.10

B11SOIL_CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 11

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): **

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.	
						4-inch thick Asphalt Concrete, no Base Course
					SM	FILL - SILTY SAND - moist, light brown, fine- to medium-grained, some concrete fragments
					SM	SILTY SAND - loose, moist, light brown, fine-grained, trace gravel, some palm tree roots
	5	7.8	111	7		
		9.5	103	8		Alternating with cleaner sand layers
	10	12.7	97	8		
						END OF BORING AT 11 FEET
	15					NOTES:.
						Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.
	20					
	25					
	30					
	35					
	40					

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.11

B11SOIL CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 12

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): **

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.	
	0					SM — 1½-inch thick Asphalt Concrete, no Base Course FILL - SILTY SAND - moist, light brown, fine-grained
	5	12.3	105	7		6-inch diameter cobble 3-inch diameter cobble SM — SILTY SAND - loose, moist, light brown, fine- to medium-grained, trace gravel
		10.2	102	8		Alternating with cleaner sand layers
	10	9.2	97	6		END OF BORING AT 11 FEET
	15					NOTES: Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.
	20					
	25					
	30					
	35					
	40					

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: AR
Prepared By: NH
Checked By: ET

BORING 13

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): **

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.	
	0					SM — 3½-inch thick Asphalt Concrete, no Base Course FILL - SILTY SAND - moist, light brown, fine- to medium-grained, some gravel
	5	9.6	105	5		SM — SILTY SAND - very loose, moist, light brown, fine- to medium-grained, trace gravel
		10.7	105	5		
	10	9.5	101	5		
	15					END OF BORING AT 11 FEET
	20					NOTES:
	25					Ground water not encountered. Boring backfilled with soil cuttings, tamped, and patched with asphalt concrete.
	30					
	35					
	40					

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.13

B11SOIL_CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING 14

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): **

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.	
	5	12.9	111	5		12-inch thick layer of planter mix SM SILTY SAND - loose, moist, light brown, fine- to medium-grained, trace gravel
		11.3	108	6		Alternating with cleaner sand layers
	10	-	-	5		Sample not recovered END OF BORING AT 11 FEET
	15					NOTES: Ground water not encountered. Boring backfilled with soil cuttings and tamped.
	20					
	25					
	30					
	35					
	40					

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

Field Tech: AR
Prepared By: NH
Checked By: ET

B11SOIL_CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.14

BORING P-1

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hollow Stem Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): 1,137**

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.
1135	0				
	5	4.8	108	6	
1130		6.2	103	5	
	10	8.0	103	6	
1125	15				
1120	20				
1115	25				
1110	30				
1105	35				
1100	40				

3½-inch thick Asphalt Concrete over 6½-inch thick Base Course

SM FILL - SILTY SAND - moist, light brown, fine- to medium-grained, some gravel, occasional cobbles

1-foot thick layer of trash fill containing glass, tin, and other debris

SM SILTY SAND - very loose, moist, light brown, fine- to medium-grained

END OF BORING AT 11 FEET

NOTES:

Ground water not encountered. Boring pre-soaked overnight. Infiltration test performed on March 11, 2011 at a depth of 6 to 11 feet below ground surface. After completion of test, boring backfilled with soil cuttings and tamped.

** Elevations based on topographic map provided by Hicks & Hartwick, Inc.

Field Tech: AR
Prepared By: NH
Checked By: ET

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

LOG OF BORING
Project: 4953-10-0911 Figure: A-1.15

B11SOIL_CRANDALL 4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

BORING P-2

DATE DRILLED: March 10, 2011
EQUIPMENT USED: Hand Auger
HOLE DIAMETER (in.): 8
ELEVATION (FFE): **

ELEVATION (ft)	DEPTH (ft)	MOISTURE (% of dry wt.)	DRY DENSITY (pcf)	BLOW COUNT* (blows/ft)	SAMPLE LOC.	
	0				SM	FILL - SILTY SAND - moist, brown, fine- to coarse-grained
	5	16.8	99	10	SM	SILTY SAND - moist, brown, fine- to medium-grained
	10	14.5	95	11		END OF BORING AT 10 FEET
	15					
	20					
	25					
	30					
	35					
	40					

NOTES:

Ground water not encountered. Boring pre-soaked overnight. Infiltration test performed on March 11, 2011 at a depth of 5 to 10 feet below ground surface. After completion of test, boring backfilled with soil cuttings and tamped.

** Elevations not measured.

Field Tech: AR
Prepared By: NH
Checked By: ET

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. LATITUDE AND LONGITUDE OF BORING LOCATION SHOWN ON LOGS ARE APPROXIMATE; REFER TO PLOT PLAN FOR MORE ACCURATE LOCATION INFORMATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

B11SOIL_CRANDALL_4953-10-0911_TOWER.GPJ LAW_CRAN.GDT 7/13/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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LOG OF BORING
Project: 4953-10-0911 Figure: A-1.16

MAJOR DIVISIONS			GROUP SYMBOLS		TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)		GW	Well graded gravels, gravel - sand mixtures, little or no fines.
				GP	Poorly graded gravels or grave - sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amount of fines)		GM	Silty gravels, gravel - sand - silt mixtures.
				GC	Clayey gravels, gravel - sand - clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 Sieve Size)	CLEAN SANDS (Little or no fines)		SW	Well graded sands, gravelly sands, little or no fines.
				SP	Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)		SM	Silty sands, sand - silt mixtures
				SC	Clayey sands, sand - clay mixtures.
FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)			ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts and with slight plasticity.
				CL	Inorganic lays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
				OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50)			MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS				PT	Peat and other highly organic soils.

Undisturbed Sample		Auger Cuttings	
Standard Penetration Test		Bulk Sample	
Rock Core		Crandall Sampler	
Dilatometer		Pressure Meter	
Packer		No Recovery	
Water Table at time of drilling		Water Table after drilling	

Correlation of Penetration Resistance with Relative Density and Consistency

SAND & GRAVEL		SILT & CLAY	
No. of Blows	Relative Density	No. of Blows	Consistency
0 - 4	Very Loose	0 - 1	Very Soft
5 - 10	Loose	2 - 4	Soft
11 - 30	Medium Dense	5 - 8	Medium Stiff
31 - 50	Dense	9 - 15	Stiff
Over 50	Very Dense	16 - 30	Very Stiff
		Over 30	Hard

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

SILT OR CLAY	SAND			GRAVEL		Cobbles	Boulders
	Fine	Medium	Coarse	Fine	Coarse		

No.200 No.40 No.10 No.4 3/4" 3" 12"

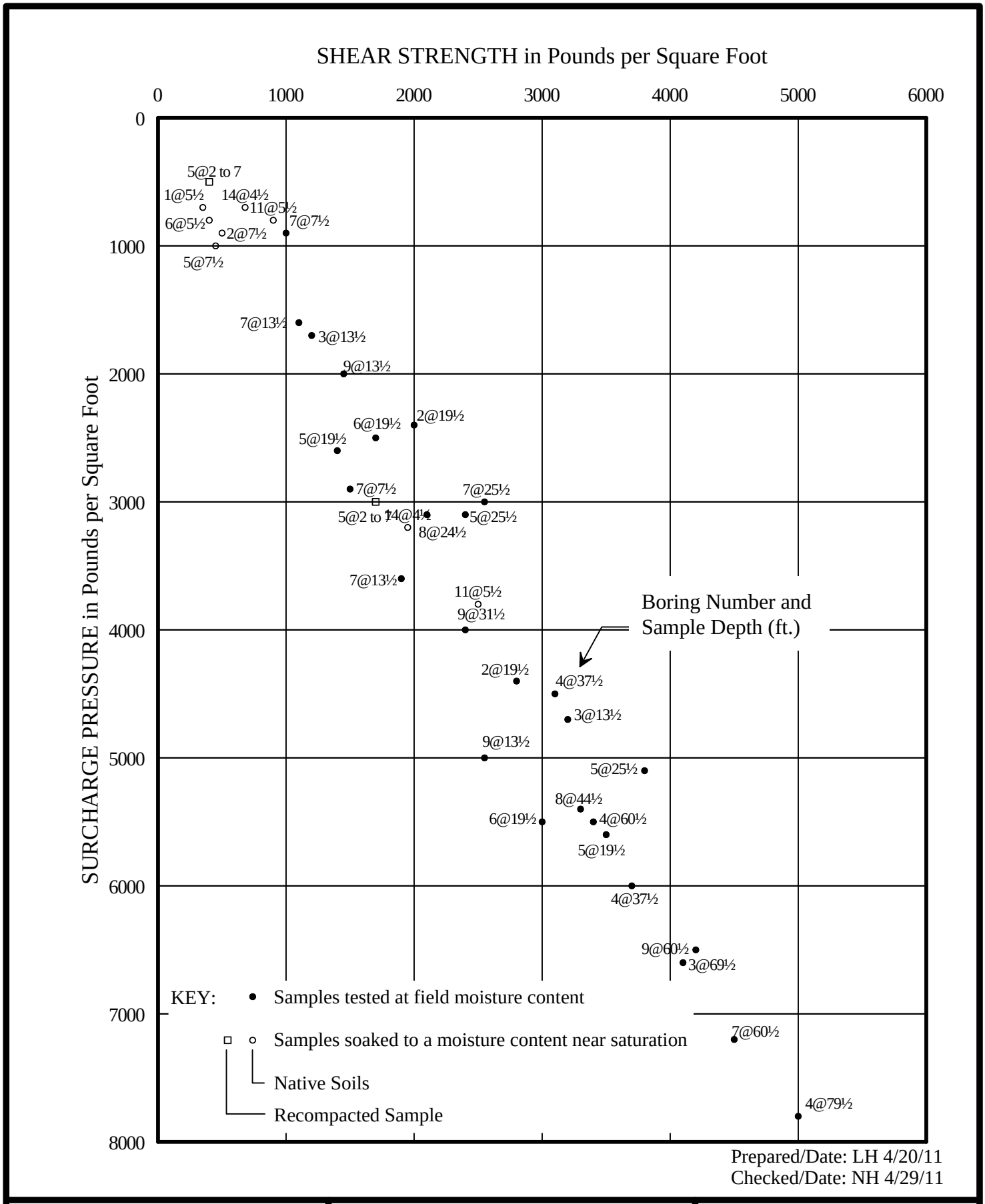
U.S. STANDARD SIEVE SIZE

Reference: The Unified Soil Classification System, Corps of Engineers, U.S. Army Technical Memorandum No. 3-357, Vol. 1, March, 1953 (Revised April, 1960)

KEY TO SYMBOLS AND DESCRIPTIONS

MACTEC

Figure A-2



Prepared/Date: LH 4/20/11
Checked/Date: NH 4/29/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

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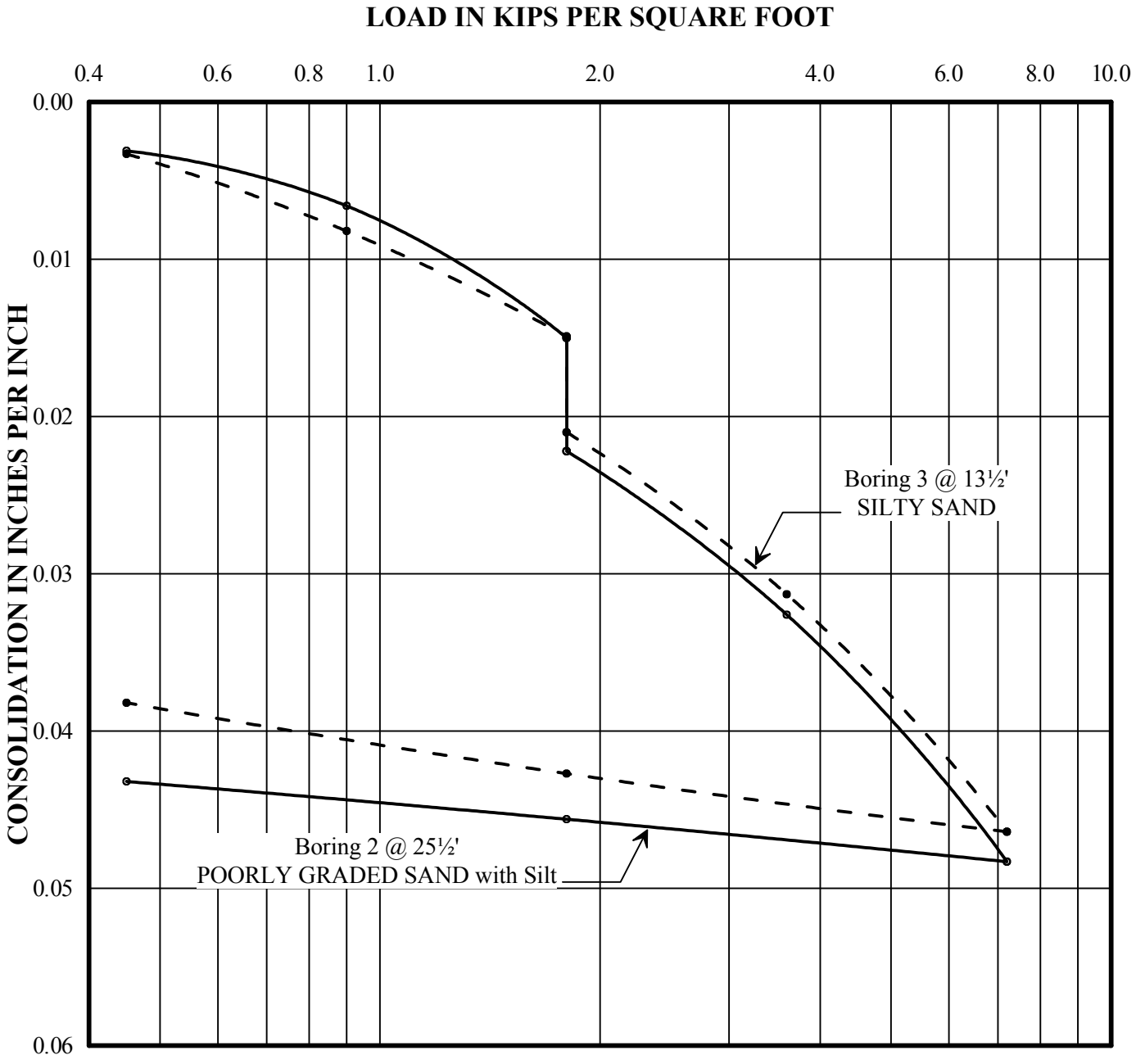
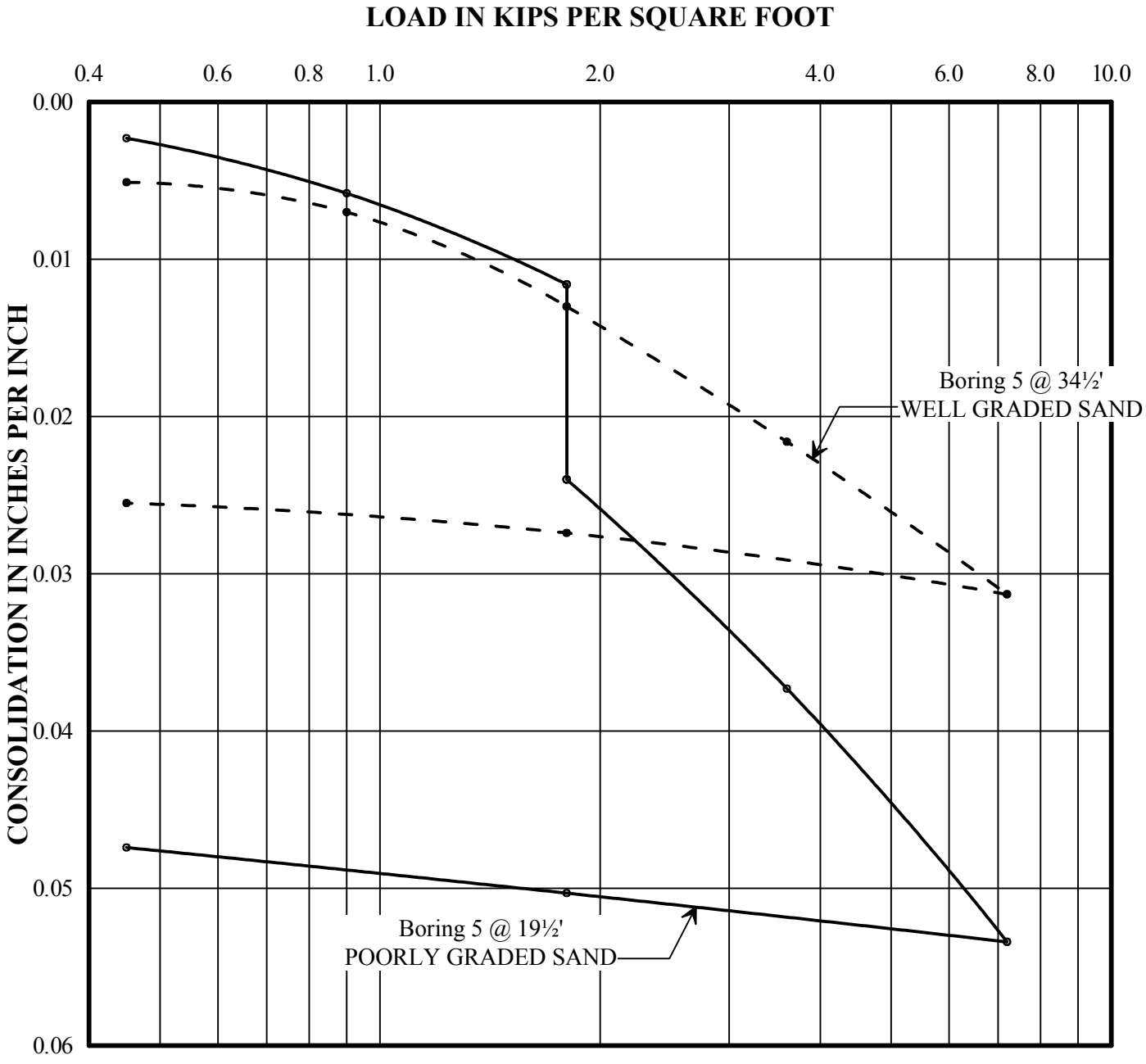
DIRECT SHEAR TEST DATA
Project No. 4953-10-0911
Figure A-3



Note: Water added to samples after consolidation under a load of 1.8 kips per square foot.

Prepared/Date: NH 7/29/10
Checked/Date: AH 7/30/10

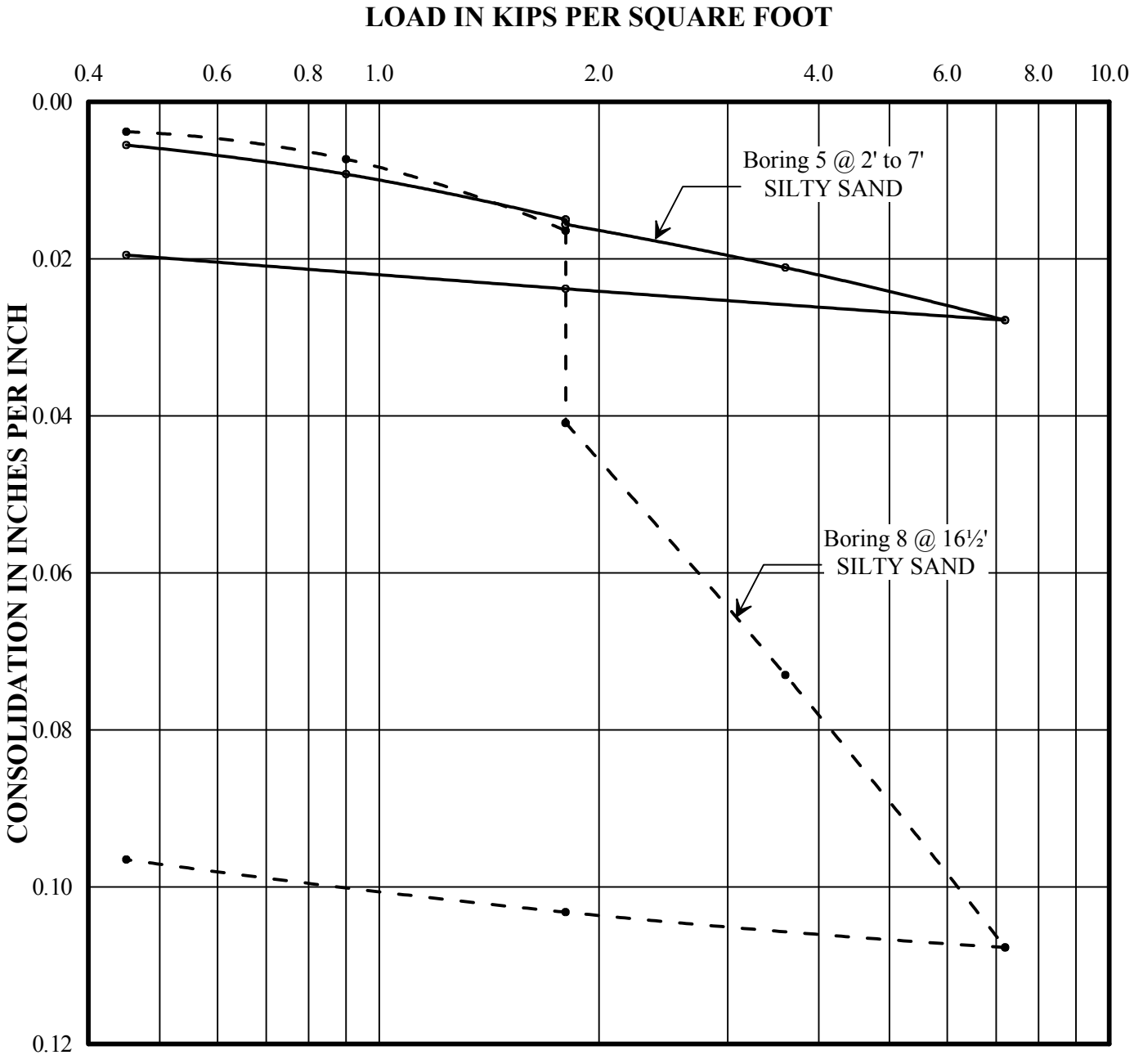
Proposed Hospital Towers Loma Linda University Medical Center Loma Linda, California	MACTEC	CONSOLIDATION TEST DATA Project 4953-10-0911 Figure A-4.1



Note: Water added to sample obtained from Boring 5 at 19½' after consolidation under a load of 1.8 kips per square foot.

Prepared/Date: NH 7/29/10
Checked/Date: AH 7/30/10

Proposed Hospital Towers Loma Linda University Medical Center Loma Linda, California	MACTEC	CONSOLIDATION TEST DATA Project 4953-10-0911 Figure A-4.2



Notes: 1) Water added to samples after consolidation under a load of 1.8 kips per square foot.

2) Prior to consolidation, sample from Boring 5 at 2'-7' was remolded and compacted to 90% of the maximum dry density obtainable by the ASTM Designation D1557 test method at a moisture content within 2% of optimum.

Prepared/Date: LH 4/20/11
Checked/Date: NH 4/29/11

Proposed Hospital Towers Loma Linda University Medical Center Loma Linda, California	MACTEC	CONSOLIDATION TEST DATA Project 4953-10-0911 Figure A-4.3

BORING NUMBER AND SAMPLE DEPTH:	2 at 5½'	5 at 5½'
SOIL TYPE:	SILTY SAND	SILTY SAND
SURCHARGE PRESSURE: (lbs./sq.ft.)	900	900
PERCENT HYDROCONSOLIDATION: (%)	4.3	1.3

Prepared/Date: NH 7/29/10
Checked/Date: AH 7/30/10

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

HYDROCONSOLIDATION
TEST DATA
Project 4953-10-0911
Figure A-5

BORING NUMBER AND SAMPLE DEPTH:	5 at 2' to 7'	9 at 1' to 5'
SOIL TYPE:	SILTY SAND	SILTY SAND
MAXIMUM DRY DENSITY: (lbs./cu.ft.)	130	132.0
OPTIMUM MOISTURE CONTENT: (%)	7.5	8.8

TEST METHOD: ASTM Designation D1557

Prepared/Date: NH 5/6/11
Checked/Date: ET 5/6/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

COMPACTION TEST DATA
Project 4953-10-0911
Figure A-6.1

BORING NUMBER AND SAMPLE DEPTH:	12 at 0' to 5'
SOIL TYPE:	SILTY SAND
MAXIMUM DRY DENSITY: (lbs./cu.ft.)	127.0
OPTIMUM MOISTURE CONTENT: (%)	9.2

TEST METHOD: ASTM Designation D1557

Prepared/Date: NH 5/6/11
Checked/Date: ET 5/6/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

COMPACTION TEST DATA
Project 4953-10-0911
Figure A-6.2

BORING NUMBER AND SAMPLE DEPTH:	9 at 1' to 5'
SOIL TYPE:	SILTY SAND
CONFINING PRESSURE: (lbs./sq. ft.)	144
INITIAL MOISTURE CONTENT: (% dry wt.)	9.4
FINAL MOISTURE CONTENT: (% dry wt.)	13.6
DRY DENSITY: (lbs/cu.ft.)	111.3
EXPANSION INDEX:	0

Prepared/Date: NH 5/6/11
Checked/Date: ET 5/6/11

Proposed Hospital Towers
Loma Linda University Medical Center
Loma Linda, California

MACTEC

EXPANSION INDEX
TEST DATA
Project 4953-10-0911
Figure A-7

R - VALUE DATA SHEET

J.N. 4953-10-0911
Loma Linda Tower

PROJECT NUMBER 37087 BORING NUMBER: B-2 @ 2'-7'

SAMPLE DESCRIPTION: Brown Silty Sand

Item	SPECIMEN		
	a	b	c
Mold Number	1	2	3
Water added, grams	68	57	47
Initial Test Water, %	10.4	9.4	8.5
Compact Gage Pressure,psi	90	190	275
Exudation Pressure, psi	116	316	602
Height Sample, Inches	2.69	2.59	2.60
Gross Weight Mold, grams	3156	3135	3136
Tare Weight Mold, grams	1965	1969	1977
Sample Wet Weight, grams	1191	1166	1159
Expansion, Inches x 10exp-4	1	5	10
Stability 2,000 lbs (160psi)	21 / 41	17 / 32	13 / 26
Turns Displacement	4.93	4.66	4.28
R-Value Uncorrected	60	68	75
R-Value Corrected	65	70	76
Dry Density, pcf	121.6	124.7	124.5
	DESIGN CALCULATION DATA		
Traffic Index Assumed:	4.0	4.0	4.0
G.E. by Stability	0.36	0.31	0.25
G. E. by Expansion	0.03	0.17	0.33

Equilibrium R-Value **69** by EXUDATION

Examined & Checked: 7 /30/ 10

REMARKS:
Gf = 1.25
2.6% Ret. On the 3/4" Sieve.

REGISTERED PROFESSIONAL ENGINEER STEVEN R. MARVIN 30659 EXP 3[illegible]/12 CIVIL STATE OF CALIFORNIA

Steven R. Marvin, RCE 30659

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301.

LaBelle • Marvin

R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 37087
J.N. 495-10-0911

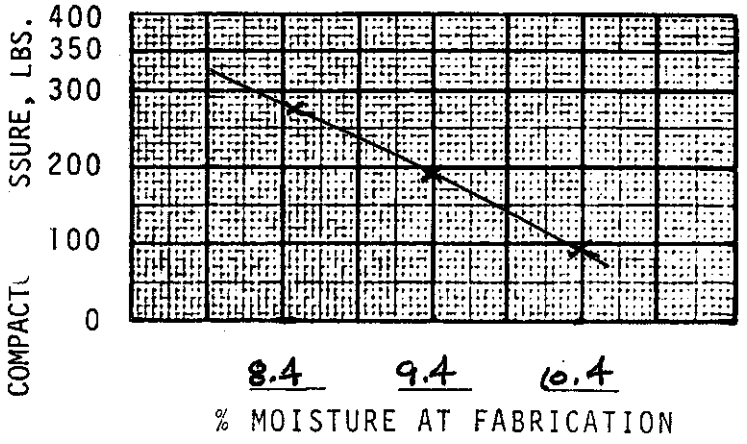
BORING NO. B-2 @ 2'-7' Loma Linda Towers & Central Parking Struc.

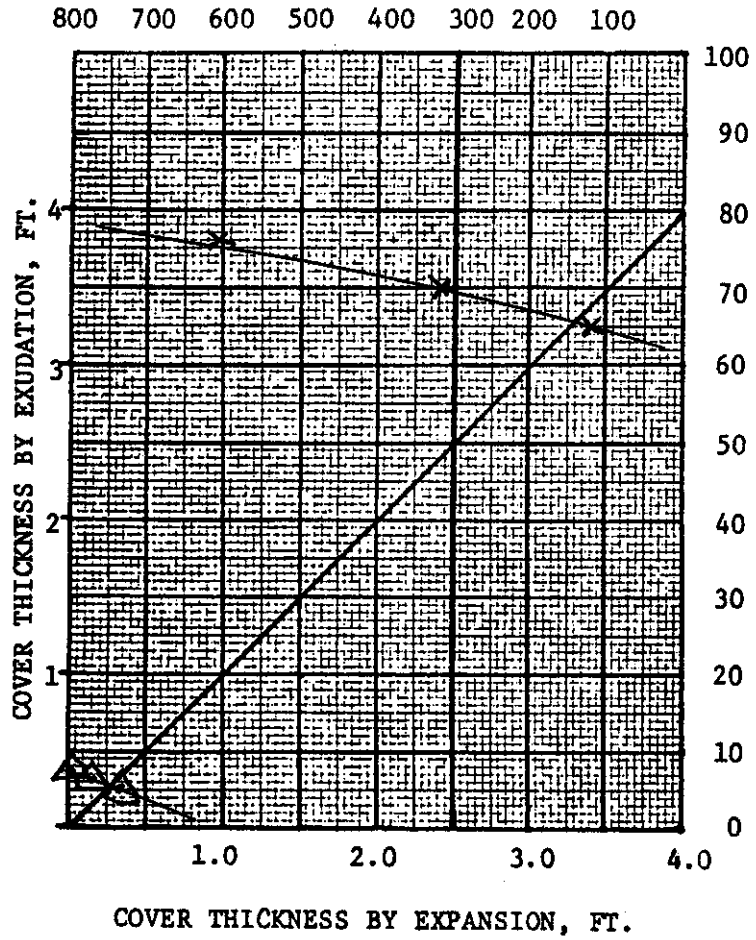
DATE 7-30-10

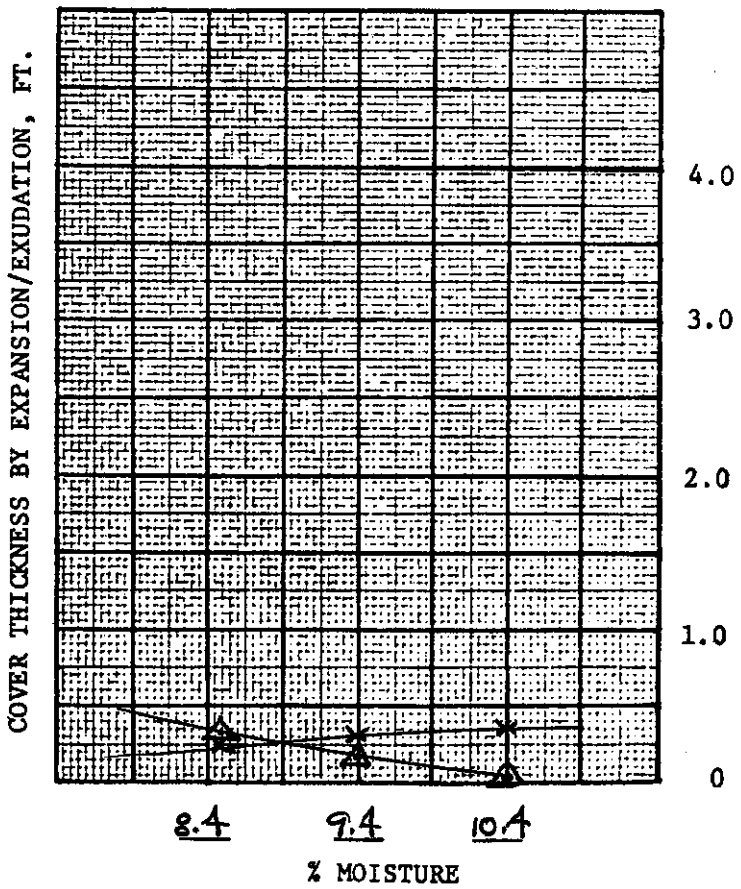
TRAFFIC INDEX Assume 4.0

R-VALUE BY EXUDATION 69

R-VALUE BY EXPANSION [illegible]







R-VALUE vs. EXUD. PRES.

T by EXUDATION

EXUD. T vs. EXPAN. T

T by EXPANSION

REMARKS

GF=1.25

LaBelle • Marvin
PROFESSIONAL PAVEMENT ENGINEERING

R - VALUE DATA SHEET

J.N. 4953-10-0911
Loma Linda Hosp.

PROJECT NUMBER 37475 BORING NUMBER: B-7 @ 1'-5'

SAMPLE DESCRIPTION: Brown Silty Sand

Item	SPECIMEN		
	a	b	c
Mold Number	1	2	3
Water added, grams	58	40	47
Initial Test Water, %	10.4	8.9	9.5
Compact Gage Pressure,psi	135	350	265
Exudation Pressure, psi	186	733	369
Height Sample, Inches	2.62	2.56	2.58
Gross Weight Mold, grams	3108	3099	3107
Tare Weight Mold, grams	1965	1969	1777
Sample Wet Weight, grams	1143	1130	1330
Expansion, Inches x 10exp-4	3	22	14
Stability 2,000 lbs (160psi)	21 / 40	16 / 27	17 / 32
Turns Displacement	5.43	4.93	5.02
R-Value Uncorrected	58	71	67
R-Value Corrected	61	72	69
Dry Density, pcf	119.7	122.9	142.7
DESIGN CALCULATION DATA			
Traffic Index Assumed:	4.0	4.0	4.0
G.E. by Stability	0.40	0.29	0.32
G. E. by Expansion	0.10	0.73	0.47

Equilibrium R-Value 66 by EXUDATION

Examined & Checked: 4 /4/ 11

REMARKS:
Gf = 1.25
1.7% Retained on the 3/4" Sieve.

REGISTERED PROFESSIONAL ENGINEER
STEVEN R. MARVIN
C 30659
EXP 3/31/12
STATE OF CALIFORNIA

Steven R. Marvin, RCE 30659

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with latest revisions to Department of Transportation, State of California, Materials & Research Test Method No. 301.

R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 37475 J.N. 4953-10-0911

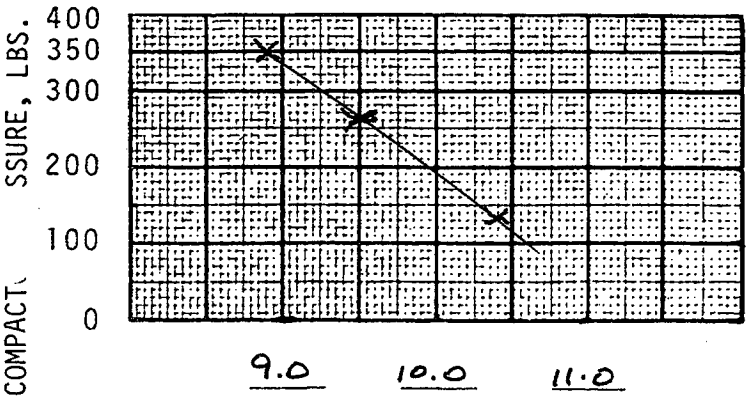
BORING NO. B-1 @ 1'-5' Loma Linda Child. Hosp.

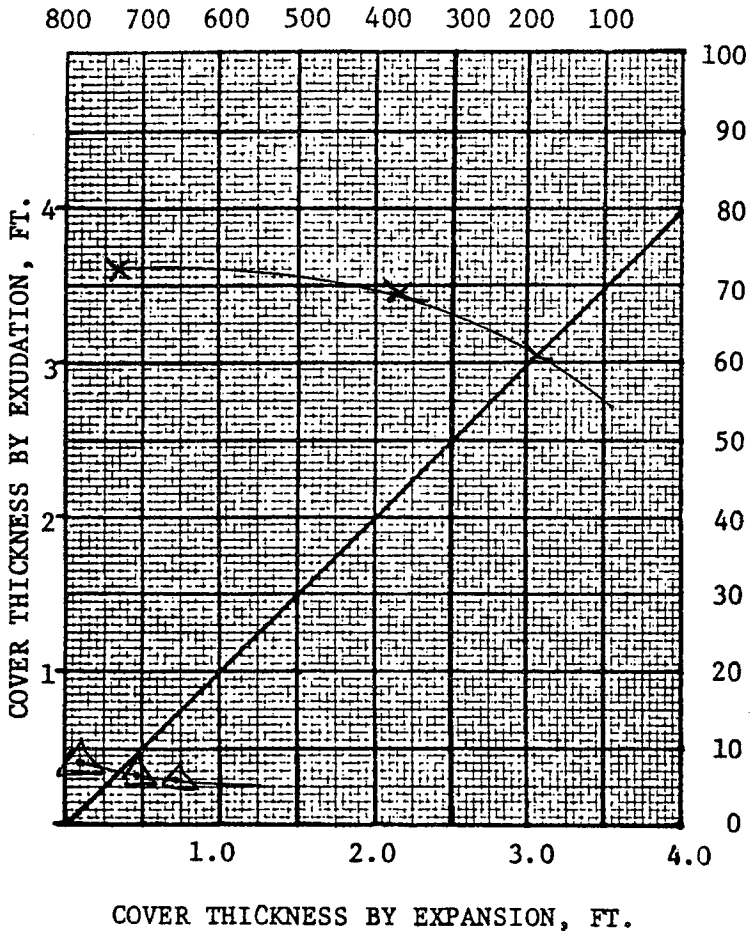
DATE 4-4-11

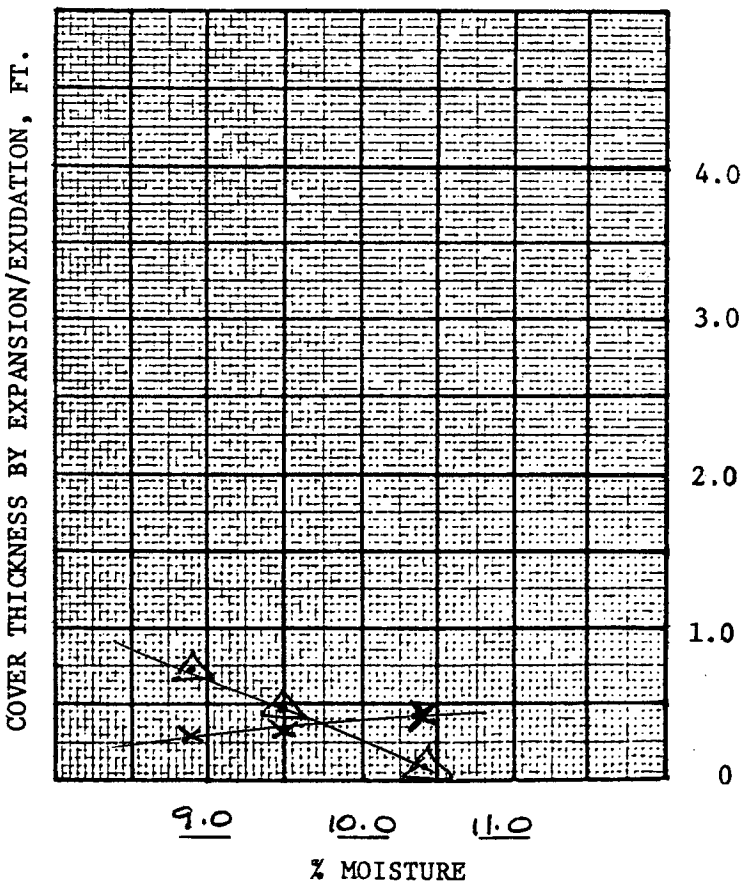
TRAFFIC INDEX Assume 4.0

R-VALUE BY EXUDATION 66

R-VALUE BY EXPANSION 7







R-VALUE vs. EXUD. PRES.

T by EXUDATION

EXUD. T vs. EXPAN. T

T by EXPANSION

REMARKS

GF=1.25

LaBelle • Marvin
PROFESSIONAL PAVEMENT ENGINEERING

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

Loma Linda – Integratedampus
11234 Anderson Street
Loma Linda, CA
July 14-15, 2010 & March 8, 2011

Prepared for:

Mr. Mark Murphy
MACTEC Engineering & Consulting, Inc.
5628 E. Slauson Avenue
Los Angeles, CA 90040-2922
Office (323) 889-5300 / Fax (323) 889-5398

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289

TABLE OF CONTENTS

SUMMARY

OF

CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the Loma Linda - Integratedampus project located at 11234 Anderson Street in Loma Linda, California. The work was performed by Kehoe Testing & Engineering (KTE) on July 14-15, 2010 & March 8, 2011. The scope of work was performed as directed by MACTEC Engineering & Consulting, Inc. personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at 14 locations to determine the soil lithology. The groundwater measurements were taken in the open CPT hole approximately 10 minutes after completion of CPT. The following **TABLE 2.1** summarizes the CPT soundings performed:

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
CPT-1	60	
CPT-2	44	Refusal
CPT-3	35	Refusal
CPT-4	39	Refusal
CPT-4A	42	Refusal
CPT-5	60	
CPT-6	59	Refusal
CPT-7	60	
CPT-8	52	Refusal
CPT-9	35	Refusal
CPT-10	48	Refusal
CPT-11	31	Refusal
CPT-12	41	Refusal
CPT-13	60	

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone and recorded the following parameters at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed
- Pore Pressure Dissipation (at selected depths)

At location CPT-2, CPT-4, CPT-4A, CPT-8 & CPT-11, shear wave measurements were obtained at approximately 5-foot intervals. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a portable computer and stored on a diskette for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. Penetration depths are referenced to ground surface. The soil classification on the CPT plots is derived from the CPT Classification Chart (Robertson, 1986) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

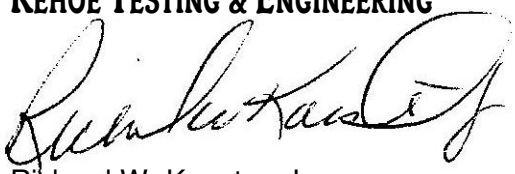
Output from the interpretation program CPTINT provides averaged CPT data over one-foot intervals. The CPTINT output includes Soil Classification Zones, SPT N Values and Undrained Shear Strength (Su). A summary of the equations used for the tabulated parameters is provided in the CPTINT Correlation Table in the Appendix.

The interpretation of soils encountered on this project was carried out using correlations developed by Robertson et al, 1986. It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgment and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING



Richard W. Koester, Jr.
General Manager

04/07/11-ca-97rev-0646

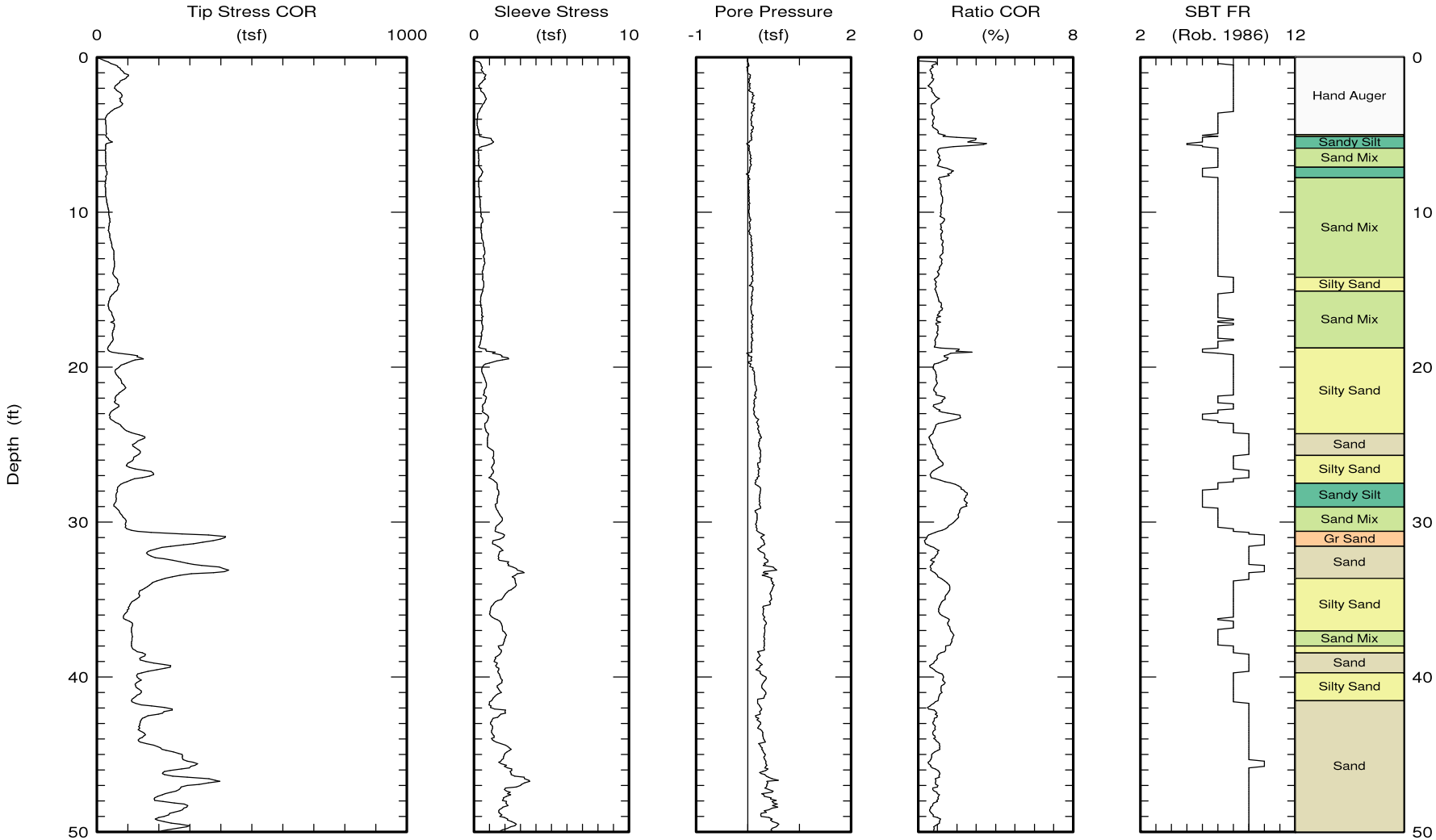
APPENDIX

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 15/Jul/2010
Test ID: CPT-1
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



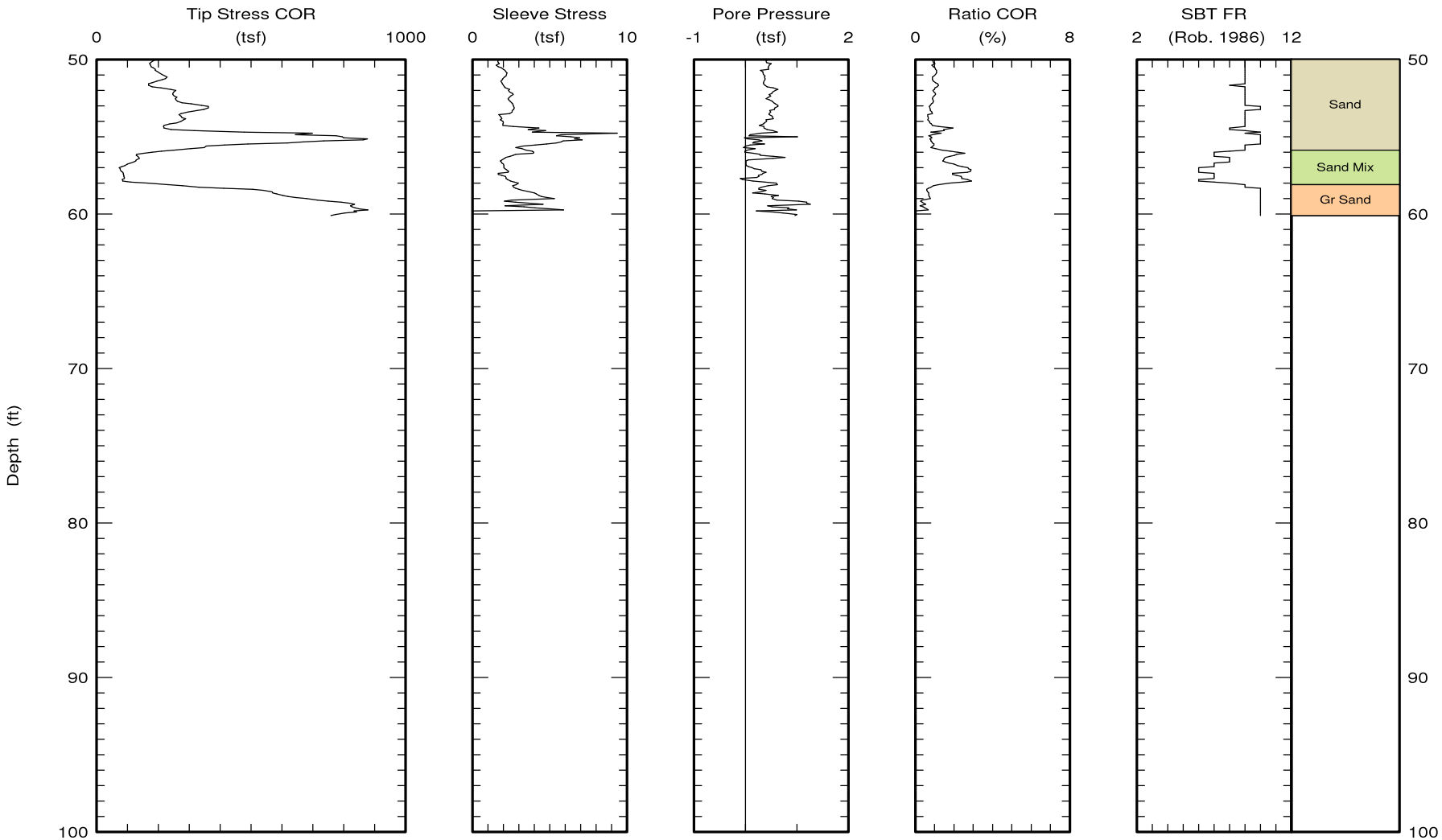
Maximum depth: 60.10 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

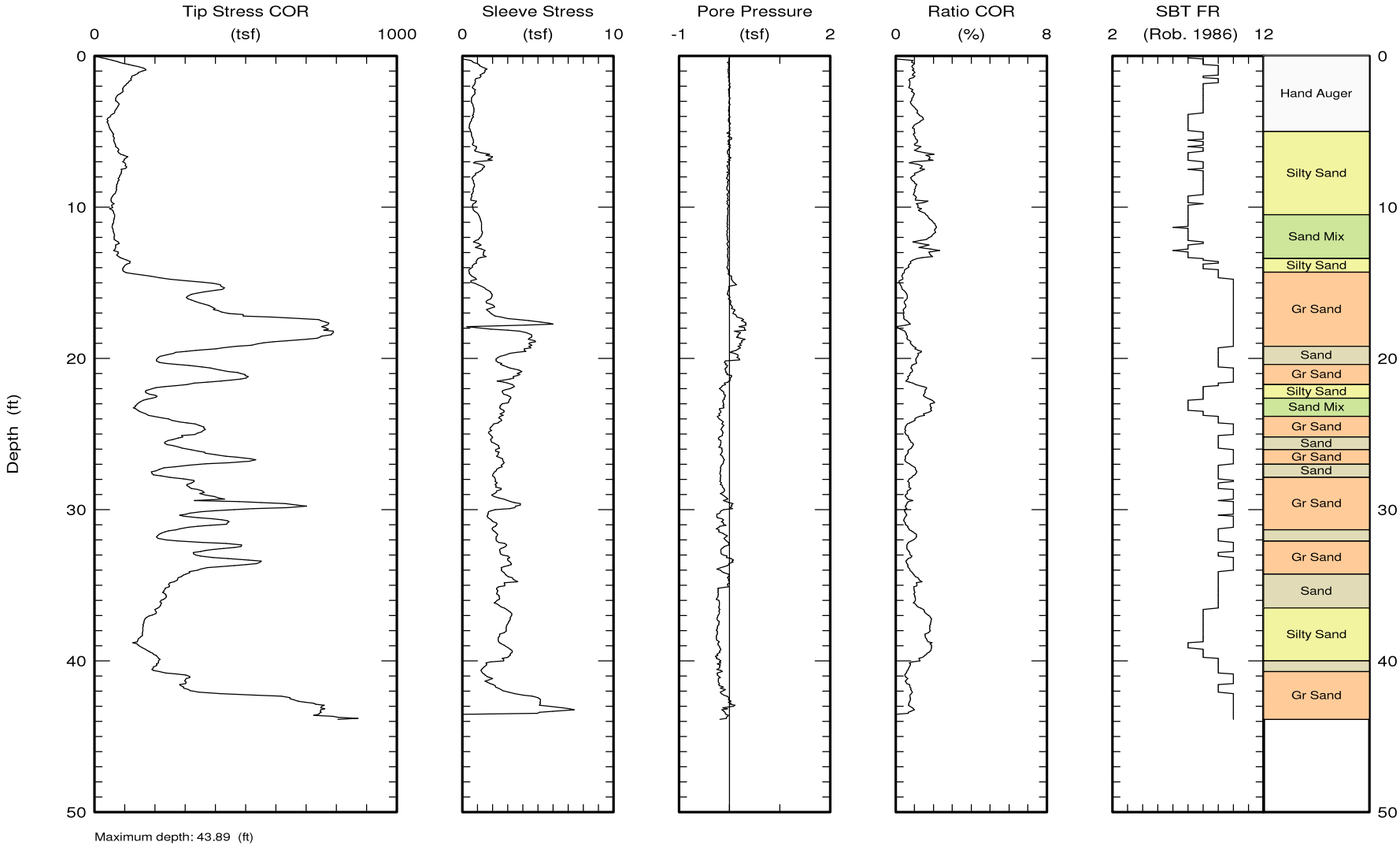
Date: 15/Jul/2010
Test ID: CPT-1
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 60.10 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 15/Jul/2010 Test ID: CPT-2 Project: LomaLinda
	Customer: MACTEC Job Site: Loma Linda Integratedampus	



Maximum depth: 43.89 (ft)

Kehoe Testing & Engineering
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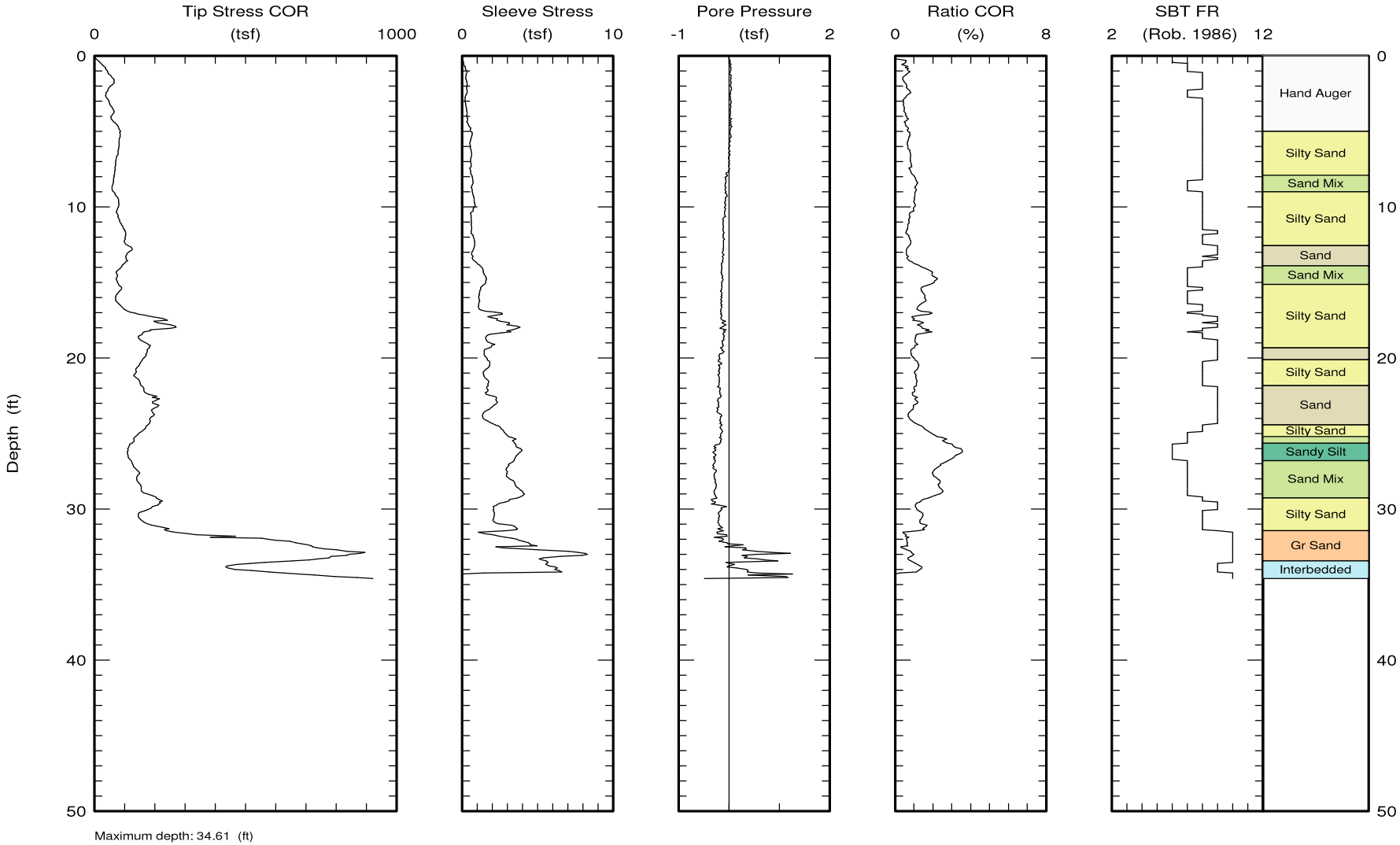
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

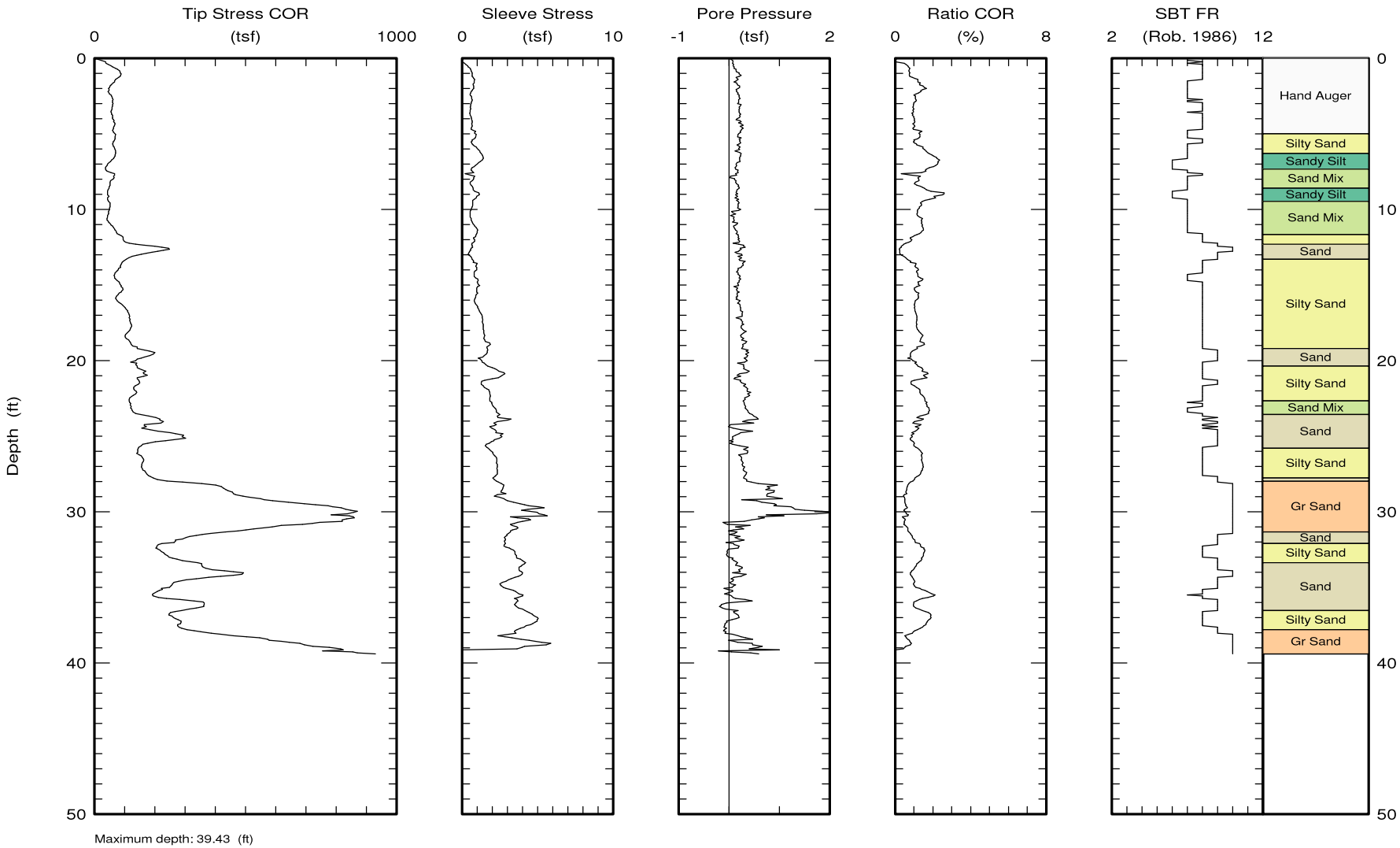
Date: 14/Jul/2010
Test ID: CPT-3
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



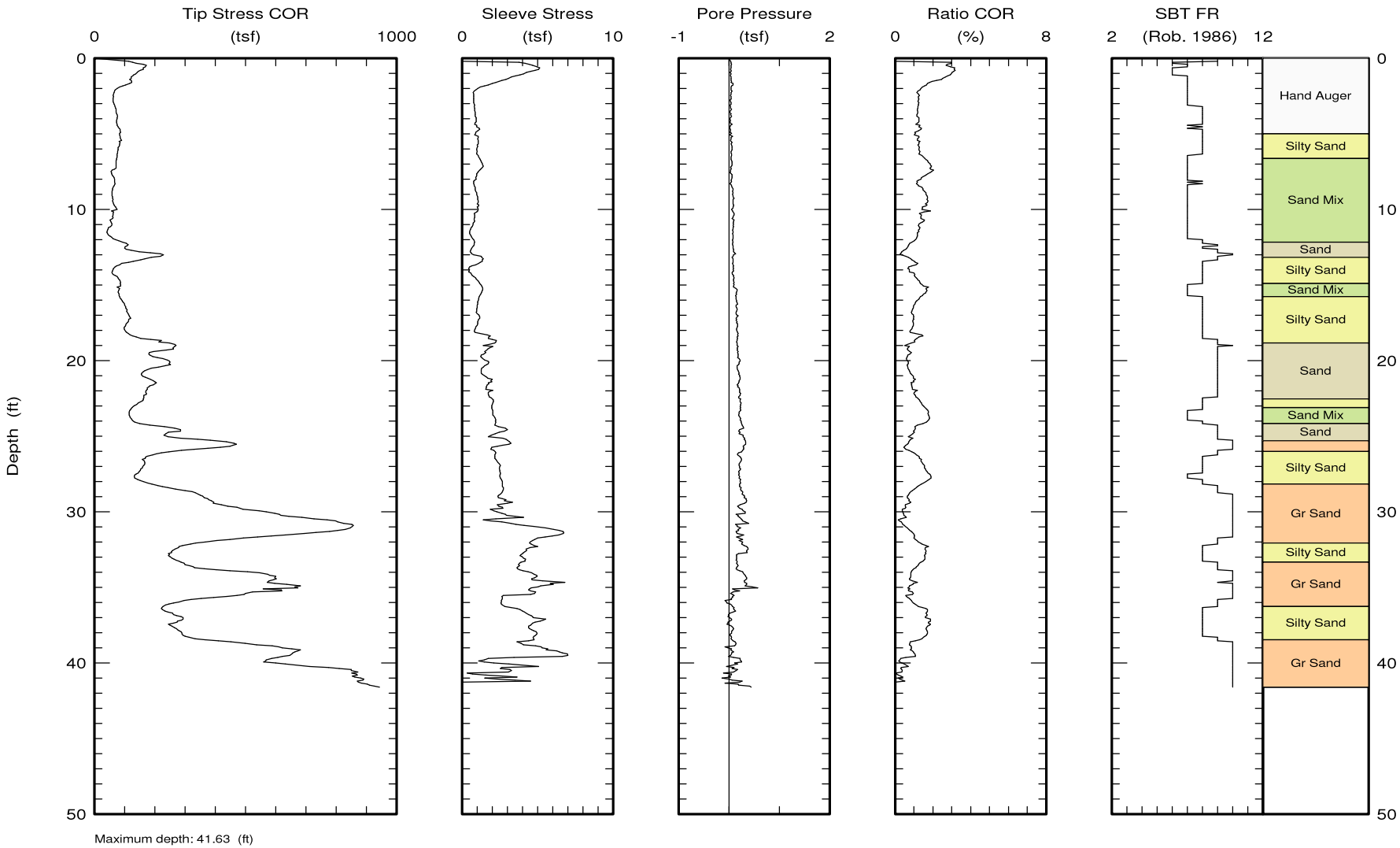
Maximum depth: 34.61 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 14/Jul/2010 Test ID: CPT-4 Project: LomaLinda
	Customer: MACTEC Job Site: Loma Linda Integratedampus	



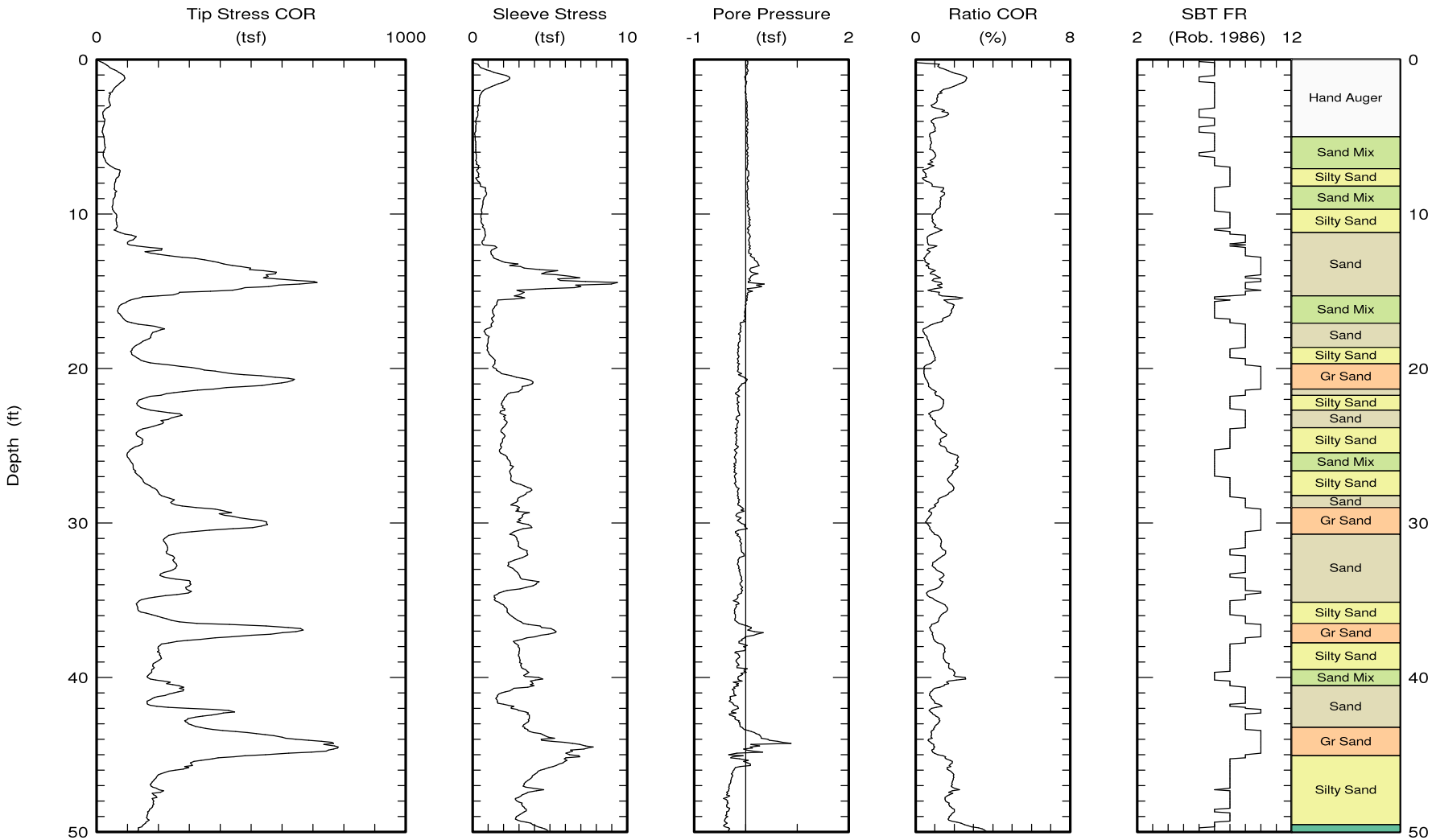
Maximum depth: 39.43 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 14/Jul/2010 Test ID: CPT-4A Project: LomaLinda
	Customer: MACTEC Job Site: Loma Linda Integratedampus	



Maximum depth: 41.63 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 14/Jul/2010 Test ID: CPT-5 Project: LomaLinda
	Customer: MACTEC Job Site: Loma Linda Integratedampus	



Maximum depth: 60.11 (ft)

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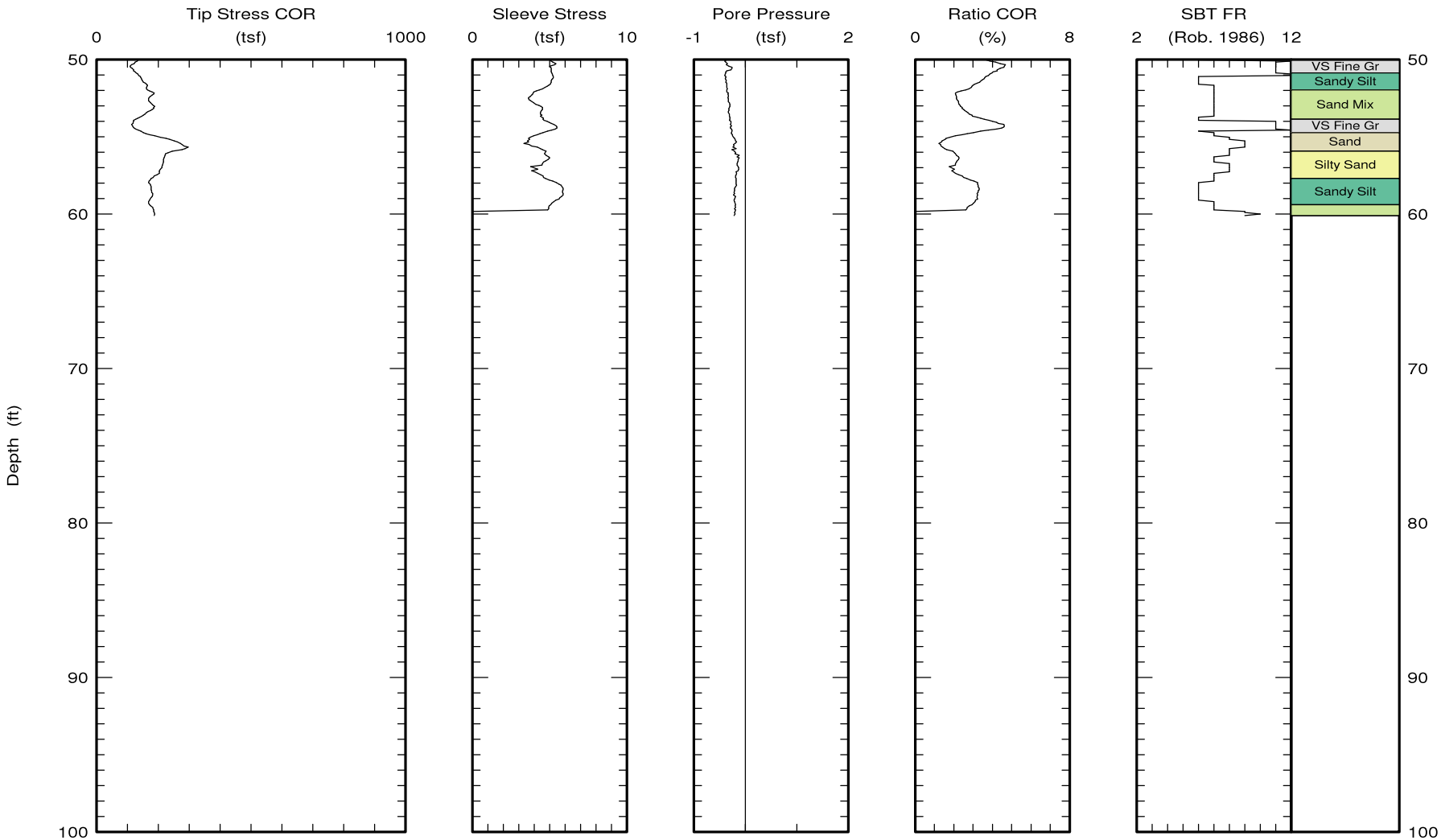
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 14/Jul/2010
Test ID: CPT-5
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 60.11 (ft)

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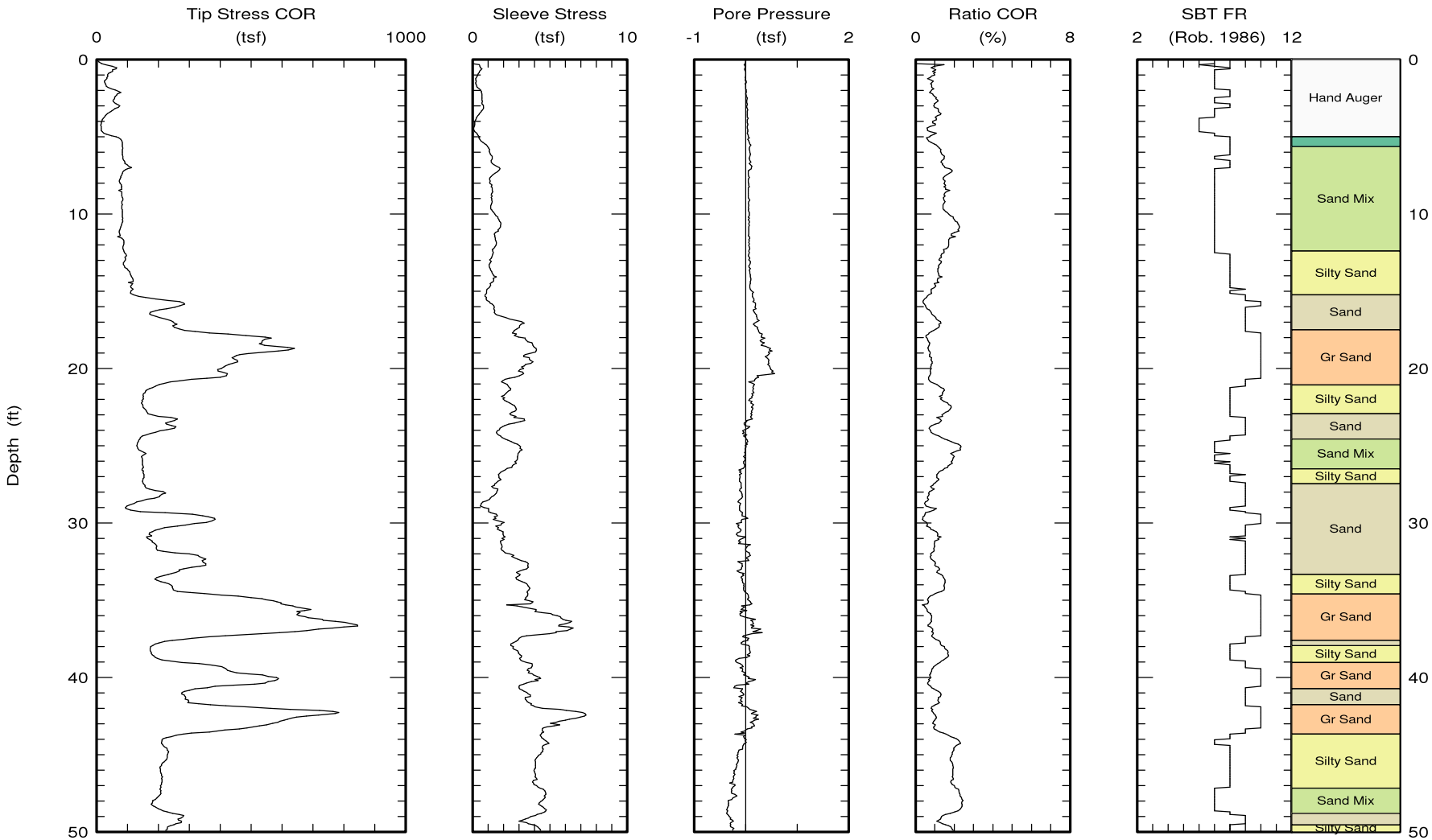
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 14/Jul/2010
Test ID: CPT-6
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



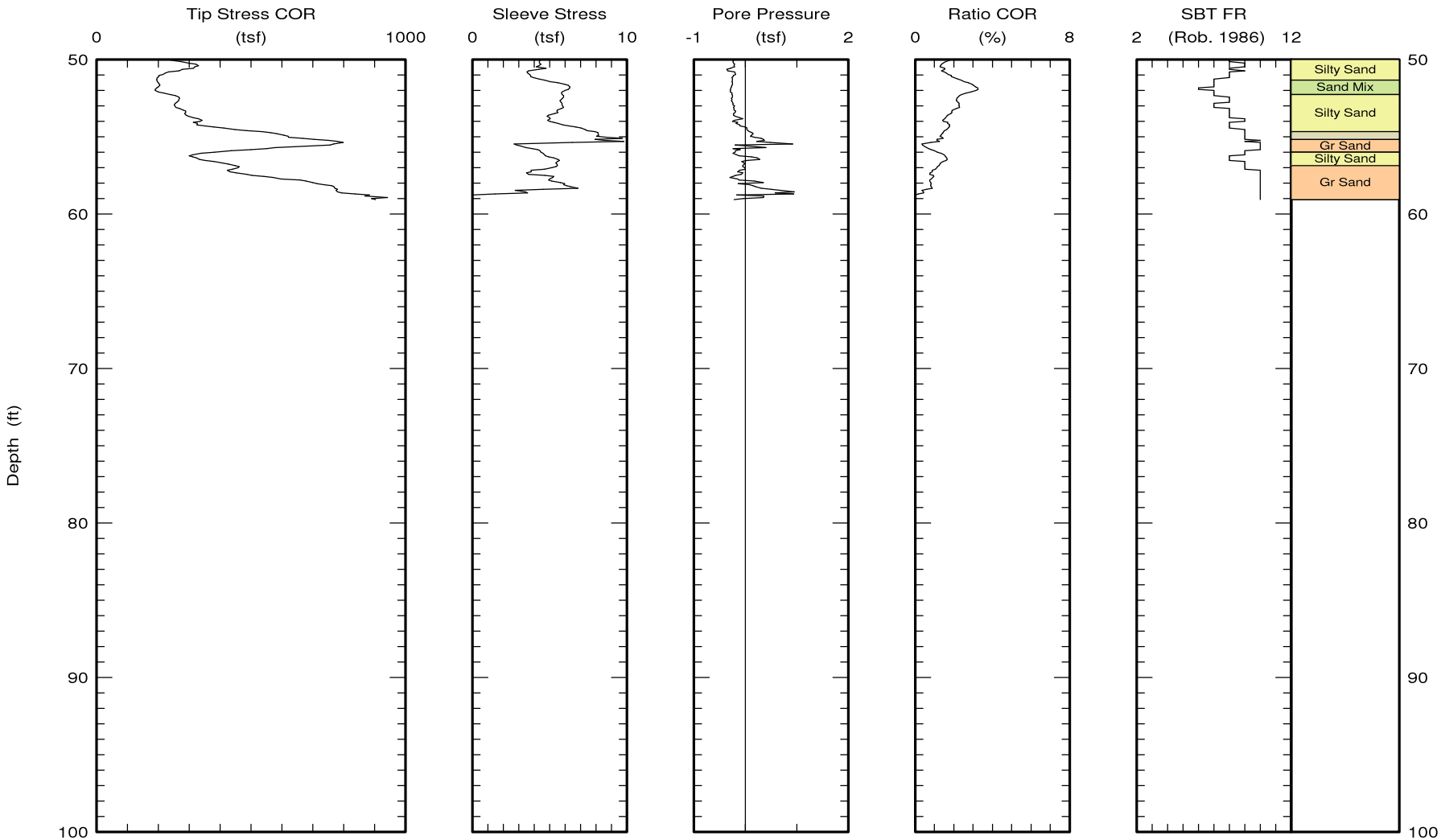
Maximum depth: 59.07 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 14/Jul/2010
Test ID: CPT-6
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 59.07 (ft)

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Fax: (714) 901-7289
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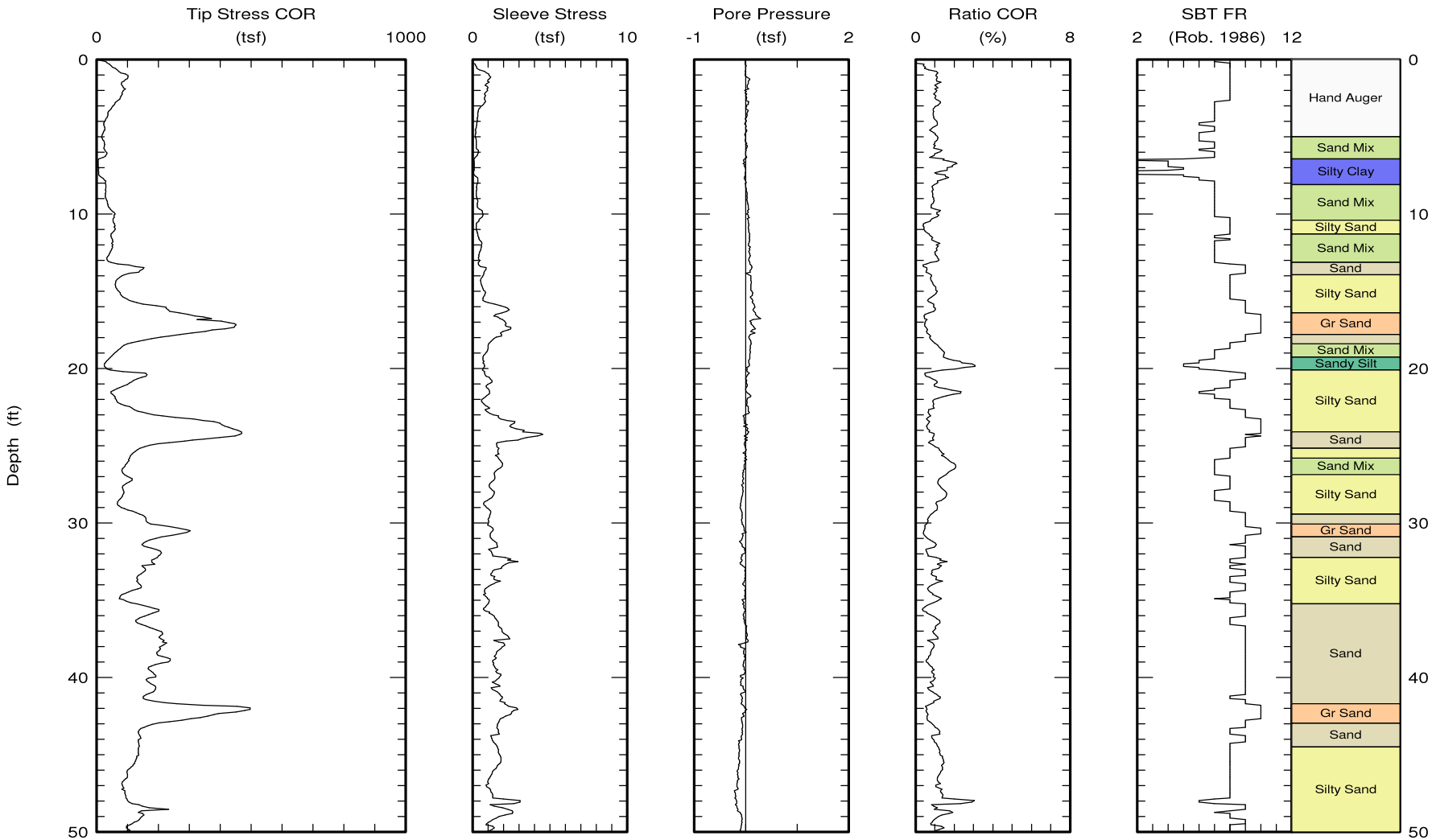
www.kehoetesting.com

CPT Data
30 ton rig

Date: 14/Jul/2010
Test ID: CPT-7
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 60.11 (ft)

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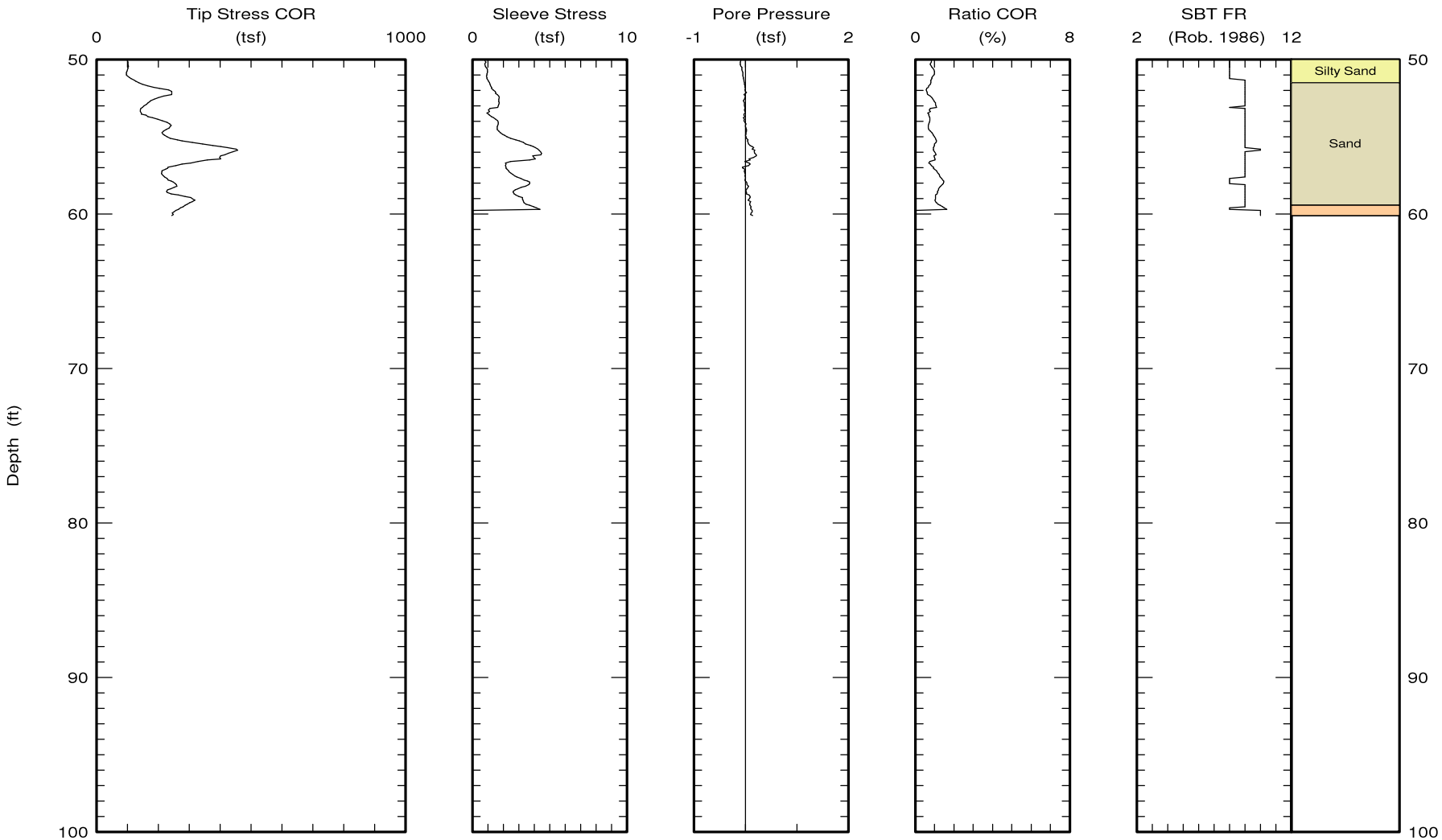
CPT Data
30 ton rig

Date: 14/Jul/2010
Test ID: CPT-7
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 60.11 (ft)

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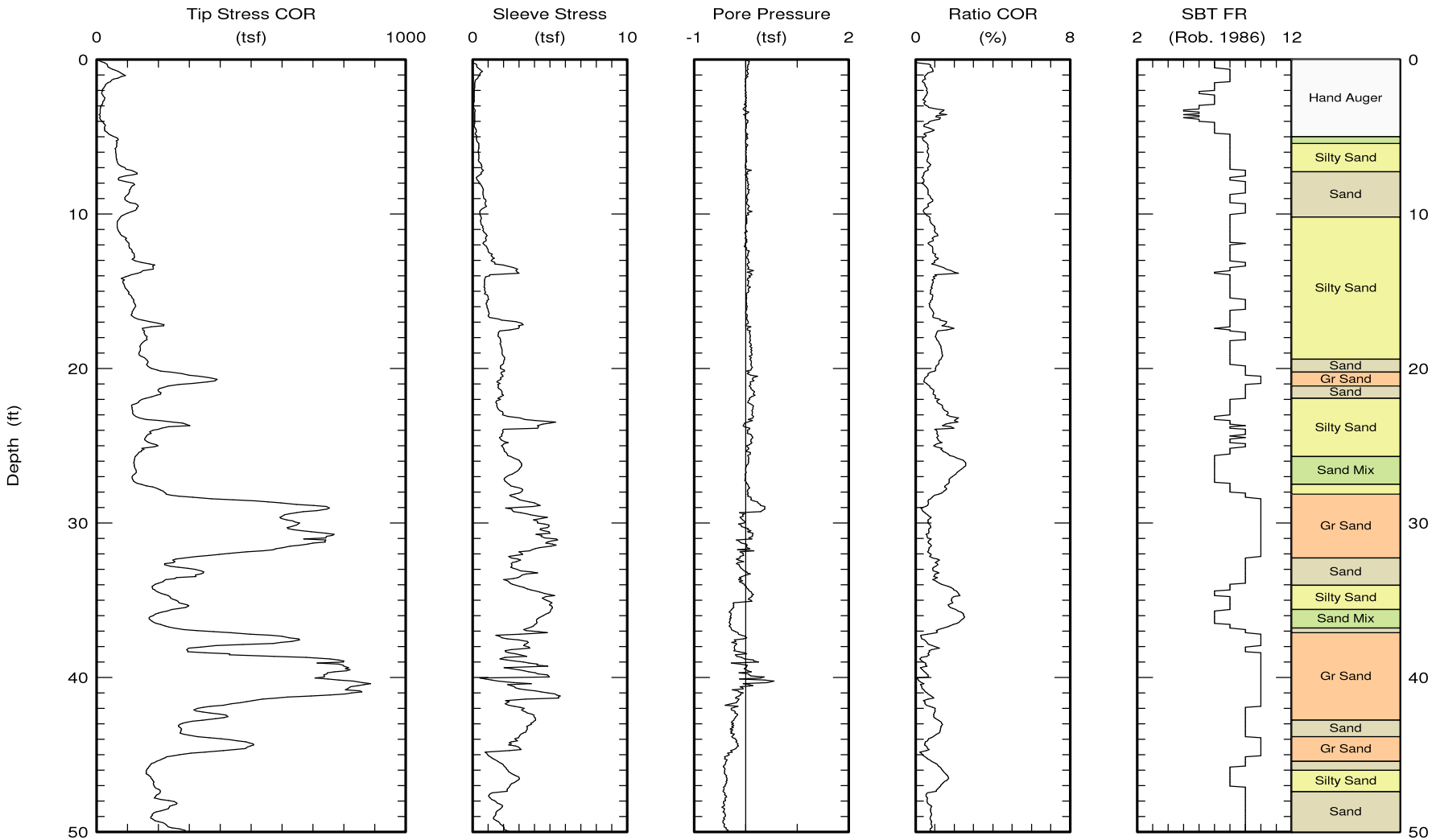
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 15/Jul/2010
Test ID: CPT-8
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 51.73 (ft)

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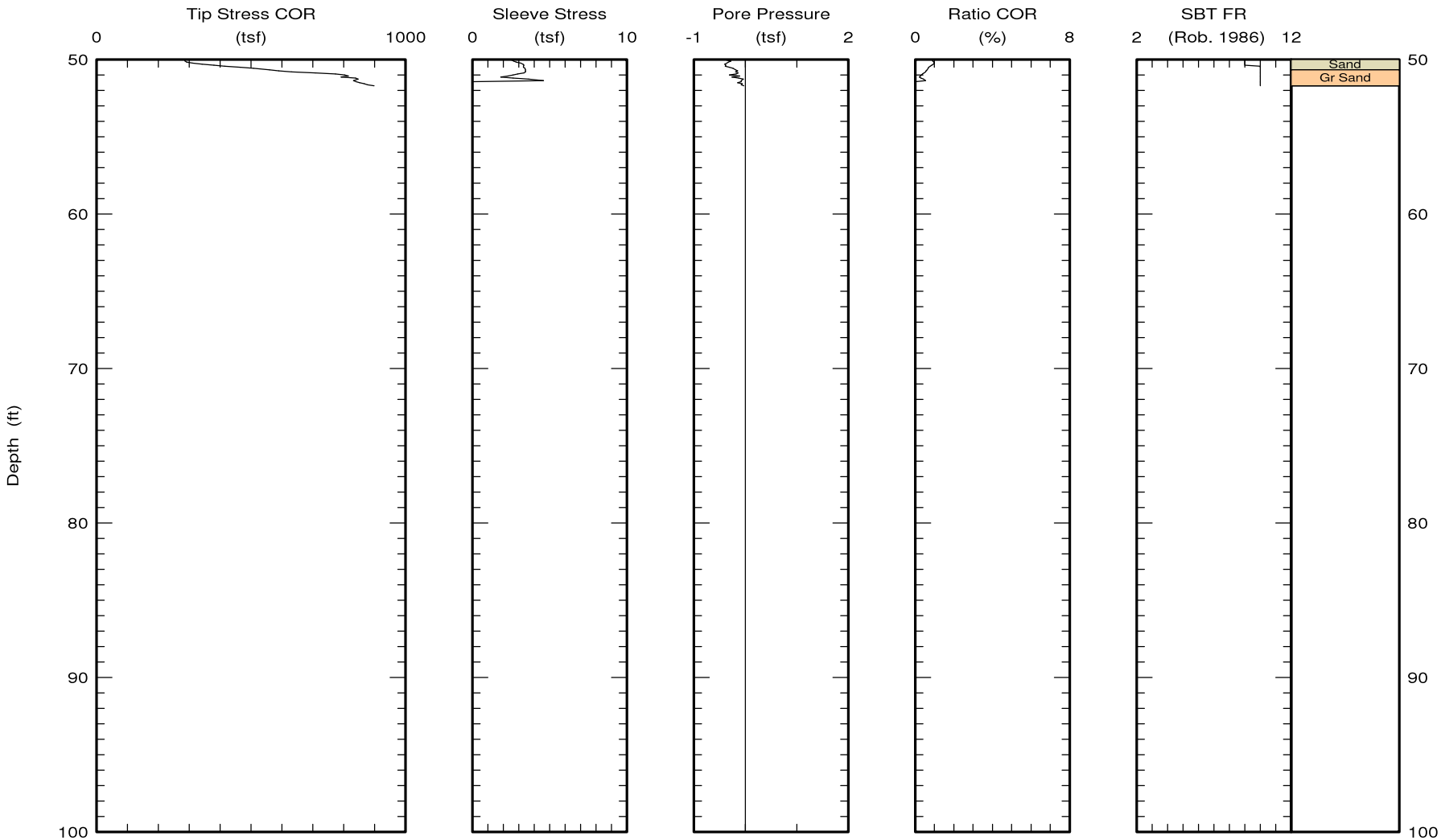
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 15/Jul/2010
Test ID: CPT-8
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 51.73 (ft)

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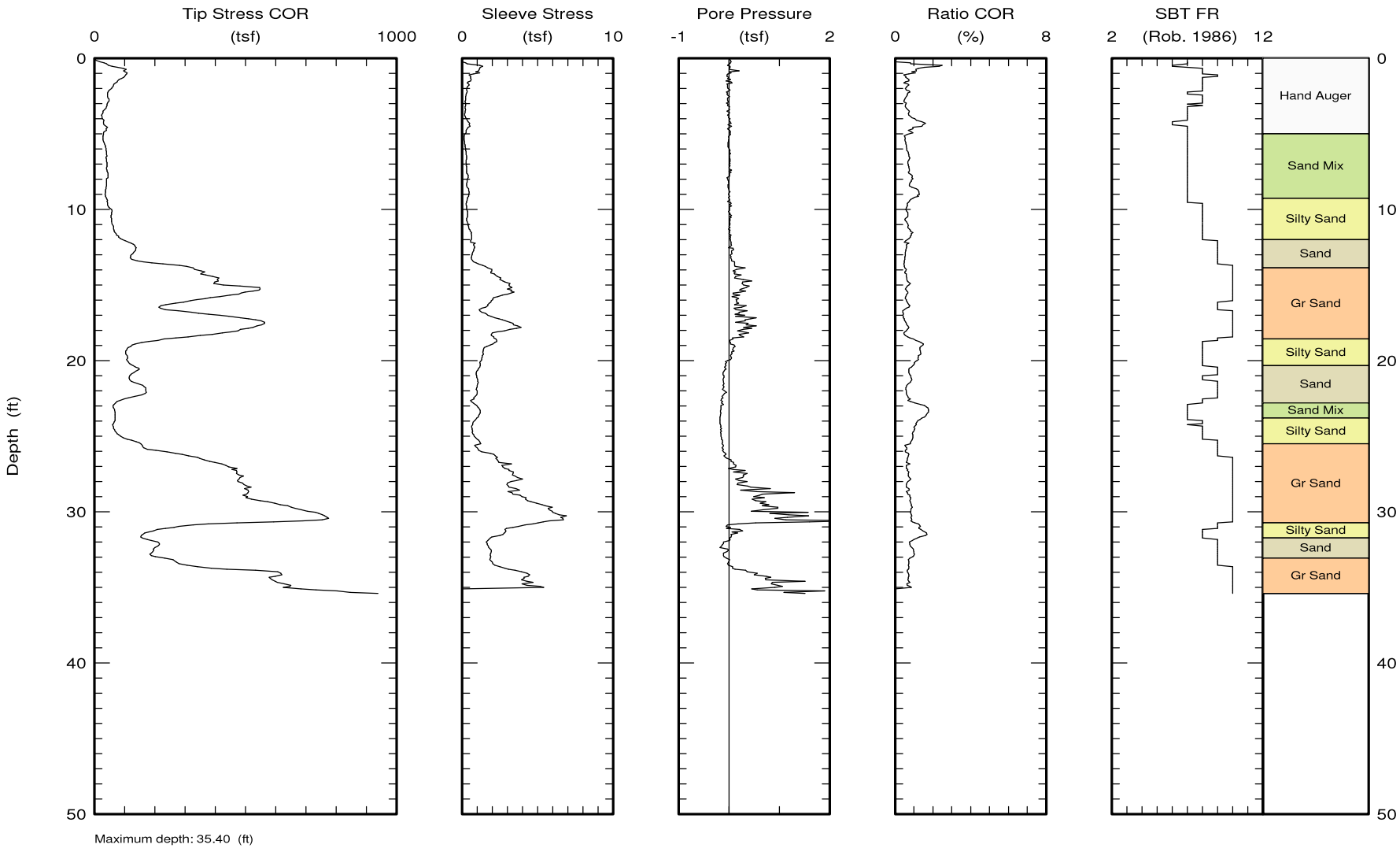
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 14/Jul/2010
Test ID: CPT-9
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



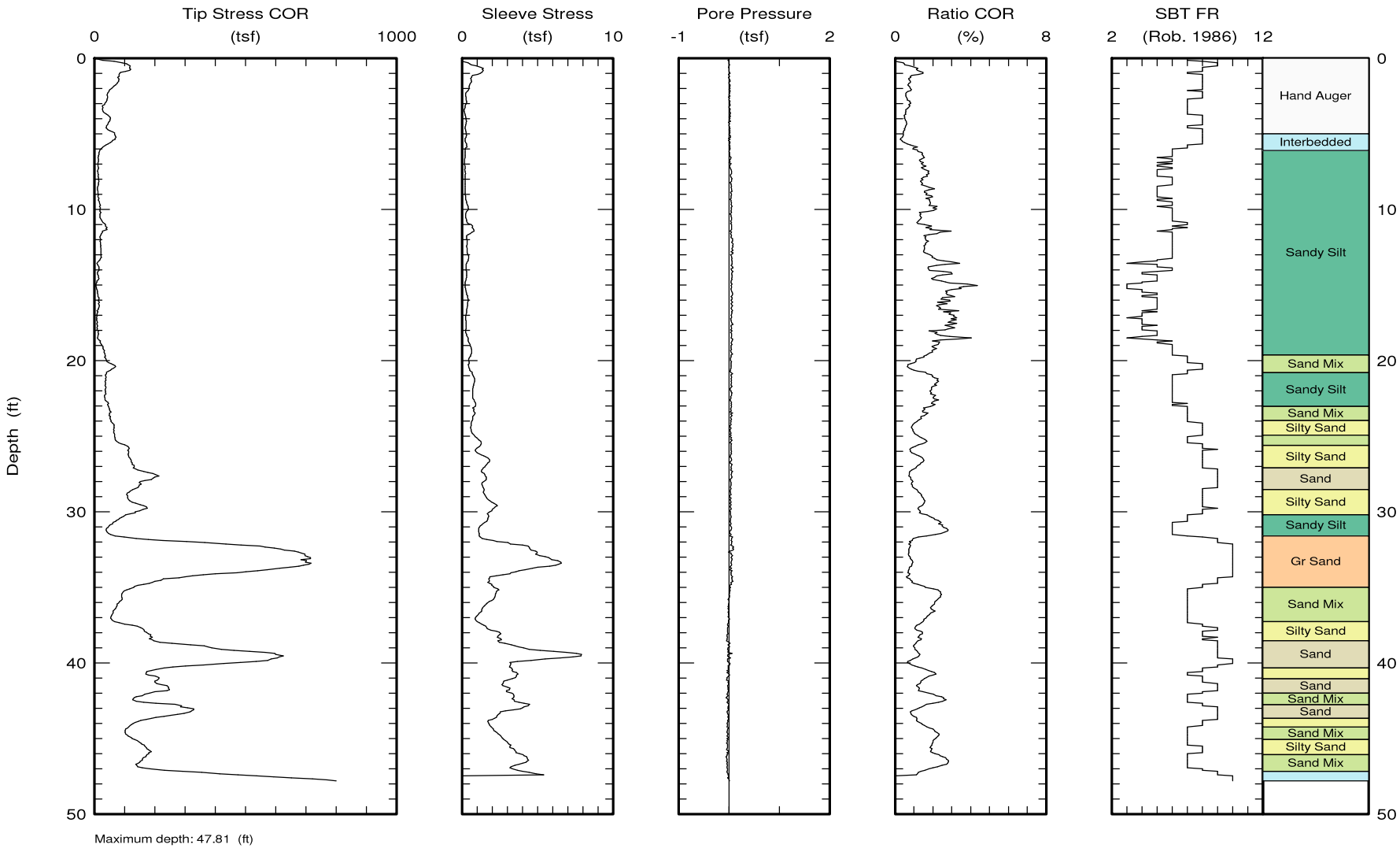
Maximum depth: 35.40 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 08/Mar/2011
Test ID: CPT-10
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



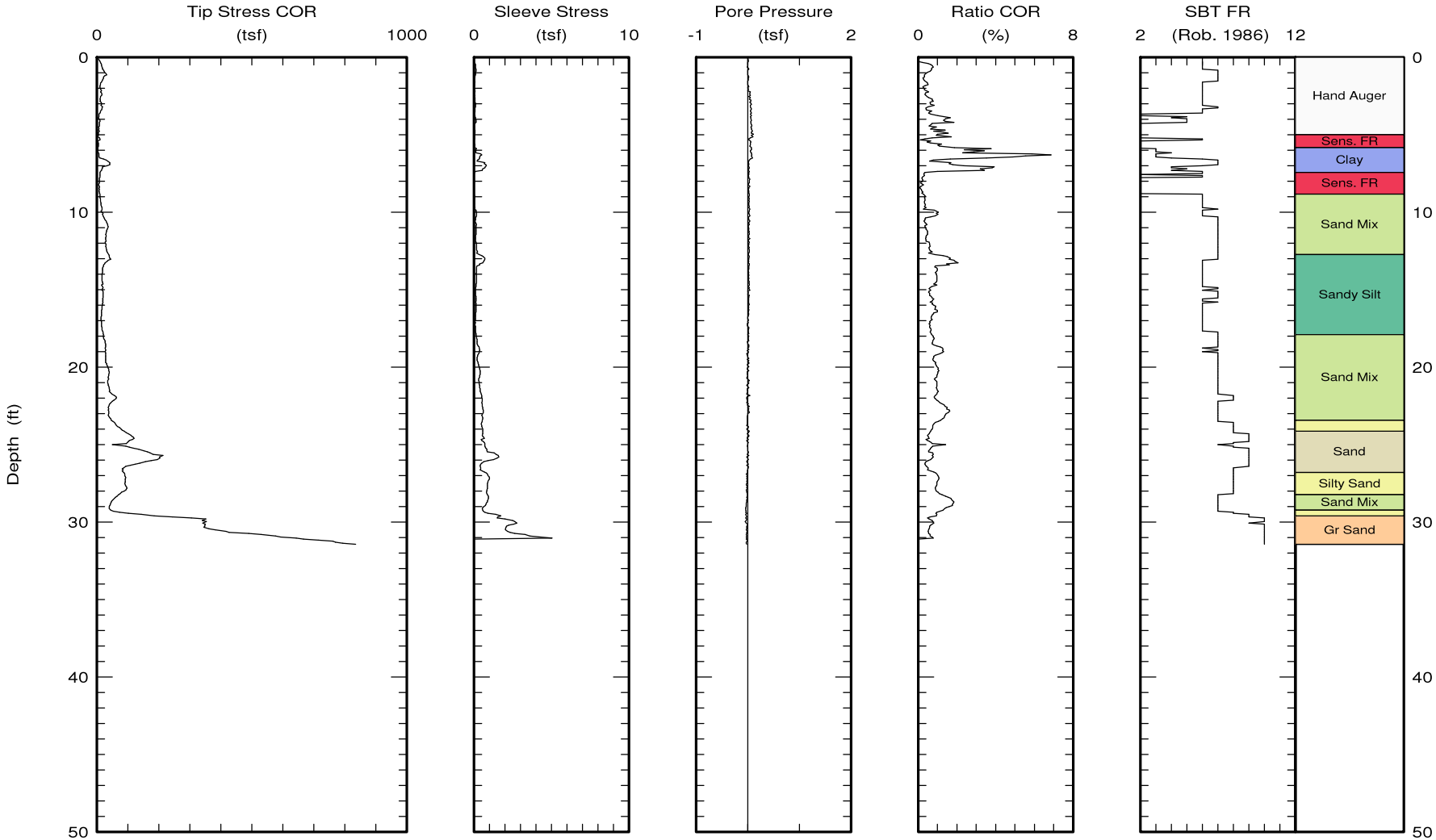
Maximum depth: 47.81 (ft)

Kehoe Testing & Engineering
Office: (714) 901-7270
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 08/Mar/2011
Test ID: CPT-11
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 31.46 (ft)

Kehoe Testing & Engineering
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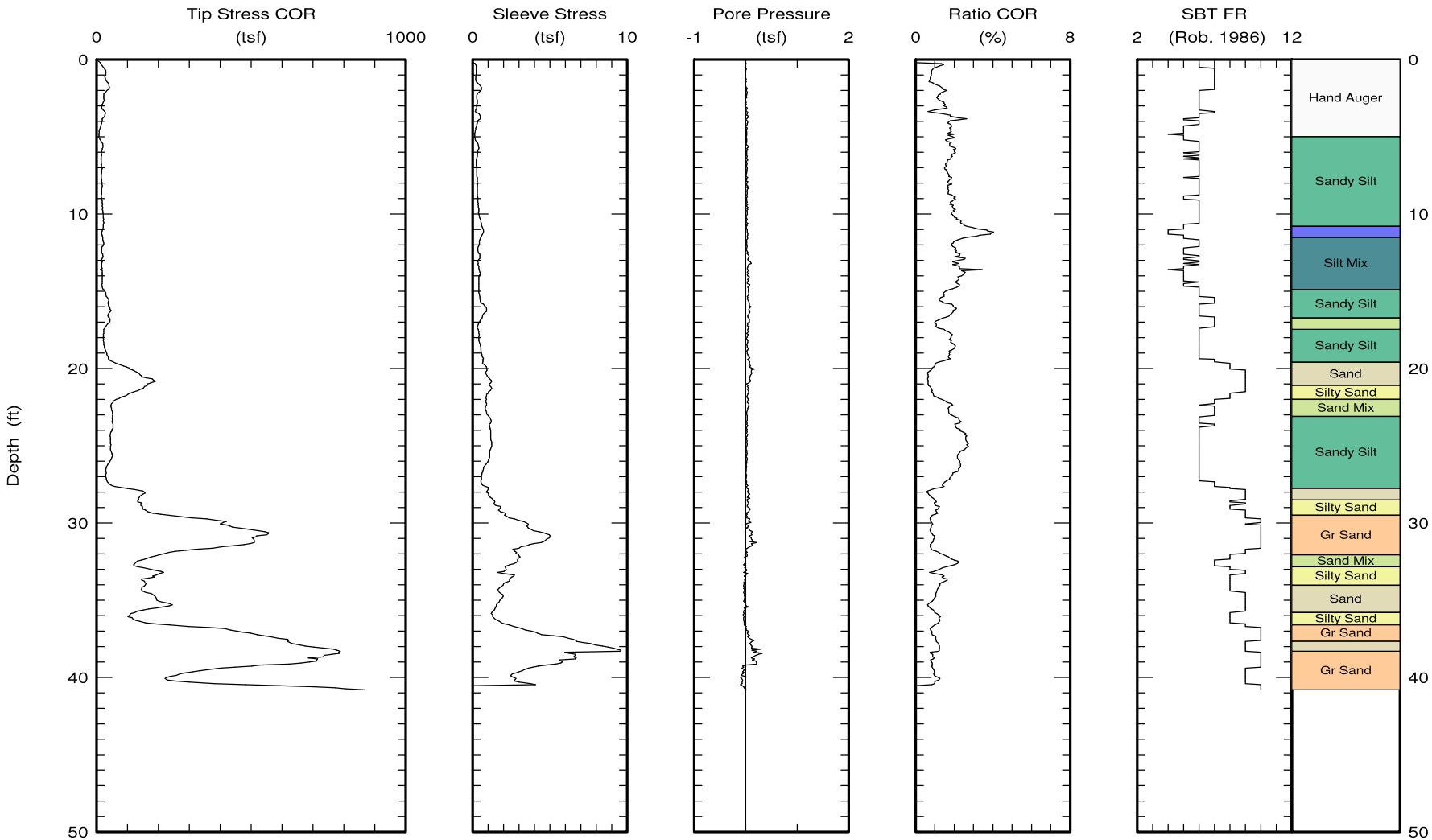
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

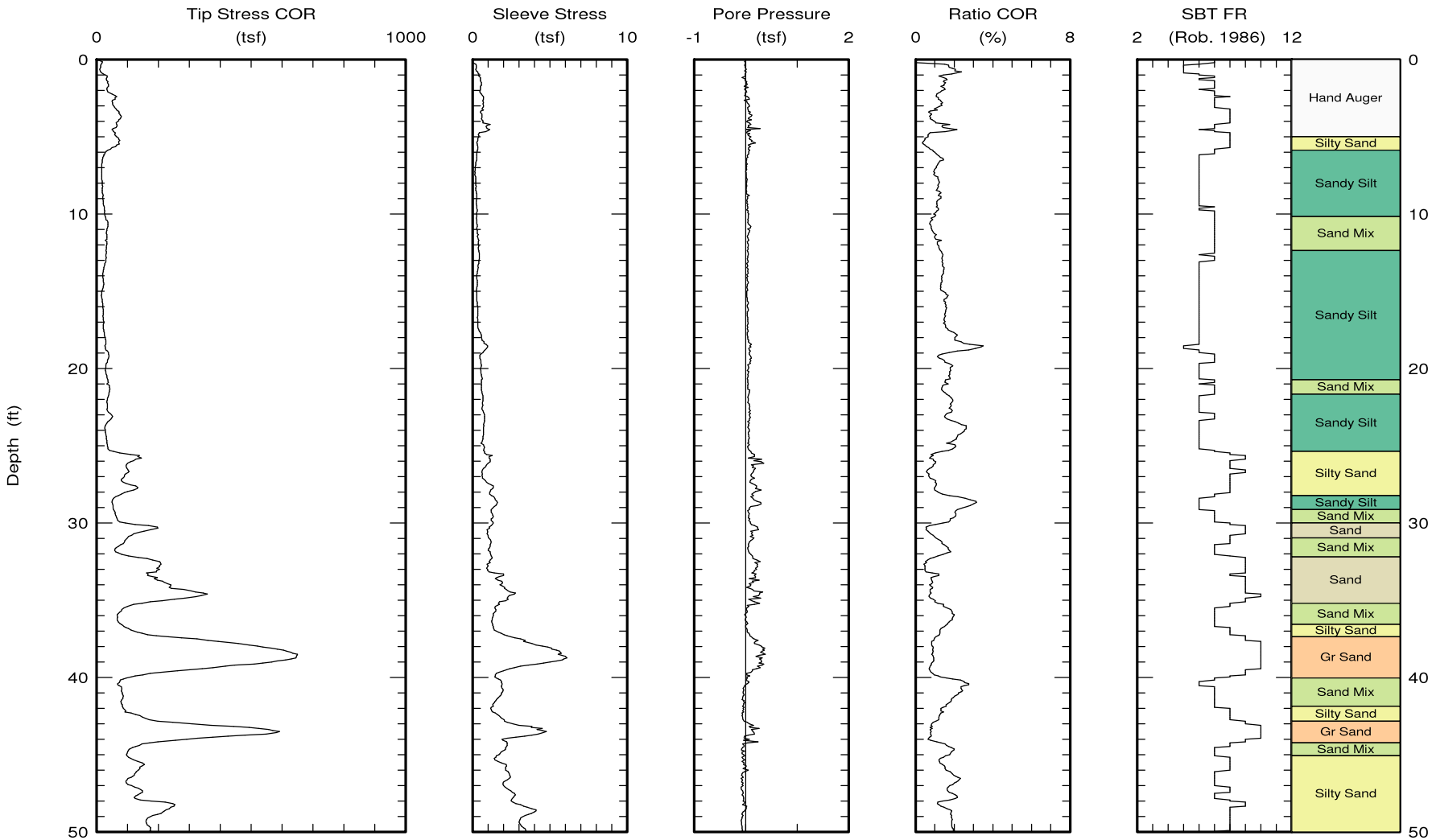
Date: 08/Mar/2011
Test ID: CPT-12
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus



Maximum depth: 40.82 (ft)

Kehoe Testing & Engineering Office: (714) 901-7270 Fax: (714) 901-7289 rich@kehoetesting.com www.kehoetesting.com	CPT Data 30 ton rig	Date: 08/Mar/2011 Test ID: CPT-13 Project: LomaLinda
	Customer: MACTEC Job Site: Loma Linda Integratedampus	



Maximum depth: 60.10 (ft)

Kehoe Testing & Engineering
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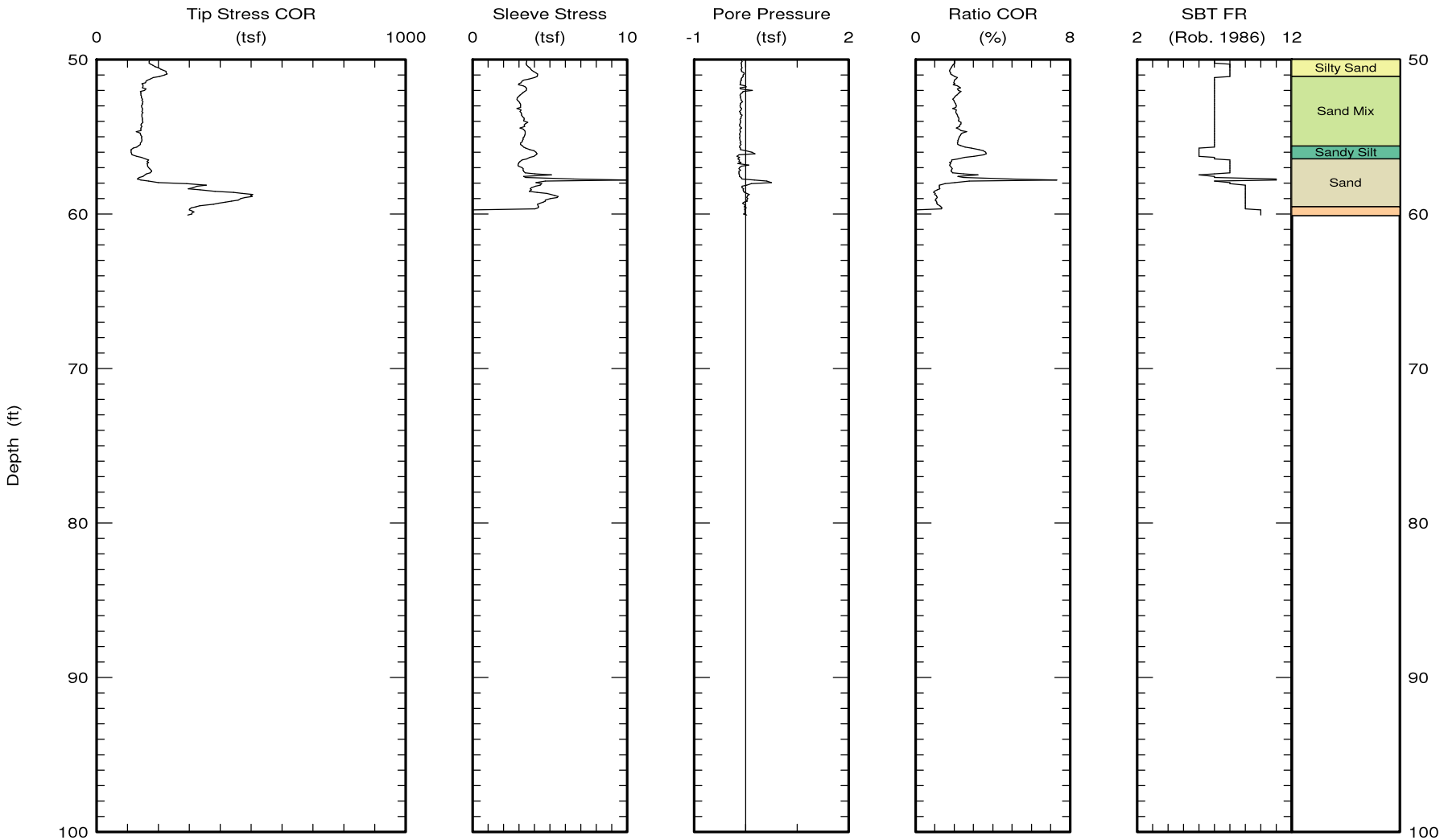
Fax: (714) 901-7289
rich@kehoetesting.com
www.kehoetesting.com

CPT Data
30 ton rig

Date: 08/Mar/2011
Test ID: CPT-13
Project: LomaLinda

Customer: MACTEC
Job Site: Loma Linda Integratedampus

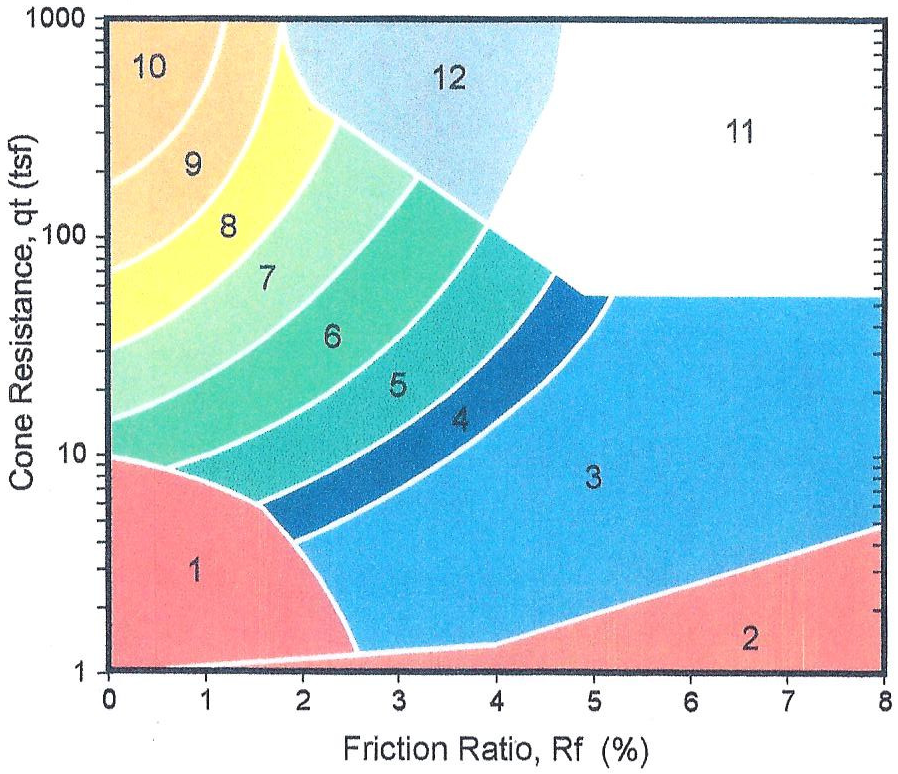


Maximum depth: 60.10 (ft)

KEHOE TESTING & ENGINEERING

CPT Classification Chart

(after Robertson and Campanella, 1988)



Zone	q_t / N	Soil Behavior Type	UCSCS
1	2	sensitive fine grained	OL-OH
2	1	organic material	Pt-OH
3	1	clay	CH
4	1.5	silty clay to clay	CL-CH
5	2	clayey silt to silty clay	ML-CL
6	2.5	sandy silt to clayey silt	MH-ML
7	3	silty sand to sandy silt	SM-ML
8	4	sand to silty sand	SP-SM
9	5	sand	SP
10	6	gravelly sand to sand	SW-SP
11	1	very stiff fine grained *	CL-MH
12	2	sand to clayey sand *	SP-SC

* overconsolidated or cemented

INPUT FILE: C:\temp\CPT-1.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	58.870	0.409	0.695	8	14	21	9E9
1.500	80.045	0.580	0.724	8	19	29	9E9
2.500	76.353	0.663	0.868	8	18	27	9E9
3.500	50.125	0.365	0.727	8	12	18	9E9
4.500	30.460	0.263	0.864	7	10	15	9E9
5.500	33.648	0.825	2.450	6	13	20	2.221
6.500	29.250	0.315	1.075	7	9	14	9E9
7.500	30.947	0.433	1.397	7	10	15	9E9
8.500	28.532	0.337	1.181	7	9	14	9E9
9.500	33.813	0.415	1.227	7	11	17	9E9
10.500	40.777	0.507	1.242	7	13	18	9E9
11.500	42.655	0.524	1.227	7	14	18	9E9
12.500	53.888	0.667	1.237	7	17	21	9E9
13.500	55.752	0.638	1.143	7	18	21	9E9
14.500	65.818	0.614	0.933	8	16	18	9E9
15.500	47.805	0.492	1.028	7	15	16	9E9
16.500	46.752	0.518	1.107	7	15	15	9E9
17.500	54.190	0.537	0.991	7	17	16	9E9
18.500	45.270	0.482	1.065	7	14	13	9E9
19.500	102.097	1.428	1.398	8	24	21	9E9
20.500	69.409	0.628	0.905	8	17	14	9E9
21.500	77.655	0.743	0.957	8	19	15	9E9
22.500	59.070	0.642	1.086	7	19	15	9E9
23.500	60.830	0.828	1.361	7	19	14	9E9
24.500	128.550	0.879	0.684	9	25	18	9E9
25.500	128.107	1.170	0.913	8	31	22	9E9
26.500	131.170	1.245	0.949	8	31	21	9E9
27.500	100.722	1.353	1.342	8	24	16	9E9
28.500	62.443	1.535	2.456	6	24	16	4.050
29.500	76.930	1.634	2.123	7	25	16	9E9
30.500	151.047	1.618	1.071	9	29	18	9E9
31.500	281.037	1.593	0.567	10	45	27	9E9
32.500	271.162	1.982	0.731	9	52	31	9E9
33.500	274.990	2.815	1.024	9	53	30	9E9
34.500	145.198	2.244	1.545	8	35	20	9E9
35.500	105.125	1.189	1.131	8	25	14	9E9
36.500	103.785	1.608	1.548	7	33	18	9E9
37.500	113.578	1.986	1.747	7	36	19	9E9
38.500	134.590	1.596	1.185	8	32	16	9E9
39.500	184.740	1.524	0.825	9	35	18	9E9
40.500	133.165	1.688	1.267	8	32	16	9E9
41.499	144.183	1.265	0.877	9	28	14	9E9
42.499	178.458	1.568	0.879	9	34	17	9E9
43.499	144.367	1.193	0.826	9	28	14	9E9
44.499	197.493	1.945	0.985	9	38	19	9E9
45.499	293.148	1.953	0.666	9	56	28	9E9
46.499	298.462	2.927	0.981	9	57	29	9E9
47.499	233.032	2.226	0.955	9	45	23	9E9
48.499	259.525	1.867	0.719	9	50	25	9E9
49.499	235.730	2.241	0.950	9	45	23	9E9

INPUT FILE: C:\temp\CPT-1.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
50.499	186.053	1.839	0.988	9	36	18	9E9
51.499	201.035	2.040	1.014	9	39	20	9E9
52.499	270.737	2.495	0.921	9	52	26	9E9
53.499	300.735	2.230	0.741	9	58	29	9E9
54.499	413.862	4.707	1.137	9	79	40	9E9
55.499	504.677	4.669	0.925	10	81	41	9E9
56.499	122.523	2.322	1.895	7	39	20	9E9
57.499	86.663	2.167	2.499	6	33	17	5.543
58.499	458.787	3.495	0.762	10	73	37	9E9
59.499	804.793	3.499	0.435	10	129	65	9E9
60.499	772.420	0.000	0.000	10	9E9	9E9	9E9

INPUT FILE: C:\temp\CPT-2.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	107.440	0.962	0.895	8	26	39	9E9
1.500	122.493	1.039	0.848	8	29	44	9E9
2.500	83.237	0.733	0.881	8	20	30	9E9
3.500	71.178	0.730	1.026	8	17	26	9E9
4.500	48.300	0.558	1.156	7	15	23	9E9
5.500	65.540	0.697	1.064	8	16	24	9E9
6.500	89.973	1.399	1.555	7	29	44	9E9
7.500	95.320	1.132	1.188	8	23	35	9E9
8.500	77.023	0.750	0.974	8	18	27	9E9
9.500	61.573	0.691	1.123	7	20	30	9E9
10.500	63.314	1.002	1.583	7	20	28	9E9
11.500	62.917	1.293	2.056	7	20	26	9E9
12.500	72.517	1.151	1.588	7	23	28	9E9
13.500	96.980	1.074	1.107	8	23	27	9E9
14.500	182.272	0.596	0.327	9	35	38	9E9
15.500	377.720	1.594	0.422	10	60	62	9E9
16.500	366.777	1.824	0.497	10	59	58	9E9
17.500	658.283	2.986	0.454	10	105	99	9E9
18.500	740.955	3.957	0.534	10	118	106	9E9
19.500	374.952	3.858	1.029	9	72	62	9E9
20.500	324.609	2.948	0.908	9	62	51	9E9
21.500	371.285	3.191	0.860	9	71	57	9E9
22.500	175.302	2.957	1.687	8	42	32	9E9
23.500	164.158	2.602	1.585	8	39	29	9E9
24.500	330.148	2.102	0.637	10	53	38	9E9
25.500	267.252	2.111	0.790	9	51	36	9E9
26.500	427.970	2.477	0.579	10	68	46	9E9
27.500	236.285	2.276	0.963	9	45	30	9E9
28.500	329.270	2.289	0.695	10	53	34	9E9
29.500	500.263	2.985	0.597	10	80	50	9E9
30.500	382.575	1.887	0.493	10	61	37	9E9
31.500	270.151	2.199	0.814	9	52	31	9E9
32.500	390.178	2.606	0.668	10	62	36	9E9
33.500	444.913	2.967	0.667	10	71	40	9E9
34.500	280.638	3.077	1.097	9	54	30	9E9
35.500	234.775	2.384	1.015	9	45	24	9E9
36.500	209.843	2.706	1.290	8	50	26	9E9
37.500	165.273	3.042	1.841	8	40	21	9E9
38.500	149.512	2.517	1.684	8	36	18	9E9
39.500	183.680	3.024	1.647	8	44	22	9E9
40.500	210.932	1.597	0.757	9	40	20	9E9
41.499	300.334	1.982	0.660	9	58	29	9E9
42.499	628.363	4.713	0.750	10	100	50	9E9
43.499	763.942	3.668	0.480	10	122	61	9E9

INPUT FILE: C:\temp\CPT-3.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	24.273	0.137	0.564	7	8	12	9E9
1.500	58.003	0.310	0.535	8	14	21	9E9
2.500	43.345	0.272	0.627	7	14	21	9E9
3.500	58.397	0.290	0.497	8	14	21	9E9
4.500	70.407	0.434	0.616	8	17	26	9E9
5.500	83.697	0.602	0.719	8	20	30	9E9
6.500	77.392	0.603	0.779	8	19	29	9E9
7.500	69.113	0.583	0.843	8	17	26	9E9
8.500	62.110	0.690	1.111	7	20	30	9E9
9.500	75.528	0.787	1.042	8	18	27	9E9
10.500	78.820	0.669	0.850	8	19	27	9E9
11.500	98.795	0.654	0.662	8	24	31	9E9
12.500	110.873	0.806	0.727	8	27	33	9E9
13.500	102.612	0.877	0.855	8	25	29	9E9
14.500	76.602	1.509	1.970	7	24	26	9E9
15.500	81.420	1.271	1.562	7	26	27	9E9
16.500	86.558	1.191	1.377	8	21	21	9E9
17.500	206.142	2.763	1.340	8	49	46	9E9
18.500	176.182	2.314	1.314	8	42	38	9E9
19.500	177.155	1.689	0.954	9	34	29	9E9
20.500	148.747	1.674	1.126	8	36	30	9E9
21.500	148.278	1.657	1.118	8	35	28	9E9
22.500	187.337	2.002	1.069	9	36	28	9E9
23.500	198.008	1.682	0.849	9	38	28	9E9
24.500	172.845	2.293	1.327	8	41	30	9E9
25.500	128.718	3.381	2.627	7	41	29	9E9
26.500	115.063	3.654	3.177	6	44	30	7.558
27.500	139.777	3.009	2.153	7	45	30	9E9
28.500	151.882	3.624	2.387	7	48	31	9E9
29.500	202.975	3.122	1.538	8	49	31	9E9
30.500	157.712	2.124	1.347	8	38	23	9E9
31.500	316.804	2.773	0.876	9	61	36	9E9
32.500	752.973	5.318	0.706	10	120	70	9E9
33.500	601.178	5.955	0.990	10	96	55	9E9
34.500	655.843	2.262	0.345	10	105	58	9E9

INPUT FILE: C:\temp\CPT-4.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	58.897	0.403	0.685	8	14	21	9E9
1.500	66.840	0.772	1.155	8	16	24	9E9
2.500	55.857	0.631	1.129	7	18	27	9E9
3.500	59.182	0.567	0.957	8	14	21	9E9
4.500	65.003	0.708	1.089	8	16	24	9E9
5.500	66.498	0.807	1.213	7	21	32	9E9
6.500	64.430	1.268	1.967	7	21	32	9E9
7.500	50.815	0.723	1.422	7	16	24	9E9
8.500	50.908	0.723	1.420	7	16	24	9E9
9.500	48.400	0.842	1.738	7	15	23	9E9
10.500	47.709	0.621	1.301	7	15	21	9E9
11.500	78.537	0.938	1.193	8	19	25	9E9
12.500	177.212	0.610	0.344	9	34	42	9E9
13.500	98.185	0.830	0.845	8	24	28	9E9
14.500	73.905	0.921	1.246	8	18	20	9E9
15.500	83.908	0.981	1.169	8	20	21	9E9
16.500	98.072	1.038	1.058	8	23	23	9E9
17.500	119.590	1.386	1.158	8	29	27	9E9
18.500	111.000	1.563	1.408	8	27	24	9E9
19.500	163.218	1.557	0.954	9	31	27	9E9
20.500	151.754	2.049	1.350	8	36	30	9E9
21.500	141.325	1.629	1.152	8	34	27	9E9
22.500	123.598	1.913	1.547	8	30	23	9E9
23.500	160.877	2.457	1.527	8	39	29	9E9
24.500	214.358	2.232	1.041	9	41	30	9E9
25.500	198.398	1.964	0.990	9	38	27	9E9
26.500	156.160	2.237	1.432	8	37	25	9E9
27.500	177.647	2.283	1.285	8	43	29	9E9
28.500	408.830	2.589	0.633	10	65	42	9E9
29.500	675.548	3.599	0.533	10	108	68	9E9
30.500	806.125	4.187	0.519	10	129	79	9E9
31.500	398.364	3.154	0.792	10	64	38	9E9
32.500	223.302	3.265	1.462	8	53	31	9E9
33.500	354.173	3.943	1.113	9	68	39	9E9
34.500	339.792	3.178	0.935	9	65	36	9E9
35.500	234.455	3.571	1.523	8	56	30	9E9
36.500	305.173	4.109	1.347	9	58	31	9E9
37.500	289.750	4.390	1.515	8	69	36	9E9
38.500	565.547	3.961	0.700	10	90	46	9E9
39.500	813.910	1.255	0.154	10	130	65	9E9

INPUT FILE: C:\temp\CPT-4A.CSV |----------

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	141.597	3.809	2.690	7	45	68	9E9
1.500	112.675	2.415	2.143	7	36	54	9E9
2.500	64.432	0.802	1.244	7	21	32	9E9
3.500	72.553	0.878	1.210	8	17	26	9E9
4.500	79.553	0.987	1.240	8	19	29	9E9
5.500	84.848	1.028	1.212	8	20	30	9E9
6.500	75.577	1.108	1.466	7	24	36	9E9
7.500	65.193	1.166	1.789	7	21	32	9E9
8.500	64.017	0.875	1.366	7	20	30	9E9
9.500	63.152	1.031	1.633	7	20	30	9E9
10.500	61.806	0.883	1.428	7	20	28	9E9
11.500	51.243	0.619	1.207	7	16	21	9E9
12.500	128.933	0.700	0.543	9	25	31	9E9
13.500	121.855	1.017	0.835	8	29	34	9E9
14.500	74.557	0.848	1.137	8	18	20	9E9
15.500	83.448	1.268	1.519	7	27	28	9E9
16.500	103.760	1.015	0.978	8	25	25	9E9
17.500	110.193	1.055	0.957	8	26	25	9E9
18.500	161.623	1.679	1.039	9	31	28	9E9
19.500	224.352	1.546	0.689	9	43	38	9E9
20.500	202.864	1.483	0.731	9	39	33	9E9
21.500	185.812	1.803	0.970	9	36	29	9E9
22.500	158.277	1.934	1.222	8	38	30	9E9
23.500	120.208	2.095	1.742	7	38	29	9E9
24.500	223.780	2.444	1.092	9	43	31	9E9
25.500	380.915	2.572	0.675	10	61	43	9E9
26.500	180.938	2.303	1.273	8	43	29	9E9
27.500	146.455	2.538	1.732	8	35	23	9E9
28.500	260.023	2.675	1.029	9	50	32	9E9
29.500	417.217	2.586	0.620	10	67	42	9E9
30.500	708.072	2.683	0.379	10	113	69	9E9
31.500	646.451	5.658	0.875	10	103	62	9E9
32.500	270.977	4.316	1.593	8	65	38	9E9
33.500	335.432	3.963	1.181	9	64	36	9E9
34.500	604.840	5.053	0.835	10	97	54	9E9
35.500	461.087	3.615	0.784	10	74	40	9E9
36.500	246.013	3.649	1.483	8	59	31	9E9
37.500	271.927	4.781	1.758	8	65	34	9E9
38.500	399.490	4.636	1.160	9	77	39	9E9
39.500	625.878	4.670	0.746	10	100	50	9E9
40.500	770.422	2.451	0.318	10	123	62	9E9
41.499	886.020	1.351	0.152	10	141	71	9E9

INPUT FILE: C:\temp\CPT-5.CSV

" Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	49.340	0.820	1.662	7	16	24	9E9
1.500	74.832	1.715	2.292	7	24	36	9E9
2.500	43.735	0.485	1.108	7	14	21	9E9
3.500	26.203	0.330	1.257	6	10	15	1.733
4.500	22.620	0.204	0.901	6	9	14	1.490
5.500	26.408	0.213	0.807	7	8	12	9E9
6.500	29.965	0.272	0.907	7	10	15	9E9
7.500	68.750	0.333	0.484	8	16	24	9E9
8.500	60.025	0.741	1.234	7	19	29	9E9
9.500	54.308	0.670	1.234	7	17	26	9E9
10.500	65.186	0.620	0.951	8	16	23	9E9
11.500	104.062	0.757	0.728	8	25	33	9E9
12.500	225.085	1.395	0.620	9	43	53	9E9
13.500	487.210	3.773	0.774	10	78	90	9E9
14.500	569.973	6.341	1.112	9	109	119	9E9
15.500	155.150	2.424	1.562	8	37	38	9E9
16.500	78.590	1.337	1.701	7	25	25	9E9
17.500	175.682	1.038	0.591	9	34	32	9E9
18.500	138.657	1.001	0.722	9	27	24	9E9
19.500	162.340	1.306	0.805	9	31	27	9E9
20.500	503.531	2.651	0.527	10	80	67	9E9
21.500	287.225	2.698	0.940	9	55	44	9E9
22.500	174.315	1.929	1.107	9	33	26	9E9
23.500	208.130	2.076	0.998	9	40	30	9E9
24.500	141.153	1.950	1.382	8	34	25	9E9
25.500	108.362	2.013	1.858	7	35	25	9E9
26.500	122.332	2.492	2.038	7	39	27	9E9
27.500	165.970	3.062	1.845	8	40	27	9E9
28.500	232.810	3.035	1.304	9	45	29	9E9
29.500	431.012	3.168	0.735	10	69	43	9E9
30.500	401.642	3.104	0.773	10	64	39	9E9
31.500	225.393	3.146	1.396	8	54	32	9E9
32.500	253.640	2.719	1.072	9	49	29	9E9
33.500	253.480	3.395	1.339	9	49	28	9E9
34.500	255.102	2.212	0.867	9	49	27	9E9
35.500	142.322	2.090	1.469	8	34	18	9E9
36.500	398.358	3.634	0.912	9	76	40	9E9
37.500	394.080	3.787	0.961	9	75	39	9E9
38.500	203.580	3.029	1.488	8	49	25	9E9
39.500	180.955	3.308	1.828	8	43	22	9E9
40.500	235.163	3.507	1.491	8	56	28	9E9
41.499	206.943	1.887	0.912	9	40	20	9E9
42.499	345.895	3.518	1.017	9	66	33	9E9
43.499	466.808	4.039	0.865	10	75	38	9E9
44.499	730.097	6.442	0.882	10	117	59	9E9
45.499	341.272	5.818	1.705	8	82	41	9E9
46.499	197.862	3.799	1.921	8	47	24	9E9
47.499	191.720	3.466	1.808	8	46	23	9E9
48.499	176.223	3.225	1.831	8	42	21	9E9
49.499	154.437	3.683	2.386	7	49	25	9E9

INPUT FILE: C:\temp\CPT-5.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
50.499	122.495	5.148	4.205	11	117	59	9E9
51.499	151.915	5.062	3.334	6	58	29	9.909
52.499	176.753	3.964	2.244	7	56	28	9E9
53.499	155.158	4.538	2.926	7	50	25	9E9
54.499	141.185	4.892	3.466	6	54	27	9.182
55.499	262.663	3.929	1.496	8	63	32	9E9
56.499	218.952	4.618	2.109	7	70	35	9E9
57.499	191.112	4.511	2.361	7	61	31	9E9
58.499	177.972	5.795	3.257	6	68	34	11.619
59.499	177.735	4.308	2.424	7	57	29	9E9
60.499	187.890	0.000	0.000	10	9E9	9E9	9E9

INPUT FILE: C:\temp\CPT-6.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	39.100	0.392	1.003	7	12	18	9E9
1.500	36.187	0.300	0.829	7	12	18	9E9
2.500	64.758	0.621	0.959	8	16	24	9E9
3.500	40.590	0.455	1.120	7	13	20	9E9
4.500	21.415	0.182	0.848	6	8	12	1.410
5.500	81.770	0.794	0.971	8	20	30	9E9
6.500	90.092	1.263	1.402	8	22	33	9E9
7.500	85.490	1.407	1.646	7	27	41	9E9
8.500	80.215	1.244	1.551	7	26	39	9E9
9.500	84.010	1.234	1.469	7	27	41	9E9
10.500	82.441	1.687	2.047	7	26	37	9E9
11.500	80.825	1.516	1.875	7	26	34	9E9
12.500	91.398	1.310	1.433	8	22	27	9E9
13.500	98.110	1.202	1.225	8	23	27	9E9
14.500	113.825	1.230	1.080	8	27	30	9E9
15.500	195.388	1.011	0.517	9	37	39	9E9
16.500	208.287	1.826	0.877	9	40	40	9E9
17.500	318.850	2.896	0.908	9	61	58	9E9
18.500	571.538	3.849	0.673	10	91	82	9E9
19.500	450.368	3.594	0.798	10	72	62	9E9
20.500	352.713	2.721	0.771	10	56	47	9E9
21.500	163.578	2.193	1.341	8	39	31	9E9
22.500	156.677	2.574	1.642	8	38	29	9E9
23.500	238.057	2.564	1.077	9	46	34	9E9
24.500	152.567	2.132	1.398	8	37	27	9E9
25.500	145.380	3.015	2.074	7	46	32	9E9
26.500	150.635	2.267	1.505	8	36	25	9E9
27.500	159.753	1.580	0.989	9	31	21	9E9
28.500	168.078	1.061	0.632	9	32	21	9E9
29.500	255.185	1.292	0.506	9	49	31	9E9
30.500	228.032	1.852	0.812	9	44	27	9E9
31.500	202.181	1.952	0.966	9	39	23	9E9
32.500	333.777	3.228	0.967	9	64	37	9E9
33.500	224.992	3.079	1.369	8	54	31	9E9
34.500	355.245	3.571	1.005	9	68	38	9E9
35.500	636.143	4.000	0.629	10	102	55	9E9
36.500	758.798	6.055	0.798	10	121	64	9E9
37.500	358.543	3.494	0.974	9	69	36	9E9
38.500	185.862	2.958	1.591	8	45	23	9E9
39.500	411.415	3.724	0.905	9	79	40	9E9
40.500	469.138	3.543	0.755	10	75	38	9E9
41.499	344.423	3.744	1.087	9	66	33	9E9
42.499	667.277	6.389	0.957	10	107	54	9E9
43.499	362.062	4.620	1.276	9	69	35	9E9
44.499	222.450	4.642	2.087	7	71	36	9E9
45.499	217.843	4.107	1.886	8	52	26	9E9
46.499	210.757	4.025	1.910	8	50	25	9E9
47.499	203.288	4.591	2.259	7	65	33	9E9
48.499	208.377	4.466	2.144	7	67	34	9E9
49.499	254.632	3.781	1.485	8	61	31	9E9

INPUT FILE: C:\temp\CPT-6.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
50.499	277.743	4.190	1.509	8	66	33	9E9
51.499	200.622	5.041	2.513	7	64	32	9E9
52.499	242.273	5.844	2.413	7	77	39	9E9
53.499	297.952	5.277	1.771	8	71	36	9E9
54.499	461.195	7.057	1.530	9	88	44	9E9
55.499	647.598	5.438	0.840	10	103	52	9E9
56.499	368.555	5.218	1.416	9	71	36	9E9
57.499	529.145	4.608	0.871	10	84	42	9E9
58.499	797.240	3.487	0.437	10	127	64	9E9
59.499	898.270	0.000	0.000	10	9E9	9E9	9E9

INPUT FILE: C:\temp\CPT-7.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	60.318	0.458	0.759	8	14	21	9E9
1.500	90.337	1.019	1.128	8	22	33	9E9
2.500	72.860	0.802	1.101	8	17	26	9E9
3.500	38.928	0.373	0.959	7	12	18	9E9
4.500	23.860	0.232	0.974	6	9	14	1.572
5.500	24.348	0.272	1.115	6	9	14	1.601
6.500	16.383	0.186	1.137	6	6	9	1.065
7.500	13.775	0.190	1.377	6	5	8	0.887
8.500	29.735	0.273	0.918	7	9	14	9E9
9.500	39.933	0.390	0.976	7	13	20	9E9
10.500	57.840	0.420	0.725	8	14	20	9E9
11.500	51.518	0.432	0.839	7	16	21	9E9
12.500	43.107	0.473	1.098	7	14	17	9E9
13.500	107.888	0.637	0.591	9	21	24	9E9
14.500	66.147	0.605	0.915	8	16	18	9E9
15.500	109.673	0.945	0.861	8	26	27	9E9
16.500	291.338	1.943	0.667	9	56	55	9E9
17.500	373.735	2.127	0.569	10	60	57	9E9
18.500	114.263	1.131	0.990	8	27	24	9E9
19.500	39.418	0.756	1.917	6	15	13	2.549
20.500	110.444	0.939	0.851	8	26	22	9E9
21.500	62.508	0.935	1.495	7	20	16	9E9
22.500	114.055	0.889	0.779	8	27	21	9E9
23.500	366.888	2.383	0.650	10	59	44	9E9
24.500	352.500	2.958	0.839	9	68	49	9E9
25.500	122.773	1.658	1.351	8	29	20	9E9
26.500	90.730	1.686	1.859	7	29	20	9E9
27.500	98.348	1.261	1.282	8	24	16	9E9
28.500	77.832	1.086	1.396	7	25	16	9E9
29.500	131.890	1.083	0.821	9	25	16	9E9
30.500	246.395	1.172	0.476	9	47	29	9E9
31.500	180.047	1.349	0.750	9	34	20	9E9
32.500	177.273	2.077	1.172	9	34	20	9E9
33.500	139.675	1.400	1.002	8	33	19	9E9
34.500	105.372	0.894	0.849	8	25	14	9E9
35.500	161.840	0.975	0.602	9	31	17	9E9
36.500	152.130	1.656	1.089	9	29	15	9E9
37.500	213.322	2.044	0.958	9	41	21	9E9
38.500	211.467	1.603	0.758	9	41	21	9E9
39.500	187.588	1.538	0.820	9	36	18	9E9
40.500	180.047	1.499	0.833	9	34	17	9E9
41.499	252.567	2.069	0.819	9	48	24	9E9
42.499	339.492	2.129	0.627	10	54	27	9E9
43.499	144.608	1.512	1.045	8	35	18	9E9
44.499	136.345	1.573	1.154	8	33	17	9E9
45.499	121.805	1.715	1.409	8	29	15	9E9
46.499	93.947	1.139	1.213	8	22	11	9E9
47.499	91.820	1.321	1.439	8	22	11	9E9
48.499	150.032	2.376	1.584	8	36	18	9E9
49.499	120.203	1.260	1.048	8	29	15	9E9

INPUT FILE: C:\temp\CPT-7.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
50.499	100.450	0.896	0.892	8	24	12	9E9
51.499	135.492	1.069	0.789	9	26	13	9E9
52.499	203.149	1.642	0.808	9	39	20	9E9
53.499	165.413	1.265	0.765	9	32	16	9E9
54.499	227.855	1.761	0.773	9	44	22	9E9
55.499	355.367	3.545	0.997	9	68	34	9E9
56.499	349.955	3.270	0.934	9	67	34	9E9
57.499	224.355	2.789	1.243	9	43	22	9E9
58.499	253.247	3.080	1.216	9	49	25	9E9
59.499	285.400	3.070	1.076	9	55	28	9E9
60.499	248.110	0.000	0.000	10	9E9	9E9	9E9

INPUT FILE: C:\temp\CPT-8.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	51.167	0.362	0.708	8	12	18	9E9
1.500	41.565	0.196	0.471	7	13	20	9E9
2.500	21.498	0.109	0.505	7	7	11	9E9
3.500	12.715	0.146	1.150	6	5	8	0.834
4.500	31.650	0.198	0.627	7	10	15	9E9
5.500	65.295	0.358	0.549	8	16	24	9E9
6.500	68.352	0.462	0.675	8	16	24	9E9
7.500	99.820	0.484	0.485	9	19	29	9E9
8.500	109.313	0.635	0.581	9	21	32	9E9
9.500	117.210	0.758	0.647	9	22	33	9E9
10.500	74.507	0.583	0.782	8	18	25	9E9
11.500	90.245	0.812	0.900	8	22	29	9E9
12.500	116.563	1.142	0.980	8	28	34	9E9
13.500	155.210	2.113	1.361	8	37	43	9E9
14.500	92.242	0.790	0.856	8	22	24	9E9
15.500	117.125	0.956	0.816	8	28	29	9E9
16.500	124.953	1.185	0.948	8	30	30	9E9
17.500	173.393	2.458	1.418	8	42	39	9E9
18.500	150.022	1.854	1.236	8	36	32	9E9
19.500	156.290	1.986	1.271	8	37	32	9E9
20.500	291.179	1.854	0.637	9	56	47	9E9
21.500	197.863	1.817	0.918	9	38	30	9E9
22.500	122.162	1.714	1.403	8	29	22	9E9
23.500	208.223	3.612	1.735	8	50	37	9E9
24.500	169.157	1.958	1.157	9	32	23	9E9
25.500	144.133	2.314	1.605	8	35	25	9E9
26.500	124.583	2.952	2.369	7	40	27	9E9
27.500	151.975	2.517	1.656	8	36	24	9E9
28.500	425.588	3.304	0.776	10	68	44	9E9
29.500	658.388	3.451	0.524	10	105	66	9E9
30.500	681.878	4.675	0.686	10	109	66	9E9
31.500	620.001	4.500	0.726	10	99	59	9E9
32.500	273.112	2.711	0.993	9	52	30	9E9
33.500	277.693	2.954	1.064	9	53	30	9E9
34.500	210.452	4.236	2.013	8	50	28	9E9
35.500	250.518	4.994	1.994	8	60	32	9E9
36.500	208.652	3.988	1.912	8	50	27	9E9
37.500	541.415	2.939	0.543	10	86	45	9E9
38.500	469.663	2.655	0.565	10	75	38	9E9
39.500	779.998	3.597	0.461	10	125	63	9E9
40.500	810.053	2.598	0.321	10	129	65	9E9
41.499	550.747	3.693	0.671	10	88	44	9E9
42.499	351.955	3.772	1.072	9	67	34	9E9
43.499	298.762	3.283	1.099	9	57	29	9E9
44.499	434.882	2.174	0.500	10	69	35	9E9
45.499	193.193	1.694	0.877	9	37	19	9E9
46.499	173.280	2.671	1.542	8	41	21	9E9
47.499	197.877	1.702	0.860	9	38	19	9E9
48.499	222.457	1.666	0.749	9	43	22	9E9
49.499	216.448	1.732	0.800	9	41	21	9E9

INPUT FILE: C:\temp\CPT-8.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
50.499	442.252	3.122	0.706	10	71	36	9E9
51.499	833.576	1.790	0.215	10	133	67	9E9

INPUT FILE: C:\temp\CPT-9.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	64.282	0.872	1.357	7	21	32	9E9
1.500	78.505	0.466	0.594	8	19	29	9E9
2.500	46.600	0.279	0.598	8	11	17	9E9
3.500	32.738	0.223	0.682	7	10	15	9E9
4.500	35.405	0.385	1.088	7	11	17	9E9
5.500	32.423	0.179	0.552	7	10	15	9E9
6.500	40.672	0.289	0.710	7	13	20	9E9
7.500	43.813	0.338	0.772	7	14	21	9E9
8.500	39.648	0.386	0.973	7	13	20	9E9
9.500	42.013	0.359	0.855	7	13	20	9E9
10.500	57.739	0.361	0.626	8	14	20	9E9
11.500	72.982	0.578	0.792	8	17	22	9E9
12.500	128.010	0.749	0.585	9	25	31	9E9
13.500	210.867	1.101	0.522	9	40	46	9E9
14.500	386.187	2.483	0.643	10	62	68	9E9
15.500	470.825	2.855	0.606	10	75	78	9E9
16.500	275.852	1.585	0.574	9	53	52	9E9
17.500	515.720	2.945	0.571	10	82	77	9E9
18.500	307.277	2.243	0.730	9	59	53	9E9
19.500	110.373	1.459	1.321	8	26	22	9E9
20.500	127.050	1.118	0.880	8	30	25	9E9
21.500	146.058	1.019	0.698	9	28	22	9E9
22.500	109.460	0.842	0.769	8	26	20	9E9
23.500	68.195	1.096	1.608	7	22	16	9E9
24.500	68.973	0.707	1.026	8	17	12	9E9
25.500	144.393	1.032	0.715	9	28	20	9E9
26.500	346.062	2.285	0.660	10	55	38	9E9
27.500	471.670	3.395	0.720	10	75	50	9E9
28.500	501.240	3.301	0.658	10	80	51	9E9
29.500	592.165	4.984	0.841	10	95	59	9E9
30.500	661.550	5.913	0.893	10	106	65	9E9
31.500	194.703	2.508	1.288	8	47	28	9E9
32.500	199.438	1.852	0.929	9	38	22	9E9
33.500	357.885	2.534	0.708	10	57	32	9E9
34.500	612.148	4.327	0.707	10	98	54	9E9
35.500	746.805	0.000	0.000	10	9E9	9E9	9E9

INPUT FILE: C:\temp\CPT-10.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	93.833	0.875	0.932	8	22	33	9E9
1.500	74.933	0.597	0.796	8	18	27	9E9
2.500	43.600	0.298	0.684	7	14	21	9E9
3.500	36.050	0.210	0.583	7	12	18	9E9
4.500	48.683	0.257	0.527	8	12	18	9E9
5.500	55.067	0.278	0.505	8	13	20	9E9
6.500	15.383	0.207	1.343	6	6	9	0.999
7.500	13.017	0.205	1.575	5	6	9	0.837
8.500	13.017	0.197	1.507	5	6	9	0.835
9.500	15.883	0.303	1.910	5	8	12	1.020
10.500	23.257	0.337	1.450	6	9	13	1.508
11.500	28.317	0.543	1.917	6	11	14	1.843
12.500	21.667	0.348	1.608	6	8	10	1.393
13.500	16.083	0.353	2.195	5	8	9	1.018
14.500	11.033	0.275	2.489	5	5	5	0.677
15.500	10.333	0.302	2.915	4	7	7	0.627
16.500	13.083	0.352	2.684	5	6	6	0.806
17.500	8.917	0.268	3.009	4	6	6	0.523
18.500	15.200	0.363	2.385	5	7	6	0.940
19.500	32.667	0.585	1.791	6	13	11	2.099
20.500	50.314	0.549	1.090	7	16	13	9E9
21.500	37.533	0.778	2.073	6	14	11	2.416
22.500	39.033	0.803	2.057	6	15	12	2.512
23.500	51.467	0.758	1.473	7	16	12	9E9
24.500	64.933	0.648	0.998	8	16	12	9E9
25.500	90.950	1.093	1.202	8	22	16	9E9
26.500	119.600	1.525	1.275	8	29	20	9E9
27.500	172.717	1.480	0.857	9	33	22	9E9
28.500	134.133	1.425	1.062	8	32	21	9E9
29.500	139.983	1.978	1.413	8	34	22	9E9
30.500	91.800	1.668	1.817	7	29	18	9E9
31.500	105.743	1.383	1.308	8	25	15	9E9
32.500	616.500	4.632	0.751	10	98	58	9E9
33.500	652.983	5.483	0.840	10	104	60	9E9
34.500	245.717	2.162	0.880	9	47	26	9E9
35.500	97.183	2.210	2.274	7	31	17	9E9
36.500	68.700	1.340	1.950	7	22	12	9E9
37.500	113.483	1.433	1.263	8	27	14	9E9
38.500	228.450	2.750	1.204	9	44	23	9E9
39.500	544.650	5.962	1.095	9	104	52	9E9
40.500	260.517	3.402	1.306	9	50	25	9E9
41.499	220.371	3.054	1.386	8	53	27	9E9
42.499	201.217	3.835	1.906	8	48	24	9E9
43.499	231.650	2.343	1.012	9	44	22	9E9
44.499	113.400	2.262	1.994	7	36	18	9E9
45.499	166.067	3.243	1.953	7	53	27	9E9
46.499	158.500	4.012	2.531	7	51	26	9E9
47.499	221.000	3.620	1.638	8	53	27	9E9

INPUT FILE: C:\temp\CPT-11.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	16.567	0.090	0.544	6	6	9	1.101
1.500	18.233	0.062	0.338	7	6	9	9E9
2.500	14.500	0.073	0.506	6	6	9	0.957
3.500	12.033	0.087	0.720	6	5	8	0.788
4.500	8.117	0.088	1.086	5	4	6	0.524
5.500	5.950	0.072	1.201	1	3	5	0.376
6.500	19.283	0.373	1.936	6	7	11	1.260
7.500	14.917	0.263	1.765	5	7	11	0.965
8.500	9.100	0.020	0.220	1	4	6	0.573
9.500	14.200	0.057	0.399	6	5	8	0.909
10.500	27.814	0.151	0.544	7	9	13	9E9
11.500	30.583	0.150	0.490	7	10	13	9E9
12.500	35.450	0.337	0.950	7	11	14	9E9
13.500	24.267	0.348	1.435	6	9	11	1.564
14.500	18.917	0.168	0.890	6	7	8	1.204
15.500	20.567	0.148	0.721	6	8	9	1.311
16.500	16.550	0.145	0.875	6	6	6	1.039
17.500	18.467	0.127	0.686	6	7	7	1.162
18.500	27.833	0.267	0.958	7	9	8	9E9
19.500	30.033	0.292	0.970	7	10	9	9E9
20.500	38.814	0.390	1.004	7	12	10	9E9
21.500	48.333	0.458	0.948	7	15	12	9E9
22.500	43.733	0.587	1.341	7	14	11	9E9
23.500	55.983	0.555	0.991	7	18	14	9E9
24.500	104.517	0.627	0.599	8	25	19	9E9
25.500	161.367	1.147	0.711	9	31	22	9E9
26.500	110.233	0.598	0.543	9	21	15	9E9
27.500	94.917	0.948	0.999	8	23	16	9E9
28.500	63.017	0.898	1.426	7	20	13	9E9
29.500	150.767	1.182	0.784	9	29	19	9E9
30.500	401.600	2.518	0.627	10	64	40	9E9
31.500	610.600	4.530	0.742	10	97	59	9E9

INPUT FILE: C:\temp\CPT-12.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	22.800	0.203	0.892	6	9	14	1.518
1.500	35.850	0.383	1.069	7	11	17	9E9
2.500	24.100	0.317	1.314	6	9	14	1.596
3.500	22.650	0.363	1.603	6	9	14	1.497
4.500	12.400	0.220	1.774	5	6	9	0.808
5.500	16.533	0.308	1.863	5	8	12	1.081
6.500	16.017	0.280	1.748	6	6	9	1.041
7.500	17.183	0.287	1.668	6	7	11	1.115
8.500	17.883	0.310	1.730	6	7	11	1.160
9.500	19.100	0.372	1.946	6	7	11	1.235
10.500	22.286	0.533	2.391	6	9	13	1.443
11.500	20.317	0.552	2.715	5	10	13	1.308
12.500	18.667	0.403	2.161	5	9	11	1.194
13.500	17.333	0.413	2.385	5	8	9	1.101
14.500	19.517	0.408	2.092	6	7	8	1.242
15.500	35.317	0.525	1.487	7	11	12	9E9
16.500	42.400	0.730	1.720	7	14	14	9E9
17.500	28.333	0.380	1.341	6	11	11	1.818
18.500	25.183	0.477	1.893	6	10	9	1.604
19.500	50.867	0.680	1.337	7	16	14	9E9
20.500	148.643	1.010	0.679	9	28	24	9E9
21.500	115.883	1.020	0.880	8	28	23	9E9
22.500	50.700	0.878	1.732	7	16	13	9E9
23.500	51.983	1.135	2.183	6	20	15	3.370
24.500	46.017	1.193	2.593	6	18	13	2.968
25.500	47.883	1.122	2.342	6	18	13	3.088
26.500	33.900	0.743	2.193	6	13	9	2.152
27.500	60.467	0.738	1.221	7	19	13	9E9
28.500	143.783	1.247	0.867	9	28	18	9E9
29.500	240.317	2.198	0.915	9	46	29	9E9
30.500	484.217	4.062	0.839	10	77	48	9E9
31.500	401.886	3.679	0.915	9	77	46	9E9
32.500	150.767	2.670	1.771	8	36	21	9E9
33.500	177.300	2.253	1.271	8	42	24	9E9
34.500	169.850	1.832	1.078	9	33	19	9E9
35.500	178.617	1.475	0.826	9	34	19	9E9
36.500	225.500	2.192	0.972	9	43	23	9E9
37.500	577.783	6.013	1.041	9	111	58	9E9
38.500	740.717	7.225	0.975	10	118	61	9E9
39.500	431.833	3.903	0.904	9	83	42	9E9
40.500	227.400	2.730	1.201	9	44	22	9E9

INPUT FILE: C:\temp\CPT-13.CSV

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
0.500	16.400	0.247	1.506	6	6	9	1.090
1.500	35.417	0.525	1.482	7	11	17	9E9
2.500	52.883	0.667	1.260	7	17	26	9E9
3.500	70.733	0.630	0.891	8	17	26	9E9
4.500	61.050	0.730	1.196	7	19	29	9E9
5.500	61.167	0.333	0.545	8	15	23	9E9
6.500	21.067	0.248	1.178	6	8	12	1.379
7.500	17.433	0.185	1.061	6	7	11	1.132
8.500	19.700	0.237	1.200	6	8	12	1.280
9.500	23.533	0.265	1.126	6	9	14	1.530
10.500	32.886	0.276	0.838	7	11	16	9E9
11.500	33.583	0.345	1.027	7	11	14	9E9
12.500	31.300	0.415	1.324	7	10	12	9E9
13.500	24.217	0.343	1.417	6	9	10	1.561
14.500	21.517	0.283	1.317	6	8	9	1.376
15.500	18.050	0.282	1.560	6	7	7	1.140
16.500	21.833	0.333	1.527	6	8	8	1.388
17.500	23.983	0.425	1.772	6	9	9	1.528
18.500	29.800	0.770	2.580	6	11	10	1.915
19.500	35.933	0.538	1.498	7	11	10	9E9
20.500	32.886	0.564	1.716	6	13	11	2.109
21.500	39.867	0.622	1.559	7	13	11	9E9
22.500	36.967	0.665	1.799	6	14	11	2.373
23.500	37.000	0.748	2.021	6	14	11	2.373
24.500	32.183	0.683	2.123	6	12	9	2.045
25.500	86.817	0.925	1.065	8	21	15	9E9
26.500	99.400	0.780	0.784	8	24	16	9E9
27.500	104.183	1.018	0.977	8	25	17	9E9
28.500	63.083	1.388	2.200	6	24	16	4.091
29.500	61.583	1.267	2.057	7	20	13	9E9
30.500	142.383	1.105	0.776	9	27	17	9E9
31.500	77.943	1.117	1.433	7	25	15	9E9
32.500	179.550	1.110	0.618	9	34	20	9E9
33.500	195.183	1.652	0.846	9	37	21	9E9
34.500	292.417	2.303	0.788	9	56	31	9E9
35.500	104.483	1.555	1.488	8	25	14	9E9
36.500	81.433	1.315	1.615	7	26	14	9E9
37.500	298.317	2.842	0.952	9	57	30	9E9
38.500	613.033	5.588	0.911	10	98	50	9E9
39.500	339.183	2.773	0.818	9	65	33	9E9
40.500	82.117	1.832	2.230	7	26	13	9E9
41.499	84.657	1.541	1.821	7	27	14	9E9
42.499	163.150	1.845	1.131	9	31	16	9E9
43.499	470.567	3.738	0.794	10	75	38	9E9
44.499	140.000	2.093	1.495	8	34	17	9E9
45.499	130.983	1.832	1.398	8	31	16	9E9
46.499	111.933	2.258	2.018	7	36	18	9E9
47.499	135.267	2.495	1.845	7	43	22	9E9
48.499	224.967	3.465	1.540	8	54	27	9E9
49.499	168.533	3.200	1.899	7	54	27	9E9

INPUT FILE: C:\temp\CPT-13.CSV |----------

Depth (feet)	Qc(avg) (TSF)	Fs(avg) (TSF)	Rf (%)	Rf Zone (zone #)	Spt N (blow/ft)	Spt N1 (blow/ft)	Su (TSF)
50.499	194.367	3.695	1.901	8	47	24	9E9
51.499	173.200	3.552	2.051	7	55	28	9E9
52.499	148.529	3.133	2.109	7	47	24	9E9
53.499	149.783	3.208	2.142	7	48	24	9E9
54.499	145.317	3.383	2.329	7	46	23	9E9
55.499	134.750	3.398	2.522	7	43	22	9E9
56.499	150.417	3.478	2.313	7	48	24	9E9
57.499	162.883	4.193	2.575	7	52	26	9E9
58.499	387.867	4.445	1.146	9	74	37	9E9
59.499	369.700	3.687	0.997	9	71	36	9E9
60.499	306.900	0.000	0.000	10	9E9	9E9	9E9

11234 Anderson St
Loma Linda, CA

CPT Shear Wave Measurements

	Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-2	5.05	7.11	5.56	1278.15	
	10.12	11.29	9.35	1207.25	1103.24
	15.19	15.99	13.76	1162.19	1066.66
	20.12	20.73	17.31	1197.69	1335.27
	25.12	25.61	20.86	1227.84	1374.88
	30.32	30.73	24.52	1253.24	1398.01
	35.16	35.51	27.97	1269.71	1386.73
	40.40	40.71	31.94	1274.52	1308.44
	43.86	44.14	34.18	1291.52	1533.86
CPT-4	5.13	7.16	6.99	1024.83	
	10.34	11.49	10.92	1051.78	1099.71
	15.10	15.91	14.59	1090.22	1204.59
	20.11	20.72	18.48	1121.33	1238.04
	25.16	25.65	22.45	1142.63	1241.75
	30.14	30.55	26.13	1169.23	1331.50
	35.07	35.42	28.81	1229.60	1818.18
	39.52	39.84	31.13	1279.64	1901.04
CPT-4A	5.21	7.22	6.21	1162.82	
	10.10	11.27	10.51	1072.30	941.58
	15.15	15.95	14.50	1100.26	1173.91
	20.17	20.78	18.50	1123.27	1206.68
	25.16	25.65	22.29	1150.83	1285.36
	30.17	30.58	26.05	1173.95	1311.04
	35.08	35.43	28.57	1240.27	1925.80
	40.17	40.48	31.72	1276.17	1601.73
CPT-8	5.29	7.28	7.66	950.26	
	10.06	11.23	10.81	1039.23	1255.56
	15.15	15.95	15.96	999.61	916.45
	20.13	20.74	20.80	997.20	989.24
	25.18	25.67	24.46	1049.54	1346.98
	30.08	30.49	27.79	1097.26	1447.78
	35.11	35.46	30.44	1165.05	1876.04
	40.08	40.39	33.95	1189.71	1403.54
	45.11	45.39	37.63	1206.12	1357.50
	50.11	50.36	41.34	1218.16	1340.32

CPT-11	Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
	8.26	9.66	15.62	618	
	10.01	11.19	17.73	631	727
	15.04	15.85	24.52	646	686
	20.04	20.65	30.31	681	830
	25.02	25.51	36.59	697	774
	30.02	30.43	41.26	738	1053
	31.46	31.85	42.49	750	1156

Shear Wave Source Offset = 5 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

Program: CPTINT - CPT Cone Interpretation Program
Version: 5.2
Table File by: Dr. R. G. (DICK) Campanella, P.Eng.
Rev. Dated: April 3, 2002

Parameter	Methods	Refer. Number	Valid Soil Type	Valid Zone
Depth average see NOTE #1	Depth averaged over specified range (see menu)		All	All
Parameter Averaging	Averaged over range specified for depth. If no values exist, your choice is zero's or no value		All	All
Qc, Tip Stress	measured tip force/area	#6,#8	All	All
Qt corrtd for U2 see NOTE #2	Qt = Qc + (1 - a) x U2 and a = tip area ratio Defaults to U2 if given or uses U1 or U3 times Const.	#6,#8	All	All
[Note: Input value from input file is used if defined, not calculated]				
Q (Qt Normalized)	$Q = \frac{Qt - sv}{sv'}$	#9 & 13	All	All
Fs	measured sleeve force/area	#6,#8	All	All
Rf Friction Ratio (if Rf>8, Rf=8)	$Rf = \frac{Fs}{Qt} \times 100\%$	#6,#8	All	All
F (Rf Normalized)	$F = \frac{Fs}{(Qt - sv)} \times 100\%$	#9 & 13	All	All
Gamma Total Unit Weight (Soil + Water) see NOTE #3	Based on Rf or Bq Classif. Zone Zone # Gamma = kN/m^3 1 Qt<4bar 15.70 1 Qt=4bar 17.30 2 Rf<5% 13.36 2 Rf=5% 11.80 2 Bq Zone 12.58 3 Qt<10bar 18.86 3 Qt=10bar 19.65 4, 5 & 6 Qt<20bar 18.86 4, 5 & 6 Qt=20bar 19.65 7 18.86 8 & 9 19.65 10 20.44 11 & 12 21.22		All	All

Parameter	Methods	Refer. Number	Valid Soil Type	Valid Zone
U Penetration Pore Pressure see NOTE #4	U1,measured on Face of tip U2,measured Behind Tip at shoulder (std location) U3,measured Behind Friction Sleeve		All	All
Water Table	Depth below ground surface to where pore pressure = 0 Make negative if water level is above ground		All	All
Uo Hydrostatic Pore Pressure see NOTE #4	Uo = water depth,Hw x unit weight water, Gamma or Uo=Hw=depth-depth to water table if depth<water table,Uo = 0		All	All
dU Excess Pore Pressure	dU = U2 - Uo Defaults to U2 if given or uses U1 or U3 x const.		All	All
DPPR (Differential Pore Pressure Ratio)	$DPPR = \frac{dU}{Qt} = \frac{U - Uo}{Qt}$ Defaults to U2 if given or uses U1 or U3 x const.	#6,#8	All	All
Bq	$Bq = \frac{dU}{Qt - sv}$	# 4 # 8 # 13	All	All
OS (Overburden Stress)	OS = sv = S (Gamma x Depth)		All	All
EOS (Effective Overburden Stress)	EOS = sv' = OS - Uo = sv - Uo		All	All
Rf Zone Soil Behavior Type see NOTE #5	Classification chart for Qc and Rf Zone # = Soil Behavior Type 1=sensitive fine grained 2=organic material 3=clay 4=silty clay 5=clayey silt 6=sandy silt 7=silty sand 8=fine sand 9=sand 10=gravelly sand 11=very stiff fine grained ¥ 12=sand to clayey sand ¥ ¥ overconsolidated or cemented	#6 #8, Fig4.3	All	1<Qt<1000bar 0<Rf<8%

Parameter	Methods	Refer. Number	Valid Soil Type	Valid Zone
Bq Zone Soil Behavior Type	Classification chart for Qc and Bq (same zone #'s as Rf above)	#8 Fig 4.3	All	0<Qt<1000bar -0.1<Bq<1.4
Spt N(60) Standard Penetration Test (Blows/foot) at 60% Energy After R&C(1983) see NOTE #6	Qt/N ratio per zone Zone # Qt/N Zone # Qt/N 1 2 7 3 2 1 8 4 3 1 9 5 4 1.5 10 6 5 2 11 1 6 2.5 12 2	# 7 # 8 Fig 4.2	All	All
Spt N1(60) Normalized for Overburden str	Spt N1(60) = Cn x Spt N(60) where Cn = (sv')^(-0.77)	# 8	All	0.5<Cn<1.5
Dr Relative Density see NOTE #7	Specific Sands: $Dr = \frac{100}{C2} * \ln \frac{Qc + C1}{+ C0\ sv' +}$ where: All are NC & UNAGED	# 8		
Compressibility	Sand | C0 | C1 | C2			
moderate high	Ticino | 17.37 | .558 | 2.58 Schmertmann | 15.32 | .520 | 2.75	# 1 # 1	/ Sand-- \	7 to 10 0<Qt<500bar 0<sv'<5bar
all	ALL SANDS: NC, OC, ALL TESTS $Dr = C3 + C4 \log_{10} \frac{+ Qc + C1 +}{+ sv' + C2 +}$ where:	# 5		
	C0 | C1 | C2 | C3 | C4 0.100 | 0.0981 | 0.5 | -98 | 66		Sand	7 to 10 (6 possible)
Phi Friction Angle	Methods: 1) Robertson & Campanella 2) Durgunoglu & Mitchell 3) Janbu beta = +15 degree 4) Janbu beta = 0 degree 5) Janbu beta = -15 degree	#6, #8 # 2 #6, #8 #6, #8 #6, #8	/ Sand-- \	7 to 10 & 6 0<Qt<500bar 0<sv'<4bar 29<phi<49

Parameter	Methods	Refer. Number	Valid Soil Type	Valid Zone
Gmax Maximum Shear Modulus at very small strains	Clay: Gmax = alpha x Qt	# 8 Fig4.18	Clay	1 to 6
	Sand: Digitized figure of Qc vs Gmax with interpolation between sv'curves,R&C method	# 6 # 8 Fig4.13	Sand	(6 possible) 7 to 10 .25<sv'<8bar
CSR(Qc), t/s LEVEL ground Liquefaction SAND Resistance see NOTE #8	Seed's CSR vs N1(60) graph for specified equake Magnitude.Can include silty sand corr. for Zone 7. N1(60) from CPT correlations.	# 11 # 12	Sand	7 to 10 (6 possible)
CSR(Eq), t/s Cyclic Stress Ratio applied by design quake	CSR(Eq) = 0.65 (Amax/g) (sv/svo') rd Amax=max surface acceleratn including Amplification	# 12 # 3	Sand	7 to 10 (6 possible)
[Note: Input value from input file is used if defined, & not calculated]				
rd Reduction Factor to find CSR(Eq)	Digitized graph to use for depth vs rd: 1) Seed's mean 2) Fraser Delta	# 12 # 3	Sand	(6 possible) 7 to 10 0<depth<30m
FL,Safety Factor against Liquefaction	FL = CSR(Qc)/CSR(Eq)	# 3	Sand	7 to 10 (6 possible)
Qcr Critical Bearng required to resist Liquefctn	Qcr backcalculated from CSR(Eq) for a specified FL. Qcr is only for the given GWT,EOS,OS,Amax/g & Eq.Mag	# 12	Sand	7 to 10 (6 possible)
Su, Undrained Shear Strength of CLAY METHODS: see NOTE #9	Nk: Su = Qc - st / Nk	# 8	Clay	1 to 6
	Nke: Su = Qt - U2 / Nke		Clay	1 to 6
	Nkt: Su = Qt - sv / Nkt		Clay	1 to 6
	Nc: Su = Qt / Nc		Clay	1 to 6
	NdU: Su = dU2 (dU1 or dU3) / NdU		Clay	1 to 6

Parameter	Methods	Refer. Number	Valid Soil Type	Valid Zone
Su/EOS	$Su/EOS = \frac{Su}{sv'}$	# 8	Clay	1 to 6
Ko (NC) Normally Consolidated	$(Ko)NC = 1 - \sin(f)$ see NOTE #10	# 8	Sand	7 to 10 (6 possible)
Ko (OC) Over Consolidated	$(Ko)OC = (Ko)NC \times OCR^{0.42}$	# 8	Sand	7 to 10 (6 possible)
E25 Youngs Modulus	E25 = alpha x Qt where user input alpha	# 8 4.11&12	Sand	(6) 7 to 10 0<Qt<500bar
M Constrained Modulus	CLAY: M = alpha x Qt where user input alpha SAND: Methods: Qt: M = alpha x Qt Baldi: $\frac{M}{Qt} = C0 \times pa \left(\frac{sv' + C1}{pa}\right)^{C2} \times OCR^{C3 Dr}$	# 8 Tabl4.3 # 8 Fig4.10	Clay Sand Sand	1 to 6 7 to 10 (6 possible) 7 to 10
OCR (Clay) Over-Consolidation Ratio see NOTE #11	$OCR = \left(\frac{\frac{Su}{svo'}}{\left(\frac{Su}{svo'} + NC\right)}\right)^{1.25}$	# 6 # 8 Fig4.19	Clay	1 to 6
Ic Material Index After J&D(1993) see NOTE #18	$Ic = \left(\left[3 - \log(Q(1-Bq))\right]^2 + \left[1.5 + 1.3\log F\right]^{2+0.5}\right)^{0.5}$	# 13 # 17	All	All
Spt N(60) Standard Penetration Test (Blows/foot) at 60% Energy After J&D(1993) see NOTE #16	$Qc/N = 8.5(1-(Ic/4.75))$ where Qc in bars	# 13	All	All

Parameter	Methods	Refer. Number	Valid Soil Type	Valid Zone
State Parameter State, (e-units) Current Void Void Ratio minus Critical Void Ratio	$State = \frac{\ln\left(\frac{3M + 8.5M/F}{Q(1-Bq)}\right)}{11.9 - 1.33F}$ $M = \frac{6 \text{ Sin fcv}}{3 - \text{Sin fcv}}$ fcv = const. vol. Phi angle	# 14	All	All
Fines Content FC(%) Percent less than #200 Sieve After Davies,99	FC(%) = 42.4179(Ic) - 54.8574 FC(%) = 0% if Ic < 1.2933 FC(%) = 100% if Ic > 3.6508	# 15	All	All
OCR (Clay) Overcons. Ratio by Pore Press. U1 & U2 or U1 & U3 see NOTE #17	OCR = 0.5 + 1.50(PPD) PPD = (U1 - U2)/Uo or PPD = (U1 - U3)/Uo and default 0.5 & 1.5 are settable	# 16	Clay	1 to 6

1. Depth averaging may be in 0.5, 1, 2.5 or 5 ft. intervals or 0.1, 0.25, 0.5 or 1.0 m intervals, or no depth averaging if zero is selected. The average is the mean value of the readings in the interval. The depth value is the mid-depth of the averaged interval. It is convenient to start at half the depth averaging interval. For example, if you want "even" depths and the depth averaging is set at 0.50 m then start at 0.25 to get values of depth of 0.5, 1.0, 1.5, etc.

2. Basic input CPTU data columns are for Depth, Qc, Fs, U1, U2, U3, INC and TEMP may be selected. In addition the following parameters may also be specified as an INPUT data column: Qt, Gamma, Uo, Spt N, Rf Zone, Bq Zone and CSR(EQ). These values will be used where required to obtain other interpreted parameters. If they are not specified the program will estimate them when they are required. For example, you can create an OUTPUT data file of any of the above parameters and then edit some or all of the values to suite your measurements or your desires to specify their values. You can do that with "Gamma" values to input your measurements of unit weight, or with "Uo" if you want to input values of pore water pressure other than hydrostatic, or with any of the other input parameters. You would use your edited file of adjusted data as your new INPUT data file. Thus, you can specify these parameters if you want to override the Program's values.

You can also use the designated value of "9E9" to denote an unknown value.

You can use the "OTHER" designation to input other data that exists on your input file and identify its units. This allows you to output it, without operating on it, if you choose.

It is best NOT to use depth averaging when using input data that is not continuous at regular depth intervals. Always use DEPTH AVERAGING with extreme caution since the program averages ALL INPUT parameters over the interval chosen irregardless of soil type. Careful use of start and end depth choises can make depth averaging very effective.

3. Since there is no data in the file within the initial depth interval, a default Gamma (unit weight) must be specified from the surface to the starting depth. This is done in the "Param" Menu in units of kN/m^3 (1kN/m^3=6.36pcf). Also, you can specify the values of Gamma to be used by the program as in NOTE #2 above.

4. If pore pressures are not measured by the cone then the program will take Qc as being equal to Qt for all interpretations requiring Qt. Also, Uo may be specified in the input file as a column of Uo vs depth values, if the water pressures are not hydrostatic. See NOTE #2 for more info on customizing input data.

5. You can choose to use either the Rf classif. Zone or the Bq classif. Zone to divide soil into Undrained Parameters (Zones 1 to 6) and Drained Parameters (Zones 7 to 10) in the "Param" Menu. (However, in order to use the Bq Zone you must have Pore Pressure, U2, data.) Also, you may choose to switch Zone 6 to a Drained Zone from its Undrained Zone status. This is done if you feel that the soil identified as Zone 6 (sandy silt) is really coaser (using other sources of information) and/or you want it analyzed as a Drained rather than Undrained soil. Finally, the soil behavior names in each zone were shortened in version 5.0 for simplicity. For example, Zone 6 was named "sandy silt to clayey silt" but was shortened to "sandy silt".

6. Spt N is the same as Spt N(60) for 60% transferred energy. This value is calculated from the Qt/N ratios given for each Soil Zone (you can specify either Rf or Bq Zone) and these values are used in the Level Ground Liquefaction analysis. Values of Spt N may be specified in the Input File, if indepedently measured values are to be used. We suggest that you not use depth averaging if you only have selected Spt N values at a few depths. You may use "9E9" for missing data.

7. If Dr values are negative then soil is very loose or likely more of an undrained soil like a silty sand rather than a drained soil for which the Dr correlations were developed. Use Dr interpretations very cautiously since they also assume the soil is free draining, uncemented, unaged and has the same compressibility of grains as the soil used for the correlations in chamber calibration tests.

8. The simplified sand liquefaction analysis for level ground according to Seed et al requires Spt N1(60) and earthquake magnitude to obtain the cyclic stress ratio to cause liquefaction, CSR(Qc). The design maximum ground acceleration, the depth-reduction factor, Rd, and overburden total and effective stresses are required to calculate the cyclic stress ratio applied by the design earthquake, CSR(EQ). The program estimates the N1(60) values from the cone stresses, the operator identifies the earthquake magnitude and Seed et al chart is used to get CSR(Qc). The program also calculates CSR(EQ) from the user specified maximum ground acceleration including any amplification factors, the calculated overburden stresses and either Seed's mean or the Fraser Delta Rd factor. The Fraser Delta is used only when amplification factors of the order of 2 or more are used. See Reference Nos. 3, 6, 11 and 12 for more information. The user can INPUT specific values for Spt N, CSR(EQ), Soil Zones, Gamma's, etc. in order to customize the analysis for the existing data base of information. It is recommended that you do not use depth averaging when using specific input data but make calculations at specific depths where external input data exists. The calculated value of Qcr is the minimum value of cone bearing stress required at a given depth such that the factor of safety against liquefaction, or the ratio FL = CSR(Qc)/CSR(EQ) have the specified value for a given earthquake magnitude, max. ground acceleration, depth reduction factor, and calculated overburden stresses. This value of Qcr is useful to identify the required minimum level of soil improvement for a given design condition.

9. The NdU method to calculate undrained shear strength has been extended to allow the user to choose either dU1, or dU2 or dU3 provided such pore pressure measurements exist.

10. The Overconsolidation Ratio, OCR, for the sand must be estimated by the user in the "Param" menu if you want to estimate Ko in the sand layers. For the typical normally consolidated sand, OCR = 1.0.

11. It is currently only possible to estimate the OCR for a clay, which makes use of the correlations obtained from extensive laboratory tests.

12. An improved calculation and print routine was added to version 5.0 which uses swap routines to reduce memory requirements, but slows down the calculations.

13. The classification charts for Rf has been extended at all boundaries such that values of Rf>8 and values of Qc<1.00 are possible. The Bq classification chart which requires dU2 and can now accept values of Bq>1.2 and Qt<1. Unfortunately, this feature does not work.

14. Version 5.1ppd added several enhancements to the program. You may input an average vertical flow gradient, which is applied over the entire profile depth to be analysed so adjust the depth of interest accordingly. Zero gives hydrostatic and no flow, a negative gradient is upward flow which increases pore pressure and reduces vertical effective stress. A positive gradient gives downward flow.

15. A State Parameter or current void ratio minus critical void ratio is calculated according to the paper by Ref. 14, Plewes, Davies and Jefferies, 1994.

16. An alternate method to estimate SPT from CPT is provided according to Ref. 13, Jefferies and Davies, 1993 in ASTM.

17. An alternate method to estimate OCR in clays is provided which uses the measured pore pressure difference, ppd, so both U1 and U2 or U1 and U3 must be measured at the same time. (see Ref. 16)

18. Version 5.2 added the value Ic (Material Index) according to Jefferies & Davies, 1993, 1991 (Ref. 13 & 17) which combines all Normalized parameters Q, F and Bq.
(Note: QtN was changed to Q and RfN to F.)

18A. In Version 5.2, if at any depth the value of Bq>1 (in very sensitive saturated soil)then Bq is made equal to 0.99. Also, if Rf>8 it is made 7.99. These changes have a negligable effect on the results.

19. FC(%) or percent of dry weight less than #200 sieve (.074mm) was also added according to Davies, 1999 Ref.#15)

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August 10, 2010 via email: nharrold@mactec.com

MACTEC ENGINEERING & CONSULTING, INC.
5628 East Slauson Avenue
Los Angeles , CA 90040

Attention: Ms. Nan Natanom-Harrold

Re: Soil Corrosivity Study
Loma Linda Hospital Tower
Loma Linda, California
SA #10-0715SCS, MACTEC #4953-10-0911

INTRODUCTION

Laboratory tests have been completed on four soil samples provided for the referenced project. The purpose of these tests was to determine if the soils might have deleterious effects on underground utility piping, hydraulic elevator cylinders, and concrete structures. Schiff Associates assumes that the samples selected are representative of the most corrosive soils at the site.

The proposed construction consists of a hospital building with one subterranean level. The site is located at 11234 Anderson Street, Loma Linda, California. The water table is reportedly greater than 80 feet deep.

The scope of this study is limited to a determination of soil corrosivity and general corrosion control recommendations for materials likely to be used for construction. Our recommendations do not constitute, and are not meant as a substitute for, design documents for the purpose of construction. If the architects and/or engineers desire more specific information, designs, specifications, or review of design, Schiff Associates will be happy to work with them as a separate phase of this project.

LABORATORY SOIL CORROSIVITY TESTS

The electrical resistivity of each sample was measured in a soil box per ASTM G187 in its as-received condition and again after saturation with distilled water. Resistivities are at about their lowest value when the soil is saturated. The pH of the saturated samples was measured per ASTM G51. A 5:1 water:soil extract from each sample was chemically analyzed for the major soluble salts commonly found in soil per ASTM D4327, D513, and D6919. Test results are shown in Table 1.

SOIL CORROSIVITY

A major factor in determining soil corrosivity is electrical resistivity. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. Corrosion of buried metal is an electrochemical process in which the amount of metal loss due to corrosion is directly proportional to the flow of electrical current (DC) from the metal into the soil. Corrosion currents, following Ohm's Law, are inversely proportional to soil resistivity. Lower electrical resistivities result from higher moisture and soluble salt contents and indicate corrosive soil.

A correlation between electrical resistivity and corrosivity toward ferrous metals is:[1]

Soil Resistivity in ohm-centimeters	Corrosivity Category
Greater than 10,000	Mildly Corrosive
2,000 to 10,000	Moderately Corrosive
1,000 to 2,000	Corrosive
0 to 1,000	Severely Corrosive

Other soil characteristics that may influence corrosivity towards metals are pH, soluble salt content, soil types, aeration, anaerobic conditions, and site drainage.

Electrical resistivities were in the mildly corrosive category with as-received moisture. When saturated, the resistivities were in the moderately corrosive to corrosive categories. The resistivities dropped considerably with added moisture because the samples were dry as-received.

Soil pH values varied from 7.8 to 8.2. This range is mildly to moderately alkaline.[2] These values do not particularly increase soil corrosivity.

The soluble salt content of the samples was low.

Nitrate was detected in a low concentration.

Tests were not made for sulfide and negative oxidation-reduction (redox) potential because these samples did not exhibit characteristics typically associated with anaerobic conditions.

This soil is classified as corrosive to ferrous metals.

CORROSION CONTROL RECOMMENDATIONS

The life of buried materials depends on thickness, strength, loads, construction details, soil moisture, etc., in addition to soil corrosivity, and is, therefore, difficult to predict. Of more practical value are corrosion control methods that will increase the life of materials that would be subject to significant corrosion.

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[1] *Romanoff, Melvin. Underground Corrosion, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, pp. 166–167.*

[2] *Romanoff, Melvin. Underground Corrosion, NBS Circular 579. Reprinted by NACE. Houston, TX, 1989, p. 8.*

The following recommendations are based on the soil conditions discussed in the Soil Corrosivity section above. Unless otherwise indicated, these recommendations apply to the entire site or alignment.

Steel Pipe

Implement *all* the following measures:

1. Underground steel pipe with rubber gasketed, mechanical, grooved end, or other nonconductive type joints should be bonded for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.
2. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:
    a. At each end of the pipeline.
    b. At each end of all casings.
    c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.
3. To prevent dissimilar metal corrosion cells and to facilitate the application of cathodic protection, electrically isolate each buried steel pipeline per NACE Standard SP0286 from:
    a. Dissimilar metals.
    b. Dissimilarly coated piping (cement-mortar vs. dielectric).
    c. Above ground steel pipe.
    d. All existing piping.
4. Choose one of the following corrosion control options:

    OPTION 1

    a. Apply a suitable dielectric coating intended for underground use such as:
        i. Polyurethane per AWWA C222 *or*
        ii. Extruded polyethylene per AWWA C215 *or*
        iii. A tape coating system per AWWA C214 *or*
        iv. Hot applied coal tar enamel per AWWA C203 *or*
        v. Fusion bonded epoxy per AWWA C213.
    b. Apply cathodic protection to steel piping as per NACE Standard SP0169.

    OPTION 2

    a. As an alternative to dielectric coating and cathodic protection, apply a ¾-inch cement mortar coating per AWWA C205 or encase in concrete 3 inches thick, using any type of cement. Joint bonds, test stations, and insulated joints are still required for these alternatives.

NOTE: Some steel piping systems, such as for oil, gas, and high-pressure piping systems, have special corrosion and cathodic protection requirements that must be evaluated for each specific application.

Hydraulic Elevator

Implement *all* the following measures:

1. Coat hydraulic elevator cylinders as described above for steel pipe, item #4.
2. Electrically insulate each cylinder from building metals by installing dielectric material between the piston platen and car, insulating the bolts, and installing an insulated joint in the oil line.
3. Apply cathodic protection to hydraulic cylinders as per NACE Standard SP0169.
4. As an alternative to electrical insulation and cathodic protection, place each cylinder in a plastic casing with a plastic watertight seal at the bottom.
5. The elevator oil line should be placed above ground if possible but, if underground, should be protected by one of the following corrosion control options:

   OPTION 1

   a. Provide a bonded dielectric coating.
   b. Electrically isolate the pipeline.
   c. Apply cathodic protection to steel piping as per NACE Standard SP0169.

   OPTION 2

   a. Place the oil line in a PVC casing pipe with solvent-welded joints to prevent contact with soil and soil moisture.

Iron Pipe

Implement *all* the following measures:

1. Electrically insulate underground iron pipe from dissimilar metals and from above ground iron pipe with insulating joints per NACE Standard SP0286.
2. Bond all nonconductive type joints for electrical continuity. Electrical continuity is necessary for corrosion monitoring and cathodic protection.
3. Install corrosion monitoring test stations to facilitate corrosion monitoring and the application of cathodic protection:
   a. At each end of the pipeline.
   b. At each end of any casings.
   c. Other locations as necessary so the interval between test stations does not exceed 1,200 feet.
4. Choose one of the following corrosion control options:

OPTION 1

a. Apply a suitable coating intended for underground use such as:
    i. Polyethylene encasement per AWWA C105; *or*
    ii. Epoxy coating; *or*
    iii. Polyurethane; *or*
    iv. Wax tape.

    NOTE: The thin factory-applied asphaltic coating applied to ductile iron pipe for transportation and aesthetic purposes does not constitute a corrosion control coating.

b. Apply cathodic protection to cast and ductile iron piping as per NACE Standard SP0169.

OPTION 2

a. As an alternative to dielectric coating and cathodic protection, concrete encase all buried portions of metallic piping so that there is a minimum of 3 inches of concrete cover provided over and around surfaces of pipe, fittings, and valves using any type of cement.

Copper Tubing

Implement *all* the following measures:

1. Place cold water copper tubing in an 8-mil polyethylene sleeve or encase in double 4-mil thick polyethylene sleeves and bed and backfill with clean sand at least 2 inches thick surrounding the tubing. Clean sand should have a minimum resistivity of no less than 3000 ohm-cm, and a pH of 6.0–8.0. Copper tubing for cold water can also be treated the same as for hot water.
2. Hot water tubing may be subject to a higher corrosion rate. Protect hot copper tubing by one of the following measures:
    a. Preventing soil contact. Soil contact may be prevented by placing the tubing above ground or encasing the tubing with PVC pipe with solvent-welded joints. *or*
    b. Applying cathodic protection per NACE Standard SP0169. The amount of cathodic protection current needed can be minimized by coating the tubing.

Plastic and Vitrified Clay Pipe

1. No special precautions are required for plastic and vitrified clay piping placed underground from a corrosion viewpoint.

2. Protect all metallic fittings and valves with wax tape per AWWA C217 or epoxy.

All Pipe

1. On all pipes, appurtenances, and fittings not protected by cathodic protection, coat bare metal such as valves, bolts, flange joints, joint harnesses, and flexible couplings with wax tape per AWWA C217 after assembly.

2. Where metallic pipelines penetrate concrete structures such as building floors, vault walls, and thrust blocks use plastic sleeves, rubber seals, or other dielectric material to prevent pipe contact with the concrete and reinforcing steel.

Concrete

1. From a corrosion standpoint, any type of cement may be used for concrete structures and pipe because the sulfate concentration is negligible, 0 to 0.1 percent.[3,4,5,6]
2. Standard concrete cover over reinforcing steel may be used for concrete structures and pipe in contact with these soils due to the low chloride concentration[7] found onsite.

Concrete Piles

1. It is assumed that prestressed concrete piles will contain about 8 sacks of type V cement per cubic yard of concrete, a water/cement ratio not exceeding 0.45, and 2 inches of concrete cover. No further corrosion control measures are required for such piles.

2. If ground water is present, solid steel lifting lugs are recommended to prevent ground water from wicking into the pile interior. If wire rope lifting lugs are used, they should be carefully drilled out 1.5 inches deep and the hole filled with epoxy.

Steel Reinforced Cast in Place Concrete Piles

1. Protect steel reinforced cast-in-place and cast-in-drilled-hole concrete piles the same way as concrete structures mentioned under the concrete structures section in this report.

CLOSURE

Our services have been performed with the usual thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended.

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[3] *1997 Uniform Building Code (UBC) Table 19-A-4*

[4] *2006 International Building Code (IBC) which refers to American Concrete Institute (ACI-318) Table 4.3.1*

[5] *2006 International Residential Code (IRC) which refers to American Concrete Institute (ACI-318) Table 4.3.1*

[6] *2007 California Building Code (CBC) which refers to American Concrete Institute (ACI-318) Table 4.3.1*

[7] *Design Manual 303: Concrete Cylinder Pipe. Ameron. p.65*

Table 1 - Laboratory Tests on Soil Samples

MACTEC Engineering & Consulting, Inc.
Loma Linda Hospital Tower
Your #4953-10-0911, SA #10-0715SCS
19-Jul-10

Sample ID			2 @ 13.5' SM	3 @ 5.5' SM	3 @ 13.5' SM	6 @ 13.5' SM
Resistivity		**Units**				
as-received		ohm-cm	80,000	28,800	27,600	22,800
saturated		ohm-cm	3,600	5,600	4,160	1,240
pH			8.2	8.2	8.1	7.8
Electrical Conductivity		mS/cm	0.07	0.07	0.08	0.19
Chemical Analyses						
Cations						
calcium	Ca^{2+}	mg/kg	75	148	70	134
magnesium	Mg^{2+}	mg/kg	10	8.3	6.8	13
sodium	Na^{1+}	mg/kg	16	17	26	30
potassium	K^{1+}	mg/kg	11	10	8.4	11
Anions						
carbonate	CO_3^{2-}	mg/kg	9.0	33	21	ND
bicarbonate	HCO_3^{1-}	mg/kg	151	105	85	156
flouride	F^{1-}	mg/kg	1.2	2.2	0.6	2.4
chloride	Cl^{1-}	mg/kg	6.5	2.5	21	157
sulfate	SO_4^{2-}	mg/kg	27	12	46	56
phosphate	PO_4^{3-}	mg/kg	ND	ND	ND	ND
Other Tests						
ammonium	NH_4^{1+}	mg/kg	ND	ND	ND	ND
nitrate	NO_3^{1-}	mg/kg	1.1	ND	ND	ND
sulfide	S^{2-}	qual	na	na	na	na
Redox		mV	na	na	na	na

Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

December 20, 2011
4953-10-0911

Loma Linda University Medical Center
c/o Mr. Brian Fling
Loma Linda University
Collaborative Project Management
11234 Anderson Street
Loma Linda, California 92354

Subject: **Response to Comments from the California Geological Survey (CGS)**
And the Office of Statewide Health Planning and Development (OSHPD)
Proposed Hospital Towers
Loma Linda University Medical Center
Northwest Corner of Barton Road and Anderson Street
Loma Linda, California
OSHPD No. IL112154-36

Dear Mr. Fling:

We are pleased to submit this letter presenting our response to comments from the California Geological Survey (CGS) and the Office of Statewide Health Planning and Development (OSHPD) regarding our report of geotechnical investigation, dated July 13, 2011, for the proposed hospital towers to be contrasted within the campus of Loma Linda University Medical Center in Loma Linda, California. The CGS and OSHPD comments were presented in letters dated November 1, 2011 and November 3, 2011, respectively, both of which are attached to this letter for ease of reference.

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing in this or similar localities. No other warranty, express or implied, is made as to the professional advice included in this letter.

Our itemized responses are presented on the following pages.

AMEC Environment & Infrastructure
5628 E. Slauson Avenue
Los Angeles, CA
USA 90040-2922
Tel (323) 889-5320
Fax (323) 889-5308
www.amec.com

Response to CGS Comments

Response to CGS Comment No.7:
Two cross sections have been prepared and are attached to this letter. The locations of the cross sections are shown on Figure 1, Plot Plan. The cross sections depicting the limits of proposed and nearby existing basements, the existing utility tunnel, and the subsurface conditions encountered are shown on Figures 2.1 and 2.2, Cross Section 1-1' and 2-2', respectively.

Response to CGS Comment No.20:
The results of our seismically-induced settlement analyses are attached to this letter. Since several of our Cone Penetration Tests (CPTs) encountered refusal prior to reaching their target depths, the settlement estimated using the data from each CPT is plotted against depth on Figure 3 in order to illustrate the anticipated settlement within the upper 60 feet (the depth to the historic-high groundwater level). Based on the results of our calculations using the CPT data (as shown on Figure 3) and on our calculations using the Standard Penetration Tests (SPTs) performed in our borings, we estimate the seismically-induced settlement beneath the proposed foundations to range between approximately 1 and 3 inches, with an average of less than 2 inches. Differential seismically-induced settlement is estimated to approximately 1 inch across the width of the proposed hospital towers.

Response to OSHPD Comments

Response to OSHPD Comment No.1:
The recommended bearing values and lateral load design values provided in our July 13, 2011 report are for use with loadings determined by a conventional working stress design. When considering an ultimate design approach, the recommended design values may be multiplied by the following factors:

Design Item	Ultimate Design Factor
Bearing Value	3.0
Passive Pressure	1.5
Coefficient of Friction	1.5

In no event, however, should foundation sizes be less than those required for dead-plus-live loads when using the working stress design values.

Response to OSHPD Comment No.2:
According to the Flood Insurance Rate Map of Federal Emergency Management Agency (FEMA, Map No. 06071C8692H, 2008), the site is not within a Special Flood Hazard Area (an area subject to inundation by the 1% annual potential flood) and it is also outside of the 0.2%

annual potential floodplain. Therefore, the potential for flooding affecting the site is considered low.

Response to OSHPD Comment No.3:
The shoring requirements contained in Section J106.2 of the 2010 California Building Code (2010 CBC) are only applicable where shoring affects existing or new OSHPD facilities. It is our understanding that the basement level of the proposed hospital towers will not extend below the foundation level of the adjacent hospital building. Therefore, it is our opinion that the proposed shoring will not affect the existing OSHPD facilities. Therefore, the requirements contained in Section J106.2 are not applicable to the proposed shoring.

It is a pleasure to be of continuing professional service to you. Please contact us if there are any questions or if we can be of further assistance.

Sincerely,

AMEC E&I, Inc.

REGISTERED PROFESSIONAL ENGINEER ETHAN TSAI NO. 071746 EXP 12-31-2011 CIVIL STATE OF CALIFORNIA

Ethan Tsai
Project Engineer

PROFESSIONAL GEOLOGIST PAUL ELLIOTT #1435 CERTIFIED ENGINEERING GEOLOGIST STATE OF CALIFORNIA

Paul Elliott
Principal Engineering Geologist

REGISTERED PROFESSIONAL ENGINEER MARK ANDREW MURPHY No. 2777 EXP 6/30/2013 GEOTECHNICAL STATE OF CALIFORNIA

Mark A. Murphy
Senior Engineer
Project Manager

Martin B. Hudson, Ph.D.
Chief Engineer
for
with permission

P:\4953 Geotech\2010-proj\100911 Loma Linda Integrated Campus\4.0 Project Deliverables\4.1 Reports\Final Report\4953-10-0911L01.doc\ET:mm
(7 copies submitted)

Attachments: OSHPD Comment Letter dated November 3, 2011
CGS Comment Letter dated November 1, 2011
Figure 1 – Plot Plan
Figure 2.1 – Section 2.1
Figure 2.2 – Section 2.2
APPENDIX – Seismically-Induced Settlement Calculations

oshpd Office of Statewide Health Planning and Development

Facilities Development Division
400 R Street, Suite 200
Sacramento, California 95811-6213
(916) 440-8300
Fax (916) 324-9188
www.oshpd.ca.gov/fdd

Ms. Laurie Connell C21749
HMC Architects
3546 Concours Street
Ontario, CA 91764

DATE 11/3/2011
OSHPD NO IL112154-36

Facility Name: Loma Linda University Hospital - 10677
11234 Anderson Street
Loma Linda, CA 92354

Project Scope: Replacement Hospital

Dear Ms. Connell:

As requested, we have reviewed **Geo-Technical and Engineering Geologic Reports** for the project listed above, to determine conformance with the standards of the California Code of Regulations Title 24, Part 2(CBC 2010).

This letter addresses the following report(s):

> "Report of Geotechnical Investigation, Proposed Hospital Towers, Northwest Corner of Barton Road and Anderson Street, Loma Linda University Medical Center, Loma Linda, California". Report prepared by MACTEC and dated July 13, 2011.

The geologic hazards portion of the report has been defected by the California Geologic Survey (CGS) per the attached letter dated November 1, 2011.

The OSHPD review comments are listed below:

1. Provide ultimate soil bearing values to verify compliance with Section 1605A.1.1.
2. Provide information on possible flood zones to verify compliance with Section 1612A.
3. If tie-backs are utilized, comply with Sections J106.2.4 and J106.2.5. Include the seismic increment of earth pressure per 106.2.4.1 Item 8 as applicable.

Please provide **three copies of updated documents** with your response to the **OSHPD South Region office** in accordance with Standard Geotechnical Report Review Comments 2010 (G1) for processing, available at http://www.oshpd.ca.gov/FDD/Plan_Review/Documents/StrdGeotechnRpt_Rev_Comments-OSHPD_1_2010.pdf. All submittals should include OSHPD project number IS112154-36.

If you have any technical questions, please contact me at (916) 440-8363 or William.Staehlin@OSHPD.CA.GOV. Plans and specifications will not be approved until both CGS and OSHPD have approved the Geotechnical and Geologic Hazards Reports.

Sincerely,

William Staehlin
Senior Structural Engineer

Enclosure: Review letter from CGS dated November 1, 2011

cc: Eric Schilt – Loma Linda
Annette Shwe
Mark Murphy – MACTEC
Geotechnical file

DEPARTMENT OF CONSERVATION

CALIFORNIA GEOLOGICAL SURVEY

REVIEW UNIT • 801 K STREET, MS 12-32 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-7324 • FAX 916 / 322-4765 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov/cgs

M. R. Karim
Supervisor, Structural Support Unit
Office of Statewide Health Planning & Development
400 R Street, #200
Sacramento, CA 95811

November 1, 2011

Subject: **Engineering Geology and Seismology Review for**
Loma Linda University Medical Center
Replacement Hospital
11234 Anderson Street, Loma Linda
San Bernardino County, California
Facility # 10677 OSHPD # IL-112154-36

Dear Mr. Karim:

In accordance with your authorization and transmittal of documents on August 11, 2011, the California Geological Survey (CGS) performed an engineering geology and seismology review of consulting documents prepared for construction of the proposed Adult and Pediatric Replacement Buildings at Loma Linda University Medical Center. We understand the two proposed hospital towers consist of a 6-story (UH)/Adult Care tower and a 9-story Children's Hospital tower. This review was performed in accordance with Title 24, California Code of Regulations, the 2010 California Building Code (CBC), and followed CGS Note 48 guidelines. CGS reviewed the following report for this project:

> Elliot, Paul, Certified Engineering Geologist #1435, Murphy, Mark, A., Registered Geotechnical Engineer #2777, and Hudson, Martin, B., Registered Geotechnical Engineer #2570, **Report of Geotechnical Investigation, Proposed Hospital Towers – Northwest Corner of Barton Road and Anderson Street, Loma Linda University Medical Center, Loma Linda, California**: MACTEC Engineering and Consulting, Inc., 5328 E. Slauson, Los Angeles, CA 90040-1554; report dated July 13, 2011, MACTEC Project No. 495310-0911; 41 pages; Appendices A – E.

In the numbered paragraphs below, this review is keyed to the paragraph numbers of California Geological Survey Note 48 (January, 2011, edition), *Checklist for the Review of Engineering Geology and Seismology Reports for California Public Schools, Hospitals, and Essential Services Buildings*. The checklist can be found on the CGS web site at the following address:
http://www.consrv.ca.gov/cgs/information/publications/cgs_notes/note_48/note_48.pdf

Project Location

1. Site Location: Adequately addressed.
2. Plot Plan with Exploration Data and Building Footprint: Adequately addressed. The consultants provide a Plot Plan (Figure 2) indicating the location of the two proposed hospital buildings and the location of 9 borings and 13 cone penetration tests (CPT). Additionally, the consultants supplement their current subsurface investigation data with 5 borings drilled during previous investigations at the site.
3. Site Coordinates: Adequately addressed. The consultant provides site coordinates: 34.0490°N and -117.2628°W.

Engineering Geology/Site Characterization

4. Regional Geology and Regional Fault Maps: Adequately addressed.
5. Geologic Map of Site: Adequately addressed. The consultants provide a geologic map of the area showing the site is located on Holocene-age alluvial fan deposits.
6. Subsurface Geology: Adequately addressed. The consultant drilled 9 borings and 13 CPT at the building site. These subsurface data indicate the site is underlain by native, loose to medium dense, granular sediment to a depth of 30 feet below ground surface (bgs), with increasing relative densities below 30 feet bgs. Undocumented fill up to 4 feet in thickness overlies native sediment.
7. Geologic Cross Sections: **Additional information requested.** Given the proposed hospital replacement buildings are multi-story structures with basements reportedly extending into native soils with loose to medium relative densities, **the consultants should provide cross sections depicting the subsurface conditions below the proposed basement and slab foundations.**
8. Active Faulting & Coseismic Deformation across the Site: Adequately addressed. The consultants report the site is not located within an Alquist-Priolo Earthquake Fault Zone, and based on available geologic data state, "active or potentially active faults with the potential for surface rupture are not known to be located directly beneath, or projecting toward, the site." The consultants conclude the potential for surface fault rupture at the site is low.
9. Geologic Hazard Zones (Liquefaction & Landslides): This site is located in an area where official Seismic Hazards Zones for liquefaction and seismically induced landsliding have not yet been established by the California Geological Survey; however, the consultants report the site is not located in a locally defined liquefaction hazard area according to both the County of San Bernardino and the City of Loma Linda.
10. Geotechnical Laboratory Testing: Adequately addressed.

11. Consideration of Site Geology in Grading and Foundation Plans: Adequately addressed.

Seismology & Calculation of Earthquake Ground Motion

12. Evaluation of Historic Seismicity: Adequately addressed.
13. Classify the Geologic Subgrade (Site Class): Adequately addressed. The consultants indicate the site is located on Holocene-age alluvial deposits. Three borings drilled to a maximum depth of 81 feet bgs are provided. In general, these borings indicate soils are loose to medium dense in the upper 30 feet based on Standard Penetration Test (SPT-N) results. Relative density increases to dense/very dense within discrete geologic layers below 30 feet, although it appears possible the higher blow counts (>50) may be due to gravel affecting the SPT sampler. To determine the Site Classification, the consultants use CPT-based shear wave velocity (V_s) measurements from CPT-2, 4, 4A, 8, and 11. From these CPT V_s data the consultants define an average V_s of 440 meters/second, which is consistent with a Site Class C designation. *CGS notes the actual measured V_s are preferable for use in Site Classification; however, we also note the more extensive (and deeper) in-situ SPT data from the site would indicate the lower bound of the "Stiff soil profile" per CBC Table 1613.A.5.2.*
14. General Procedure Ground Motion Analysis: Adequately addressed. The consultants provide appropriate mapped parameter values (S_S=1.85 and S_1= 0.65), site coefficients (F_a = 1.0 and F_v = 1.3), and calculated MCE spectral acceleration parameters (S_{MS} = 1.85 and S_{M1} = 0.85). Using appropriate coefficients for Site Class C, the consultants provide general procedure seismic design parameters (S_{DS} = 1.23 and S_{D1}=0.57). These are considered appropriate based on our independent check.
15. Seismic Design Category: Not provided. We note the mapped value of S_1 is less than 0.75.
16. Site-Specific Ground Motion Analysis: Adequately addressed. The consultants provide a site-specific ground motion analysis in accordance with Chapter 16A of the 2010 CBC, and ASCE 7-05. The site-specific calculations for the deterministic and probabilistic MCE spectra were performed by acceptable methods, using the computer program EZ-FRISK and the average from 4 Next Generation Attenuation relationships as specified in the CBC 2010, Ch. 1803A.6.2. Based on our independent calculations, both their deterministic and probabilistic spectra appear reasonable. The consultants establish the site-specific design spectrum does not fall below 80% of the general response spectrum and provide data in tabular form on Table 4 and in graphical form on Figure 7.4. The S_{DS} value is controlled by the 90% of the site acceleration at 0.3 seconds, and the spectral acceleration value at the 2 second period controls the S_{D1} value. Accordingly, site-specific spectral acceleration parameters are provided as **S_{DS}=1.69 and S_{D1}=1.52. These values appear reasonable based on comparison with the California Geological Survey State-Wide Model (from Peterson and others, 2008).**
17. Deaggregated Seismic Source Parameters: Adequately addressed.
18. Time-Histories of Earthquake Ground Motion: Not Applicable.

Liquefaction/Seismic Settlement Analysis

19. Geologic Setting: Adequately addressed. The consultants indicate the proposed building will be located on Holocene-age alluvial fan deposits composed of predominantly granular material. Groundwater was not encountered with the 81-foot depth explored, and the consultants assume a potential high groundwater depth of 60 feet bgs, which is approximated from 1945 groundwater data. Further, the consultants review past subsurface data, and identify groundwater encountered at 64 feet bgs in a boring drilled in 1963. Based on historical groundwater information the consultants reasonably conclude the potential for liquefaction is low. However, the consultants identify underlying soils as being susceptible to seismically induced "dry" settlement.
20. Seismic Settlement Calculations: **Additional information requested.** The consultants indicate they compute "dry-sand" seismically induced settlement using the methodology of Tokimatsu and Seed (1987) and they estimate settlement of up to 2 inches beneath the foundations, with differential settlement of 1 inch across the width of the proposed hospital towers. However, CGS notes the calculations are not provided in the report. **The consultants should provide all calculations including input parameters.**
21. Other Liquefaction Effects: Not applicable because liquefaction potential is low.
22. Mitigation Options for Seismic Settlement: Adequately addressed.

Slope Stability Analyses

23. Landslide Mapping: Adequately addressed. The consultants indicate the site is not located in an area of steep slopes and slope instability according to both the County of San Bernardino and the City of Loma Linda safety elements. Additionally, the consultants state the proposed buildings will not be located on, or in the path of, any existing or potential landslide.
24. Determination of Static and Dynamic Strength Parameters: Not applicable
25. Determination of Pseudo-Static Coefficient (Keq): Not applicable
26. Identify Critical Slip Surfaces for Static and Dynamic Analyses: Not applicable
27. Dynamic Site Conditions: Not applicable
28. Mitigation Options/Other Slope Failure: Not applicable

Other Geologic Hazards or Adverse Site Conditions

29. Expansive Soils: Adequately addressed. The consultants provide one expansion index test for the predominantly granular soils at the site. This test yields an expansion index value of zero.
30. Corrosive/Reactive Geochemistry of the Geologic Subgrade: Adequately addressed. The consultants provide corrosion test data in Appendix E.
31. Conditional Geologic Assessment: No additional hazards are addressed.

Report Documentation

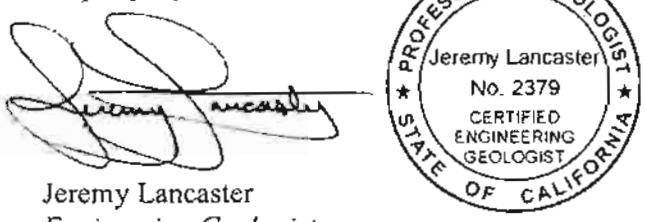
32. Geology, Seismology, and Geotechnical References: Adequately addressed.
33. Certified Engineering Geologist: Adequately addressed. Paul Elliot, Certified Engineering Geologist #1435
34. Registered Geotechnical Engineer: Adequately addressed. Mark A. Murphy, Registered Geotechnical Engineer #2777, and Martin B. Hudson, Registered Geotechnical Engineer #2570

Conclusions and Recommendations

Based on our review of the referenced document, the consultants provide an assessment of subsurface geology for the proposed new hospital project based on 9 borings and 13 CPT. Subsurface soils are considered to be loose to medium dense in the upper 30 feet, but highest historic groundwater is assumed to be 60 feet below ground surface. Therefore, the consultants conclude the potential for liquefaction is low. Because the proposed buildings will be underlain by loose to medium dense dry sands, the consultants provide an estimate of dynamic "dry sand" settlement. Unfortunately settlement calculations are not provided in the report, and CGS needs to review them along with geologic cross sections before we can approve of the geologic hazard characterization with respect to the proposed buildings.

In conclusion, **additional information is needed from the consultants** before CGS can complete its review for this project. All supplemental documents for this project should be submitted through OSHPD, rather than directly to CGS. To help expedite the review process, the consultants should provide 3 copies of documents, and include the OSHPD file number IL-122154-36 for reference. If you have any further questions about this review letter, please telephone the California Geological Survey at (916) 322-8086.

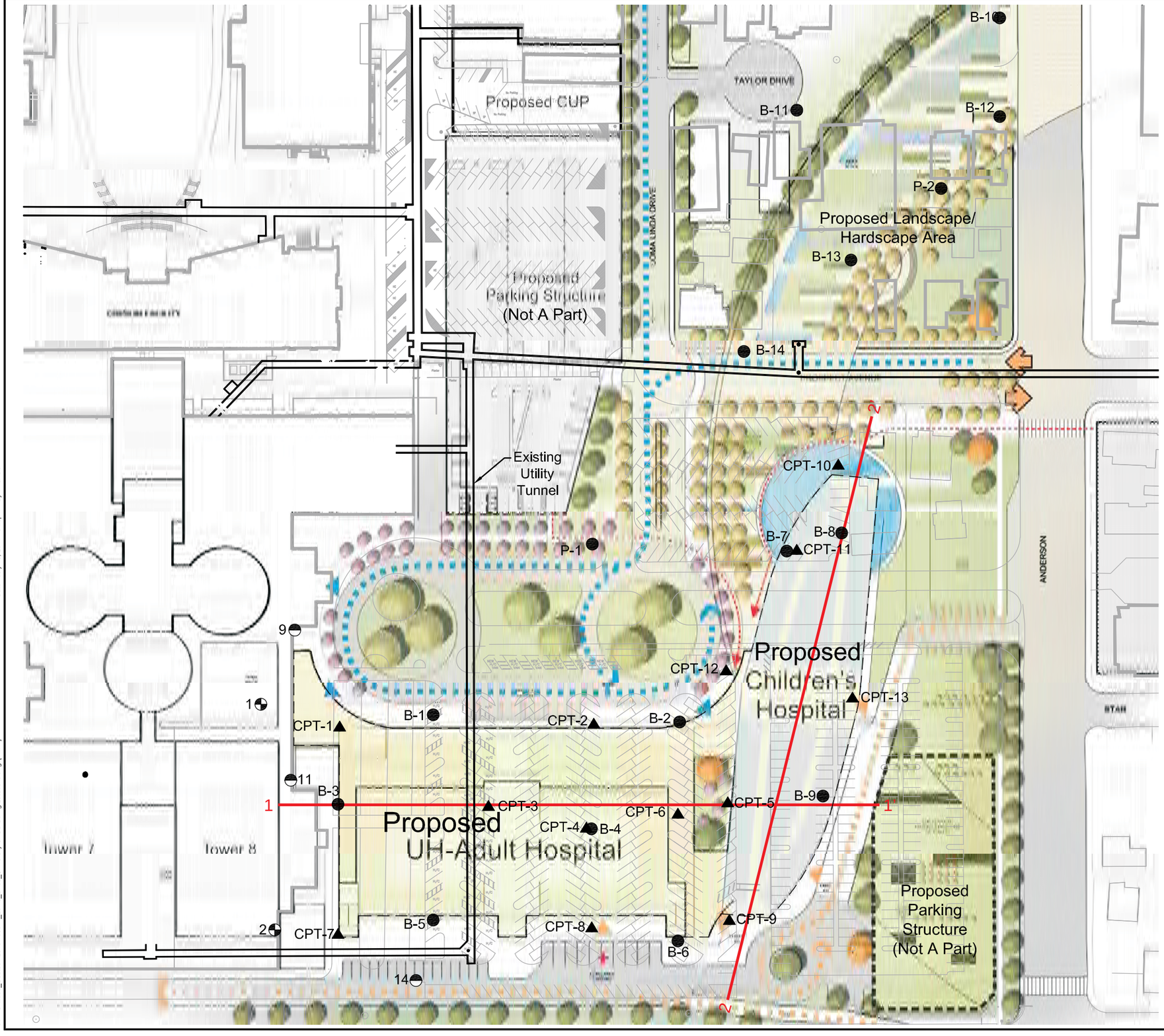
Respectfully submitted,



Jeremy Lancaster
Engineering Geologist
PG 7692, CEG 2379

Concur:

Anne M. Rosinski
Senior Engineering Geologist
PG 7481, CEG 2353



REFERENCE:
SITE PLAN DATED DECEMBER 2, 2010 BY HMC ARCHITECTS.

LEGEND:

- B-14 / P-2 — CURRENT BORING (PROJECT NO. 4953-10-0911; "P" DENOTES PERCOLATION TEST LOCATION)
- CPT-13 — CURRENT CPT (PROJECT NO. 4953-10-0911)
- 2 — PRIOR BORING (PROJECT NO. A-87027)
- 14 — PRIOR BORING (PROJECT NO. 63628)
- EXPLORATION LOCATION AND NUMBER
- 1 — 1' CROSS SECTION LINE

N

0 50 100 200
Scale in Feet

AMEC ENVIRONMENT & INFRASTRUCTURE
5628 E. Slauson Ave., Los Angeles, California 90040
(323) 889-5300, fax (323) 889-5398

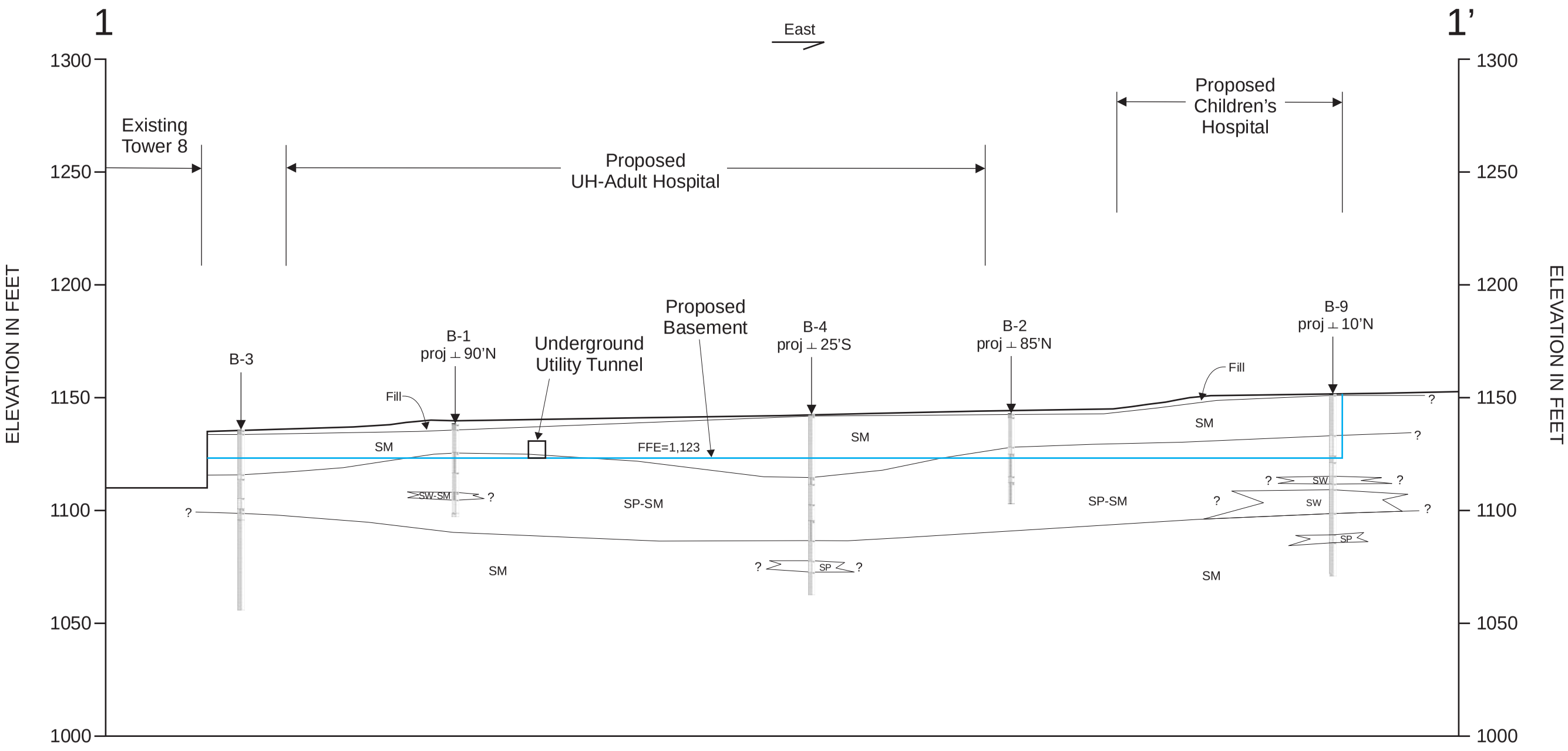
PLOT PLAN

FIGURE 1

PROPOSED HOSPITAL TOWERS
LOMA LINDA UNIVERSITY MEDICAL CENTER
11234 ANDERSON STREET, LOMA LINDA, CALIFORNIA

PROJECT NO.:	4953-10-0911	REVISION:	12/15/11
DATE:	7/13/11	REVISED BY:	PWK
SCALE:	1" = 100'		
DWG BY:	NH	CHECKED BY:	ET

Path: G:\4953_Geotech\2010\100911_Loma_Linda_University\CADD\Boring Locations.dwg [11x17] Date: July 13, 2011 - 6:46pm By: mharnold



0 50 100

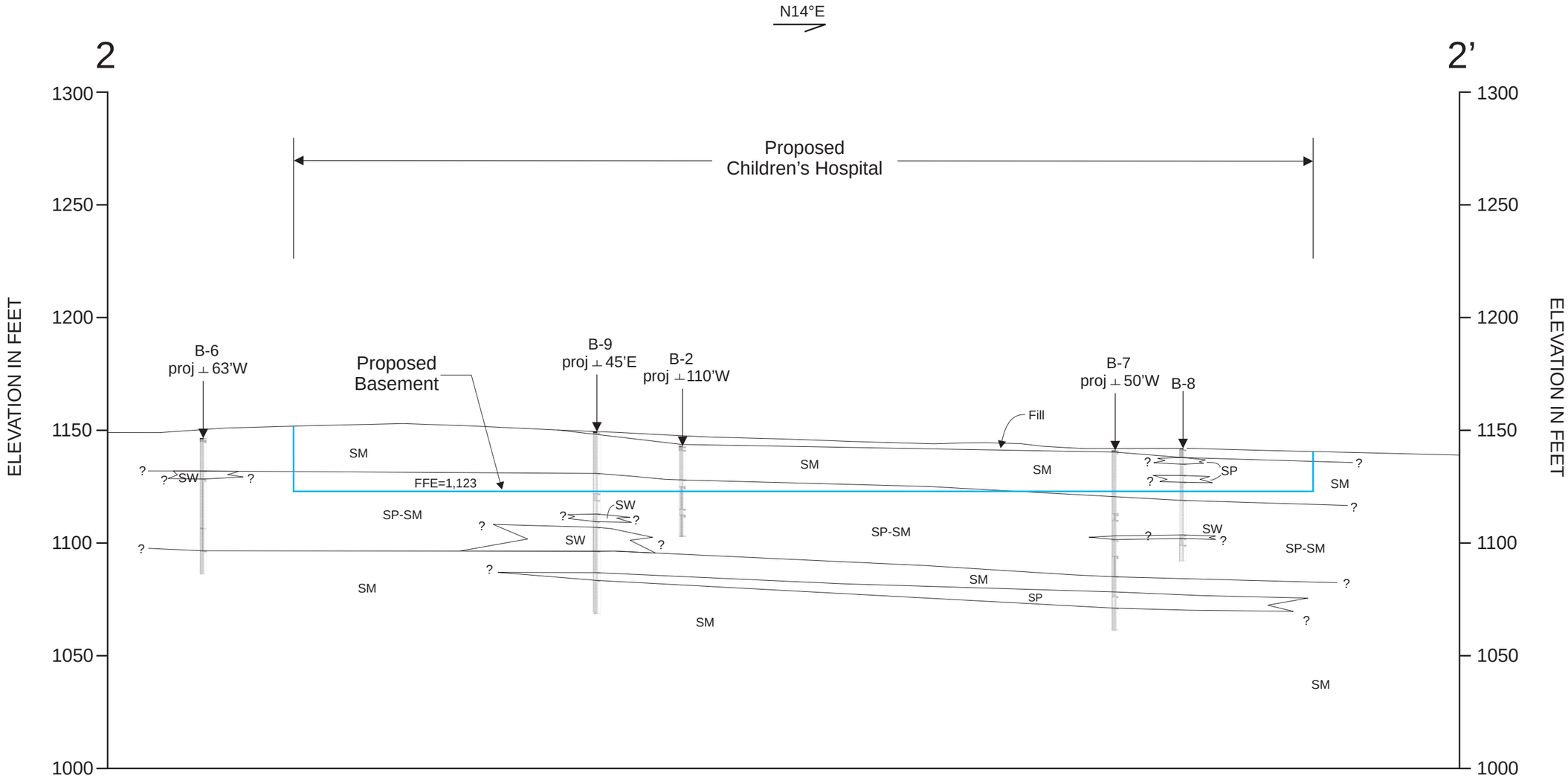
Scale in Feet

AMEC ENVIRONMENT & INFRASTRUCTURE
5628 E. Slauson Ave., Los Angeles, California 90040
(323) 889-5300, fax (323) 889-5398

Figure 2.1. Cross Section 1-1'

Proposed Hospital Tower
Loma Linda University Medical Center
West Hollywood, California

JOB NO.:	4953-10-0911	REVISIONS:
DATE:	12/14/2011	
SCALE:	1" = 50'	
DRAWN BY:	PWK	
CHECKED BY:		



0 50 100

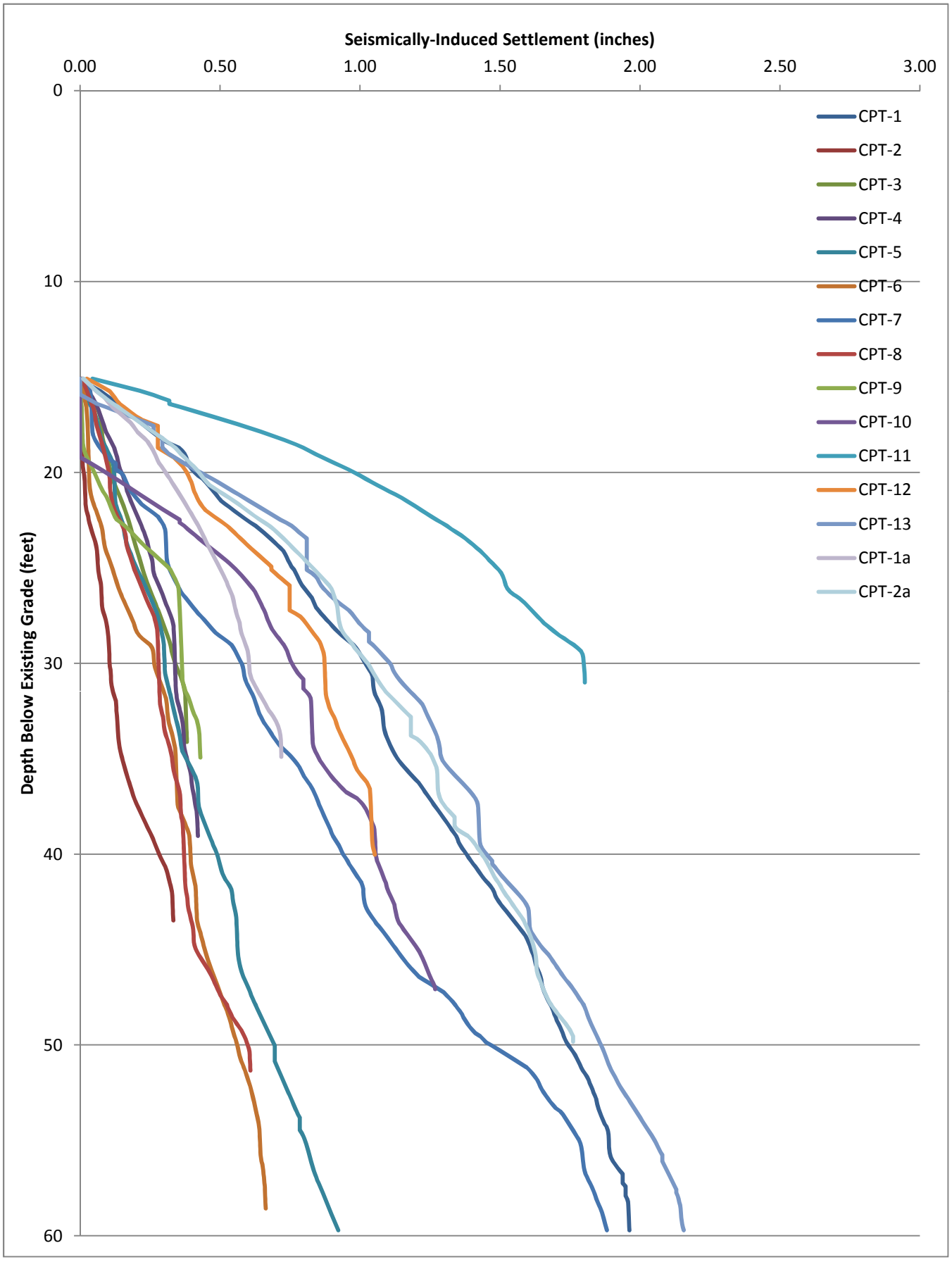
Scale in Feet

amec
AMEC ENVIRONMENT & INFRASTRUCTURE
5628 E. Slauson Ave., Los Angeles, California 90040
(323) 889-5300, fax (323) 889-5398

Figure 2.2. Cross Section 2-2'

Proposed Hospital Tower
Loma Linda University Medical Center
West Hollywood, California

JOB NO.:	4953-10-0911	REVISIONS:
DATE:	12/14/2011	
SCALE:	1" = 50'	
DRAWN BY:	PWK	
CHECKED BY:		



Summary of CPT-Based Seismically-Induced Settlement Calculations Figure 3

APPENDIX

SEISMICALLY-INDUCED SETTLEMENT CALCULATION

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

WORKING SPREADSHEET AREA

DATE: 16-Dec-11

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	19.0	4.0	17.00	8	2040	1920	1.02	8.2	42	1.02	8.2	0.87	1.02	9.2	44	0.97	41.92	1,546	5.74E-04	3.30E-03	0.957%	0.957%	1.914%	0.92
2	19.0	25.0	6.0	22.00	18	2640	2640	0.87	15.3	57	0.87	15.3	4.71	1.15	22.4	70	0.96	56.36	2,365	4.81E-04	1.80E-03	0.166%	0.166%	0.331%	0.24
3	25.0	31.0	6.0	28.00	35	3360	3360	0.76	26.8	75	0.80	28.2	4.71	1.15	37.2	87	0.94	66.77	3,160	4.48E-04	1.30E-03	0.051%	0.051%	0.101%	0.07
4	31.0	37.0	6.0	34.00	21	4080	4080	0.68	14.1	55	0.68	14.1	0.87	1.02	15.3	57	0.92	49.67	2,591	6.50E-04	2.00E-03	0.290%	0.290%	0.580%	0.42
5	37.0	41.5	4.5	39.25	35	4710	4800	0.63	22.2	70	0.70	24.6	0.00	1.00	24.6	72	0.87	58.20	3,261	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.15
																						TOTAL SETTLEMENT (INCHES):			1.79

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

WORKING SPREADSHEET AREA

DATE: 16-Dec-11

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

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1	15.0	19.0	4.0	17.00	18	2040	1920	1.02	18.0	61	1.02	18.0	0.00	1.00	18.0	61	0.97	52.40	1,933	4.59E-04	1.60E-03	0.200%	0.200%	0.400%	0.19
2	19.0	25.0	6.0	22.00	16	2640	2640	0.87	14.2	55	0.87	14.2	0.87	1.02	15.3	57	0.96	49.69	2,085	5.45E-04	2.70E-03	0.392%	0.392%	0.783%	0.56
3	25.0	31.0	6.0	28.00	30	3360	3360	0.76	22.7	70	0.80	23.9	0.87	1.02	25.3	74	0.94	58.68	2,777	5.10E-04	1.50E-03	0.120%	0.120%	0.240%	0.17
4	31.0	40.0	9.0	35.50	45	4260	4080	0.68	30.4	80	0.74	33.1	0.87	1.02	34.7	84	0.92	65.24	3,477	5.06E-04	1.30E-03	0.062%	0.062%	0.125%	0.13
																						TOTAL SETTLEMENT (INCHES):			1.06

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

WORKING SPREADSHEET AREA

DATE: 16-Dec-11

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	19.0	4.0	17.00	14	2040	1920	1.02	13.8	53	1.02	13.8	4.29	1.12	19.7	65	0.97	54.03	1,993	4.45E-04	1.60E-03	0.168%	0.168%	0.336%	0.16
2	19.0	25.0	6.0	22.00	27	2640	2640	0.87	23.6	71	0.90	24.4	3.23	1.07	29.3	79	0.96	61.64	2,586	4.40E-04	1.45E-03	0.093%	0.093%	0.186%	0.13
3	25.0	31.0	6.0	28.00	15	3360	3360	0.76	11.3	49	0.76	11.3	5.00	1.20	18.6	63	0.94	53.00	2,508	5.65E-04	2.20E-03	0.253%	0.253%	0.506%	0.36
4	31.0	37.0	6.0	34.00	41	4080	4080	0.68	27.7	77	0.74	30.1	0.87	1.02	31.6	81	0.92	63.25	3,299	5.10E-04	1.30E-03	0.074%	0.074%	0.148%	0.11
5	37.0	43.0	6.0	40.00	60	4800	4800	0.63	37.6	87	0.70	41.8	0.87	1.02	43.6	93	0.87	70.37	3,981	4.71E-04	1.00E-03	0.024%	0.024%	0.048%	0.03
6	43.0	50.0	7.0	46.50	20	5580	5520	0.57	11.6	49	0.57	11.6	5.00	1.20	18.9	63	0.83	53.29	3,250	6.39E-04	2.00E-03	0.230%	0.230%	0.460%	0.39
7	50.0	59.0	9.0	54.50	43	6540	6480	0.53	23.0	71	0.60	26.0	3.78	1.09	32.1	82	0.76	63.54	4,196	5.31E-04	1.60E-03	0.086%	0.086%	0.173%	0.19
8	59.0	60.0	1.0	59.50	92	7140	7680	0.46	42.4	92	0.53	48.9	0.00	1.00	48.9	95	0.70	73.13	5,045	4.44E-04	1.00E-03	0.016%	0.016%	0.032%	0.00
																						TOTAL SETTLEMENT (INCHES):			1.38

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

WORKING SPREADSHEET AREA

DATE: 16-Dec-11

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	19.0	4.0	17.00	27	2040	1920	1.02	27.7	77	1.02	27.7	4.18	1.11	34.8	84	0.97	65.31	2,409	3.68E-04	1.00E-03	0.048%	0.048%	0.096%	0.05
2	19.0	25.0	6.0	22.00	28	2640	2640	0.87	24.8	72	0.90	25.6	5.00	1.20	35.8	85	0.96	65.90	2,764	4.11E-04	1.00E-03	0.045%	0.045%	0.090%	0.06
3	25.0	31.0	6.0	28.00	50	3360	3360	0.76	38.1	88	0.80	40.2	0.87	1.02	41.9	91	0.94	69.46	3,287	4.31E-04	1.30E-03	0.039%	0.039%	0.078%	0.06
4	31.0	37.0	6.0	34.00	49	4080	4080	0.68	33.2	83	0.74	36.1	2.50	1.05	40.4	90	0.92	68.61	3,578	4.70E-04	1.00E-03	0.033%	0.033%	0.066%	0.05
5	37.0	43.0	6.0	40.00	69	4800	4800	0.63	43.6	93	0.70	48.4	2.50	1.05	53.3	95	0.87	75.25	4,257	4.40E-04	1.00E-03	0.014%	0.014%	0.028%	0.02
6	43.0	50.5	7.5	46.75	68	5610	5520	0.57	38.7	88	0.63	42.7	0.87	1.02	44.5	94	0.83	70.89	4,335	4.82E-04	1.30E-03	0.029%	0.029%	0.057%	0.05
7	50.5	60.0	9.5	55.25	102	6630	6600	0.51	51.9	95	0.58	59.0	3.78	1.09	67.9	95	0.76	81.58	5,424	4.17E-04	8.20E-04	0.011%	0.011%	0.023%	0.03
																						TOTAL SETTLEMENT (INCHES):			0.31

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

WORKING SPREADSHEET AREA

DATE: 16-Dec-11

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	19.0	4.0	17.00	9	2040	1920	1.02	9.7	44	1.02	9.7	4.29	1.12	15.1	57	0.97	49.42	1,823	4.87E-04	2.30E-03	0.334%	0.334%	0.667%	0.32
2	19.0	25.5	6.5	22.25	49	2670	2640	0.87	42.5	92	0.90	44.0	0.00	1.00	44.0	93	0.96	70.58	2,978	3.86E-04	1.00E-03	0.024%	0.024%	0.048%	0.04
3	25.5	34.0	8.5	29.75	33	3570	3480	0.75	24.4	72	0.79	25.7	5.00	1.20	35.9	85	0.94	65.96	3,218	4.68E-04	1.00E-03	0.045%	0.045%	0.090%	0.09
4	34.0	40.5	6.5	37.25	31	4470	4680	0.63	19.7	65	0.70	21.8	0.87	1.02	23.2	71	0.90	57.03	3,113	5.80E-04	2.00E-03	0.176%	0.176%	0.352%	0.27
																						TOTAL SETTLEMENT (INCHES):			0.72

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

WORKING SPREADSHEET AREA

DATE: 16-Dec-11

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	19.0	4.0	17.00	66	2040	1920	1.02	67.8	95	1.02	67.8	0.00	1.00	67.8	95	0.97	81.55	3,008	2.95E-04	6.20E-04	0.009%	0.009%	0.017%	0.01
2	19.0	25.0	6.0	22.00	46	2640	2640	0.87	40.1	90	0.90	41.5	0.87	1.02	43.3	93	0.96	70.22	2,946	3.86E-04	1.00E-03	0.024%	0.024%	0.048%	0.03
3	25.0	31.0	6.0	28.00	49	3360	3360	0.76	37.1	87	0.80	39.1	3.61	1.08	45.8	94	0.94	71.55	3,386	4.18E-04	9.20E-04	0.018%	0.018%	0.037%	0.03
4	31.0	37.0	6.0	34.00	37	4080	4080	0.68	24.9	72	0.74	27.1	0.87	1.02	28.6	78	0.92	61.13	3,188	5.28E-04	1.60E-03	0.109%	0.109%	0.218%	0.16
5	37.0	44.5	7.5	40.75	75	4890	4800	0.63	47.0	95	0.70	52.2	0.87	1.02	54.2	95	0.87	75.70	4,322	4.41E-04	1.00E-03	0.014%	0.014%	0.028%	0.03
6	44.5	54.0	9.5	49.25	42	5910	5880	0.57	24.0	71	0.63	26.5	3.78	1.09	32.6	82	0.82	63.86	4,009	5.42E-04	1.60E-03	0.086%	0.086%	0.173%	0.20
7	54.0	60.5	6.5	57.25	57	6870	7080	0.48	27.3	77	0.57	32.5	5.00	1.20	44.0	93	0.76	70.59	4,777	4.90E-04	1.30E-03	0.031%	0.031%	0.062%	0.05
																						TOTAL SETTLEMENT (INCHES):			0.50

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

DATE: 16-Dec-11

WORKING SPREADSHEET AREA

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	18.5	3.5	16.75	5	2010	1980	1.02	4.9	28	1.02	4.9	5.00	1.20	10.9	47	0.97	44.31	1,622	5.39E-04	3.30E-03	0.825%	0.825%	1.650%	0.69
2	18.5	25.5	7.0	22.00	13	2640	2700	0.85	10.9	47	0.85	10.9	4.71	1.15	17.3	61	0.96	51.69	2,169	5.24E-04	1.80E-03	0.225%	0.225%	0.450%	0.38
3	25.5	31.0	5.5	28.25	10	3390	3420	0.75	7.2	39	0.75	7.2	4.71	1.15	13.0	53	0.94	47.05	2,237	6.39E-04	2.60E-03	0.455%	0.455%	0.910%	0.60
4	31.0	36.0	5.0	33.50	19	4020	4140	0.67	12.9	51	0.67	12.9	0.87	1.02	14.0	55	0.92	48.22	2,496	6.65E-04	3.10E-03	0.496%	0.496%	0.992%	0.60
5	36.0	45.0	9.0	40.50	38	4860	4860	0.63	24.2	72	0.70	26.9	0.00	1.00	26.9	75	0.88	59.91	3,410	5.62E-04	1.60E-03	0.122%	0.122%	0.243%	0.26
6	45.0	48.0	3.0	46.50	160	5580	5580	0.57	91.2	95	0.63	100.8	0.00	1.00	100.8	95	0.81	93.08	5,677	3.57E-04	6.50E-04	0.009%	0.009%	0.018%	0.01
7	48.0	60.0	12.0	54.00	35	6480	6780	0.51	18.0	61	0.58	20.4	5.00	1.20	29.5	79	0.78	61.80	4,062	5.58E-04	1.60E-03	0.102%	0.102%	0.205%	0.29
																						TOTAL SETTLEMENT (INCHES):			2.83

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 1.013

CLIENT: Loma Linda University Hospital
JOB NO: 4953-10-0911
BY: NH
CHECKED BY ET
SOIL INFORMATION:

DATE: 16-Dec-11

WORKING SPREADSHEET AREA

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
EARTHQUAKE MAGNITUDE: 7.5
MAXIMUM GROUND ACCELERATION (g's): 0.69

MAGNITUDE CORRECTION FACTOR: 1.00

CORRECTION FACTORS
CE= 1.33 (Hammer Efficiency=80%)
CS= 1.2

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	STD PEN TEST "N" VALUE	EFFECTIVE OVERBURDEN (P.S.F.)	EFFECTIVE OVERBURDEN AT SPT DEPTH	TRIAL Cn CORRELATION FACTOR	TRIAL N1 FACTOR	TRIAL RELATIVE DENSITY	REVISED Cn CORRELATION FACTOR	REVISED N1 FACTOR	α	β	$(N1)_{cs}$ FACTOR	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
1	15.0	18.0	3.0	16.50	11	1980	1980	1.02	11.4	49	1.02	11.4	5.00	1.20	18.7	63	0.97	53.09	1,929	4.47E-04	1.60E-03	0.184%	0.184%	0.368%	0.13
2	18.0	27.0	9.0	22.50	19	2700	2700	0.85	16.3	60	0.85	16.3	0.00	1.00	16.3	60	0.96	50.73	2,152	5.40E-04	2.70E-03	0.365%	0.365%	0.729%	0.79
3	27.0	31.0	4.0	29.00	29	3480	3420	0.75	21.6	68	0.79	22.8	4.71	1.15	31.0	80	0.93	62.81	3,025	4.80E-04	1.50E-03	0.090%	0.090%	0.180%	0.09
4	31.0	36.0	5.0	33.50	53	4020	4140	0.67	35.4	85	0.73	38.5	0.00	1.00	38.5	88	0.92	67.56	3,497	4.74E-04	1.00E-03	0.037%	0.037%	0.074%	0.04
5	36.0	42.0	6.0	39.00	56	4680	4860	0.63	35.3	85	0.70	39.2	0.00	1.00	39.2	89	0.88	67.94	3,795	4.87E-04	1.30E-03	0.046%	0.046%	0.091%	0.07
6	42.0	53.0	11.0	47.50	96	5700	5700	0.57	54.7	95	0.63	60.5	0.00	1.00	60.5	95	0.83	78.51	4,839	4.38E-04	1.00E-03	0.014%	0.014%	0.028%	0.04
7	53.0	60.0	7.0	56.50	46	6780	6780	0.51	23.7	71	0.58	26.9	4.71	1.15	35.8	85	0.76	65.90	4,430	5.22E-04	1.30E-03	0.059%	0.059%	0.117%	0.10
																						TOTAL SETTLEMENT (INCHES):			1.25

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft): 15.0
IDENTIFICATION: CPT-1
TOTAL DRY SETTLEMENT (IN.): 1.96

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	15.01	15.17	0.2	15.09	126,080	1,189	1,811	68.6	0.96	2.03	64.8	2.05	64.8	2.05	1.37	12.6	1.07	14.3	13.5	2.28	1.04	16.4	60	0.97	50.83	1,766	4.46E-04	1.90E-03	0.257%	0.257%	0.513%	0.0101
93	15.17	15.34	0.2	15.26	109,840	1,065	1,831	59.0	0.99	2.09	56.2	2.11	56.2	2.11	1.47	11.3	1.07	16.0	12.0	2.76	1.05	15.4	57	0.97	49.77	1,739	4.58E-04	1.90E-03	0.276%	0.276%	0.551%	0.0108
94	15.34	15.50	0.2	15.42	95,040	937	1,850	50.4	1.01	2.15	48.3	2.16	48.3	2.16	1.58	10.0	1.06	17.8	10.6	3.19	1.07	14.5	55	0.97	48.73	1,711	4.70E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
95	15.50	15.67	0.2	15.58	86,120	913	1,870	45.1	1.08	2.21	43.6	2.22	43.6	2.22	1.72	9.3	1.05	19.7	9.8	3.56	1.08	14.1	55	0.97	48.28	1,705	4.77E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
96	15.67	15.83	0.2	15.75	80,380	869	1,890	41.5	1.11	2.24	40.5	2.25	40.5	2.25	1.80	8.8	1.05	20.8	9.2	3.74	1.08	13.7	53	0.97	47.86	1,699	4.84E-04	3.10E-03	0.543%	0.543%	1.085%	0.0214
97	15.83	15.99	0.2	15.91	76,360	925	1,909	39.0	1.24	2.29	38.2	2.30	38.2	2.30	1.95	8.5	1.04	22.5	8.9	4.00	1.10	13.7	53	0.97	47.88	1,708	4.86E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
98	15.99	16.16	0.2	16.08	74,640	891	1,929	37.7	1.22	2.30	37.2	2.31	37.2	2.31	1.97	8.3	1.04	22.8	8.6	4.03	1.10	13.5	53	0.97	47.65	1,709	4.91E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
99	16.16	16.32	0.2	16.24	79,980	1,010	1,949	40.0	1.29	2.29	39.6	2.30	39.6	2.30	1.94	8.9	1.03	22.4	9.2	3.98	1.10	14.0	55	0.97	48.25	1,739	4.87E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
100	16.32	16.49	0.2	16.40	91,680	1,030	1,969	45.6	1.15	2.22	45.2	2.22	45.2	2.22	1.72	9.9	1.03	19.7	10.1	3.56	1.08	14.5	55	0.97	48.74	1,766	4.85E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
101	16.49	16.65	0.2	16.57	97,940	1,066	1,988	48.3	1.11	2.19	48.1	2.19	48.1	2.19	1.64	10.4	1.02	18.7	10.6	3.37	1.07	14.8	55	0.97	49.06	1,786	4.84E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
102	16.65	16.81	0.2	16.73	105,080	1,135	2,008	51.3	1.10	2.17	51.3	2.17	51.3	2.17	1.59	11.0	1.02	17.9	11.2	3.20	1.07	15.2	57	0.97	49.51	1,811	4.82E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
103	16.81	16.98	0.2	16.90	111,920	1,084	2,028	54.2	0.99	2.12	54.4	2.12	54.4	2.12	1.49	11.5	1.01	16.3	11.7	2.85	1.06	15.2	57	0.97	49.52	1,821	4.84E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
104	16.98	17.14	0.2	17.06	105,300	1,066	2,047	50.4	1.03	2.16	50.9	2.15	50.9	2.15	1.56	11.0	1.01	17.4	11.1	3.11	1.06	14.9	55	0.97	49.21	1,818	4.90E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
105	17.14	17.31	0.2	17.22	112,600	998	2,067	53.5	0.90	2.10	54.2	2.10	54.2	2.10	1.45	11.5	1.00	15.7	11.5	2.69	1.05	14.8	55	0.96	49.14	1,824	4.88E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
106	17.31	17.47	0.2	17.39	114,680	1,184	2,087	54.0	1.05	2.14	54.9	2.13	54.9	2.13	1.51	11.9	1.00	16.7	11.9	2.95	1.06	15.5	57	0.96	49.86	1,859	4.83E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
107	17.47	17.63	0.2	17.55	112,560	1,160	2,106	52.4	1.05	2.15	53.7	2.14	53.7	2.14	1.53	11.7	0.99	17.0	11.6	3.00	1.06	15.3	57	0.96	49.67	1,861	4.87E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
108	17.63	17.80	0.2	17.72	104,580	1,027	2,126	48.2	1.00	2.16	49.6	2.15	49.6	2.15	1.56	10.9	0.99	17.5	10.8	3.12	1.06	14.6	55	0.96	48.90	1,841	4.97E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
109	17.80	17.96	0.2	17.88	100,760	1,009	2,146	46.0	1.02	2.19	47.6	2.17	47.6	2.17	1.61	10.6	0.98	18.1	10.5	3.26	1.07	14.4	55	0.96	48.68	1,841	5.02E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
110	17.96	18.13	0.2	18.04	103,480	995	2,165	46.8	0.98	2.17	48.7	2.16	48.7	2.16	1.57	10.8	0.98	17.5	10.6	3.14	1.06	14.4	55	0.96	48.68	1,850	5.04E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
111	18.13	18.29	0.2	18.21	106,240	954	2,185	47.6	0.92	2.15	49.7	2.13	49.7	2.13	1.51	11.0	0.98	16.8	10.7	2.96	1.06	14.3	55	0.96	48.57	1,854	5.07E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
112	18.29	18.45	0.2	18.37	99,760	876	2,205	44.2	0.90	2.17	46.5	2.15	46.5	2.15	1.55	10.4	0.97	17.4	10.1	3.10	1.06	13.8	53	0.96	48.03	1,841	5.16E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
113	18.45	18.62	0.2	18.54	86,480	782	2,224	37.9	0.93	2.23	40.1	2.21	40.1	2.21	1.70	9.3	0.97	19.4	9.0	3.51	1.08	13.1	53	0.96	47.20	1,818	5.27E-04	3.30E-03	0.578%	0.578%	1.155%	0.0227
114	18.62	18.78	0.2	18.70	74,380	645	2,244	32.1	0.89	2.29	34.4	2.26	34.4	2.26	1.83	8.1	0.96	21.1	7.8	3.79	1.09	12.3	51	0.96	46.17	1,786	5.41E-04	3.30E-03	0.660%	0.660%	1.320%	0.0260
115	18.78	18.95	0.2	18.86	73,140	1,535	2,264	31.3	2.17	2.51	33.6	2.49	33.6	2.49	2.71	8.9	0.96	30.2	8.5	4.72	1.16	14.5	55	0.96	48.81	1,896	5.14E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
116	18.95	19.11	0.2	19.03	89,940	2,143	2,283	38.4	2.44	2.48	41.2	2.46	41.2	2.46	2.55	10.7	0.95	28.7	10.2	4.62	1.14	16.3	60	0.96	50.74	1,980	4.97E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
117	19.11	19.27	0.2	19.19	212,300	3,280	2,303	91.2	1.56	2.07	96.8	2.05	96.8	2.05	1.37	21.3	0.95	14.3	20.2	2.30	1.04	23.4	71	0.96	57.23	2,243	4.42E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
118	19.27	19.44	0.2	19.36	267,420	3,790	2,323	114.1	1.43	1.97	121.4	1.95	121.4	1.95	1.24	25.8	0.95	11.7	24.4	1.45	1.03	26.6	75	0.96	59.72	2,350	4.26E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
119	19.44	19.60	0.2	19.52	271,200	4,043	2,343	114.8	1.50	1.99	122.6	1.96	122.6	1.96	1.26	26.3	0.94	12.0	24.8	1.56	1.03	27.1	77	0.96	60.11	2,375	4.25E-04	1.00E-03	0.072%	0.072%	0.144%	0.0028
120	19.60	19.77	0.2	19.69	211,480	2,520	2,362	88.5	1.21	2.00	95.2	1.98	95.2	1.98	1.27	20.6	0.94	12.4	19.4	1.69	1.03	21.7	68	0.96	55.78	2,214	4.59E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
121	19.77	19.93	0.2	19.85	172,960	1,359	2,382	71.6	0.80	1.97	77.5	1.94	77.5	1.94	1.23	16.6	0.93	11.3	15.5	1.32	1.03	17.3	61	0.96	51.71	2,061	4.98E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
122	19.93	20.10	0.2	20.01	143,660	1,127	2,402	58.8	0.80	2.04	64.1	2.01	64.1	2.01	1.31	14.2	0.93	13.1	13.2	1.92	1.04	15.6	57	0.96	49.97	1,999	5.17E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
123	20.10	20.26	0.2	20.18	122,200	1,021	2,421	49.5	0.85	2.12	54.3	2.08	54.3	2.08	1.42	12.4	0.93	15.3	11.5	2.57	1.05	14.6	55	0.95	48.93	1,966	5.25E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
124	20.26	20.42	0.2	20.34	119,020	1,087	2,441	47.8	0.93	2.15	52.7	2.11	52.7	2.11	1.48	12.2	0.92	16.2	11.3	2.83	1.06	14.8	55	0.95	49.06	1,979	5.26E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
125	20.42	20.59	0.2	20.51	127,860	1,195	2,461	51.0	0.95	2.13	56.4	2.10	56.4	2.10	1.45	13.1	0.92	15.7	12.0	2.68	1.05	15.3	57	0.95	49.66	2,012	5.21E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
126	20.59	20.75	0.2	20.67	142,140	1,344	2,480	56.3	0.96	2.10	62.5	2.06	62.5	2.06	1.39	14.3	0.92	14.7	13.1	2.41	1.05	16.1	60	0.95	50.53	2,055	5.14E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
127	20.75	20.92	0.2	20.83	155,540	1,443	2,500	61.2	0.94	2.06	68.1	2.03	68.1	2.03	1.34	15.5	0.91	13.7	14.1	2.10	1.04	16.8	60	0.95	51.20	2,090	5.10E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
128	20.92	21.08	0.2	21.00	161,620	1,581	2,520	63.1	0.99	2.07	70.5	2.03	70.5	2.03	1.34	16.1	0.91	13.7	14.6	2.12	1.04	17.3	61	0.95	51.74	2,121	5.06E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
129	21.08	21.24	0.2	21.16	174,660	1,665	2,539	67.8	0.97	2.03	75.8	2.00	75.8	2.00	1.29	17.1	0.91	12.8	15.5	1.83	1.04	17.9	61	0.95	52.33	2,153	5.03E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
130	21.24	21.41	0.2	21.33	187,040	1,590	2,559	72.1	0.86	1.98	80.9	1.94	80.9	1.94	1.23	18.0	0.90	11.5	16.2	1.37	1.03	18.1	63	0.95	52.47	2,167	5.03E-04	1.80E-03	0.207%	0.207%	0.414%	0.0081
131	21.41	21.57	0.2	21.49	170,560	1,372	2,579	65.1	0.82	2.01	73.5	1.96	73.5	1.96	1.25	16.5	0.90	12.0	14.9	1.54	1.03	16.9	60	0.95	51.29	2,127	5.17E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
132	21.57	21.74	0.2	21.65	148,440	1,377	2,598	56.1	0.94	2.10	63.7	2.05	63.7	2.05	1.37	14.9	0.89	14.3	13.3	2.31	1.04	16.2	60	0.95	50.62	2,107	5.25E-04	2.70E-03	0.365%	0.365%	0.729%	0.0144
133	21.74	21.90	0.2	21.82	131,160	1,248	2,618	49.1	0.97	2.15	56.1	2.10	56.1	2.10	1.46	13.4	0.89	15.9	12.0	2.74	1.05	15.3	57	0.95	49.70	2,076	5.37E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
134	21.90	22.06	0.2	21.98	120,360	1,666	2,638	44.6	1.42	2.28	51.3	2.23	51.3	2.23	1.75	13.0	0.89	20.0	11.5	3.62	1.08	16.1	60	0.95	50.48	2,117	5.31E-04	2.70E-03	0.365%	0.365%	0.729%	0.0144
135	22.06	22.23	0.2	22.15	121,820	1,535	2,657	44.8	1.29	2.25	51.7	2.20	51.7	2.20	1.67	13.0	0.88	19.1	11.5	3.45	1.07	15.8	57	0.95	50.18	2,112	5.36E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
136	22.23	22.39	0.2	22.31	117,640	1,413	2,677	42.9	1.23	2.26	49.8	2.20	49.8	2.20	1.68	12.6	0.88	19.1	11.1	3.46	1.07	15.3	57	0.95	49.70	2,100	5.43E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
137	22.39	22.56	0.2	22.47	141,540	1,121	2,697	51.5	0.81	2.09	59.6	2.03	59.6	2.03	1.35	14.1	0.88	13.9	12.4	2.18	1.04	15.1	57	0.95	49.42	2,096	5.48E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
138	22.56	22.72	0.2	22.64	132,100	1,184	2,717	47.6	0.91	2.15	55.5	2.09	55.5	2.09	1.44	13.5	0.88	15.6	11.8	2.65	1.05	15.0	57	0.95	49.37	2,101	5.51E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
139	22.72	22.88	0.2	22.80	105,740	1,188	2,736	37.6	1.15	2.29	44.2	2.23	44.2	2.23	1.74	11.4	0.87	20.0	9.9	3.61	1.08	14.4	55	0.95	48.60	2,076	5.62E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
140	22.88	23.05	0.2	22.97	90,320	1,259	2,756	31.8	1.44	2.40	37.6	2.34	37.6	2.34	2.09	10.2	0.87	24.1	8.9	4.19	1.11	14.0	55	0.95	48.25	2,068	5.68E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
141	23.05	23.21	0.2	23.13	82,140	1,809	2,776	28.6	2.28	2.56	34.1	2.50	34.1	2.50	2.76	10.0	0.87	30.6	8.7	4.75	1.16	14.8	55	0.95	49.08	2,111	5.60E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
142	23.21	23.38	0.2	23.29	85,720	1,901	2,795	29.7	2.29	2.55	35.5	2.49	35.5	2.49	2.70	10.4	0.86	30.1	8.9	4.71	1.16	15.0	57	0.95	49.38	2,132	5.59E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
143	23.38	23.54	0.2	23.46	103,760	1,817	2,815	35.9	1.80	2.42	42.8	2.36	42.8	2.36	2.15	11.8	0.86	24.7	10.2	4.26	1.11	15.6	57	0.95	49.95	2,164	5.54E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
144	23.54	23.70	0.2	23.62	130,620	1,502	2,835	45.1	1.18	2.23	53.7	2.17	53.7	2.17	1.59	13.7	0.86	17.9	11.8	3.21	1.07	15.7	57	0.95	50.12	2,179	5.54E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
145	23.70	23.87	0.2	23.79	157,180	1,441	2,854	54.1	0.93	2.11	64.4	2.04	64.4	2.04	1.36	15.7	0.85	14.2	13.4	2.25	1.04	16.3	60	0.95	50.67	2,210	5.50E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
146	23.87	24.03	0.2	23.95	170,960	1,469	2,874	58.5	0.87	2.06	69.8	2.00	69.8	2.00	1.30	16.8	0.85	12.9	14.3	1.86	1.04	16.7	60	0.95	51.10	2,237	5.48E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
147	24.03	24.20	0.2	24.11	191,140	1,582	2,894	65.1	0.84	2.01	77.8	1.95	77.8	1.95	1.24	18.4	0.85	11.6	15.6	1.43	1.03	17.5	61	0.94	51.96	2,282	5.35E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
148	24.20	24.36	0.2	24.28	233,060	1,800	2,913	79.0	0.78	1.93	94.5	1.86	94.5	1.86	1.16	21.8	0.84	9.5	18.4	0.72	1.02	19.5	65	0.94	53.81	2,372	5.18E-04	1.50E-03	0.158%	0.158%	0.315%	0.0062
149	24.36	24.52	0.2	24.44	291,580	1,874	2,933	98.4	0.65	1.80	117.8	1.74	117.8	1.74	1.06	26.1	0.84	6.9	21.9	0.10	1.01	22.2	70	0.94	56.23	2,486	4.97E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
150	24.52	24.69	0.2	24.61	310,000	1,791	2,953	104.0	0.58	1.76	124.8	1.69	124.8	1.69	1.03	27.3	0.84	5.9	22.9	0.03	1.00	23.0	71	0.94	56.88	2,524	4.93E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
151	24.69	24.85	0.2	24.77	272,980	1,758	2,972	90.8	0.65	1.83	109.6	1.76	109.6	1.76	1.08	24.6	0.84	7.4	20.6	0.18	1.01	21.0	67	0.94	55.16	2,456	5.10E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
152	24.85	25.02	0.2	24.93	244,400	1,743	2,992	80.7	0.72	1.90	97.8	1.83	97.8	1.83	1.13	22.6	0.83	8.8	18.8	0.50	1.02	19.6	65	0.94	53.94	2,409	5.24E-04	1.50E-03	0.158%	0.158%	0.315%	0.0062
153	25.02	25.18	0.2	25.10	234,400	1,793	3,012	76.8	0.77	1.93	93.5	1.87	93.5	1.87	1.16	21.9	0.83	9.6	18.2	0.73	1.02	19.3	65	0.94	53.65	2,404	5.28E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
154	25.18	25.34	0.2	25.26	258,860	2,110	3,031	84.4	0.82	1.92	102.9	1.85	102.9	1.85	1.14	24.1	0.83	9.2	19.9	0.61	1.02	20.9	67	0.94	55.09	2,476	5.16E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
155	25.34	25.51	0.2	25.43	280,420	2,526	3,051	90.9	0.91	1.92	111.1	1.85	111.1	1.85	1.14	26.1	0.83	9.2	21.5	0.62	1.02	22.5	70	0.94	56.49	2,548	5.05E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
156	25.51	25.67	0.2	25.59	276,580	2,573	3,071	89.1	0.94	1.93	109.2	1.86	109.2	1.86	1.16	25.9	0.82	9.5	21.3	0.72	1.02	22.4	70	0.94	56.39	2,551	5.07E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
157	25.67	25.84	0.2	25.75	250,360	2,544	3,091	80.0	1.03	1.99	98.5	1.92	98.5	1.92	1.21	23.9	0.82	11.0	19.6	1.19	1.03	21.3	68	0.94	55.47	2,518	5.18E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
158	25.84	26.00	0.2	25.92	237,240	2,490	3,110	75.3	1.06	2.02	93.1	1.95	93.1	1.95	1.24	22.9	0.82	11.7	18.7	1.44	1.03	20.7	67	0.94	54.94	2,502	5.24E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
159	26.00	26.16	0.2	26.08	225,880	2,658	3,130	71.2	1.19	2.07	88.3	2.00	88.3	2.00	1.30	22.2	0.82	13.0	18.1	1.88	1.04	20.7	67	0.94	54.88	2,507	5.26E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
160	26.16	26.33	0.2	26.25	199,640	2,581	3,150	62.4	1.31	2.14	77.8	2.07	77.8	2.07	1.40	20.2	0.81	14.9	16.4	2.47	1.05	19.7	65	0.94	53.97	2,473	5.37E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
161	26.33	26.49	0.2	26.41	196,140	2,410	3,169	60.9	1.25	2.14	76.2	2.06	76.2	2.06	1.39	19.8	0.81	14.7	16.0	2.41	1.05	19.2	65	0.94	53.53	2,460	5.43E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
162	26.49	26.66	0.2	26.57	246,040	2,343	3,189	76.2	0.96	1.99	95.3	1.92	95.3	1.92	1.20	23.4	0.81	10.8	18.9	1.14	1.03	20.6	67	0.94	54.79	2,526	5.32E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
163	26.66	26.82	0.2	26.74	338,960	2,557	3,209	104.6	0.76	1.82	130.9	1.74	130.9	1.74	1.07	30.4	0.81	7.0	24.4	0.12	1.01	24.8	72	0.94	58.30	2,696	5.02E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
164	26.82	26.98	0.2	26.90	367,880	2,392	3,228	113.0	0.66	1.76	141.7	1.68	141.7	1.68	1.02	32.2	0.80	5.7	25.8	0.02	1.00	25.9	74	0.94	59.21	2,747	4.95E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
165	26.98	27.15	0.2	27.07	326,640	2,209	3,248	99.6	0.68	1.81	125.4	1.73	125.4	1.73	1.06	29.1	0.80	6.7	23.3	0.08	1.01	23.5	71	0.94	57.32	2,667	5.13E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
166	27.15	27.31	0.2	27.23	244,980	2,219	3,268	74.0	0.92	1.99	93.8	1.91	93.8	1.91	1.20	23.3	0.80	10.6	18.6	1.07	1.02	20.1	67	0.93	54.38	2,538	5.37E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
167	27.31	27.48	0.2	27.40	198,660	2,738	3,287	59.4	1.40	2.18	75.8	2.10	75.8	2.10	1.45	20.3	0.80	15.7	16.1	2.69	1.05	19.7	65	0.93	54.00	2,528	5.42E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
168	27.48	27.64	0.2	27.56	162,880	3,011	3,307	48.3	1.89	2.33	62.0	2.25	62.0	2.25	1.79	17.7	0.79	20.6	14.0	3.72	1.08	18.9	63	0.93	53.31	2,503	5.51E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
169	27.64	27.81	0.2	27.72	140,680	3,037	3,327	41.3	2.21	2.43	53.4	2.34	53.4	2.34	2.09	15.9	0.79	24.1	12.6	4.19	1.11	18.2	63	0.93	52.57	2,476	5.61E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
170	27.81	27.97	0.2	27.89	135,280	3,017	3,346	39.4	2.29	2.45	51.2	2.37	51.2	2.37	2.18	15.5	0.79	25.0	12.2	4.29	1.12	17.9	61	0.93	52.32	2,471	5.65E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
171	27.97	28.13	0.2	28.05	133,440	3,226	3,366	38.6	2.48	2.48	50.3	2.39	50.3	2.39	2.29	15.5	0.79	26.2	12.2	4.41	1.12	18.1	63	0.93	52.49	2,486	5.65E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
172	28.13	28.30	0.2	28.22	126,920	3,237	3,386	36.5	2.62	2.51	47.7	2.43	47.7	2.43	2.43	14.9	0.78	27.5	11.7	4.52	1.13	17.8	61	0.93	52.23	2,481	5.69E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
173	28.30	28.46	0.2	28.38	125,220	3,086	3,406	35.8	2.53	2.51	47.0	2.42	47.0	2.42	2.41	14.7	0.78	27.4	11.5	4.51	1.13	17.5	61	0.93	51.96	2,476	5.74E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
174	28.46	28.63	0.2	28.54	126,800	3,008	3,425	36.0	2.44	2.50	47.4	2.41	47.4	2.41	2.35	14.8	0.78	26.8	11.5	4.46	1.13	17.5	61	0.93	51.90	2,480	5.76E-04	2.60E-03	0.325%	0.325%	0.650%	0.0128
175	28.63	28.79	0.2	28.71	124,460	3,078	3,445	35.1	2.54	2.52	46.4	2.43	46.4	2.43	2.43	14.7	0.78	27.6	11.4	4.53	1.13	17.4	61	0.93	51.87	2,486	5.78E-04	2.60E-03	0.325%	0.325%	0.650%	0.0128
176	28.79	28.95	0.2	28.87	113,040	2,780	3,465	31.6	2.54	2.55	42.0	2.46	42.0	2.46	2.57	13.5	0.77	28.9	10.5	4.63	1.15	16.6	60	0.93	51.03	2,453	5.89E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
177	28.95	29.12	0.2	29.04	119,380	2,837	3,484	33.3	2.45	2.53	44.3	2.43	44.3	2.43	2.45	14.1	0.77	27.7	10.9	4.54	1.14	16.9	60	0.93	51.33	2,474	5.87E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
178	29.12	29.28	0.2	29.20	137,340	2,972	3,504	38.2	2.22	2.45	50.8	2.36	50.8	2.36	2.15	15.7	0.77	24.8	12.1	4.27	1.11	17.7	61	0.93	52.14	2,520	5.80E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
179	29.28	29.45	0.2	29.36	147,940	3,174	3,524	41.0	2.20	2.43	54.5	2.33	54.5	2.33	2.06	16.7	0.77	23.8	12.8	4.15	1.11	18.3	63	0.93	52.74	2,556	5.75E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
180	29.45	29.61	0.2	29.53	159,940	3,311	3,543	44.1	2.12	2.39	58.8	2.30	58.8	2.30	1.94	17.8	0.77	22.5	13.6	3.99	1.10	18.9	63	0.93	53.29	2,590	5.71E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
181	29.61	29.77	0.2	29.69	171,660	3,595	3,563	47.2	2.14	2.37	62.9	2.28	62.9	2.28	1.88	18.9	0.76	21.8	14.5	3.89	1.09	19.7	65	0.93	53.99	2,631	5.65E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
182	29.77	29.94	0.2	29.86	187,340	3,716	3,583	51.3	2.02	2.33	68.5	2.24	68.5	2.24	1.76	20.3	0.76	20.2	15.4	3.65	1.08	20.3	67	0.93	54.60	2,668	5.60E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
183	29.94	30.10	0.2	30.02	190,000	3,518	3,602	51.7	1.89	2.31	69.3	2.21	69.3	2.21	1.70	20.3	0.76	19.4	15.5	3.51	1.08	20.1	67	0.93	54.41	2,666	5.64E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
184	30.10	30.27	0.2	30.18	185,980	3,140	3,622	50.3	1.72	2.29	67.6	2.19	67.6	2.19	1.65	19.8	0.76	18.8	15.0	3.39	1.07	19.4	65	0.92	53.77	2,642	5.66E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
185	30.27	30.43	0.2	30.35	186,120	2,851	3,642	50.1	1.56	2.27	67.5	2.17	67.5	2.17	1.59	19.6	0.76	17.9	14.8	3.21	1.07	19.0	63	0.92	53.32	2,627	5.72E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
186	30.43	30.59	0.2	30.51	216,220	2,805	3,661	58.1	1.32	2.17	78.2	2.07	78.2	2.07	1.40	21.9	0.75	14.9	16.5	2.47	1.05	19.7	65	0.92	54.04	2,670	5.66E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
187	30.59	30.76	0.2	30.68	354,900	3,172	3,681	95.4	0.90	1.90	128.0	1.80	128.0	1.80	1.11	32.4	0.75	8.1	24.4	0.33	1.01	25.0	74	0.92	58.49	2,897	5.24E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
188	30.76	30.92	0.2	30.84	679,780	3,924	3,701	182.7	0.58	1.56	244.5	1.46	244.5	1.46	1.00	55.4	0.75	2.3	41.5	0.00	1.00	41.5	91	0.92	69.26	3,440	4.44E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
189	30.92	31.09	0.2	31.00	827,860	3,813	3,720	221.5	0.46	1.43	297.0	1.33	297.0	1.33	1.00	64.8	0.75	0.8	48.5	0.00	1.00	48.5	95	0.92	72.92	3,631	4.23E-04	8.20E-04	0.013%	0.013%	0.026%	0.0005
190	31.09	31.25	0.2	31.17	777,560	2,966	3,740	206.9	0.38	1.41	278.2	1.30	278.2	1.30	1.00	60.3	0.75	0.4	45.0	0.00	1.00	45.0	94	0.92	71.12	3,552	4.35E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
191	31.25	31.41	0.2	31.33	673,980	2,414	3,760	178.3	0.36	1.45	240.5	1.34	240.5	1.34	1.00	52.8	0.74	0.8	39.3	0.00	1.00	39.3	89	0.92	67.99	3,404	4.56E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
192	31.41	31.58	0.2	31.50	547,260	2,840	3,780	143.8	0.52	1.61	194.8	1.51	194.8	1.51	1.00	45.3	0.74	2.9	33.6	0.00	1.00	33.6	83	0.92	64.52	3,239	4.82E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
193	31.58	31.74	0.2	31.66	423,500	3,362	3,799	110.5	0.80	1.82	150.3	1.71	150.3	1.71	1.05	37.5	0.74	6.4	27.8	0.05	1.01	28.0	77	0.92	60.72	3,056	5.13E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
194	31.74	31.91	0.2	31.82	360,540	3,700	3,819	93.4	1.04	1.94	127.7	1.84	127.7	1.84	1.14	33.4	0.74	9.0	24.7	0.56	1.02	25.6	74	0.92	58.97	2,976	5.30E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
195	31.91	32.07	0.2	31.99	324,600	3,213	3,839	83.6	1.00	1.97	114.6	1.87	114.6	1.87	1.16	30.4	0.74	9.6	22.3	0.73	1.02	23.5	71	0.92	57.30	2,899	5.46E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
196	32.07	32.23	0.2	32.15	339,140	3,169	3,858	86.9	0.95	1.94	119.5	1.84	119.5	1.84	1.13	31.4	0.73	8.9	23.0	0.53	1.02	23.9	71	0.91	57.64	2,923	5.39E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
197	32.23	32.40	0.2	32.32	388,100	3,260	3,878	99.1	0.85	1.87	136.4	1.76	136.4	1.76	1.08	35.0	0.73	7.3	25.6	0.17	1.01	26.0	75	0.91	59.27	3,014	5.25E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
198	32.40	32.56	0.2	32.48	488,240	3,222	3,898	124.3	0.67	1.73	171.1	1.62	171.1	1.62	1.00	41.9	0.73	4.7	30.6	0.00	1.00	30.6	80	0.91	62.55	3,188	4.99E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
199	32.56	32.73	0.2	32.64	574,260	4,392	3,917	145.6	0.77	1.71	200.8	1.61	200.8	1.61	1.00	49.1	0.73	4.5	35.8	0.00	1.00	35.8	85	0.91	65.90	3,368	4.75E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
200	32.73	32.89	0.2	32.81	658,360	4,467	3,937	166.2	0.68	1.63	229.6	1.53	229.6	1.53	1.00	54.8	0.73	3.3	39.9	0.00	1.00	39.9	89	0.91	68.32	3,500	4.59E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
201	32.89	33.05	0.2	32.97	806,680	5,279	3,957	202.9	0.66	1.56	280.6	1.46	280.6	1.46	1.00	65.6	0.73	2.2	47.6	0.00	1.00	47.6	95	0.91	72.47	3,722	4.34E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
202	33.05	33.22	0.2	33.14	844,400	5,828	3,976	211.4	0.69	1.56	293.0	1.46	293.0	1.46	1.00	68.8	0.72	2.3	49.7	0.00	1.00	49.7	95	0.91	73.55	3,787	4.29E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
203	33.22	33.38	0.2	33.30	711,380	6,607	3,996	177.0	0.93	1.71	246.2	1.61	246.2	1.61	1.00	60.8	0.72	4.5	43.8	0.00	1.00	43.8	93	0.91	70.52	3,640	4.48E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
204	33.38	33.55	0.2	33.46	536,240	5,379	4,016	132.5	1.01	1.82	185.2	1.72	185.2	1.72	1.05	47.6	0.72	6.4	34.2	0.06	1.01	34.5	84	0.91	65.11	3,369	4.87E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
205	33.55	33.71	0.2	33.63	453,520	5,202	4,035	111.4	1.16	1.92	156.2	1.81	156.2	1.81	1.11	41.6	0.72	8.3	29.8	0.38	1.01	30.6	80	0.91	62.58	3,246	5.07E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
206	33.71	33.87	0.2	33.79	396,120	5,347	4,055	96.7	1.36	2.01	136.1	1.90	136.1	1.90	1.19	37.6	0.72	10.5	26.9	1.02	1.02	28.6	78	0.91	61.14	3,179	5.21E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
207	33.87	34.04	0.2	33.96	359,180	5,421	4,075	87.1	1.53	2.08	123.1	1.97	123.1	1.97	1.26	34.9	0.71	12.1	24.9	1.59	1.03	27.3	77	0.91	60.24	3,140	5.30E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
208	34.04	34.20	0.2	34.12	338,840	5,492	4,094	81.8	1.64	2.12	115.9	2.01	115.9	2.01	1.31	33.4	0.71	13.2	23.8	1.95	1.04	26.7	75	0.90	59.77	3,123	5.29E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
209	34.20	34.37	0.2	34.28	311,600	5,102	4,114	74.7	1.66	2.15	106.3	2.04	106.3	2.04	1.35	31.1	0.71	14.0	22.1	2.21	1.04	25.3	74	0.90	58.69	3,074	5.40E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
210	34.37	34.53	0.2	34.45	281,120	4,561	4,134	67.0	1.65	2.18	95.7	2.07	95.7	2.07	1.40	28.4	0.71	14.9	20.1	2.47	1.05	23.6	71	0.90	57.35	3,011	5.54E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
211	34.53	34.69	0.2	34.61	273,000	4,179	4,154	64.7	1.55	2.18	92.7	2.06	92.7	2.06	1.39	27.5	0.71	14.7	19.5	2.41	1.05	22.8	70	0.90	56.69	2,983	5.62E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
212	34.69	34.86	0.2	34.78	277,160	3,909	4,173	65.4	1.43	2.15	93.9	2.03	93.9	2.03	1.35	27.6	0.71	13.9	19.5	2.17	1.04	22.5	70	0.90	56.44	2,977	5.66E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
213	34.86	35.02	0.2	34.94	261,740	3,686	4,193	61.4	1.43	2.17	88.4	2.05	88.4	2.05	1.38	26.3	0.70	14.4	18.5	2.33	1.04	21.7	68	0.90	55.75	2,948	5.74E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
214	35.02	35.19	0.2	35.10	236,560	2,964	4,213	55.2	1.28	2.18	79.8	2.05	79.8	2.05	1.38	23.8	0.70	14.4	16.7	2.34	1.04	19.8	65	0.89	54.09	2,866	5.87E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
215	35.19	35.35	0.2	35.27	221,340	2,624	4,232	51.3	1.21	2.19	74.4	2.06	74.4	2.06	1.39	22.3	0.70	14.7	15.6	2.40	1.05	18.8	63	0.89	53.14	2,823	5.98E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
216	35.35	35.52	0.2	35.43	211,540	2,314	4,252	48.8	1.12	2.19	71.0	2.06	71.0	2.06	1.38	21.3	0.70	14.5	14.9	2.36	1.05	17.9	61	0.89	52.32	2,786	6.09E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
217	35.52	35.68	0.2	35.60	207,840	2,190	4,272	47.7	1.08	2.19	69.6	2.05	69.6	2.05	1.38	20.9	0.70	14.4	14.6	2.33	1.04	17.5	61	0.89	51.97	2,774	6.15E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
218	35.68	35.84	0.2	35.76	199,120	2,119	4,291	45.4	1.09	2.21	66.5	2.07	66.5	2.07	1.41	20.1	0.70	15.0	14.0	2.49	1.05	17.2	61	0.89	51.61	2,760	6.21E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
219	35.84	36.01	0.2	35.93	185,900	2,064	4,311	42.1	1.14	2.24	62.0	2.11	62.0	2.11	1.47	19.1	0.69	16.0	13.2	2.78	1.05	16.7	60	0.89	51.17	2,743	6.27E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
220	36.01	36.17	0.2	36.09	173,460	2,217	4,331	39.1	1.31	2.31	57.7	2.17	57.7	2.17	1.60	18.3	0.69	18.0	12.7	3.24	1.07	16.7	60	0.88	51.15	2,748	6.22E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
221	36.17	36.34	0.2	36.25	175,060	2,765	4,350	39.2	1.62	2.36	58.1	2.23	58.1	2.23	1.73	18.9	0.69	19.9	13.0	3.59	1.08	17.7	61	0.88	52.08	2,805	6.12E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
222	36.34	36.50	0.2	36.42	211,720	3,352	4,370	47.4	1.62	2.29	70.1	2.16	70.1	2.16	1.58	22.2	0.69	17.8	15.3	3.19	1.06	19.5	65	0.88	53.84	2,906	5.93E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
223	36.50	36.66	0.2	36.58	230,900	3,563	4,390	51.6	1.57	2.26	76.3	2.13	76.3	2.13	1.51	23.9	0.69	16.7	16.4	2.93	1.06	20.3	67	0.88	54.58	2,953	5.87E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
224	36.66	36.83	0.2	36.75	229,380	3,670	4,409	51.0	1.63	2.27	75.6	2.14	75.6	2.14	1.53	23.9	0.69	17.1	16.4	3.03	1.06	20.4	67	0.88	54.66	2,963	5.87E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
225	36.83	36.99	0.2	36.91	225,640	3,725	4,429	49.9	1.68	2.29	74.2	2.16	74.2	2.16	1.57	23.6	0.69	17.6	16.2	3.14	1.06	20.4	67	0.88	54.61	2,967	5.89E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
226	36.99	37.16	0.2	37.07	224,940	3,830	4,449	49.6	1.74	2.30	73.8	2.17	73.8	2.17	1.59	23.6	0.68	17.9	16.2	3.22	1.07	20.4	67	0.88	54.69	2,978	5.90E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
227	37.16	37.32	0.2	37.24	229,040	4,140	4,469	50.3	1.84	2.31	75.0	2.18	75.0	2.18	1.62	24.2	0.68	18.3	16.5	3.30	1.07	20.9	67	0.87	55.13	3,009	5.79E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
228	37.32	37.48	0.2	37.40	230,180	4,139	4,488	50.3	1.83	2.31	75.2	2.18	75.2	2.18	1.61	24.3	0.68	18.2	16.5	3.28	1.07	20.9	67	0.87	55.13	3,016	5.81E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
229	37.48	37.65	0.2	37.57	227,920	4,014	4,508	49.6	1.80	2.31	74.3	2.18	74.3	2.18	1.61	24.0	0.68	18.2	16.3	3.27	1.07	20.7	67	0.87	54.91	3,010	5.84E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
230	37.65	37.81	0.2	37.73	226,580	3,933	4,528	49.0	1.77	2.31	73.7	2.17	73.7	2.17	1.60	23.9	0.68	18.1	16.2	3.26	1.07	20.5	67	0.87	54.76	3,009	5.87E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
231	37.81	37.98	0.2	37.89	225,020	3,772	4,547	48.5	1.71	2.30	73.0	2.17	73.0	2.17	1.59	23.6	0.68	17.9	16.0	3.21	1.07	20.3	67	0.87	54.51	3,001	5.91E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
232	37.98	38.14	0.2	38.06	226,920	3,203	4,567	48.7	1.44	2.25	73.5	2.11	73.5	2.11	1.48	23.4	0.67	16.3	15.8	2.83	1.06	19.5	65	0.87	53.80	2,969	6.00E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
233	38.14	38.30	0.2	38.22	236,460	3,381	4,587	50.6	1.46	2.24	76.4	2.11	76.4	2.11	1.46	24.2	0.67	16.0	16.3	2.76	1.05	20.0	65	0.87	54.26	3,000	5.97E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
234	38.30	38.47	0.2	38.39	264,820	3,567	4,606	56.5	1.37	2.19	85.4	2.05	85.4	2.05	1.37	26.6	0.67	14.4	17.9	2.32	1.04	21.0	67	0.87	55.16	3,056	5.88E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
235	38.47	38.63	0.2	38.55	313,340	3,335	4,626	66.7	1.08	2.07	100.8	1.93	100.8	1.93	1.22	30.0	0.67	11.1	20.1	1.25	1.03	21.9	68	0.87	55.96	3,108	5.81E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
236	38.63	38.80	0.2	38.71	293,460	2,849	4,646	62.2	0.99	2.07	94.2	1.93	94.2	1.93	1.21	28.1	0.67	11.0	18.8	1.22	1.03	20.5	67	0.87	54.74	3,047	5.95E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
237	38.80	38.96	0.2	38.88	280,660	2,813	4,665	59.2	1.02	2.10	89.9	1.95	89.9	1.95	1.24	27.1	0.67	11.7	18.1	1.44	1.03	20.1	67	0.87	54.35	3,031	6.01E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
238	38.96	39.12	0.2	39.04	331,360	2,659	4,685	69.7	0.81	1.98	105.9	1.83	105.9	1.83	1.13	30.6	0.67	8.9	20.4	0.52	1.02	21.3	68	0.87	55.42	3,097	5.90E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
239	39.12	39.29	0.2	39.21	438,780	2,991	4,705	92.3	0.69	1.84	140.0	1.69	140.0	1.69	1.03	38.6	0.66	6.0	25.7	0.03	1.00	25.8	74	0.86	59.13	3,311	5.48E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
240	39.29	39.45	0.2	39.37	474,900	2,953	4,724	99.5	0.63	1.79	151.2	1.64	151.2	1.64	1.00	41.1	0.66	5.1	27.3	0.00	1.00	27.3	77	0.86	60.22	3,380	5.39E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
241	39.45	39.62	0.2	39.53	399,780	3,255	4,744	83.3	0.82	1.92	127.0	1.78	127.0	1.78	1.09	36.2	0.66	7.6	24.0	0.22	1.01	24.5	72	0.86	58.06	3,265	5.60E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
242	39.62	39.78	0.2	39.70	308,960	3,104	4,764	63.9	1.02	2.07	97.9	1.92	97.9	1.92	1.21	29.5	0.66	11.0	19.5	1.19	1.03	21.2	68	0.86	55.36	3,120	5.89E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
243	39.78	39.94	0.2	39.86	263,620	3,322	4,783	54.1	1.28	2.19	83.4	2.04	83.4	2.04	1.36	26.3	0.66	14.1	17.4	2.23	1.04	20.3	67	0.86	54.59	3,083	5.98E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
244	39.94	40.11	0.2	40.03	262,440	3,466	4,803	53.6	1.35	2.20	82.9	2.06	82.9	2.06	1.38	26.4	0.66	14.5	17.4	2.36	1.05	20.5	67	0.86	54.74	3,098	5.98E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
245	40.11	40.27	0.2	40.19	287,400	3,652	4,823	58.6	1.29	2.16	90.6	2.02	90.6	2.02	1.32	28.4	0.66	13.4	18.7	2.01	1.04	21.4	68	0.85	55.53	3,149	5.84E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
246	40.27	40.44	0.2	40.35	264,680	3,604	4,843	53.7	1.39	2.21	83.2	2.06	83.2	2.06	1.39	26.7	0.66	14.7	17.5	2.42	1.05	20.7	67	0.85	54.93	3,121	5.91E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
247	40.44	40.60	0.2	40.52	249,160	3,207	4,862	50.2	1.31	2.22	78.2	2.07	78.2	2.07	1.40	25.2	0.65	14.9	16.5	2.46	1.05	19.7	65	0.85	54.01	3,075	6.03E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
248	40.60	40.76	0.2	40.68	256,580	3,049	4,882	51.6	1.21	2.19	80.4	2.04	80.4	2.04	1.35	25.6	0.65	14.0	16.7	2.19	1.04	19.6	65	0.85	53.93	3,077	6.05E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
249	40.76	40.93	0.2	40.85	278,480	3,275	4,902	55.8	1.20	2.16	87.0	2.01	87.0	2.01	1.31	27.5	0.65	13.1	17.9	1.93	1.04	20.5	67	0.85	54.73	3,129	5.97E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
250	40.93	41.09	0.2	41.01	290,220	3,593	4,921	58.0	1.26	2.16	90.5	2.01	90.5	2.01	1.31	28.6	0.65	13.2	18.6	1.94	1.04	21.3	68	0.85	55.41	3,174	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
251	41.09	41.26	0.2	41.17	265,560	2,983	4,941	52.7	1.14	2.17	82.7	2.01	82.7	2.01	1.32	26.2	0.65	13.3	17.0	1.97	1.04	19.6	65	0.84	53.97	3,097	6.01E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
252	41.26	41.42	0.2	41.34	242,980	2,584	4,961	48.0	1.09	2.19	75.5	2.03	75.5	2.03	1.34	24.2	0.65	13.7	15.6	2.12	1.04	18.4	63	0.84	52.80	3,036	6.16E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
253	41.42	41.58	0.2	41.50	227,120	2,338	4,980	44.6	1.05	2.20	70.4	2.04	70.4	2.04	1.36	22.7	0.65	14.1	14.7	2.25	1.04	17.6	61	0.84	51.99	2,996	6.26E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
254	41.58	41.75	0.2	41.67	239,360	2,026	5,000	46.9	0.86	2.14	74.1	1.97	74.1	1.97	1.27	23.3	0.64	12.3	15.0	1.65	1.03	17.2	61	0.84	51.61	2,979	6.32E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
255	41.75	41.91	0.2	41.83	310,220	2,038	5,020	60.8	0.67	1.98	95.8	1.82	95.8	1.82	1.12	28.5	0.64	8.5	18.4	0.42	1.01	19.1	65	0.84	53.42	3,090	6.12E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
256	41.91	42.08	0.2	41.99	443,840	2,146	5,039	87.1	0.49	1.78	136.8	1.61	136.8	1.61	1.00	38.0	0.64	4.6	24.4	0.00	1.00	24.4	72	0.84	58.03	3,363	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
257	42.08	42.24	0.2	42.16	489,780	4,028	5,059	95.8	0.83	1.87	150.7	1.72	150.7	1.72	1.05	43.5	0.64	6.6	27.9	0.07	1.01	28.2	78	0.83	60.86	3,534	5.33E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
258	42.24	42.40	0.2	42.32	426,460	4,097	5,079	83.0	0.97	1.97	130.9	1.81	130.9	1.81	1.12	39.1	0.64	8.4	25.0	0.40	1.01	25.8	74	0.83	59.10	3,439	5.50E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
259	42.40	42.57	0.2	42.49	354,880	3,348	5,098	68.6	0.96	2.03	108.8	1.87	108.8	1.87	1.16	33.2	0.64	9.7	21.2	0.77	1.02	22.4	70	0.83	56.40	3,288	5.77E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
260	42.57	42.73	0.2	42.65	303,660	2,816	5,118	58.3	0.94	2.08	92.9	1.92	92.9	1.92	1.21	29.0	0.64	10.9	18.5	1.16	1.03	20.1	67	0.83	54.38	3,177	6.00E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
261	42.73	42.90	0.2	42.81	285,100	2,363	5,138	54.5	0.84	2.08	87.0	1.91	87.0	1.91	1.20	27.1	0.64	10.7	17.3	1.10	1.02	18.8	63	0.83	53.17	3,112	6.15E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
262	42.90	43.06	0.2	42.98	282,140	2,169	5,157	53.7	0.78	2.07	86.0	1.90	86.0	1.90	1.19	26.7	0.64	10.3	17.0	0.98	1.02	18.3	63	0.83	52.73	3,092	6.21E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
263	43.06	43.23	0.2	43.14	277,820	2,391	5,177	52.7	0.88	2.10	84.5	1.93	84.5	1.93	1.22	26.6	0.63	11.2	16.9	1.27	1.03	18.6	63	0.83	53.01	3,114	6.19E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
264	43.23	43.39	0.2	43.31	277,340	2,411	5,197	52.4	0.89	2.10	84.2	1.94	84.2	1.94	1.22	26.6	0.63	11.3	16.8	1.31	1.03	18.6	63	0.83	53.01	3,120	6.20E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
265	43.39	43.55	0.2	43.47	277,400	2,302	5,217	52.2	0.85	2.09	84.0	1.92	84.0	1.92	1.21	26.5	0.63	11.0	16.7	1.21	1.03	18.4	63	0.83	52.80	3,114	6.24E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
266	43.55	43.72	0.2	43.64	306,980	2,313	5,236	57.6	0.77	2.04	92.8	1.86	92.8	1.86	1.16	28.7	0.63	9.6	18.1	0.73	1.02	19.2	65	0.83	53.53	3,162	6.16E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
267	43.72	43.88	0.2	43.80	309,020	2,569	5,256	57.8	0.85	2.06	93.3	1.89	93.3	1.89	1.18	29.1	0.63	10.1	18.3	0.91	1.02	19.7	65	0.83	53.97	3,195	6.12E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
268	43.88	44.05	0.2	43.96	284,460	2,326	5,276	52.9	0.83	2.09	85.7	1.91	85.7	1.91	1.20	27.1	0.63	10.7	17.0	1.12	1.03	18.6	63	0.83	52.94	3,140	6.25E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
269	44.05	44.21	0.2	44.13	271,660	2,535	5,295	50.3	0.95	2.14	81.7	1.97	81.7	1.97	1.26	26.4	0.63	12.0	16.5	1.56	1.03	18.6	63	0.82	53.01	3,149	6.18E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
270	44.21	44.37	0.2	44.29	308,960	3,294	5,315	57.1	1.08	2.12	92.7	1.96	92.7	1.96	1.25	29.9	0.63	11.8	18.7	1.50	1.03	20.8	67	0.82	54.99	3,273	5.97E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
271	44.37	44.54	0.2	44.46	382,320	4,269	5,335	70.7	1.13	2.06	114.5	1.90	114.5	1.90	1.19	36.2	0.62	10.4	22.6	1.01	1.02	24.2	72	0.82	57.82	3,448	5.69E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
272	44.54	44.70	0.2	44.62	414,920	4,648	5,354	76.5	1.13	2.04	124.1	1.88	124.1	1.88	1.17	39.0	0.62	9.8	24.3	0.81	1.02	25.6	74	0.82	58.94	3,521	5.59E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
273	44.70	44.87	0.2	44.78	461,200	4,577	5,374	84.8	1.00	1.97	137.7	1.81	137.7	1.81	1.11	42.2	0.62	8.3	26.3	0.36	1.01	27.0	75	0.82	59.99	3,591	5.50E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
274	44.87	45.03	0.2	44.95	531,540	4,020	5,394	97.5	0.76	1.85	158.4	1.68	158.4	1.68	1.03	46.6	0.62	5.8	28.9	0.02	1.00	29.1	79	0.82	61.49	3,687	5.38E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
275	45.03	45.19	0.2	45.11	554,660	3,936	5,413	101.5	0.72	1.82	165.0	1.65	165.0	1.65	1.00	48.1	0.62	5.2	29.8	0.01	1.00	29.9	79	0.81	62.06	3,728	5.28E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
276	45.19	45.36	0.2	45.28	553,900	3,805	5,433	100.9	0.69	1.81	164.4	1.64	164.4	1.64	1.00	47.9	0.62	5.1	29.6	0.00	1.00	29.7	79	0.81	61.93	3,727	5.30E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
277	45.36	45.52	0.2	45.44	582,100	3,515	5,453	105.8	0.61	1.76	172.5	1.59	172.5	1.59	1.00	49.5	0.62	4.2	30.6	0.00	1.00	30.6	80	0.81	62.52	3,770	5.25E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
278	45.52	45.69	0.2	45.60	647,580	3,501	5,472	117.3	0.55	1.70	191.5	1.53	191.5	1.53	1.00	53.9	0.62	3.2	33.2	0.00	1.00	33.2	83	0.81	64.28	3,883	5.12E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
279	45.69	45.85	0.2	45.77	616,460	3,902	5,492	111.2	0.64	1.75	182.0	1.59	182.0	1.59	1.00	52.3	0.62	4.1	32.2	0.00	1.00	32.2	82	0.81	63.62	3,850	5.18E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
280	45.85	46.01	0.2	45.93	563,960	4,777	5,512	101.3	0.86	1.86	166.2	1.70	166.2	1.70	1.04	49.7	0.61	6.1	30.5	0.04	1.01	30.7	80	0.81	62.65	3,798	5.27E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
281	46.01	46.18	0.2	46.10	446,460	4,772	5,531	79.7	1.08	2.01	131.4	1.84	131.4	1.84	1.14	41.4	0.61	9.1	25.4	0.58	1.02	26.4	75	0.80	59.57	3,618	5.49E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
282	46.18	46.34	0.2	46.26	426,060	4,818	5,551	75.8	1.15	2.04	125.1	1.88	125.1	1.88	1.17	40.0	0.61	9.8	24.5	0.81	1.02	25.8	74	0.80	59.10	3,596	5.54E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
283	46.34	46.51	0.2	46.42	511,380	5,531	5,571	90.8	1.09	1.97	149.9	1.81	149.9	1.81	1.11	46.8	0.61	8.2	28.6	0.35	1.01	29.3	79	0.80	61.68	3,759	5.32E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
284	46.51	46.67	0.2	46.59	730,000	6,541	5,591	129.6	0.90	1.80	213.6	1.64	213.6	1.64	1.00	63.0	0.61	5.0	38.4	0.00	1.00	38.4	88	0.80	67.50	4,121	4.87E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
285	46.67	46.83	0.2	46.75	795,440	7,241	5,610	140.8	0.92	1.77	232.4	1.62	232.4	1.62	1.00	68.2	0.61	4.7	41.5	0.00	1.00	41.5	91	0.80	69.26	4,236	4.75E-04	1.30E-03	0.039%	0.039%	0.078%	0.0015
286	46.83	47.00	0.2	46.92	673,060	6,224	5,630	118.6	0.93	1.83	196.3	1.67	196.3	1.67	1.02	58.8	0.61	5.6	35.8	0.01	1.00	35.9	85	0.80	65.97	4,041	5.00E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
287	47.00	47.16	0.2	47.08	558,740	5,735	5,650	97.9	1.04	1.93	162.7	1.76	162.7	1.76	1.08	50.4	0.61	7.4	30.6	0.18	1.01	31.1	81	0.80	62.86	3,858	5.25E-04	1.60E-03	0.091%	0.091%	0.182%	0.0036
288	47.16	47.33	0.2	47.24	537,700	4,039	5,669	93.8	0.76	1.86	156.3	1.69	156.3	1.69	1.03	47.2	0.61	5.8	28.6	0.02	1.00	28.7	78	0.79	61.24	3,765	5.34E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
289	47.33	47.49	0.2	47.41	500,520	4,449	5,689	87.0	0.90	1.93	145.2	1.76	145.2	1.76	1.08	45.0	0.60	7.2	27.2	0.15	1.01	27.6	77	0.79	60.47	3,724	5.41E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
290	47.49	47.65	0.2	47.57	436,660	4,528	5,709	75.5	1.05	2.02	126.5	1.85	126.5	1.85	1.14	40.6	0.60	9.2	24.5	0.60	1.02	25.5	74	0.79	58.89	3,633	5.57E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
291	47.65	47.82	0.2	47.74	391,480	4,129	5,728	67.3	1.07	2.06	113.2	1.89	113.2	1.89	1.18	36.9	0.60	10.1	22.2	0.91	1.02	23.7	71	0.79	57.41	3,548	5.72E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
292	47.82	47.98	0.2	47.90	372,180	3,828	5,748	63.7	1.04	2.08	107.4	1.90	107.4	1.90	1.19	35.2	0.60	10.4	21.2	0.99	1.02	22.7	70	0.79	56.61	3,505	5.81E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
293	47.98	48.15	0.2	48.06	435,320	4,234	5,768	74.5	0.99	2.01	125.4	1.83	125.4	1.83	1.13	40.2	0.60	8.8	24.1	0.50	1.02	25.0	74	0.79	58.51	3,628	5.63E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
294	48.15	48.31	0.2	48.23	564,080	4,233	5,787	96.5	0.76	1.85	162.2	1.67	162.2	1.67	1.02	49.3	0.60	5.6	29.5	0.01	1.00	29.6	79	0.78	61.90	3,845	5.27E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
295	48.31	48.47	0.2	48.39	581,900	3,785	5,807	99.2	0.66	1.80	167.1	1.62	167.1	1.62	1.00	50.0	0.60	4.7	29.9	0.00	1.00	29.9	79	0.78	62.08	3,863	5.26E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
296	48.47	48.64	0.2	48.56	556,560	3,351	5,827	94.5	0.61	1.80	159.5	1.62	159.5	1.62	1.00	47.7	0.60	4.6	28.5	0.00	1.00	28.5	78	0.78	61.09	3,808	5.35E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
297	48.64	48.80	0.2	48.72	508,640	3,249	5,846	86.0	0.65	1.85	145.6	1.66	145.6	1.66	1.01	44.3	0.60	5.5	26.4	0.01	1.00	26.5	75	0.78	59.64	3,723	5.49E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
298	48.80	48.97	0.2	48.88	468,860	3,549	5,866	78.9	0.77	1.92	134.0	1.74	134.0	1.74	1.06	41.9	0.60	6.9	25.0	0.10	1.01	25.3	74	0.78	58.68	3,670	5.59E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
299	48.97	49.13	0.2	49.05	417,780	3,674	5,886	70.0	0.89	2.00	119.2	1.82	119.2	1.82	1.12	38.4	0.59	8.6	22.8	0.43	1.02	23.6	71	0.78	57.39	3,595	5.73E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
300	49.13	49.29	0.2	49.21	383,140	4,372	5,906	63.9	1.16	2.10	109.1	1.92	109.1	1.92	1.21	36.6	0.59	11.0	21.7	1.20	1.03	23.5	71	0.77	57.28	3,594	5.67E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
301	49.29	49.46	0.2	49.38	449,900	4,991	5,925	74.9	1.12	2.04	127.9	1.86	127.9	1.86	1.16	42.0	0.59	9.5	24.9	0.72	1.02	26.1	75	0.77	59.34	3,729	5.49E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
302	49.46	49.62	0.2	49.54	552,520	5,444	5,945	91.9	1.00	1.94	156.8	1.76	156.8	1.76	1.08	49.8	0.59	7.4	29.5	0.17	1.01	29.9	79	0.77	62.09	3,909	5.25E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
303	49.62	49.79	0.2	49.70	571,760	4,700	5,965	94.9	0.83	1.88	162.0	1.70	162.0	1.70	1.04	50.4	0.59	6.1	29.8	0.04	1.01	30.0	79	0.77	62.11	3,917	5.26E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
304	49.79	49.95	0.2	49.87	454,780	3,712	5,984	75.0	0.83	1.96	128.6	1.77	128.6	1.77	1.09	41.1	0.59	7.6	24.3	0.21	1.01	24.7	72	0.77	58.27	3,680	5.62E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
305	49.95	50.11	0.2	50.03	380,880	3,367	6,004	62.4	0.90	2.04	107.6	1.86	107.6	1.86	1.15	35.5	0.59	9.4	20.9	0.67	1.02	22.0	68	0.77	56.00	3,543	5.85E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
306	50.11	50.28	0.2	50.20	353,960	3,339	6,024	57.8	0.96	2.09	99.8	1.90	99.8	1.90	1.19	33.5	0.59	10.4	19.7	1.00	1.02	21.2	68	0.76	55.32	3,505	5.86E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
307	50.28	50.44	0.2	50.36	350,100	3,148	6,043	56.9	0.91	2.08	98.5	1.89	98.5	1.89	1.18	33.0	0.59	10.2	19.4	0.93	1.02	20.7	67	0.76	54.96	3,488	5.91E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
308	50.44	50.61	0.2	50.52	362,940	3,612	6,063	58.9	1.01	2.10	102.0	1.91	102.0	1.91	1.20	34.5	0.59	10.6	20.2	1.06	1.02	21.7	68	0.76	55.82	3,549	5.82E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
309	50.61	50.77	0.2	50.69	382,660	4,134	6,083	61.9	1.10	2.10	107.4	1.91	107.4	1.91	1.20	36.4	0.58	10.7	21.3	1.11	1.03	22.9	70	0.76	56.83	3,619	5.73E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
310	50.77	50.94	0.2	50.85	403,060	4,464	6,102	65.0	1.12	2.09	112.9	1.90	112.9	1.90	1.19	38.2	0.58	10.5	22.3	1.03	1.02	23.9	71	0.76	57.60	3,674	5.66E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
311	50.94	51.10	0.2	51.02	432,300	4,417	6,122	69.6	1.04	2.04	120.9	1.86	120.9	1.86	1.15	40.3	0.58	9.4	23.5	0.68	1.02	24.6	72	0.76	58.18	3,717	5.61E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
312	51.10	51.26	0.2	51.18	455,320	4,093	6,142	73.1	0.91	1.99	127.1	1.80	127.1	1.80	1.11	41.7	0.58	8.2	24.2	0.35	1.01	24.9	72	0.76	58.42	3,738	5.60E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
313	51.26	51.43	0.2	51.35	421,740	3,851	6,161	67.4	0.93	2.03	117.6	1.84	117.6	1.84	1.13	39.0	0.58	8.9	22.7	0.53	1.02	23.6	71	0.76	57.34	3,675	5.71E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
314	51.43	51.59	0.2	51.51	359,740	3,802	6,181	57.2	1.08	2.12	100.1	1.93	100.1	1.93	1.22	34.5	0.58	11.1	20.0	1.26	1.03	21.8	68	0.76	55.86	3,586	5.88E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
315	51.59	51.76	0.2	51.67	337,820	4,038	6,201	53.5	1.22	2.18	93.9	1.99	93.9	1.99	1.28	33.1	0.58	12.6	19.1	1.75	1.03	21.6	68	0.76	55.67	3,579	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
316	51.76	51.92	0.2	51.84	406,440	4,276	6,220	64.3	1.07	2.08	112.8	1.89	112.8	1.89	1.18	38.3	0.58	10.1	22.2	0.92	1.02	23.6	71	0.76	57.35	3,693	5.74E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
317	51.92	52.08	0.2	52.00	505,980	4,750	6,240	80.1	0.95	1.97	140.2	1.79	140.2	1.79	1.10	46.0	0.58	7.8	26.5	0.26	1.01	27.1	77	0.76	60.08	3,875	5.49E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
318	52.08	52.25	0.2	52.17	498,780	5,114	6,260	78.7	1.04	2.00	137.9	1.82	137.9	1.82	1.12	45.8	0.58	8.5	26.4	0.41	1.01	27.2	77	0.76	60.15	3,886	5.49E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
319	52.25	52.41	0.2	52.33	499,440	5,125	6,280	78.5	1.04	2.00	137.9	1.82	137.9	1.82	1.12	45.9	0.58	8.5	26.4	0.41	1.01	27.2	77	0.76	60.15	3,892	5.50E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
320	52.41	52.58	0.2	52.49	517,700	4,756	6,299	81.2	0.93	1.96	142.7	1.77	142.7	1.77	1.09	46.8	0.57	7.6	26.9	0.21	1.01	27.4	77	0.76	60.30	3,908	5.49E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
321	52.58	52.74	0.2	52.66	518,580	4,761	6,319	81.1	0.93	1.96	142.7	1.77	142.7	1.77	1.09	46.9	0.57	7.5	26.9	0.21	1.01	27.4	77	0.76	60.30	3,914	5.50E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
322	52.74	52.90	0.2	52.82	566,340	5,131	6,339	88.3	0.92	1.93	155.7	1.74	155.7	1.74	1.07	50.7	0.57	6.9	29.0	0.11	1.01	29.4	79	0.76	61.70	4,011	5.39E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
323	52.90	53.07	0.2	52.99	684,900	5,298	6,358	106.7	0.78	1.82	187.9	1.63	187.9	1.63	1.00	59.0	0.57	4.9	33.8	0.00	1.00	33.8	83	0.76	64.64	4,209	5.15E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
324	53.07	53.23	0.2	53.15	724,160	5,415	6,378	112.5	0.75	1.79	198.4	1.61	198.4	1.61	1.00	61.9	0.57	4.5	35.3	0.00	1.00	35.3	85	0.76	65.62	4,279	5.08E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
325	53.23	53.40	0.2	53.31	658,320	5,227	6,398	101.9	0.80	1.84	180.1	1.65	180.1	1.65	1.01	57.2	0.57	5.3	32.6	0.01	1.00	32.7	82	0.76	63.94	4,176	5.22E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
326	53.40	53.56	0.2	53.48	563,540	4,974	6,417	86.8	0.89	1.93	153.9	1.74	153.9	1.74	1.06	50.3	0.57	6.8	28.7	0.10	1.01	29.0	78	0.76	61.43	4,018	5.44E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
327	53.56	53.72	0.2	53.64	541,720	3,561	6,437	83.2	0.67	1.87	147.7	1.67	147.7	1.67	1.02	47.2	0.57	5.5	26.8	0.01	1.00	26.9	75	0.76	59.96	3,928	5.59E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
328	53.72	53.89	0.2	53.81	564,680	3,810	6,457	86.5	0.68	1.86	153.8	1.66	153.8	1.66	1.01	49.1	0.57	5.4	27.9	0.01	1.00	28.0	77	0.76	60.70	3,983	5.53E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
329	53.89	54.05	0.2	53.97	557,540	3,770	6,476	85.1	0.68	1.87	151.6	1.67	151.6	1.67	1.01	48.6	0.57	5.5	27.5	0.01	1.00	27.6	77	0.76	60.46	3,973	5.56E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
330	54.05	54.22	0.2	54.13	508,500	4,018	6,496	77.3	0.80	1.94	138.1	1.74	138.1	1.74	1.07	45.5	0.57	6.9	25.7	0.11	1.01	26.1	75	0.76	59.29	3,902	5.67E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
331	54.22	54.38	0.2	54.30	439,380	4,150	6,516	66.4	0.96	2.04	119.1	1.84	119.1	1.84	1.14	40.7	0.57	9.0	23.0	0.56	1.02	24.0	71	0.76	57.66	3,800	5.84E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
332	54.38	54.54	0.2	54.46	444,060	8,317	6,535	66.9	1.90	2.22	120.2	2.04	120.2	2.04	1.36	44.4	0.56	14.2	25.1	2.26	1.04	28.4	78	0.76	61.03	4,028	5.53E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
333	54.54	54.71	0.2	54.63	633,460	9,557	6,555	95.6	1.52	2.05	171.2	1.87	171.2	1.87	1.16	59.3	0.56	9.7	33.4	0.77	1.02	34.9	84	0.76	65.34	4,319	5.17E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
334	54.71	54.87	0.2	54.79	1,378,640	19,075	6,575	208.7	1.39	1.78	372.0	1.63	372.0	1.63	1.00	118.8	0.56	4.9	66.8	0.00	1.00	66.8	95	0.76	81.16	5,374	4.17E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
335	54.87	55.04	0.2	54.95	1,563,160	11,366	6,594	236.0	0.73	1.54	421.2	1.37	421.2	1.37	1.00	123.9	0.56	1.2	69.6	0.00	1.00	69.6	95	0.76	82.27	5,455	4.12E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
336	55.04	55.20	0.2	55.12	1,709,640	13,415	6,614	257.5	0.79	1.54	460.0	1.38	460.0	1.38	1.00	135.7	0.56	1.3	76.1	0.00	1.00	76.1	95	0.70	84.75	5,628	3.69E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
337	55.20	55.36	0.2	55.28	1,447,300	11,320	6,634	217.2	0.79	1.59	388.8	1.42	388.8	1.42	1.00	116.4	0.56	1.8	65.2	0.00	1.00	65.2	95	0.70	80.49	5,353	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
338	55.36	55.53	0.2	55.45	1,111,240	10,268	6,654	166.0	0.93	1.72	298.1	1.55	298.1	1.55	1.00	93.2	0.56	3.6	52.1	0.00	1.00	52.1	95	0.70	74.70	4,975	4.20E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
339	55.53	55.69	0.2	55.61	741,840	6,960	6,673	110.2	0.95	1.86	198.7	1.67	198.7	1.67	1.02	64.8	0.56	5.6	36.2	0.02	1.00	36.3	86	0.70	66.25	4,419	4.74E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
340	55.69	55.86	0.2	55.77	621,860	6,319	6,693	91.9	1.03	1.95	166.3	1.75	166.3	1.75	1.07	55.9	0.56	7.2	31.2	0.14	1.01	31.6	81	0.70	63.22	4,223	4.98E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
341	55.86	56.02	0.2	55.94	424,520	7,746	6,713	62.2	1.85	2.24	113.4	2.05	113.4	2.05	1.38	42.6	0.56	14.4	23.7	2.34	1.04	27.1	77	0.70	60.10	4,021	5.24E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
342	56.02	56.18	0.2	56.10	290,480	7,076	6,732	42.1	2.49	2.45	77.5	2.26	77.5	2.26	1.83	31.8	0.56	21.1	17.7	3.80	1.09	23.0	70	0.70	56.87	3,810	5.55E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
343	56.18	56.35	0.2	56.27	266,800	5,035	6,752	38.5	1.94	2.41	71.0	2.21	71.0	2.21	1.70	28.6	0.56	19.4	15.9	3.50	1.08	20.6	67	0.70	54.78	3,675	5.77E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
344	56.35	56.51	0.2	56.43	277,340	4,149	6,772	40.0	1.53	2.34	73.7	2.13	73.7	2.13	1.51	28.7	0.55	16.8	15.9	2.96	1.06	19.8	65	0.70	54.12	3,636	5.85E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
345	56.51	56.68	0.2	56.59	253,320	3,617	6,791	36.3	1.47	2.36	67.3	2.15	67.3	2.15	1.55	26.4	0.55	17.3	14.6	3.09	1.06	18.6	63	0.70	53.02	3,567	5.98E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
346	56.68	56.84	0.2	56.76	211,660	3,936	6,811	30.1	1.92	2.50	56.1	2.29	56.1	2.29	1.90	23.4	0.55	22.0	12.9	3.92	1.09	18.0	63	0.70	52.46	3,535	6.05E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
347	56.84	57.00	0.2	56.92	171,200	4,058	6,831	24.1	2.47	2.64	24.1	2.64	24.1	2.64	unsusceptible		0.55	37.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
348	57.00	57.17	0.2	57.09	153,940	4,229	6,850	21.5	2.88	2.72	21.5	2.72	21.5	2.72	unsusceptible		0.55	41.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
349	57.17	57.33	0.2	57.25	163,900	4,671	6,870	22.9	2.97	2.71	22.9	2.71	22.9	2.71	unsusceptible		0.55	40.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
350	57.33	57.50	0.2	57.41	173,340	3,321	6,890	24.2	2.00	2.58	45.7	2.36	45.7	2.36	2.17	19.8	0.55	25.0	10.9	4.28	1.11	16.4	60	0.70	50.84	3,445	6.28E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
351	57.50	57.66	0.2	57.58	178,880	4,243	6,909	24.9	2.47	2.63	24.9	2.63	24.9	2.63	unsusceptible		0.55	36.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
352	57.66	57.82	0.2	57.74	178,320	4,383	6,929	24.7	2.56	2.64	24.7	2.64	24.7	2.64	unsusceptible		0.55	37.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
353	57.82	57.99	0.2	57.91	192,060	5,155	6,949	26.6	2.78	2.64	26.6	2.64	26.6	2.64	unsusceptible		0.55	37.2	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
354	57.99	58.15	0.2	58.07	397,320	6,120	6,969	56.0	1.57	2.23	104.1	2.03	104.1	2.03	1.34	39.5	0.55	13.7	21.6	2.12	1.04	24.6	72	0.70	58.15	3,963	5.52E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
355	58.15	58.32	0.2	58.23	611,480	5,268	6,988	86.5	0.87	1.92	160.1	1.72	160.1	1.72	1.05	54.2	0.55	6.4	29.6	0.06	1.01	29.8	79	0.70	62.03	4,234	5.18E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
356	58.32	58.48	0.2	58.40	942,600	5,840	7,008	133.5	0.62	1.68	246.4	1.48	246.4	1.48	1.00	77.3	0.54	2.6	42.1	0.00	1.00	42.1	92	0.70	69.58	4,756	4.63E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
357	58.48	58.65	0.2	58.56	1,128,860	7,260	7,028	159.6	0.65	1.63	294.7	1.44	294.7	1.44	1.00	91.3	0.54	2.0	49.6	0.00	1.00	49.6	95	0.70	73.51	5,031	4.39E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
358	58.65	58.81	0.2	58.73	1,170,100	8,293	7,047	165.0	0.71	1.65	305.0	1.46	305.0	1.46	1.00	95.2	0.54	2.2	51.7	0.00	1.00	51.7	95	0.70	74.52	5,108	4.33E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
359	58.81	58.97	0.2	58.89	1,256,020	9,156	7,067	176.7	0.73	1.63	326.9	1.45	326.9	1.45	1.00	101.8	0.54	2.1	55.2	0.00	1.00	55.2	95	0.70	76.17	5,228	4.24E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
360	58.97	59.14	0.2	59.06	1,384,920	10,497	7,087	194.4	0.76	1.62	360.0	1.43	360.0	1.43	1.00	111.8	0.54	1.9	60.6	0.00	1.00	60.6	95	0.70	78.54	5,398	4.12E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
361	59.14	59.30	0.2	59.22	1,541,600	4,855	7,106	215.9	0.32	1.34	400.2	1.13	400.2	1.13	1.00	113.5	0.54	0.0	61.4	0.00	1.00	61.4	95	0.70	78.91	5,432	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
362	59.30	59.47	0.2	59.38	1,662,080	8,781	7,126	232.2	0.53	1.45	430.8	1.26	430.8	1.26	1.00	127.3	0.54	0.0	68.8	0.00	1.00	68.8	95	0.70	81.94	5,648	3.96E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
363	59.47	59.63	0.2	59.55	1,660,120	6,878	7,146	231.3	0.42	1.39	429.7	1.19	429.7	1.19	1.00	124.3	0.54	0.0	67.1	0.00	1.00	67.1	95	0.70	81.26	5,609	4.00E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
364	59.63	59.79	0.2	59.71	1,728,600	10,975	7,165	240.2	0.64	1.50	446.8	1.31	446.8	1.31	1.00	134.4	0.54	0.5	72.4	0.00	1.00	72.4	95	0.70	83.37	5,762	3.90E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
																													TOTAL SETTLEMENT (INCHES):			1.96

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.):	120	MAGNITUDE CORRECTION FACTOR:	1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT):	60		
EARTHQUAKE MAGNITUDE:	7.5		
PEAK GROUND ACCELERATION (g):	0.69		
DEPTH OF EXCAVATION (ft):	15.0		
IDENTIFICATION:	CPT-1A		
TOTAL DRY SETTLEMENT (IN.):	0.72		

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	15.01	15.17	0.2	15.09	79,400	1,460	1,811	42.8	1.88	2.37	40.8	2.39	40.8	2.39	2.25	9.2	1.07	25.8	9.8	4.37	1.12	15.4	57	0.97	49.74	1,728	4.56E-04	1.90E-03	0.276%	0.276%	0.551%	0.0108
93	15.17	15.34	0.2	15.26	73,200	1,400	1,831	39.0	1.96	2.41	37.4	2.43	37.4	2.43	2.42	8.6	1.07	27.5	9.2	4.52	1.13	14.9	55	0.97	49.25	1,720	4.63E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
94	15.34	15.50	0.2	15.42	73,600	1,360	1,850	38.8	1.90	2.40	37.4	2.42	37.4	2.42	2.38	8.6	1.06	27.1	9.1	4.49	1.13	14.8	55	0.97	49.13	1,726	4.66E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
95	15.50	15.67	0.2	15.58	75,800	1,380	1,870	39.5	1.87	2.39	38.4	2.40	38.4	2.40	2.33	8.8	1.05	26.6	9.3	4.44	1.13	14.9	55	0.97	49.25	1,739	4.68E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
96	15.67	15.83	0.2	15.75	73,400	1,320	1,890	37.8	1.85	2.41	36.9	2.41	36.9	2.41	2.37	8.6	1.05	27.0	9.0	4.48	1.13	14.7	55	0.97	48.95	1,737	4.73E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
97	15.83	15.99	0.2	15.91	75,600	1,080	1,909	38.6	1.47	2.34	37.9	2.35	37.9	2.35	2.10	8.6	1.04	24.2	8.9	4.21	1.11	14.1	55	0.97	48.36	1,725	4.81E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
98	15.99	16.16	0.2	16.08	82,000	1,140	1,929	41.5	1.42	2.31	40.9	2.31	40.9	2.31	1.99	9.2	1.04	22.9	9.5	4.05	1.10	14.5	55	0.97	48.79	1,750	4.80E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
99	16.16	16.32	0.2	16.24	84,800	1,380	1,949	42.5	1.67	2.34	42.0	2.34	42.0	2.34	2.09	9.6	1.03	24.1	9.9	4.19	1.11	15.2	57	0.97	49.54	1,786	4.75E-04	1.60E-03	0.232%	0.232%	0.464%	0.0091
100	16.32	16.49	0.2	16.40	83,800	1,700	1,969	41.6	2.08	2.41	41.3	2.41	41.3	2.41	2.35	9.8	1.03	26.8	10.1	4.46	1.13	15.8	57	0.97	50.19	1,818	4.71E-04	1.60E-03	0.232%	0.232%	0.464%	0.0091
101	16.49	16.65	0.2	16.57	84,800	1,680	1,988	41.7	2.03	2.40	41.6	2.40	41.6	2.40	2.31	9.9	1.02	26.4	10.1	4.42	1.13	15.8	57	0.97	50.15	1,826	4.74E-04	1.60E-03	0.232%	0.232%	0.464%	0.0091
102	16.65	16.81	0.2	16.73	88,600	1,560	2,008	43.1	1.80	2.35	43.3	2.35	43.3	2.35	2.13	10.1	1.02	24.6	10.3	4.24	1.11	15.7	57	0.97	50.03	1,831	4.77E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
103	16.81	16.98	0.2	16.90	92,400	1,500	2,028	44.6	1.66	2.32	44.9	2.32	44.9	2.32	2.01	10.4	1.01	23.2	10.5	4.09	1.10	15.7	57	0.97	50.03	1,839	4.80E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
104	16.98	17.14	0.2	17.06	95,000	1,460	2,047	45.4	1.57	2.30	45.9	2.30	45.9	2.30	1.94	10.5	1.01	22.4	10.6	3.98	1.10	15.6	57	0.97	50.00	1,847	4.82E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
105	17.14	17.31	0.2	17.22	99,800	1,440	2,067	47.3	1.47	2.27	48.0	2.26	48.0	2.26	1.84	10.9	1.00	21.2	11.0	3.81	1.09	15.7	57	0.96	50.11	1,860	4.78E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
106	17.31	17.47	0.2	17.39	105,200	1,480	2,087	49.4	1.44	2.25	50.4	2.24	50.4	2.24	1.77	11.4	1.00	20.4	11.4	3.68	1.08	16.0	57	0.96	50.39	1,880	4.78E-04	2.30E-03	0.334%	0.334%	0.667%	0.0131
107	17.47	17.63	0.2	17.55	108,400	1,800	2,106	50.5	1.69	2.29	51.7	2.28	51.7	2.28	1.88	11.9	0.99	21.7	11.9	3.88	1.09	16.8	60	0.96	51.24	1,920	4.72E-04	1.60E-03	0.216%	0.216%	0.432%	0.0085
108	17.63	17.80	0.2	17.72	113,800	1,900	2,126	52.5	1.70	2.27	54.0	2.26	54.0	2.26	1.84	12.5	0.99	21.2	12.3	3.81	1.09	17.2	61	0.96	51.63	1,944	4.71E-04	1.60E-03	0.200%	0.200%	0.400%	0.0079
109	17.80	17.96	0.2	17.88	116,400	1,800	2,146	53.2	1.58	2.25	55.0	2.24	55.0	2.24	1.76	12.6	0.98	20.2	12.4	3.65	1.08	17.1	61	0.96	51.48	1,947	4.74E-04	1.60E-03	0.200%	0.200%	0.400%	0.0079
110	17.96	18.13	0.2	18.04	119,400	1,680	2,165	54.1	1.43	2.22	56.1	2.20	56.1	2.20	1.68	12.7	0.98	19.1	12.5	3.45	1.07	16.9	60	0.96	51.28	1,948	4.78E-04	2.30E-03	0.311%	0.311%	0.621%	0.0122
111	18.13	18.29	0.2	18.21	121,000	1,720	2,185	54.4	1.45	2.22	56.6	2.20	56.6	2.20	1.67	12.9	0.98	19.1	12.6	3.45	1.07	17.0	60	0.96	51.40	1,962	4.80E-04	2.30E-03	0.311%	0.311%	0.621%	0.0122
112	18.29	18.45	0.2	18.37	126,000	1,840	2,205	56.1	1.49	2.21	58.7	2.20	58.7	2.20	1.66	13.4	0.97	18.9	13.0	3.42	1.07	17.4	61	0.96	51.82	1,987	4.78E-04	2.30E-03	0.288%	0.288%	0.575%	0.0113
113	18.45	18.62	0.2	18.54	133,400	2,220	2,224	59.0	1.69	2.23	61.9	2.22	61.9	2.22	1.71	14.3	0.97	19.6	13.8	3.54	1.08	18.4	63	0.96	52.84	2,035	4.71E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
114	18.62	18.78	0.2	18.70	143,000	2,180	2,244	62.7	1.55	2.19	66.1	2.17	66.1	2.17	1.60	15.1	0.96	18.0	14.5	3.24	1.07	18.7	63	0.96	53.08	2,053	4.71E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
115	18.78	18.95	0.2	18.86	154,000	2,000	2,264	67.0	1.32	2.12	70.8	2.10	70.8	2.10	1.46	15.8	0.96	15.9	15.1	2.74	1.05	18.7	63	0.96	53.04	2,061	4.73E-04	1.45E-03	0.167%	0.167%	0.334%	0.0066
116	18.95	19.11	0.2	19.03	202,800	2,260	2,283	87.8	1.13	1.99	92.9	1.97	92.9	1.97	1.26	19.7	0.95	12.1	18.8	1.59	1.03	21.0	68	0.96	55.18	2,153	4.57E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
117	19.11	19.27	0.2	19.19	291,000	2,320	2,303	125.3	0.80	1.77	132.7	1.76	132.7	1.76	1.08	26.2	0.95	7.2	24.9	0.15	1.01	25.2	74	0.96	58.66	2,299	4.31E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
118	19.27	19.44	0.2	19.36	270,800	2,020	2,323	115.6	0.75	1.78	122.9	1.76	122.9	1.76	1.08	24.4	0.95	7.3	23.1	0.17	1.01	23.5	71	0.96	57.28	2,254	4.44E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
119	19.44	19.60	0.2	19.52	219,400	1,580	2,343	92.7	0.73	1.85	99.2	1.83	99.2	1.83	1.13	20.2	0.94	8.7	19.1	0.48	1.02	19.9	65	0.96	54.16	2,140	4.71E-04	1.45E-03	0.152%	0.152%	0.305%	0.0060
120	19.60	19.77	0.2	19.69	196,200	1,800	2,362	82.1	0.93	1.96	88.3	1.93	88.3	1.93	1.22	18.8	0.94	11.2	17.6	1.27	1.03	19.4	65	0.96	53.74	2,133	4.77E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
121	19.77	19.93	0.2	19.85	165,800	2,020	2,382	68.6	1.24	2.10	74.3	2.07	74.3	2.07	1.40	16.7	0.93	14.9	15.6	2.46	1.05	18.9	63	0.96	53.23	2,121	4.84E-04	1.80E-03	0.207%	0.207%	0.414%	0.0081
122	19.93	20.10	0.2	20.01	160,400	2,260	2,402	65.8	1.43	2.15	71.6	2.12	71.6	2.12	1.49	16.5	0.93	16.5	15.4	2.88	1.06	19.2	65	0.96	53.52	2,141	4.83E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
123	20.10	20.26	0.2	20.18	163,200	2,420	2,421	66.4	1.51	2.16	72.6	2.13	72.6	2.13	1.51	16.9	0.93	16.8	15.7	2.96	1.06	19.5	65	0.95	53.88	2,165	4.77E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
124	20.26	20.42	0.2	20.34	169,000	2,520	2,441	68.2	1.51	2.15	74.8	2.12	74.8	2.12	1.50	17.4	0.92	16.5	16.1	2.89	1.06	19.9	65	0.95	54.21	2,187	4.76E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
125	20.42	20.59	0.2	20.51	171,200	2,620	2,461	68.6	1.55	2.16	75.5	2.13	75.5	2.13	1.51	17.7	0.92	16.6	16.3	2.93	1.06	20.1	67	0.95	54.42	2,204	4.76E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
126	20.59	20.75	0.2	20.67	172,000	2,620	2,480	68.3	1.55	2.16	75.6	2.13	75.6	2.13	1.50	17.8	0.92	16.6	16.3	2.92	1.06	20.1	67	0.95	54.41	2,212	4.78E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
127	20.75	20.92	0.2	20.83	170,000	2,980	2,500	67.0	1.78	2.21	74.4	2.17	74.4	2.17	1.60	17.9	0.91	18.1	16.3	3.25	1.07	20.7	67	0.95	54.89	2,241	4.75E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
128	20.92	21.08	0.2	21.00	170,600	3,020	2,520	66.7	1.80	2.21	74.4	2.17	74.4	2.17	1.61	18.0	0.91	18.2	16.3	3.27	1.07	20.7	67	0.95	54.93	2,251	4.77E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
129	21.08	21.24	0.2	21.16	172,400	3,240	2,539	66.9	1.91	2.23	74.9	2.19	74.9	2.19	1.64	18.3	0.91	18.7	16.6	3.37	1.07	21.1	68	0.95	55.27	2,274	4.76E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
130	21.24	21.41	0.2	21.33	169,600	3,380	2,559	65.3	2.02	2.25	73.4	2.21	73.4	2.21	1.70	18.2	0.90	19.5	16.4	3.52	1.08	21.2	68	0.95	55.32	2,285	4.77E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
131	21.41	21.57	0.2	21.49	168,800	3,560	2,579	64.5	2.14	2.27	72.7	2.23	72.7	2.23	1.75	18.2	0.90	20.2	16.4	3.64	1.08	21.3	68	0.95	55.48	2,300	4.78E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
132	21.57	21.74	0.2	21.65	169,400	3,800	2,598	64.2	2.28	2.29	72.7	2.25	72.7	2.25	1.81	18.5	0.89	20.8	16.5	3.75	1.08	21.7	68	0.95	55.76	2,321	4.77E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
133	21.74	21.90	0.2	21.82	169,200	3,920	2,618	63.6	2.35	2.30	72.4	2.26	72.4	2.26	1.84	18.5	0.89	21.2	16.5	3.81	1.09	21.8	68	0.95	55.85	2,333	4.78E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
134	21.90	22.06	0.2	21.98	168,200	4,000	2,638	62.8	2.42	2.32	71.7	2.28	71.7	2.28	1.87	18.5	0.89	21.6	16.4	3.87	1.09	21.8	68	0.95	55.86	2,343	4.80E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
135	22.06	22.23	0.2	22.15	172,800	4,120	2,657	64.0	2.42	2.31	73.3	2.27	73.3	2.27	1.85	19.0	0.88	21.4	16.8	3.84	1.09	22.1	70	0.95	56.12	2,362	4.79E-04	1.80E-03	0.166%	0.166%	0.331%	0.0065
136	22.23	22.39	0.2	22.31	173,400	4,280	2,677	63.8	2.51	2.32	73.3	2.28	73.3	2.28	1.89	19.1	0.88	21.8	16.8	3.89	1.09	22.3	70	0.95	56.28	2,378	4.80E-04	1.80E-03	0.166%	0.166%	0.331%	0.0065
137	22.39	22.56	0.2	22.47	177,600	4,260	2,697	64.9	2.44	2.31	74.8	2.26	74.8	2.26	1.84	19.4	0.88	21.2	17.1	3.81	1.09	22.4	70	0.95	56.37	2,390	4.81E-04	1.80E-03	0.166%	0.166%	0.331%	0.0065
138	22.56	22.72	0.2	22.64	173,800	4,200	2,717	63.0	2.45	2.32	73.0	2.27	73.0	2.27	1.87	19.1	0.88	21.6	16.7	3.87	1.09	22.1	70	0.95	56.13	2,389	4.85E-04	1.80E-03	0.166%	0.166%	0.331%	0.0065
139	22.72	22.88	0.2	22.80	170,000	4,160	2,736	61.1	2.49	2.33	71.1	2.29	71.1	2.29	1.91	18.8	0.87	22.0	16.4	3.93	1.09	21.8	68	0.95	55.91	2,388	4.88E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
140	22.88	23.05	0.2	22.97	169,800	4,320	2,756	60.6	2.59	2.35	70.8	2.30	70.8	2.30	1.95	18.9	0.87	22.5	16.4	4.00	1.10	22.0	68	0.95	56.03	2,402	4.89E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
141	23.05	23.21	0.2	23.13	171,400	4,440	2,776	60.8	2.63	2.35	71.2	2.30	71.2	2.30	1.96	19.1	0.87	22.7	16.5	4.02	1.10	22.2	70	0.95	56.17	2,416	4.89E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
142	23.21	23.38	0.2	23.29	169,600	4,520	2,795	59.7	2.71	2.37	70.2	2.32	70.2	2.32	2.00	19.0	0.86	23.2	16.4	4.08	1.10	22.1	70	0.95	56.15	2,424	4.91E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
143	23.38	23.54	0.2	23.46	166,200	4,600	2,815	58.0	2.82	2.39	68.5	2.34	68.5	2.34	2.07	18.8	0.86	23.9	16.1	4.17	1.11	22.0	70	0.95	56.06	2,429	4.94E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
144	23.54	23.70	0.2	23.62	169,000	4,700	2,835	58.6	2.83	2.39	69.5	2.33	69.5	2.33	2.06	19.1	0.86	23.8	16.3	4.15	1.11	22.2	70	0.95	56.23	2,444	4.94E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
145	23.70	23.87	0.2	23.79	166,200	4,560	2,854	57.2	2.79	2.39	68.1	2.34	68.1	2.34	2.07	18.8	0.85	23.9	16.0	4.16	1.11	21.9	68	0.95	55.95	2,441	4.98E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
146	23.87	24.03	0.2	23.95	164,400	4,800	2,874	56.2	2.97	2.41	67.1	2.36	67.1	2.36	2.15	18.8	0.85	24.8	16.0	4.27	1.11	22.0	70	0.95	56.07	2,454	4.99E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
147	24.03	24.20	0.2	24.11	158,200	4,580	2,894	53.7	2.95	2.43	64.4	2.37	64.4	2.37	2.19	18.1	0.85	25.2	15.4	4.31	1.12	21.5	68	0.94	55.59	2,442	5.00E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
148	24.20	24.36	0.2	24.28	152,200	4,380	2,913	51.2	2.93	2.44	61.7	2.38	61.7	2.38	2.24	17.5	0.84	25.6	14.8	4.35	1.12	20.9	67	0.94	55.13	2,430	5.05E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
149	24.36	24.52	0.2	24.44	146,600	4,360	2,933	49.0	3.03	2.46	59.2	2.40	59.2	2.40	2.33	17.1	0.84	26.6	14.4	4.44	1.13	20.6	67	0.94	54.86	2,426	5.10E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
150	24.52	24.69	0.2	24.61	142,000	4,600	2,953	47.1	3.31	2.50	57.2	2.44	57.2	2.44	2.49	16.8	0.84	28.1	14.1	4.57	1.14	20.7	67	0.94	54.87	2,435	5.11E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
151	24.69	24.85	0.2	24.77	144,400	4,740	2,972	47.6	3.35	2.50	58.0	2.44	58.0	2.44	2.49	17.1	0.84	28.1	14.3	4.57	1.14	20.9	67	0.94	55.07	2,451	5.11E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
152	24.85	25.02	0.2	24.93	150,400	4,620	2,992	49.3	3.13	2.47	60.2	2.41	60.2	2.41	2.35	17.6	0.83	26.8	14.6	4.46	1.13	21.0	67	0.94	55.16	2,464	5.12E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
153	25.02	25.18	0.2	25.10	159,200	4,460	3,012	51.9	2.86	2.43	63.5	2.36	63.5	2.36	2.17	18.2	0.83	25.0	15.1	4.29	1.11	21.2	68	0.94	55.31	2,478	5.12E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
154	25.18	25.34	0.2	25.26	170,000	4,320	3,031	55.1	2.59	2.38	67.6	2.31	67.6	2.31	2.00	19.0	0.83	23.1	15.8	4.07	1.10	21.4	68	0.94	55.53	2,497	5.12E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
155	25.34	25.51	0.2	25.43	183,200	4,300	3,051	59.0	2.39	2.33	72.6	2.27	72.6	2.27	1.85	20.1	0.83	21.3	16.6	3.83	1.09	21.9	68	0.94	55.94	2,523	5.10E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
156	25.51	25.67	0.2	25.59	219,800	4,160	3,071	70.6	1.92	2.21	86.8	2.15	86.8	2.15	1.54	22.9	0.82	17.2	18.9	3.07	1.06	23.1	71	0.94	56.94	2,576	5.03E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
157	25.67	25.84	0.2	25.75	281,400	3,920	3,091	90.1	1.41	2.04	110.8	1.98	110.8	1.98	1.27	27.4	0.82	12.3	22.5	1.66	1.03	24.9	72	0.94	58.41	2,651	4.91E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
158	25.84	26.00	0.2	25.92	297,400	3,760	3,110	94.6	1.28	2.00	116.7	1.93	116.7	1.93	1.22	28.5	0.82	11.1	23.3	1.26	1.03	25.2	74	0.94	58.63	2,670	4.91E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
159	26.00	26.16	0.2	26.08	318,600	3,340	3,130	100.8	1.06	1.92	124.6	1.85	124.6	1.85	1.15	29.7	0.82	9.3	24.2	0.65	1.02	25.3	74	0.94	58.71	2,682	4.92E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
160	26.16	26.33	0.2	26.25	317,200	4,020	3,150	99.7	1.28	1.98	123.7	1.91	123.7	1.91	1.20	30.2	0.81	10.7	24.5	1.11	1.03	26.3	75	0.94	59.44	2,724	4.87E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
161	26.33	26.49	0.2	26.41	329,600	4,160	3,169	103.0	1.27	1.97	128.1	1.90	128.1	1.90	1.19	31.2	0.81	10.4	25.3	1.01	1.02	26.9	75	0.94	59.93	2,755	4.85E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
162	26.49	26.66	0.2	26.57	364,800	4,480	3,189	113.4	1.24	1.93	141.4	1.86	141.4	1.86	1.15	34.1	0.81	9.5	27.5	0.70	1.02	28.7	78	0.94	61.27	2,825	4.76E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
163	26.66	26.82	0.2	26.74	424,800	5,420	3,209	131.4	1.29	1.90	164.1	1.83	164.1	1.83	1.13	39.2	0.81	8.7	31.6	0.48	1.02	32.5	82	0.94	63.84	2,953	4.58E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
164	26.82	26.98	0.2	26.90	541,000	4,920	3,228	166.6	0.91	1.72	208.3	1.65	208.3	1.65	1.00	46.9	0.80	5.2	37.6	0.01	1.00	37.7	87	0.94	67.07	3,112	4.37E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
165	26.98	27.15	0.2	27.07	505,200	6,520	3,248	154.5	1.30	1.85	194.0	1.78	194.0	1.78	1.09	45.8	0.80	7.7	36.7	0.24	1.01	37.4	87	0.94	66.86	3,111	4.40E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
166	27.15	27.31	0.2	27.23	442,800	3,880	3,268	134.5	0.88	1.78	169.5	1.70	169.5	1.70	1.04	39.1	0.80	6.2	31.2	0.04	1.01	31.4	81	0.93	63.09	2,945	4.63E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
167	27.31	27.48	0.2	27.40	413,000	4,340	3,287	124.6	1.06	1.85	157.6	1.78	157.6	1.78	1.09	37.5	0.80	7.7	29.8	0.24	1.01	30.4	80	0.93	62.40	2,921	4.69E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
168	27.48	27.64	0.2	27.56	347,200	4,920	3,307	104.0	1.43	2.00	132.1	1.93	132.1	1.93	1.22	33.2	0.79	11.0	26.3	1.22	1.03	28.3	78	0.93	60.93	2,861	4.82E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
169	27.64	27.81	0.2	27.72	375,400	4,900	3,327	111.8	1.32	1.95	142.4	1.88	142.4	1.88	1.17	35.3	0.79	9.9	27.9	0.83	1.02	29.3	79	0.93	61.66	2,904	4.78E-04	1.50E-03	0.096%	0.096%	0.192%	0.0038
170	27.81	27.97	0.2	27.89	416,600	5,640	3,346	123.5	1.36	1.93	157.6	1.86	157.6	1.86	1.15	38.9	0.79	9.4	30.6	0.68	1.02	31.9	81	0.93	63.43	2,996	4.66E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
171	27.97	28.13	0.2	28.05	529,200	6,580	3,366	156.2	1.25	1.83	199.6	1.76	199.6	1.76	1.08	47.7	0.79	7.3	37.5	0.17	1.01	38.0	88	0.93	67.25	3,186	4.41E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
172	28.13	28.30	0.2	28.22	569,200	6,000	3,386	167.1	1.06	1.76	214.0	1.69	214.0	1.69	1.03	50.0	0.78	5.9	39.2	0.02	1.00	39.4	89	0.93	68.04	3,233	4.37E-04	1.30E-03	0.046%	0.046%	0.091%	0.0018
173	28.30	28.46	0.2	28.38	503,000	4,680	3,406	146.7	0.94	1.77	188.6	1.69	188.6	1.69	1.03	44.2	0.78	5.9	34.5	0.02	1.00	34.7	84	0.93	65.22	3,108	4.57E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
174	28.46	28.63	0.2	28.54	438,000	3,840	3,425	126.9	0.88	1.80	163.8	1.71	163.8	1.71	1.05	38.8	0.78	6.4	30.2	0.05	1.01	30.5	80	0.93	62.48	2,985	4.79E-04	1.50E-03	0.090%	0.090%	0.180%	0.0035
175	28.63	28.79	0.2	28.71	411,800	3,600	3,445	118.5	0.88	1.82	153.5	1.73	153.5	1.73	1.06	36.7	0.78	6.8	28.5	0.09	1.01	28.9	78	0.93	61.35	2,940	4.89E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
176	28.79	28.95	0.2	28.87	403,800	3,660	3,465	115.6	0.91	1.84	150.1	1.75	150.1	1.75	1.07	36.3	0.77	7.1	28.1	0.14	1.01	28.5	78	0.93	61.08	2,935	4.92E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
177	28.95	29.12	0.2	29.04	376,400	3,940	3,484	107.0	1.06	1.90	139.5	1.82	139.5	1.82	1.12	34.6	0.77	8.5	26.7	0.42	1.01	27.5	77	0.93	60.40	2,911	4.99E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
178	29.12	29.28	0.2	29.20	377,000	3,860	3,504	106.6	1.03	1.90	139.4	1.81	139.4	1.81	1.12	34.6	0.77	8.4	26.6	0.39	1.01	27.4	77	0.93	60.30	2,914	5.02E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
179	29.28	29.45	0.2	29.36	407,000	3,500	3,524	114.5	0.87	1.83	150.0	1.74	150.0	1.74	1.06	36.3	0.77	6.8	27.9	0.10	1.01	28.2	78	0.93	60.91	2,952	4.98E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
180	29.45	29.61	0.2	29.53	514,800	4,740	3,543	144.3	0.93	1.77	189.2	1.68	189.2	1.68	1.03	45.1	0.77	5.8	34.6	0.02	1.00	34.7	84	0.93	65.26	3,172	4.66E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
181	29.61	29.77	0.2	29.69	656,800	4,960	3,563	183.3	0.76	1.63	240.8	1.55	240.8	1.55	1.00	55.0	0.76	3.5	42.0	0.00	1.00	42.0	92	0.93	69.55	3,389	4.38E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
182	29.77	29.94	0.2	29.86	722,000	4,380	3,583	200.5	0.61	1.54	263.9	1.45	263.9	1.45	1.00	58.7	0.76	2.2	44.7	0.00	1.00	44.7	94	0.93	70.98	3,469	4.31E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
183	29.94	30.10	0.2	30.02	734,600	4,780	3,602	202.9	0.65	1.56	267.8	1.47	267.8	1.47	1.00	60.0	0.76	2.4	45.6	0.00	1.00	45.6	94	0.93	71.45	3,501	4.29E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
184	30.10	30.27	0.2	30.18	691,600	5,360	3,622	189.9	0.78	1.63	251.5	1.54	251.5	1.54	1.00	57.8	0.76	3.5	43.8	0.00	1.00	43.8	93	0.92	70.52	3,465	4.31E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
185	30.27	30.43	0.2	30.35	702,400	6,020	3,642	191.9	0.86	1.66	254.7	1.57	254.7	1.57	1.00	59.3	0.76	3.9	44.8	0.00	1.00	44.8	94	0.92	71.04	3,500	4.29E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
186	30.43	30.59	0.2	30.51	645,400	5,020	3,661	175.3	0.78	1.66	233.4	1.57	233.4	1.57	1.00	54.4	0.75	3.8	41.0	0.00	1.00	41.0	91	0.92	68.97	3,407	4.43E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
187	30.59	30.76	0.2	30.68	513,400	3,740	3,681	138.5	0.73	1.72	185.2	1.62	185.2	1.62	1.00	44.1	0.75	4.7	33.1	0.00	1.00	33.1	83	0.92	64.23	3,182	4.77E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
188	30.76	30.92	0.2	30.84	386,400	2,840	3,701	103.4	0.74	1.82	139.0	1.72	139.0	1.72	1.05	34.3	0.75	6.5	25.7	0.06	1.01	25.9	74	0.92	59.19	2,940	5.19E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
189	30.92	31.09	0.2	31.00	302,800	2,760	3,720	80.4	0.92	1.96	108.6	1.86	108.6	1.86	1.15	28.3	0.75	9.5	21.1	0.70	1.02	22.2	70	0.92	56.24	2,801	5.48E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
190	31.09	31.25	0.2	31.17	257,200	3,080	3,740	67.8	1.22	2.09	92.0	1.99	92.0	1.99	1.29	25.2	0.75	12.7	18.8	1.81	1.04	21.3	68	0.92	55.43	2,768	5.58E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
191	31.25	31.41	0.2	31.33	243,400	3,380	3,760	63.7	1.41	2.16	86.9	2.05	86.9	2.05	1.38	24.4	0.74	14.5	18.2	2.34	1.04	21.3	68	0.92	55.48	2,778	5.59E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
192	31.41	31.58	0.2	31.50	232,200	3,460	3,780	60.4	1.51	2.19	82.6	2.09	82.6	2.09	1.44	23.7	0.74	15.5	17.6	2.65	1.05	21.1	68	0.92	55.27	2,774	5.62E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
193	31.58	31.74	0.2	31.66	215,800	3,600	3,799	55.8	1.70	2.25	76.6	2.15	76.6	2.15	1.55	22.5	0.74	17.3	16.7	3.08	1.06	20.8	67	0.92	54.98	2,767	5.67E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
194	31.74	31.91	0.2	31.82	204,000	3,740	3,819	52.4	1.87	2.30	72.2	2.20	72.2	2.20	1.66	21.7	0.74	18.8	16.0	3.40	1.07	20.6	67	0.92	54.80	2,765	5.70E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
195	31.91	32.07	0.2	31.99	195,000	3,920	3,839	49.8	2.05	2.34	68.9	2.24	68.9	2.24	1.77	21.1	0.74	20.3	15.5	3.67	1.08	20.5	67	0.92	54.72	2,768	5.72E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
196	32.07	32.23	0.2	32.15	191,200	3,940	3,858	48.6	2.10	2.36	67.4	2.25	67.4	2.25	1.81	20.8	0.73	20.8	15.3	3.75	1.08	20.3	67	0.91	54.60	2,769	5.69E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
197	32.23	32.40	0.2	32.32	189,600	3,980	3,878	47.9	2.14	2.37	66.6	2.26	66.6	2.26	1.83	20.7	0.73	21.1	15.2	3.80	1.09	20.3	67	0.91	54.57	2,775	5.70E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
198	32.40	32.56	0.2	32.48	189,800	3,940	3,898	47.7	2.12	2.37	66.5	2.26	66.5	2.26	1.82	20.7	0.73	21.0	15.1	3.78	1.09	20.2	67	0.91	54.50	2,778	5.73E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
199	32.56	32.73	0.2	32.64	183,800	3,900	3,917	45.9	2.17	2.39	64.3	2.28	64.3	2.28	1.88	20.2	0.73	21.7	14.7	3.88	1.09	20.0	65	0.91	54.25	2,773	5.77E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
200	32.73	32.89	0.2	32.81	189,600	3,820	3,937	47.2	2.06	2.36	66.1	2.25	66.1	2.25	1.80	20.7	0.73	20.8	15.0	3.75	1.08	20.0	67	0.91	54.31	2,783	5.77E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
201	32.89	33.05	0.2	32.97	227,000	4,040	3,957	56.4	1.81	2.27	79.0	2.16	79.0	2.16	1.57	23.8	0.73	17.6	17.2	3.15	1.06	21.5	68	0.91	55.60	2,856	5.65E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
202	33.05	33.22	0.2	33.14	275,800	4,540	3,976	68.4	1.67	2.18	95.7	2.07	95.7	2.07	1.41	27.9	0.72	15.0	20.2	2.50	1.05	23.7	71	0.91	57.42	2,956	5.49E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
203	33.22	33.38	0.2	33.30	300,800	4,820	3,996	74.3	1.62	2.15	104.1	2.04	104.1	2.04	1.35	30.0	0.72	14.0	21.7	2.21	1.04	24.8	72	0.91	58.32	3,010	5.42E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
204	33.38	33.55	0.2	33.46	381,200	4,980	4,016	93.9	1.32	2.01	131.6	1.90	131.6	1.90	1.19	36.1	0.72	10.5	26.0	1.03	1.02	27.7	77	0.91	60.49	3,130	5.24E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
205	33.55	33.71	0.2	33.63	553,200	5,120	4,035	136.1	0.93	1.79	190.6	1.68	190.6	1.68	1.03	48.5	0.72	5.8	34.8	0.02	1.00	35.0	84	0.91	65.40	3,392	4.86E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
206	33.71	33.87	0.2	33.79	667,200	5,080	4,055	163.5	0.77	1.67	229.3	1.57	229.3	1.57	1.00	56.2	0.72	3.8	40.3	0.00	1.00	40.3	90	0.91	68.55	3,564	4.64E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
207	33.87	34.04	0.2	33.96	708,600	7,600	4,075	172.9	1.08	1.76	242.9	1.66	242.9	1.66	1.01	61.6	0.71	5.3	44.0	0.01	1.00	44.1	94	0.91	70.66	3,683	4.52E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
208	34.04	34.20	0.2	34.12	725,200	6,700	4,094	176.1	0.93	1.71	248.0	1.60	248.0	1.60	1.00	61.9	0.71	4.4	44.1	0.00	1.00	44.1	94	0.90	70.66	3,692	4.48E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
209	34.20	34.37	0.2	34.28	731,800	6,900	4,114	176.9	0.95	1.71	249.6	1.61	249.6	1.61	1.00	62.5	0.71	4.5	44.5	0.00	1.00	44.5	94	0.90	70.85	3,711	4.48E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
210	34.37	34.53	0.2	34.45	829,000	6,140	4,134	199.5	0.74	1.60	282.1	1.49	282.1	1.49	1.00	68.3	0.71	2.7	48.4	0.00	1.00	48.4	95	0.90	72.89	3,827	4.36E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
211	34.53	34.69	0.2	34.61	1,049,200	6,680	4,154	251.6	0.64	1.48	356.2	1.38	356.2	1.38	1.00	83.2	0.71	1.2	58.9	0.00	1.00	58.9	95	0.90	77.82	4,095	4.09E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
																													TOTAL SETTLEMENT (INCHES):			0.72

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.):	120	MAGNITUDE CORRECTION FACTOR:	1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT):	60		
EARTHQUAKE MAGNITUDE:	7.5		
PEAK GROUND ACCELERATION (g):	0.69		
DEPTH OF EXCAVATION (ft):	15.0		
IDENTIFICATION:	CPT-2		
TOTAL DRY SETTLEMENT (IN.):	0.33		

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	15.01	15.17	0.2	15.09	802,280	1,898	1,811	442.0	0.24	1.02	412.5	1.04	412.5	1.04	1.00	57.7	1.07	0.0	61.8	0.00	1.00	61.8	95	0.97	79.07	2,747	2.87E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
94	15.17	15.34	0.2	15.26	841,760	2,594	1,831	458.8	0.31	1.08	430.5	1.10	430.5	1.10	1.00	61.4	1.07	0.0	65.5	0.00	1.00	65.5	95	0.97	80.62	2,816	2.83E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
95	15.34	15.50	0.2	15.42	852,920	3,149	1,850	459.9	0.37	1.13	433.9	1.15	433.9	1.15	1.00	63.2	1.06	0.0	67.0	0.00	1.00	67.0	95	0.97	81.22	2,853	2.82E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
96	15.50	15.67	0.2	15.58	755,440	3,658	1,870	403.0	0.49	1.25	382.3	1.27	382.3	1.27	1.00	58.0	1.05	0.1	61.2	0.00	1.00	61.2	95	0.97	78.80	2,782	2.92E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
97	15.67	15.83	0.2	15.75	659,120	3,856	1,890	347.8	0.59	1.36	331.8	1.37	331.8	1.37	1.00	52.2	1.05	1.2	54.8	0.00	1.00	54.8	95	0.97	75.95	2,696	3.05E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
98	15.83	15.99	0.2	15.91	621,140	3,968	1,909	324.3	0.64	1.40	311.0	1.42	311.0	1.42	1.00	49.9	1.04	1.7	52.1	0.00	1.00	52.1	95	0.97	74.69	2,665	3.12E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
99	15.99	16.16	0.2	16.08	622,120	3,790	1,929	321.5	0.61	1.39	309.9	1.40	309.9	1.40	1.00	49.8	1.04	1.6	51.7	0.00	1.00	51.7	95	0.97	74.50	2,672	3.14E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
100	16.16	16.32	0.2	16.24	665,740	3,175	1,949	340.6	0.48	1.30	330.0	1.31	330.0	1.31	1.00	51.7	1.03	0.5	53.5	0.00	1.00	53.5	95	0.97	75.34	2,716	3.12E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
101	16.32	16.49	0.2	16.40	722,640	3,678	1,969	366.1	0.51	1.30	356.4	1.31	356.4	1.31	1.00	56.1	1.03	0.5	57.7	0.00	1.00	57.7	95	0.97	77.26	2,799	3.06E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
102	16.49	16.65	0.2	16.57	769,320	4,268	1,988	385.9	0.56	1.31	377.5	1.31	377.5	1.31	1.00	59.9	1.02	0.6	61.3	0.00	1.00	61.3	95	0.97	78.84	2,870	3.01E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
103	16.65	16.81	0.2	16.73	793,980	3,476	2,008	394.4	0.44	1.23	387.7	1.23	387.7	1.23	1.00	60.3	1.02	0.0	61.4	0.00	1.00	61.4	95	0.97	78.89	2,886	3.03E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
104	16.81	16.98	0.2	16.90	827,620	3,496	2,028	407.2	0.42	1.21	402.2	1.21	402.2	1.21	1.00	62.4	1.01	0.0	63.3	0.00	1.00	63.3	95	0.97	79.69	2,930	3.01E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
105	16.98	17.14	0.2	17.06	911,120	3,906	2,047	444.0	0.43	1.19	440.6	1.19	440.6	1.19	1.00	68.3	1.01	0.0	68.8	0.00	1.00	68.8	95	0.97	81.96	3,028	2.94E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
106	17.14	17.31	0.2	17.22	1,027,720	4,544	2,067	496.2	0.44	1.16	494.6	1.16	494.6	1.16	1.00	76.5	1.00	0.0	76.7	0.00	1.00	76.7	95	0.96	84.98	3,154	2.82E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
107	17.31	17.47	0.2	17.39	1,381,500	6,220	2,087	661.1	0.45	1.09	661.8	1.09	661.8	1.09	1.00	100.6	1.00	0.0	100.5	0.00	1.00	100.5	95	0.96	92.97	3,468	2.59E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
108	17.47	17.63	0.2	17.55	1,509,820	9,276	2,106	715.8	0.62	1.18	719.9	1.18	719.9	1.18	1.00	112.9	0.99	0.0	112.2	0.00	1.00	112.2	95	0.96	96.46	3,615	2.51E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
109	17.63	17.80	0.2	17.72	1,552,660	11,610	2,126	729.3	0.75	1.25	736.8	1.25	736.8	1.25	1.00	118.5	0.99	0.0	117.2	0.00	1.00	117.2	95	0.96	97.88	3,685	2.48E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
110	17.80	17.96	0.2	17.88	1,517,080	271	2,146	706.0	0.02	0.81	716.6	0.81	716.6	0.81	1.00	102.4	0.98	0.0	100.8	0.00	1.00	100.8	95	0.96	93.07	3,520	2.62E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
111	17.96	18.13	0.2	18.04	1,543,800	3,092	2,165	712.0	0.20	0.81	725.9	0.80	725.9	0.80	1.00	104.0	0.98	0.0	101.9	0.00	1.00	101.9	95	0.96	93.41	3,549	2.63E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
112	18.13	18.29	0.2	18.21	1,565,020	7,336	2,185	715.2	0.47	1.08	732.6	1.08	732.6	1.08	1.00	113.6	0.98	0.0	110.9	0.00	1.00	110.9	95	0.96	96.08	3,667	2.57E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
113	18.29	18.45	0.2	18.37	1,575,760	8,779	2,205	713.7	0.56	1.15	734.3	1.14	734.3	1.14	1.00	116.5	0.97	0.0	113.1	0.00	1.00	113.1	95	0.96	96.72	3,708	2.56E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
114	18.45	18.62	0.2	18.54	1,503,300	9,251	2,224	674.8	0.62	1.20	697.5	1.19	697.5	1.19	1.00	112.7	0.97	0.0	109.0	0.00	1.00	109.0	95	0.96	95.53	3,679	2.60E-04	4.70E-04	0.007%	0.007%	0.013%	0.0003
115	18.62	18.78	0.2	18.70	1,463,000	8,878	2,244	650.9	0.61	1.20	675.8	1.19	675.8	1.19	1.00	109.7	0.96	0.0	105.6	0.00	1.00	105.6	95	0.96	94.55	3,657	2.64E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
116	18.78	18.95	0.2	18.86	1,241,100	10,148	2,264	547.2	0.82	1.35	570.8	1.34	570.8	1.34	1.00	97.3	0.96	0.8	93.3	0.00	1.00	93.3	95	0.96	90.71	3,524	2.77E-04	5.20E-04	0.007%	0.007%	0.015%	0.0003
117	18.95	19.11	0.2	19.03	1,100,200	8,716	2,283	480.8	0.79	1.37	503.8	1.36	503.8	1.36	1.00	86.8	0.95	1.0	82.8	0.00	1.00	82.8	95	0.96	87.18	3,401	2.89E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
118	19.11	19.27	0.2	19.19	968,200	8,813	2,303	419.4	0.91	1.45	441.5	1.44	441.5	1.44	1.00	78.4	0.95	2.0	74.5	0.00	1.00	74.5	95	0.96	84.14	3,297	3.01E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
119	19.27	19.44	0.2	19.36	822,360	8,460	2,323	353.0	1.03	1.54	373.4	1.53	373.4	1.53	1.00	68.4	0.95	3.2	64.7	0.00	1.00	64.7	95	0.96	80.30	3,160	3.16E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
120	19.44	19.60	0.2	19.52	633,100	8,814	2,343	269.3	1.40	1.72	286.2	1.70	286.2	1.70	1.04	55.8	0.94	6.1	52.6	0.04	1.01	52.9	95	0.96	75.09	2,967	3.40E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
121	19.60	19.77	0.2	19.69	529,480	6,391	2,362	223.1	1.21	1.72	238.4	1.70	238.4	1.70	1.04	46.7	0.94	6.1	43.8	0.04	1.01	44.1	94	0.96	70.66	2,804	3.63E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
122	19.77	19.93	0.2	19.85	446,460	5,106	2,382	186.4	1.15	1.75	200.2	1.73	200.2	1.73	1.06	39.8	0.93	6.8	37.2	0.09	1.01	37.6	87	0.96	67.00	2,670	3.84E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
123	19.93	20.10	0.2	20.01	417,640	4,487	2,402	172.9	1.08	1.76	186.5	1.73	186.5	1.73	1.06	37.3	0.93	6.8	34.7	0.09	1.01	35.1	85	0.96	65.45	2,619	3.95E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
124	20.10	20.26	0.2	20.18	411,460	4,503	2,421	168.9	1.10	1.77	183.0	1.75	183.0	1.75	1.07	36.9	0.93	7.0	34.2	0.12	1.01	34.6	84	0.95	65.17	2,618	3.94E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
125	20.26	20.42	0.2	20.34	473,700	5,246	2,441	193.1	1.11	1.73	209.8	1.71	209.8	1.71	1.04	41.9	0.92	6.3	38.7	0.05	1.01	39.0	88	0.95	67.80	2,735	3.80E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
126	20.42	20.59	0.2	20.51	638,420	5,514	2,461	258.5	0.87	1.57	281.6	1.54	281.6	1.54	1.00	53.4	0.92	3.5	49.1	0.00	1.00	49.1	95	0.95	73.24	2,966	3.53E-04	8.00E-04	0.012%	0.012%	0.024%	0.0005
127	20.59	20.75	0.2	20.67	779,660	6,351	2,480	313.3	0.82	1.49	342.6	1.47	342.6	1.47	1.00	63.7	0.92	2.4	58.3	0.00	1.00	58.3	95	0.95	77.55	3,154	3.35E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
128	20.75	20.92	0.2	20.83	859,800	7,786	2,500	342.9	0.91	1.50	376.3	1.48	376.3	1.48	1.00	70.5	0.91	2.5	64.3	0.00	1.00	64.3	95	0.95	80.11	3,271	3.26E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
129	20.92	21.08	0.2	21.00	963,820	7,380	2,520	381.5	0.77	1.42	420.1	1.39	420.1	1.39	1.00	76.8	0.91	1.4	69.8	0.00	1.00	69.8	95	0.95	82.35	3,375	3.18E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
130	21.08	21.24	0.2	21.16	1,002,440	7,248	2,539	393.8	0.72	1.39	435.3	1.36	435.3	1.36	1.00	79.2	0.91	1.1	71.7	0.00	1.00	71.7	95	0.95	83.08	3,418	3.17E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
131	21.24	21.41	0.2	21.33	992,880	6,750	2,559	387.0	0.68	1.37	429.5	1.35	429.5	1.35	1.00	78.0	0.90	0.9	70.3	0.00	1.00	70.3	95	0.95	82.56	3,410	3.20E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
132	21.41	21.57	0.2	21.49	858,600	4,908	2,579	332.0	0.57	1.36	370.0	1.33	370.0	1.33	1.00	67.2	0.90	0.7	60.3	0.00	1.00	60.3	95	0.95	78.43	3,252	3.38E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
133	21.57	21.74	0.2	21.65	673,980	5,994	2,598	258.4	0.89	1.58	289.3	1.55	289.3	1.55	1.00	56.4	0.89	3.5	50.5	0.00	1.00	50.5	95	0.95	73.92	3,076	3.60E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
134	21.74	21.90	0.2	21.82	530,380	6,884	2,618	201.6	1.30	1.77	226.8	1.74	226.8	1.74	1.06	47.4	0.89	6.9	42.3	0.10	1.01	42.7	92	0.95	69.91	2,921	3.82E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
135	21.90	22.06	0.2	21.98	397,020	6,511	2,638	149.5	1.65	1.94	169.1	1.90	169.1	1.90	1.19	37.6	0.89	10.4	33.4	1.00	1.02	35.2	85	0.95	65.53	2,748	4.09E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
136	22.06	22.23	0.2	22.15	345,860	5,452	2,657	129.1	1.59	1.97	146.8	1.93	146.8	1.93	1.22	33.1	0.88	11.1	29.3	1.24	1.03	31.3	81	0.95	63.04	2,653	4.27E-04	1.45E-03	0.083%	0.083%	0.165%	0.0033
137	22.23	22.39	0.2	22.31	345,760	5,357	2,677	128.2	1.56	1.96	146.2	1.92	146.2	1.92	1.21	33.0	0.88	11.0	29.1	1.20	1.03	31.1	81	0.95	62.89	2,657	4.29E-04	1.45E-03	0.083%	0.083%	0.165%	0.0033
138	22.39	22.56	0.2	22.47	408,000	6,114	2,697	150.3	1.51	1.90	171.9	1.87	171.9	1.87	1.16	38.2	0.88	9.6	33.5	0.73	1.02	34.9	84	0.95	65.36	2,771	4.15E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
139	22.56	22.72	0.2	22.64	387,620	6,438	2,717	141.7	1.67	1.96	162.7	1.92	162.7	1.92	1.20	36.9	0.88	10.8	32.3	1.13	1.03	34.2	84	0.95	64.95	2,764	4.19E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
140	22.72	22.88	0.2	22.80	323,660	6,241	2,736	117.3	1.94	2.06	135.4	2.02	135.4	2.02	1.32	32.0	0.87	13.4	27.9	2.02	1.04	31.1	81	0.95	62.86	2,685	4.34E-04	1.45E-03	0.083%	0.083%	0.165%	0.0033
141	22.88	23.05	0.2	22.97	292,460	5,885	2,756	105.1	2.03	2.11	121.9	2.06	121.9	2.06	1.39	29.5	0.87	14.7	25.6	2.40	1.05	29.2	79	0.95	61.57	2,639	4.45E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
142	23.05	23.21	0.2	23.13	274,820	5,099	2,776	98.0	1.87	2.10	114.1	2.06	114.1	2.06	1.38	27.6	0.87	14.5	23.9	2.35	1.05	27.3	77	0.95	60.25	2,592	4.56E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
143	23.21	23.38	0.2	23.29	260,640	4,957	2,795	92.2	1.92	2.13	107.9	2.08	107.9	2.08	1.42	26.5	0.86	15.2	22.8	2.56	1.05	26.5	75	0.95	59.63	2,574	4.63E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
144	23.38	23.54	0.2	23.46	291,660	5,540	2,815	102.6	1.92	2.09	120.3	2.05	120.3	2.05	1.37	29.2	0.86	14.3	25.1	2.28	1.04	28.5	78	0.95	61.09	2,646	4.53E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
145	23.54	23.70	0.2	23.62	326,700	5,346	2,835	114.3	1.65	2.02	134.3	1.97	134.3	1.97	1.26	31.7	0.86	12.1	27.2	1.58	1.03	29.6	79	0.95	61.88	2,690	4.49E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
146	23.70	23.87	0.2	23.79	364,920	5,402	2,854	126.8	1.49	1.95	149.5	1.90	149.5	1.90	1.19	34.6	0.85	10.5	29.5	1.02	1.02	31.3	81	0.95	63.01	2,748	4.42E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
147	23.87	24.03	0.2	23.95	450,800	4,878	2,874	155.9	1.09	1.79	184.0	1.74	184.0	1.74	1.07	40.3	0.85	6.9	34.3	0.11	1.01	34.7	84	0.95	65.23	2,855	4.29E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
148	24.03	24.20	0.2	24.11	516,680	5,232	2,894	177.6	1.02	1.73	210.2	1.68	210.2	1.68	1.02	45.3	0.85	5.8	38.4	0.02	1.00	38.5	88	0.94	67.55	2,967	4.11E-04	9.20E-04	0.034%	0.034%	0.068%	0.0013
149	24.20	24.36	0.2	24.28	613,380	4,797	2,913	209.5	0.79	1.60	248.7	1.55	248.7	1.55	1.00	51.4	0.84	3.5	43.4	0.00	1.00	43.4	93	0.94	70.30	3,098	3.96E-04	9.20E-04	0.022%	0.022%	0.044%	0.0009
150	24.36	24.52	0.2	24.44	694,440	4,038	2,933	235.8	0.58	1.48	280.6	1.42	280.6	1.42	1.00	55.9	0.84	1.8	47.0	0.00	1.00	47.0	95	0.94	72.19	3,192	3.87E-04	9.20E-04	0.016%	0.016%	0.031%	0.0006
151	24.52	24.69	0.2	24.61	723,940	3,733	2,953	244.2	0.52	1.43	291.5	1.37	291.5	1.37	1.00	57.4	0.84	1.2	48.1	0.00	1.00	48.1	95	0.94	72.76	3,228	3.86E-04	9.20E-04	0.015%	0.015%	0.029%	0.0006
152	24.69	24.85	0.2	24.77	723,740	3,951	2,972	242.5	0.55	1.45	290.5	1.39	290.5	1.39	1.00	57.7	0.84	1.4	48.2	0.00	1.00	48.2	95	0.94	72.80	3,241	3.87E-04	9.20E-04	0.015%	0.015%	0.029%	0.0006
153	24.85	25.02	0.2	24.93	689,300	3,473	2,992	229.4	0.51	1.44	275.7	1.38	275.7	1.38	1.00	54.8	0.83	1.3	45.7	0.00	1.00	45.7	94	0.94	71.50	3,193	3.95E-04	9.20E-04	0.018%	0.018%	0.037%	0.0007
154	25.02	25.18	0.2	25.10	602,140	3,802	3,012	198.9	0.63	1.55	240.1	1.49	240.1	1.49	1.00	49.6	0.83	2.8	41.2	0.00	1.00	41.2	91	0.94	69.08	3,095	4.10E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
155	25.18	25.34	0.2	25.26	565,000	3,971	3,031	185.4	0.71	1.61	224.5	1.55	224.5	1.55	1.00	47.3	0.83	3.5	39.2	0.00	1.00	39.2	89	0.94	67.94	3,054	4.18E-04	9.20E-04	0.032%	0.032%	0.064%	0.0013
156	25.34	25.51	0.2	25.43	500,700	3,817	3,051	163.1	0.77	1.67	198.3	1.61	198.3	1.61	1.00	42.8	0.83	4.5	35.4	0.00	1.00	35.4	85	0.94	65.65	2,961	4.34E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
157	25.51	25.67	0.2	25.59	466,580	4,067	3,071	150.9	0.88	1.74	184.2	1.67	184.2	1.67	1.02	40.8	0.82	5.6	33.6	0.02	1.00	33.7	83	0.94	64.60	2,923	4.43E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
158	25.67	25.84	0.2	25.75	501,200	4,713	3,091	161.2	0.95	1.74	197.3	1.68	197.3	1.68	1.02	43.8	0.82	5.7	36.0	0.02	1.00	36.1	86	0.94	66.11	3,001	4.34E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
159	25.84	26.00	0.2	25.92	571,000	4,962	3,110	182.6	0.87	1.68	224.0	1.61	224.0	1.61	1.00	48.9	0.82	4.6	40.0	0.00	1.00	40.0	89	0.94	68.39	3,114	4.21E-04	9.20E-04	0.032%	0.032%	0.064%	0.0013
160	26.00	26.16	0.2	26.08	655,880	4,408	3,130	208.6	0.68	1.56	256.5	1.49	256.5	1.49	1.00	54.0	0.82	2.7	44.0	0.00	1.00	44.0	93	0.94	70.61	3,225	4.09E-04	9.20E-04	0.022%	0.022%	0.044%	0.0009
161	26.16	26.33	0.2	26.25	729,920	4,857	3,150	230.7	0.67	1.52	284.6	1.46	284.6	1.46	1.00	59.4	0.81	2.3	48.3	0.00	1.00	48.3	95	0.94	72.82	3,337	3.98E-04	9.20E-04	0.015%	0.015%	0.029%	0.0006
162	26.33	26.49	0.2	26.41	818,660	4,680	3,169	257.3	0.57	1.44	318.2	1.38	318.2	1.38	1.00	64.9	0.81	1.2	52.6	0.00	1.00	52.6	95	0.94	74.94	3,445	3.88E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
163	26.49	26.66	0.2	26.57	964,780	4,881	3,189	301.5	0.51	1.36	373.8	1.29	373.8	1.29	1.00	74.5	0.81	0.3	60.2	0.00	1.00	60.2	95	0.94	78.38	3,614	3.72E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
164	26.66	26.82	0.2	26.74	1,063,380	5,365	3,209	330.4	0.51	1.33	410.8	1.26	410.8	1.26	1.00	81.4	0.81	0.0	65.6	0.00	1.00	65.6	95	0.94	80.64	3,730	3.63E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
165	26.82	26.98	0.2	26.90	902,700	5,539	3,228	278.6	0.62	1.44	347.6	1.37	347.6	1.37	1.00	71.5	0.80	1.2	57.4	0.00	1.00	57.4	95	0.94	77.15	3,579	3.80E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
166	26.98	27.15	0.2	27.07	645,260	5,191	3,248	197.7	0.81	1.63	247.7	1.56	247.7	1.56	1.00	54.3	0.80	3.7	43.4	0.00	1.00	43.4	93	0.94	70.29	3,271	4.19E-04	9.20E-04	0.022%	0.022%	0.044%	0.0009
167	27.15	27.31	0.2	27.23	489,300	5,065	3,268	148.7	1.04	1.79	187.3	1.72	187.3	1.72	1.05	43.5	0.80	6.5	34.7	0.07	1.01	35.0	84	0.93	65.42	3,053	4.46E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
168	27.31	27.48	0.2	27.40	419,340	4,526	3,287	126.6	1.09	1.86	160.0	1.78	160.0	1.78	1.09	38.1	0.80	7.8	30.3	0.25	1.01	30.9	80	0.93	62.75	2,938	4.67E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
169	27.48	27.64	0.2	27.56	379,340	4,262	3,307	113.7	1.13	1.90	144.3	1.83	144.3	1.83	1.13	35.0	0.79	8.7	27.8	0.48	1.02	28.7	78	0.93	61.21	2,874	4.80E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
170	27.64	27.81	0.2	27.72	398,720	3,986	3,327	118.9	1.01	1.86	151.3	1.78	151.3	1.78	1.09	36.1	0.79	7.7	28.6	0.23	1.01	29.1	79	0.93	61.53	2,898	4.79E-04	1.50E-03	0.096%	0.096%	0.192%	0.0038
171	27.81	27.97	0.2	27.89	503,040	4,282	3,346	149.3	0.86	1.73	190.3	1.66	190.3	1.66	1.01	43.7	0.79	5.3	34.5	0.01	1.00	34.6	84	0.93	65.14	3,077	4.54E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
172	27.97	28.13	0.2	28.05	644,900	4,427	3,366	190.6	0.69	1.59	243.2	1.52	243.2	1.52	1.00	53.5	0.79	3.1	42.0	0.00	1.00	42.0	92	0.93	69.54	3,294	4.26E-04	1.30E-03	0.035%	0.035%	0.070%	0.0014

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	651,180	4,507	3,386	191.3	0.70	1.59	244.9	1.52	244.9	1.52	1.00	54.0	0.78	3.1	42.3	0.00	1.00	42.3	92	0.93	69.70	3,311	4.26E-04	1.30E-03	0.035%	0.035%	0.070%	0.0014
174	28.30	28.46	0.2	28.38	612,520	4,378	3,406	178.9	0.72	1.63	229.7	1.55	229.7	1.55	1.00	51.3	0.78	3.5	40.1	0.00	1.00	40.1	90	0.93	68.44	3,261	4.36E-04	1.30E-03	0.043%	0.043%	0.086%	0.0017
175	28.46	28.63	0.2	28.54	629,980	4,539	3,425	182.9	0.72	1.62	235.5	1.54	235.5	1.54	1.00	52.6	0.78	3.4	41.0	0.00	1.00	41.0	91	0.93	68.98	3,296	4.33E-04	1.30E-03	0.039%	0.039%	0.078%	0.0015
176	28.63	28.79	0.2	28.71	685,360	5,128	3,445	198.0	0.75	1.61	255.5	1.53	255.5	1.53	1.00	57.0	0.78	3.2	44.3	0.00	1.00	44.3	94	0.93	70.77	3,392	4.24E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
177	28.79	28.95	0.2	28.87	726,960	4,492	3,465	208.8	0.62	1.53	270.2	1.45	270.2	1.45	1.00	59.0	0.77	2.2	45.7	0.00	1.00	45.7	94	0.93	71.52	3,437	4.20E-04	9.20E-04	0.018%	0.018%	0.037%	0.0007
178	28.95	29.12	0.2	29.04	724,040	3,974	3,484	206.8	0.55	1.50	268.4	1.42	268.4	1.42	1.00	58.2	0.77	1.7	44.9	0.00	1.00	44.9	94	0.93	71.11	3,427	4.24E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
179	29.12	29.28	0.2	29.20	809,800	4,634	3,504	230.1	0.57	1.48	299.3	1.40	299.3	1.40	1.00	64.6	0.77	1.5	49.8	0.00	1.00	49.8	95	0.93	73.58	3,556	4.11E-04	8.20E-04	0.012%	0.012%	0.025%	0.0005
180	29.28	29.45	0.2	29.36	770,800	5,726	3,524	217.8	0.75	1.57	284.1	1.49	284.1	1.49	1.00	63.4	0.77	2.7	48.7	0.00	1.00	48.7	95	0.93	73.05	3,541	4.15E-04	8.20E-04	0.013%	0.013%	0.026%	0.0005
181	29.45	29.61	0.2	29.53	1,070,200	6,664	3,543	301.0	0.62	1.42	393.4	1.34	393.4	1.34	1.00	84.0	0.77	0.8	64.3	0.00	1.00	64.3	95	0.93	80.14	3,895	3.79E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
182	29.61	29.77	0.2	29.69	1,327,860	7,858	3,563	371.7	0.59	1.34	486.8	1.26	486.8	1.26	1.00	101.8	0.76	0.1	77.8	0.00	1.00	77.8	95	0.93	85.38	4,161	3.57E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
183	29.77	29.94	0.2	29.86	1,300,360	6,964	3,583	362.0	0.54	1.32	475.4	1.24	475.4	1.24	1.00	98.9	0.76	0.0	75.4	0.00	1.00	75.4	95	0.93	84.48	4,128	3.62E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
184	29.94	30.10	0.2	30.02	942,400	4,681	3,602	260.6	0.50	1.40	343.6	1.31	343.6	1.31	1.00	73.2	0.76	0.5	55.7	0.00	1.00	55.7	95	0.93	76.36	3,742	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
185	30.10	30.27	0.2	30.18	688,920	3,325	3,622	189.2	0.49	1.50	250.5	1.40	250.5	1.40	1.00	55.1	0.76	1.6	41.8	0.00	1.00	41.8	91	0.92	69.39	3,410	4.38E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
186	30.27	30.43	0.2	30.35	585,000	3,419	3,642	159.6	0.59	1.61	212.1	1.51	212.1	1.51	1.00	48.4	0.76	3.0	36.6	0.00	1.00	36.6	86	0.92	66.41	3,272	4.59E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
187	30.43	30.59	0.2	30.51	653,580	3,325	3,661	177.5	0.51	1.53	236.3	1.44	236.3	1.44	1.00	52.8	0.75	2.0	39.8	0.00	1.00	39.8	89	0.92	68.30	3,374	4.48E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
188	30.59	30.76	0.2	30.68	833,760	3,776	3,681	225.5	0.45	1.42	300.7	1.32	300.7	1.32	1.00	65.1	0.75	0.7	48.9	0.00	1.00	48.9	95	0.92	73.15	3,624	4.19E-04	8.20E-04	0.013%	0.013%	0.026%	0.0005
189	30.76	30.92	0.2	30.84	886,800	4,116	3,701	238.6	0.47	1.41	319.0	1.31	319.0	1.31	1.00	69.0	0.75	0.5	51.7	0.00	1.00	51.7	95	0.92	74.51	3,701	4.13E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
190	30.92	31.09	0.2	31.00	825,680	4,521	3,720	220.9	0.55	1.48	296.2	1.39	296.2	1.39	1.00	65.7	0.75	1.3	49.1	0.00	1.00	49.1	95	0.92	73.24	3,648	4.21E-04	8.20E-04	0.012%	0.012%	0.025%	0.0005
191	31.09	31.25	0.2	31.17	644,120	4,308	3,740	171.2	0.67	1.62	230.5	1.52	230.5	1.52	1.00	53.6	0.75	3.2	39.9	0.00	1.00	39.9	89	0.92	68.37	3,414	4.52E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
192	31.25	31.41	0.2	31.33	543,580	3,983	3,760	143.6	0.74	1.71	194.0	1.61	194.0	1.61	1.00	46.4	0.74	4.5	34.5	0.00	1.00	34.5	84	0.92	65.13	3,261	4.76E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
193	31.41	31.58	0.2	31.50	467,560	4,317	3,780	122.7	0.93	1.82	166.4	1.72	166.4	1.72	1.05	41.6	0.74	6.6	30.8	0.07	1.01	31.1	81	0.92	62.91	3,158	4.94E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
194	31.58	31.74	0.2	31.66	425,600	4,675	3,799	111.0	1.11	1.90	151.1	1.81	151.1	1.81	1.11	39.0	0.74	8.3	28.8	0.36	1.01	29.6	79	0.92	61.86	3,113	5.04E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
195	31.74	31.91	0.2	31.82	410,940	4,503	3,819	106.6	1.11	1.92	145.5	1.82	145.5	1.82	1.12	37.8	0.74	8.5	27.9	0.42	1.01	28.7	78	0.92	61.25	3,090	5.10E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
196	31.91	32.07	0.2	31.99	464,220	4,476	3,839	119.9	0.97	1.84	164.0	1.74	164.0	1.74	1.07	41.5	0.74	6.9	30.6	0.11	1.01	30.9	80	0.92	62.79	3,176	4.99E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
197	32.07	32.23	0.2	32.15	682,280	4,715	3,858	175.8	0.70	1.62	240.3	1.52	240.3	1.52	1.00	56.7	0.73	3.1	41.6	0.00	1.00	41.6	91	0.91	69.30	3,515	4.48E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
198	32.23	32.40	0.2	32.32	925,300	5,864	3,878	237.6	0.64	1.50	325.1	1.40	325.1	1.40	1.00	74.0	0.73	1.5	54.2	0.00	1.00	54.2	95	0.91	75.68	3,848	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
199	32.40	32.56	0.2	32.48	941,140	5,547	3,898	240.5	0.59	1.47	329.9	1.37	329.9	1.37	1.00	74.6	0.73	1.2	54.5	0.00	1.00	54.5	95	0.91	75.83	3,866	4.12E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
200	32.56	32.73	0.2	32.64	784,300	4,965	3,917	199.2	0.64	1.56	274.2	1.45	274.2	1.45	1.00	63.7	0.73	2.2	46.4	0.00	1.00	46.4	95	0.91	71.89	3,674	4.35E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
201	32.73	32.89	0.2	32.81	685,880	5,042	3,937	173.2	0.74	1.64	239.2	1.54	239.2	1.54	1.00	57.3	0.73	3.4	41.7	0.00	1.00	41.7	91	0.91	69.35	3,553	4.52E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
202	32.89	33.05	0.2	32.97	662,920	5,140	3,957	166.5	0.78	1.67	230.6	1.57	230.6	1.57	1.00	55.9	0.73	3.9	40.6	0.00	1.00	40.6	90	0.91	68.71	3,529	4.58E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
203	33.05	33.22	0.2	33.14	744,880	6,282	3,976	186.3	0.85	1.66	258.5	1.56	258.5	1.56	1.00	62.7	0.72	3.7	45.3	0.00	1.00	45.3	94	0.91	71.31	3,672	4.42E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
204	33.22	33.38	0.2	33.30	947,120	5,929	3,996	236.0	0.63	1.50	327.8	1.40	327.8	1.40	1.00	75.6	0.72	1.5	54.5	0.00	1.00	54.5	95	0.91	75.84	3,915	4.17E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
205	33.38	33.55	0.2	33.46	1,098,420	6,226	4,016	272.5	0.57	1.42	379.3	1.32	379.3	1.32	1.00	85.7	0.72	0.6	61.7	0.00	1.00	61.7	95	0.91	79.01	4,088	4.01E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
206	33.55	33.71	0.2	33.63	1,015,460	6,481	4,035	250.6	0.64	1.48	349.8	1.38	349.8	1.38	1.00	80.7	0.72	1.3	57.9	0.00	1.00	57.9	95	0.91	77.39	4,014	4.10E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
207	33.71	33.87	0.2	33.79	836,100	5,514	4,055	205.2	0.66	1.56	287.3	1.45	287.3	1.45	1.00	67.9	0.72	2.2	48.6	0.00	1.00	48.6	95	0.91	73.01	3,796	4.36E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
208	33.87	34.04	0.2	33.96	696,820	5,169	4,075	170.0	0.75	1.65	238.9	1.54	238.9	1.54	1.00	58.3	0.71	3.5	41.7	0.00	1.00	41.7	91	0.91	69.34	3,614	4.60E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
209	34.04	34.20	0.2	34.12	626,380	5,376	4,094	152.0	0.86	1.73	214.2	1.62	214.2	1.62	1.00	53.8	0.71	4.7	38.4	0.00	1.00	38.4	88	0.90	67.45	3,524	4.69E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
210	34.20	34.37	0.2	34.28	600,380	5,713	4,114	144.9	0.96	1.78	204.8	1.67	204.8	1.67	1.02	52.4	0.71	5.5	37.2	0.01	1.00	37.4	87	0.90	66.87	3,502	4.74E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
211	34.37	34.53	0.2	34.45	569,600	6,137	4,134	136.8	1.09	1.83	193.9	1.72	193.9	1.72	1.05	50.7	0.71	6.6	35.9	0.07	1.01	36.3	86	0.90	66.20	3,475	4.80E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
212	34.53	34.69	0.2	34.61	549,800	6,758	4,154	131.4	1.24	1.88	186.7	1.78	186.7	1.78	1.09	49.8	0.71	7.7	35.3	0.23	1.01	35.9	85	0.90	65.96	3,471	4.83E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
213	34.69	34.86	0.2	34.78	528,800	7,356	4,173	125.7	1.40	1.94	179.1	1.83	179.1	1.83	1.13	48.8	0.71	8.8	34.5	0.49	1.02	35.5	85	0.90	65.74	3,467	4.86E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
214	34.86	35.02	0.2	34.94	492,560	5,591	4,193	116.5	1.14	1.90	166.4	1.79	166.4	1.79	1.10	44.8	0.70	7.9	31.5	0.27	1.01	32.2	82	0.90	63.62	3,364	5.03E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
215	35.02	35.19	0.2	35.10	492,640	5,173	4,213	115.9	1.06	1.88	166.1	1.76	166.1	1.76	1.08	44.4	0.70	7.4	31.2	0.18	1.01	31.7	81	0.89	63.30	3,354	5.01E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
216	35.19	35.35	0.2	35.27	466,000	4,561	4,232	109.1	0.99	1.88	156.7	1.76	156.7	1.76	1.08	42.0	0.70	7.3	29.4	0.17	1.01	29.9	79	0.89	62.06	3,296	5.12E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
217	35.35	35.52	0.2	35.43	458,500	4,640	4,252	106.8	1.02	1.89	153.9	1.78	153.9	1.78	1.09	41.5	0.70	7.6	29.0	0.22	1.01	29.6	79	0.89	61.86	3,294	5.15E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
218	35.52	35.68	0.2	35.60	466,220	4,518	4,272	108.1	0.98	1.88	156.1	1.76	156.1	1.76	1.08	42.0	0.70	7.3	29.3	0.16	1.01	29.7	79	0.89	61.96	3,306	5.16E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
219	35.68	35.84	0.2	35.76	474,580	4,830	4,291	109.6	1.03	1.89	158.5	1.77	158.5	1.77	1.08	42.9	0.70	7.5	29.8	0.19	1.01	30.4	80	0.89	62.39	3,337	5.13E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
220	35.84	36.01	0.2	35.93	458,840	4,881	4,311	105.4	1.07	1.91	152.9	1.79	152.9	1.79	1.10	41.8	0.69	8.0	29.0	0.30	1.01	29.7	79	0.89	61.94	3,321	5.18E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
221	36.01	36.17	0.2	36.09	435,420	4,400	4,331	99.5	1.02	1.92	144.8	1.80	144.8	1.80	1.10	39.7	0.69	8.0	27.5	0.31	1.01	28.2	78	0.88	60.86	3,270	5.23E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
222	36.17	36.34	0.2	36.25	440,000	4,541	4,350	100.1	1.04	1.92	146.0	1.80	146.0	1.80	1.11	40.2	0.69	8.1	27.8	0.32	1.01	28.5	78	0.88	61.07	3,289	5.22E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
223	36.34	36.50	0.2	36.42	430,260	5,059	4,370	97.5	1.19	1.97	142.4	1.85	142.4	1.85	1.14	40.0	0.69	9.1	27.6	0.60	1.02	28.7	78	0.88	61.20	3,303	5.22E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
224	36.50	36.66	0.2	36.58	408,380	5,736	4,390	92.0	1.42	2.04	134.9	1.92	134.9	1.92	1.21	38.9	0.69	10.8	26.8	1.15	1.03	28.6	78	0.88	61.19	3,310	5.23E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
225	36.66	36.83	0.2	36.75	405,560	6,211	4,409	91.0	1.55	2.07	133.6	1.95	133.6	1.95	1.24	39.1	0.69	11.6	26.9	1.41	1.03	29.1	79	0.88	61.49	3,334	5.22E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
226	36.83	36.99	0.2	36.91	397,960	6,530	4,429	88.9	1.66	2.09	130.8	1.98	130.8	1.98	1.27	38.8	0.69	12.3	26.6	1.66	1.03	29.1	79	0.88	61.53	3,344	5.23E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
227	36.99	37.16	0.2	37.07	355,520	6,427	4,449	78.9	1.83	2.16	116.6	2.04	116.6	2.04	1.36	35.5	0.68	14.1	24.3	2.23	1.04	27.6	77	0.88	60.42	3,291	5.34E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
228	37.16	37.32	0.2	37.24	333,140	6,317	4,469	73.6	1.92	2.20	109.0	2.08	109.0	2.08	1.41	33.8	0.68	15.1	23.0	2.53	1.05	26.7	75	0.87	59.77	3,262	5.34E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
229	37.32	37.48	0.2	37.40	327,700	6,166	4,488	72.0	1.91	2.20	107.0	2.08	107.0	2.08	1.42	33.3	0.68	15.2	22.6	2.56	1.05	26.3	75	0.87	59.49	3,254	5.38E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
230	37.48	37.65	0.2	37.57	323,920	5,975	4,508	70.9	1.87	2.20	105.6	2.08	105.6	2.08	1.42	32.8	0.68	15.2	22.3	2.54	1.05	25.9	74	0.87	59.21	3,246	5.42E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
231	37.65	37.81	0.2	37.73	321,920	5,822	4,528	70.1	1.83	2.20	104.7	2.07	104.7	2.07	1.41	32.6	0.68	15.1	22.1	2.51	1.05	25.7	74	0.87	59.00	3,242	5.45E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
232	37.81	37.98	0.2	37.89	320,480	5,798	4,547	69.5	1.84	2.20	104.0	2.08	104.0	2.08	1.41	32.5	0.68	15.1	22.0	2.53	1.05	25.6	74	0.87	58.92	3,244	5.47E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
233	37.98	38.14	0.2	38.06	318,880	5,814	4,567	68.8	1.85	2.21	103.3	2.08	103.3	2.08	1.42	32.4	0.67	15.3	21.8	2.57	1.05	25.5	74	0.87	58.87	3,248	5.49E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
234	38.14	38.30	0.2	38.22	317,060	4,908	4,587	68.1	1.57	2.16	102.4	2.03	102.4	2.03	1.35	31.6	0.67	13.9	21.3	2.17	1.04	24.3	72	0.87	57.95	3,205	5.58E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
235	38.30	38.47	0.2	38.39	310,140	4,913	4,606	66.3	1.61	2.18	100.0	2.05	100.0	2.05	1.37	31.1	0.67	14.3	20.9	2.29	1.04	24.1	72	0.87	57.77	3,201	5.61E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
236	38.47	38.63	0.2	38.55	290,600	4,704	4,626	61.8	1.64	2.21	93.5	2.08	93.5	2.08	1.41	29.4	0.67	15.1	19.7	2.53	1.05	23.2	71	0.87	57.07	3,169	5.70E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
237	38.63	38.80	0.2	38.71	282,980	4,787	4,646	59.9	1.72	2.23	90.8	2.10	90.8	2.10	1.45	28.9	0.67	15.8	19.4	2.71	1.05	23.1	71	0.87	56.94	3,169	5.72E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
238	38.80	38.96	0.2	38.88	273,820	5,079	4,665	57.7	1.89	2.27	87.7	2.14	87.7	2.14	1.53	28.4	0.67	17.0	19.0	3.00	1.06	23.1	71	0.87	56.98	3,178	5.73E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
239	38.96	39.12	0.2	39.04	300,620	5,743	4,685	63.2	1.94	2.25	96.1	2.12	96.1	2.12	1.49	31.0	0.67	16.4	20.6	2.86	1.06	24.7	72	0.87	58.21	3,253	5.62E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
240	39.12	39.29	0.2	39.21	330,400	6,223	4,705	69.2	1.91	2.22	105.4	2.09	105.4	2.09	1.43	33.6	0.66	15.4	22.3	2.60	1.05	26.1	75	0.86	59.30	3,321	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
241	39.29	39.45	0.2	39.37	356,860	6,553	4,724	74.5	1.86	2.18	113.6	2.05	113.6	2.05	1.38	35.8	0.66	14.5	23.8	2.34	1.05	27.2	77	0.86	60.15	3,376	5.40E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
242	39.45	39.62	0.2	39.53	385,420	6,362	4,744	80.2	1.67	2.13	122.4	2.00	122.4	2.00	1.30	37.9	0.66	12.9	25.1	1.85	1.04	27.8	77	0.86	60.62	3,409	5.37E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
243	39.62	39.78	0.2	39.70	408,240	6,185	4,764	84.7	1.53	2.09	129.4	1.95	129.4	1.95	1.24	39.5	0.66	11.7	26.1	1.47	1.03	28.3	78	0.86	60.97	3,436	5.35E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
244	39.78	39.94	0.2	39.86	422,020	5,225	4,783	87.2	1.25	2.02	133.5	1.88	133.5	1.88	1.17	39.7	0.66	10.0	26.2	0.86	1.02	27.6	77	0.86	60.45	3,414	5.40E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
245	39.94	40.11	0.2	40.03	420,220	5,202	4,803	86.5	1.25	2.02	132.7	1.88	132.7	1.88	1.17	39.6	0.66	10.0	26.0	0.88	1.02	27.5	77	0.86	60.36	3,415	5.42E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
246	40.11	40.27	0.2	40.19	410,860	3,120	4,823	84.2	0.77	1.90	129.5	1.75	129.5	1.75	1.07	36.9	0.66	7.1	24.2	0.14	1.01	24.6	72	0.85	58.14	3,297	5.58E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
247	40.27	40.44	0.2	40.35	408,800	3,149	4,843	83.4	0.78	1.91	128.5	1.76	128.5	1.76	1.08	36.8	0.66	7.2	24.1	0.15	1.01	24.5	72	0.85	58.08	3,300	5.59E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
248	40.44	40.60	0.2	40.52	382,860	2,557	4,862	77.7	0.68	1.90	120.1	1.74	120.1	1.74	1.07	34.3	0.65	6.9	22.4	0.11	1.01	22.7	70	0.85	56.63	3,224	5.75E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
249	40.60	40.76	0.2	40.68	406,000	2,404	4,882	82.2	0.60	1.85	127.1	1.69	127.1	1.69	1.03	35.7	0.65	6.0	23.3	0.03	1.00	23.4	71	0.85	57.23	3,265	5.70E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
250	40.76	40.93	0.2	40.85	501,880	2,734	4,902	101.4	0.55	1.75	156.9	1.60	156.9	1.60	1.00	42.7	0.65	4.3	27.8	0.00	1.00	27.8	77	0.85	60.61	3,465	5.39E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
251	40.93	41.09	0.2	41.01	616,660	3,141	4,921	124.3	0.51	1.66	192.3	1.51	192.3	1.51	1.00	51.0	0.65	2.9	33.2	0.00	1.00	33.2	83	0.85	64.25	3,680	5.10E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
252	41.09	41.26	0.2	41.17	610,200	3,775	4,941	122.5	0.62	1.71	190.0	1.57	190.0	1.57	1.00	51.4	0.65	3.8	33.4	0.00	1.00	33.4	83	0.84	64.38	3,695	5.04E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
253	41.26	41.42	0.2	41.34	593,120	2,946	4,961	118.6	0.50	1.67	184.3	1.52	184.3	1.52	1.00	49.2	0.65	3.1	31.8	0.00	1.00	31.8	81	0.84	63.39	3,645	5.13E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
254	41.42	41.58	0.2	41.50	598,040	3,591	4,980	119.1	0.61	1.72	185.4	1.56	185.4	1.56	1.00	50.4	0.65	3.8	32.6	0.00	1.00	32.6	82	0.84	63.87	3,680	5.10E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
255	41.58	41.75	0.2	41.67	567,540	4,353	5,000	112.5	0.77	1.80	175.6	1.65	175.6	1.65	1.01	49.2	0.64	5.3	31.8	0.01	1.00	31.8	81	0.84	63.38	3,659	5.15E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
256	41.75	41.91	0.2	41.83	585,020	4,652	5,020	115.5	0.80	1.80	180.7	1.65	180.7	1.65	1.01	50.8	0.64	5.3	32.7	0.01	1.00	32.8	82	0.84	64.00	3,702	5.11E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
257	41.91	42.08	0.2	41.99	633,380	5,285	5,039	124.7	0.84	1.79	195.2	1.64	195.2	1.64	1.00	54.8	0.64	5.1	35.2	0.00	1.00	35.3	85	0.84	65.58	3,801	4.99E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
258	42.08	42.24	0.2	42.16	792,180	6,727	5,059	155.6	0.85	1.72	243.7	1.58	243.7	1.58	1.00	67.1	0.64	4.1	43.0	0.00	1.00	43.0	93	0.83	70.08	4,070	4.63E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
259	42.24	42.40	0.2	42.32	1,160,600	8,899	5,079	227.5	0.77	1.57	356.4	1.44	356.4	1.44	1.00	93.9	0.64	2.0	60.1	0.00	1.00	60.1	95	0.83	78.33	4,558	4.15E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
260	42.40	42.57	0.2	42.49	1,289,000	10,145	5,098	251.8	0.79	1.55	395.0	1.42	395.0	1.42	1.00	103.6	0.64	1.8	66.2	0.00	1.00	66.2	95	0.83	80.90	4,716	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
261	42.57	42.73	0.2	42.65	1,341,860	10,376	5,118	261.2	0.78	1.53	410.4	1.40	410.4	1.40	1.00	107.3	0.64	1.5	68.4	0.00	1.00	68.4	95	0.83	81.80	4,778	3.99E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
262	42.73	42.90	0.2	42.81	1,439,800	10,332	5,138	279.2	0.72	1.49	439.5	1.36	439.5	1.36	1.00	113.6	0.64	1.0	72.3	0.00	1.00	72.3	95	0.83	83.31	4,876	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
263	42.90	43.06	0.2	42.98	1,516,800	10,071	5,157	293.1	0.67	1.45	462.2	1.32	462.2	1.32	1.00	118.2	0.64	0.6	75.1	0.00	1.00	75.1	95	0.83	84.37	4,947	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
264	43.06	43.23	0.2	43.14	1,504,540	13,687	5,177	289.6	0.91	1.55	457.5	1.43	457.5	1.43	1.00	121.4	0.63	1.9	77.0	0.00	1.00	77.0	95	0.83	85.07	4,998	3.86E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
265	43.23	43.39	0.2	43.31	1,483,840	13,140	5,197	284.5	0.89	1.55	450.4	1.43	450.4	1.43	1.00	119.5	0.63	1.8	75.6	0.00	1.00	75.6	95	0.83	84.58	4,978	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
266	43.39	43.55	0.2	43.47	1,478,880	9,851	5,217	282.5	0.67	1.46	448.0	1.33	448.0	1.33	1.00	115.6	0.63	0.7	73.0	0.00	1.00	73.0	95	0.83	83.58	4,929	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
																													TOTAL SETTLEMENT (INCHES):			0.33

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft): 15.0
IDENTIFICATION: CPT-2A
TOTAL DRY SETTLEMENT (IN.): 1.76

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	15.01	15.17	0.2	15.09	64,000	1,400	1,811	34.3	2.25	2.49	32.9	2.51	32.9	2.51	2.80	7.8	1.07	31.0	8.4	4.77	1.16	14.5	55	0.97	48.78	1,695	4.65E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
93	15.17	15.34	0.2	15.26	63,600	1,460	1,831	33.7	2.36	2.51	32.5	2.52	32.5	2.52	2.89	7.8	1.07	31.8	8.4	4.82	1.17	14.6	55	0.97	48.86	1,707	4.67E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
94	15.34	15.50	0.2	15.42	62,400	1,480	1,850	32.7	2.44	2.53	31.7	2.54	31.7	2.54	2.99	7.8	1.06	32.6	8.2	4.86	1.18	14.5	55	0.97	48.80	1,714	4.70E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
95	15.50	15.67	0.2	15.58	64,400	1,480	1,870	33.4	2.37	2.52	32.6	2.52	32.6	2.52	2.89	7.9	1.05	31.8	8.4	4.82	1.17	14.6	55	0.97	48.88	1,726	4.71E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
96	15.67	15.83	0.2	15.75	65,400	1,480	1,890	33.6	2.33	2.51	32.9	2.52	32.9	2.52	2.85	8.0	1.05	31.4	8.4	4.79	1.17	14.6	55	0.97	48.90	1,736	4.74E-04	1.90E-03	0.304%	0.304%	0.608%	0.0120
97	15.83	15.99	0.2	15.91	64,400	1,480	1,909	32.7	2.37	2.52	32.2	2.53	32.2	2.53	2.91	7.9	1.04	31.9	8.3	4.82	1.17	14.5	55	0.97	48.81	1,741	4.77E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
98	15.99	16.16	0.2	16.08	64,200	1,400	1,929	32.3	2.25	2.51	32.0	2.52	32.0	2.52	2.85	7.9	1.04	31.4	8.2	4.79	1.17	14.3	55	0.97	48.59	1,742	4.82E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
99	16.16	16.32	0.2	16.24	65,400	1,380	1,949	32.6	2.17	2.50	32.4	2.50	32.4	2.50	2.78	8.0	1.03	30.8	8.2	4.76	1.16	14.3	55	0.97	48.57	1,751	4.84E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
100	16.32	16.49	0.2	16.40	64,800	1,220	1,969	31.9	1.94	2.48	32.0	2.48	32.0	2.48	2.66	7.8	1.03	29.7	8.0	4.68	1.15	13.9	53	0.97	48.12	1,743	4.91E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
101	16.49	16.65	0.2	16.57	66,000	1,100	1,988	32.2	1.72	2.44	32.4	2.44	32.4	2.44	2.49	7.8	1.02	28.1	8.0	4.57	1.14	13.7	53	0.97	47.83	1,741	4.97E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
102	16.65	16.81	0.2	16.73	66,200	1,080	2,008	32.0	1.68	2.44	32.3	2.44	32.3	2.44	2.47	7.8	1.02	27.9	8.0	4.55	1.14	13.6	53	0.97	47.75	1,747	5.00E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
103	16.81	16.98	0.2	16.90	69,800	1,100	2,028	33.4	1.62	2.42	33.9	2.41	33.9	2.41	2.35	8.2	1.01	26.8	8.3	4.46	1.13	13.8	53	0.97	47.95	1,763	5.00E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
104	16.98	17.14	0.2	17.06	70,000	1,100	2,047	33.2	1.62	2.42	33.9	2.41	33.9	2.41	2.35	8.2	1.01	26.8	8.2	4.46	1.13	13.8	53	0.97	47.93	1,771	5.03E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
105	17.14	17.31	0.2	17.22	69,400	1,060	2,067	32.6	1.57	2.42	33.4	2.41	33.4	2.41	2.34	8.1	1.00	26.7	8.1	4.45	1.13	13.6	53	0.96	47.76	1,773	5.02E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
106	17.31	17.47	0.2	17.39	67,600	1,040	2,087	31.4	1.59	2.43	32.4	2.42	32.4	2.42	2.40	7.9	1.00	27.3	7.9	4.50	1.13	13.5	53	0.96	47.58	1,775	5.06E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
107	17.47	17.63	0.2	17.55	67,800	1,060	2,106	31.2	1.61	2.44	32.3	2.43	32.3	2.43	2.42	8.0	0.99	27.5	7.9	4.52	1.13	13.5	53	0.96	47.62	1,785	5.08E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
108	17.63	17.80	0.2	17.72	65,200	1,020	2,126	29.7	1.62	2.46	30.9	2.44	30.9	2.44	2.49	7.7	0.99	28.1	7.6	4.57	1.14	13.3	53	0.96	47.35	1,783	5.13E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
109	17.80	17.96	0.2	17.88	65,200	960	2,146	29.4	1.52	2.44	30.8	2.43	30.8	2.43	2.43	7.7	0.98	27.6	7.6	4.53	1.13	13.1	53	0.96	47.15	1,783	5.18E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
110	17.96	18.13	0.2	18.04	64,000	960	2,165	28.6	1.55	2.46	30.1	2.44	30.1	2.44	2.49	7.6	0.98	28.1	7.4	4.57	1.14	13.0	53	0.96	47.06	1,788	5.21E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
111	18.13	18.29	0.2	18.21	63,600	980	2,185	28.1	1.60	2.47	29.8	2.45	29.8	2.45	2.53	7.6	0.98	28.6	7.4	4.60	1.14	13.0	53	0.96	47.08	1,797	5.24E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
112	18.29	18.45	0.2	18.37	67,200	1,000	2,205	29.5	1.54	2.45	31.3	2.42	31.3	2.42	2.41	7.9	0.97	27.4	7.7	4.51	1.13	13.2	53	0.96	47.28	1,813	5.24E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
113	18.45	18.62	0.2	18.54	77,400	1,060	2,224	33.8	1.41	2.38	35.9	2.35	35.9	2.35	2.13	8.8	0.97	24.6	8.5	4.24	1.11	13.7	53	0.96	47.88	1,844	5.19E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
114	18.62	18.78	0.2	18.70	94,800	1,160	2,244	41.2	1.25	2.28	43.8	2.25	43.8	2.25	1.81	10.3	0.96	20.9	9.9	3.76	1.09	14.6	55	0.96	48.83	1,889	5.12E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
115	18.78	18.95	0.2	18.86	126,000	1,160	2,264	54.7	0.94	2.10	57.9	2.08	57.9	2.08	1.42	12.8	0.96	15.3	12.3	2.57	1.05	15.4	57	0.96	49.81	1,935	5.04E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
116	18.95	19.11	0.2	19.03	155,800	1,020	2,283	67.2	0.66	1.95	71.3	1.92	71.3	1.92	1.21	14.9	0.95	11.0	14.2	1.20	1.03	15.8	57	0.96	50.17	1,957	5.02E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
117	19.11	19.27	0.2	19.19	154,600	820	2,303	66.1	0.54	1.90	70.5	1.88	70.5	1.88	1.17	14.5	0.95	9.9	13.8	0.84	1.02	15.0	55	0.96	49.27	1,931	5.14E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
118	19.27	19.44	0.2	19.36	152,600	840	2,323	64.7	0.56	1.92	69.3	1.89	69.3	1.89	1.18	14.4	0.95	10.3	13.7	0.96	1.02	14.9	55	0.96	49.24	1,938	5.16E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
119	19.44	19.60	0.2	19.52	140,600	940	2,343	59.0	0.68	2.00	63.6	1.97	63.6	1.97	1.26	13.7	0.94	12.2	12.9	1.62	1.03	14.9	55	0.96	49.24	1,946	5.18E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
120	19.60	19.77	0.2	19.69	127,800	1,000	2,362	53.1	0.80	2.07	57.5	2.05	57.5	2.05	1.36	12.8	0.94	14.2	12.0	2.26	1.04	14.8	55	0.96	49.09	1,948	5.22E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
121	19.77	19.93	0.2	19.85	122,000	1,120	2,382	50.2	0.94	2.13	54.7	2.10	54.7	2.10	1.46	12.5	0.93	15.9	11.7	2.74	1.05	15.0	57	0.96	49.36	1,967	5.21E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
122	19.93	20.10	0.2	20.01	132,400	1,540	2,402	54.1	1.18	2.17	59.1	2.13	59.1	2.13	1.52	13.7	0.93	16.9	12.8	2.98	1.06	16.5	60	0.96	50.94	2,038	5.07E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
123	20.10	20.26	0.2	20.18	148,200	1,880	2,421	60.2	1.29	2.15	65.9	2.12	65.9	2.12	1.49	15.3	0.93	16.4	14.2	2.88	1.06	17.8	61	0.95	52.26	2,100	4.91E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
124	20.26	20.42	0.2	20.34	135,800	1,860	2,441	54.6	1.39	2.21	60.1	2.17	60.1	2.17	1.60	14.3	0.92	18.1	13.2	3.25	1.07	17.3	61	0.95	51.77	2,088	4.98E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
125	20.42	20.59	0.2	20.51	126,800	1,720	2,461	50.5	1.38	2.23	55.9	2.20	55.9	2.20	1.65	13.5	0.92	18.8	12.4	3.40	1.07	16.7	60	0.95	51.11	2,070	5.06E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
126	20.59	20.75	0.2	20.67	114,000	1,540	2,480	45.0	1.38	2.27	50.1	2.23	50.1	2.23	1.75	12.3	0.92	20.1	11.3	3.63	1.08	15.8	57	0.95	50.20	2,041	5.18E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
127	20.75	20.92	0.2	20.83	103,000	1,280	2,500	40.2	1.27	2.29	45.1	2.25	45.1	2.25	1.79	11.2	0.91	20.6	10.2	3.72	1.08	14.8	55	0.95	49.10	2,004	5.31E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
128	20.92	21.08	0.2	21.00	92,600	1,360	2,520	35.8	1.51	2.37	40.4	2.33	40.4	2.33	2.05	10.4	0.91	23.7	9.5	4.14	1.11	14.6	55	0.95	48.90	2,004	5.36E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
129	21.08	21.24	0.2	21.16	83,600	1,560	2,539	31.9	1.92	2.48	36.3	2.43	36.3	2.43	2.44	9.9	0.91	27.7	8.9	4.54	1.14	14.7	55	0.95	48.96	2,015	5.37E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
130	21.24	21.41	0.2	21.33	84,000	1,620	2,559	31.8	1.99	2.49	36.3	2.44	36.3	2.44	2.48	9.9	0.90	28.1	9.0	4.57	1.14	14.8	55	0.95	49.08	2,027	5.38E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
131	21.41	21.57	0.2	21.49	83,200	1,660	2,579	31.3	2.06	2.50	35.9	2.45	35.9	2.45	2.55	9.9	0.90	28.7	8.9	4.61	1.14	14.8	55	0.95	49.10	2,036	5.40E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
132	21.57	21.74	0.2	21.65	84,400	1,740	2,598	31.5	2.13	2.51	36.2	2.46	36.2	2.46	2.57	10.1	0.89	28.9	9.0	4.63	1.15	15.0	55	0.95	49.28	2,051	5.40E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
133	21.74	21.90	0.2	21.82	93,400	1,820	2,618	34.7	2.00	2.46	39.9	2.41	39.9	2.41	2.35	10.9	0.89	26.8	9.7	4.46	1.13	15.4	57	0.95	49.80	2,081	5.36E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
134	21.90	22.06	0.2	21.98	96,800	2,000	2,638	35.7	2.12	2.46	41.2	2.42	41.2	2.42	2.38	11.3	0.89	27.0	10.1	4.48	1.13	15.9	57	0.95	50.25	2,107	5.33E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
135	22.06	22.23	0.2	22.15	94,400	2,160	2,657	34.5	2.35	2.50	40.1	2.45	40.1	2.45	2.54	11.2	0.88	28.7	10.0	4.61	1.14	16.0	57	0.95	50.39	2,121	5.34E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
136	22.23	22.39	0.2	22.31	88,800	2,140	2,677	32.2	2.48	2.54	37.6	2.49	37.6	2.49	2.72	10.8	0.88	30.3	9.5	4.72	1.16	15.7	57	0.95	50.07	2,115	5.39E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
137	22.39	22.56	0.2	22.47	85,000	2,100	2,697	30.5	2.55	2.57	35.8	2.51	35.8	2.51	2.84	10.4	0.88	31.3	9.1	4.79	1.16	15.4	57	0.95	49.81	2,112	5.44E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
138	22.56	22.72	0.2	22.64	80,000	1,960	2,717	28.4	2.54	2.59	33.6	2.53	33.6	2.53	2.94	9.9	0.88	32.2	8.7	4.84	1.17	15.0	55	0.95	49.32	2,099	5.51E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
139	22.72	22.88	0.2	22.80	80,200	1,840	2,736	28.3	2.38	2.57	33.5	2.52	33.5	2.52	2.85	9.8	0.87	31.4	8.6	4.79	1.17	14.8	55	0.95	49.09	2,097	5.56E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
140	22.88	23.05	0.2	22.97	84,400	1,820	2,756	29.6	2.23	2.54	35.2	2.48	35.2	2.48	2.68	10.2	0.87	29.9	8.9	4.70	1.15	14.9	55	0.95	49.22	2,110	5.57E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
141	23.05	23.21	0.2	23.13	95,000	1,860	2,776	33.2	2.02	2.47	39.5	2.42	39.5	2.42	2.38	11.1	0.87	27.1	9.6	4.48	1.13	15.4	57	0.95	49.73	2,139	5.53E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
142	23.21	23.38	0.2	23.29	97,400	2,000	2,795	33.8	2.11	2.48	40.3	2.42	40.3	2.42	2.40	11.4	0.86	27.3	9.9	4.50	1.13	15.7	57	0.95	50.05	2,161	5.51E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
143	23.38	23.54	0.2	23.46	107,000	2,060	2,815	37.0	1.98	2.43	44.1	2.37	44.1	2.37	2.20	12.3	0.86	25.3	10.6	4.32	1.12	16.1	60	0.95	50.52	2,189	5.48E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
144	23.54	23.70	0.2	23.62	120,400	2,240	2,835	41.5	1.91	2.38	49.5	2.32	49.5	2.32	2.03	13.5	0.86	23.4	11.6	4.11	1.10	16.9	60	0.95	51.33	2,231	5.41E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
145	23.70	23.87	0.2	23.79	135,200	2,520	2,854	46.4	1.90	2.35	55.4	2.29	55.4	2.29	1.91	14.9	0.85	22.0	12.8	3.93	1.09	17.9	61	0.95	52.30	2,282	5.33E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
146	23.87	24.03	0.2	23.95	133,800	2,620	2,874	45.6	2.00	2.37	54.6	2.31	54.6	2.31	1.97	14.9	0.85	22.7	12.7	4.02	1.10	18.0	61	0.95	52.38	2,293	5.34E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
147	24.03	24.20	0.2	24.11	122,400	2,480	2,894	41.3	2.08	2.41	49.8	2.35	49.8	2.35	2.11	13.9	0.85	24.3	11.8	4.21	1.11	17.3	61	0.94	51.70	2,271	5.37E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
148	24.20	24.36	0.2	24.28	115,200	2,500	2,913	38.5	2.23	2.45	46.7	2.39	46.7	2.39	2.26	13.3	0.84	25.9	11.3	4.38	1.12	17.0	60	0.94	51.43	2,266	5.42E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
149	24.36	24.52	0.2	24.44	115,200	2,760	2,933	38.3	2.46	2.48	46.5	2.42	46.5	2.42	2.38	13.5	0.84	27.1	11.4	4.49	1.13	17.3	61	0.94	51.77	2,289	5.40E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
150	24.52	24.69	0.2	24.61	114,400	3,020	2,953	37.7	2.71	2.51	46.1	2.45	46.1	2.45	2.52	13.6	0.84	28.4	11.4	4.60	1.14	17.6	61	0.94	52.05	2,309	5.39E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
151	24.69	24.85	0.2	24.77	107,800	2,940	2,972	35.3	2.80	2.55	43.3	2.48	43.3	2.48	2.66	13.0	0.84	29.7	10.9	4.69	1.15	17.2	61	0.94	51.64	2,299	5.45E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
152	24.85	25.02	0.2	24.93	107,400	2,760	2,992	34.9	2.64	2.53	43.0	2.46	43.0	2.46	2.59	12.9	0.83	29.1	10.7	4.64	1.15	16.9	60	0.94	51.36	2,294	5.50E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
153	25.02	25.18	0.2	25.10	115,000	2,600	3,012	37.2	2.32	2.47	45.9	2.41	45.9	2.41	2.33	13.4	0.83	26.6	11.1	4.45	1.13	17.0	61	0.94	51.43	2,304	5.51E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
154	25.18	25.34	0.2	25.26	130,800	2,620	3,031	42.1	2.05	2.40	52.0	2.33	52.0	2.33	2.04	14.7	0.83	23.6	12.2	4.13	1.10	17.6	61	0.94	52.03	2,339	5.46E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
155	25.34	25.51	0.2	25.43	153,800	2,780	3,051	49.4	1.84	2.32	60.9	2.25	60.9	2.25	1.79	16.7	0.83	20.6	13.8	3.71	1.08	18.7	63	0.94	53.05	2,393	5.38E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
156	25.51	25.67	0.2	25.59	166,400	2,600	3,071	53.2	1.59	2.25	65.7	2.18	65.7	2.18	1.62	17.6	0.82	18.3	14.5	3.30	1.07	18.8	63	0.94	53.15	2,405	5.38E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
157	25.67	25.84	0.2	25.75	165,600	2,100	3,091	52.6	1.29	2.20	65.2	2.12	65.2	2.12	1.50	17.1	0.82	16.6	14.0	2.91	1.06	17.7	61	0.94	52.17	2,368	5.50E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
158	25.84	26.00	0.2	25.92	171,800	2,200	3,110	54.2	1.30	2.19	67.4	2.12	67.4	2.12	1.48	17.7	0.82	16.3	14.5	2.84	1.06	18.1	63	0.94	52.52	2,392	5.48E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
159	26.00	26.16	0.2	26.08	227,000	2,700	3,130	71.5	1.21	2.07	88.8	2.00	88.8	2.00	1.30	22.3	0.82	13.0	18.2	1.89	1.04	20.8	67	0.94	54.99	2,512	5.25E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
160	26.16	26.33	0.2	26.25	353,800	2,860	3,150	111.3	0.82	1.82	137.9	1.75	137.9	1.75	1.07	31.7	0.81	7.0	25.8	0.12	1.01	26.1	75	0.94	59.33	2,719	4.88E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
161	26.33	26.49	0.2	26.41	399,600	2,680	3,169	125.1	0.68	1.73	155.3	1.65	155.3	1.65	1.01	34.7	0.81	5.3	28.1	0.01	1.00	28.2	78	0.94	60.86	2,797	4.78E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
162	26.49	26.66	0.2	26.57	448,600	3,020	3,189	139.7	0.68	1.69	173.8	1.62	173.8	1.62	1.00	38.5	0.81	4.7	31.1	0.00	1.00	31.1	81	0.94	62.87	2,899	4.64E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
163	26.66	26.82	0.2	26.74	433,600	3,360	3,209	134.1	0.78	1.74	167.5	1.67	167.5	1.67	1.02	37.8	0.81	5.6	30.5	0.01	1.00	30.6	80	0.94	62.54	2,893	4.68E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
164	26.82	26.98	0.2	26.90	374,200	3,340	3,228	114.9	0.90	1.83	144.1	1.76	144.1	1.76	1.08	33.7	0.80	7.3	27.0	0.16	1.01	27.5	77	0.94	60.35	2,800	4.86E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
165	26.98	27.15	0.2	27.07	451,800	3,900	3,248	138.1	0.87	1.76	173.5	1.69	173.5	1.69	1.03	39.7	0.80	5.9	31.8	0.03	1.00	32.0	81	0.94	63.46	2,953	4.64E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
166	27.15	27.31	0.2	27.23	624,000	4,680	3,268	190.0	0.75	1.62	238.9	1.55	238.9	1.55	1.00	52.3	0.80	3.5	41.7	0.00	1.00	41.7	91	0.93	69.36	3,237	4.21E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
167	27.31	27.48	0.2	27.40	651,800	5,060	3,287	197.3	0.78	1.62	248.8	1.55	248.8	1.55	1.00	54.6	0.80	3.5	43.4	0.00	1.00	43.4	93	0.93	70.29	3,291	4.17E-04	9.20E-04	0.022%	0.022%	0.044%	0.0009
168	27.48	27.64	0.2	27.56	633,600	4,580	3,307	190.6	0.73	1.61	241.1	1.53	241.1	1.53	1.00	52.8	0.79	3.3	41.9	0.00	1.00	41.9	91	0.93	69.47	3,262	4.23E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
169	27.64	27.81	0.2	27.72	577,200	4,260	3,327	172.5	0.74	1.65	219.0	1.57	219.0	1.57	1.00	48.7	0.79	3.9	38.5	0.00	1.00	38.5	88	0.93	67.55	3,181	4.36E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
170	27.81	27.97	0.2	27.89	534,200	3,680	3,346	158.6	0.69	1.65	202.1	1.58	202.1	1.58	1.00	45.2	0.79	4.0	35.6	0.00	1.00	35.6	85	0.93	65.80	3,108	4.49E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
171	27.97	28.13	0.2	28.05	468,000	3,200	3,366	138.0	0.69	1.70	176.5	1.62	176.5	1.62	1.00	40.1	0.79	4.6	31.5	0.00	1.00	31.5	81	0.93	63.19	2,993	4.69E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
172	28.13	28.30	0.2	28.22	382,200	3,100	3,386	111.9	0.82	1.82	143.7	1.73	143.7	1.73	1.06	34.1	0.78	6.8	26.7	0.09	1.01	27.0	77	0.93	60.02	2,851	4.95E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
173	28.30	28.46	0.2	28.38	304,200	2,880	3,406	88.3	0.96	1.94	114.1	1.85	114.1	1.85	1.15	28.3	0.78	9.3	22.1	0.65	1.02	23.2	71	0.93	57.05	2,718	5.23E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
174	28.46	28.63	0.2	28.54	240,600	3,140	3,425	69.2	1.32	2.11	90.0	2.02	90.0	2.02	1.33	23.9	0.78	13.6	18.6	2.09	1.04	21.5	68	0.93	55.57	2,656	5.38E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
175	28.63	28.79	0.2	28.71	201,600	3,320	3,445	57.5	1.68	2.24	75.2	2.15	75.2	2.15	1.55	21.1	0.78	17.4	16.4	3.10	1.06	20.5	67	0.93	54.72	2,622	5.48E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
176	28.79	28.95	0.2	28.87	183,800	3,300	3,465	52.1	1.83	2.30	68.3	2.21	68.3	2.21	1.68	19.6	0.77	19.2	15.2	3.48	1.07	19.8	65	0.93	54.14	2,602	5.55E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
177	28.95	29.12	0.2	29.04	172,800	3,080	3,484	48.6	1.82	2.32	64.1	2.23	64.1	2.23	1.73	18.6	0.77	19.9	14.4	3.60	1.08	19.1	65	0.93	53.47	2,577	5.64E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
178	29.12	29.28	0.2	29.20	169,000	2,960	3,504	47.2	1.79	2.32	62.5	2.23	62.5	2.23	1.74	18.2	0.77	20.0	14.0	3.62	1.08	18.8	63	0.93	53.16	2,569	5.69E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
179	29.28	29.45	0.2	29.36	161,600	2,760	3,524	44.9	1.75	2.33	59.6	2.24	59.6	2.24	1.77	17.5	0.77	20.3	13.4	3.67	1.08	18.2	63	0.93	52.62	2,550	5.76E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
180	29.45	29.61	0.2	29.53	151,400	2,700	3,543	41.7	1.83	2.37	55.7	2.27	55.7	2.27	1.87	16.6	0.77	21.6	12.8	3.86	1.09	17.8	61	0.93	52.18	2,536	5.83E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
181	29.61	29.77	0.2	29.69	140,600	2,780	3,563	38.5	2.03	2.43	51.5	2.33	51.5	2.33	2.04	15.8	0.76	23.6	12.1	4.13	1.10	17.5	61	0.93	51.92	2,530	5.87E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
182	29.77	29.94	0.2	29.86	146,000	3,240	3,583	39.8	2.28	2.45	53.4	2.35	53.4	2.35	2.12	16.6	0.76	24.4	12.6	4.23	1.11	18.3	63	0.93	52.68	2,575	5.80E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
183	29.94	30.10	0.2	30.02	147,600	3,480	3,602	40.0	2.42	2.46	53.8	2.37	53.8	2.37	2.18	16.9	0.76	25.0	12.8	4.29	1.12	18.6	63	0.93	52.99	2,597	5.79E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
184	30.10	30.27	0.2	30.18	166,000	3,400	3,622	44.8	2.09	2.38	60.4	2.29	60.4	2.29	1.91	18.3	0.76	22.0	13.9	3.93	1.09	19.1	65	0.92	53.49	2,629	5.69E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
185	30.27	30.43	0.2	30.35	174,600	3,300	3,642	46.9	1.93	2.35	63.3	2.25	63.3	2.25	1.79	19.0	0.76	20.6	14.3	3.72	1.08	19.3	65	0.92	53.61	2,642	5.69E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
186	30.43	30.59	0.2	30.51	191,400	3,220	3,661	51.3	1.72	2.28	69.2	2.18	69.2	2.18	1.63	20.3	0.75	18.5	15.3	3.33	1.07	19.7	65	0.92	53.98	2,667	5.66E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
187	30.59	30.76	0.2	30.68	204,800	2,920	3,681	54.6	1.45	2.22	73.9	2.12	73.9	2.12	1.48	21.1	0.75	16.3	15.8	2.84	1.06	19.6	65	0.92	53.89	2,670	5.69E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
188	30.76	30.92	0.2	30.84	205,000	3,500	3,701	54.4	1.74	2.27	73.7	2.17	73.7	2.17	1.59	21.6	0.75	17.9	16.2	3.22	1.07	20.4	67	0.92	54.69	2,716	5.62E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
189	30.92	31.09	0.2	31.00	206,800	3,040	3,720	54.6	1.50	2.22	74.2	2.12	74.2	2.12	1.50	21.3	0.75	16.5	16.0	2.89	1.06	19.8	65	0.92	54.07	2,693	5.70E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
190	31.09	31.25	0.2	31.17	183,200	3,100	3,740	48.0	1.73	2.31	65.5	2.20	65.5	2.20	1.68	19.6	0.75	19.1	14.6	3.46	1.07	19.1	65	0.92	53.48	2,670	5.78E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
191	31.25	31.41	0.2	31.33	209,200	2,740	3,760	54.6	1.33	2.19	74.7	2.09	74.7	2.09	1.43	21.3	0.74	15.4	15.8	2.62	1.05	19.3	65	0.92	53.61	2,684	5.78E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
192	31.41	31.58	0.2	31.50	222,400	2,520	3,780	57.8	1.15	2.14	79.2	2.03	79.2	2.03	1.34	22.1	0.74	13.7	16.4	2.12	1.04	19.2	65	0.92	53.55	2,688	5.80E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
193	31.58	31.74	0.2	31.66	181,000	2,180	3,799	46.6	1.23	2.23	64.3	2.12	64.3	2.12	1.49	18.6	0.74	16.3	13.8	2.84	1.06	17.4	61	0.92	51.83	2,608	6.01E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
194	31.74	31.91	0.2	31.82	142,200	1,740	3,819	36.2	1.26	2.32	50.4	2.21	50.4	2.21	1.68	15.2	0.74	19.2	11.2	3.47	1.07	15.5	57	0.92	49.88	2,517	6.26E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
195	31.91	32.07	0.2	31.99	121,200	1,820	3,839	30.6	1.55	2.43	42.8	2.32	42.8	2.32	2.01	13.6	0.74	23.2	10.0	4.08	1.10	15.1	57	0.92	49.42	2,500	6.34E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
196	32.07	32.23	0.2	32.15	116,000	2,220	3,858	29.1	1.98	2.52	40.9	2.40	40.9	2.40	2.31	13.5	0.73	26.4	9.9	4.42	1.13	15.6	57	0.91	49.93	2,532	6.22E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
197	32.23	32.40	0.2	32.32	119,000	2,540	3,878	29.7	2.21	2.54	41.8	2.42	41.8	2.42	2.40	14.0	0.73	27.3	10.2	4.50	1.13	16.1	60	0.91	50.49	2,567	6.17E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
198	32.40	32.56	0.2	32.48	115,400	2,620	3,898	28.6	2.35	2.57	40.4	2.45	40.4	2.45	2.53	13.7	0.73	28.5	10.0	4.60	1.14	16.1	60	0.91	50.45	2,572	6.19E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
199	32.56	32.73	0.2	32.64	105,200	2,220	3,917	25.9	2.19	2.58	36.8	2.46	36.8	2.46	2.58	12.6	0.73	29.0	9.2	4.64	1.15	15.2	57	0.91	49.49	2,529	6.32E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
200	32.73	32.89	0.2	32.81	95,800	1,760	3,937	23.3	1.92	2.58	33.4	2.46	33.4	2.46	2.57	11.4	0.73	28.9	8.3	4.63	1.15	14.1	55	0.91	48.37	2,478	6.48E-04	2.00E-03	0.320%	0.320%	0.640%	0.0126
201	32.89	33.05	0.2	32.97	76,000	1,260	3,957	18.2	1.75	2.65	18.2	2.65	18.2	2.65	unsusceptible		0.73	37.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.91	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
202	33.05	33.22	0.2	33.14	65,000	1,040	3,976	15.3	1.70	2.71	15.3	2.71	15.3	2.71	unsusceptible		0.72	40.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.91	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
203	33.22	33.38	0.2	33.30	72,800	1,000	3,996	17.2	1.45	2.63	17.2	2.63	17.2	2.63	unsusceptible		0.72	36.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.91	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
204	33.38	33.55	0.2	33.46	76,200	1,140	4,016	18.0	1.58	2.63	18.0	2.63	18.0	2.63	unsusceptible		0.72	36.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.91	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
205	33.55	33.71	0.2	33.63	75,400	1,160	4,035	17.7	1.63	2.64	17.7	2.64	17.7	2.64	unsusceptible		0.72	37.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.91	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
206	33.71	33.87	0.2	33.79	76,400	1,200	4,055	17.8	1.66	2.64	17.8	2.64	17.8	2.64	unsusceptible		0.72	37.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.91	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
207	33.87	34.04	0.2	33.96	87,000	1,340	4,075	20.4	1.62	2.59	29.8	2.45	29.8	2.45	2.55	10.4	0.71	28.7	7.4	4.61	1.14	13.1	53	0.91	47.13	2,456	6.77E-04	3.10E-03	0.543%	0.543%	1.085%	0.0214
208	34.04	34.20	0.2	34.12	114,800	1,700	4,094	27.0	1.54	2.48	39.3	2.34	39.3	2.34	2.10	13.0	0.71	24.2	9.3	4.20	1.11	14.5	55	0.90	48.76	2,548	6.49E-04	2.00E-03	0.320%	0.320%	0.640%	0.0126
209	34.20	34.37	0.2	34.28	151,600	2,180	4,114	35.8	1.48	2.37	51.7	2.24	51.7	2.24	1.77	16.4	0.71	20.4	11.7	3.67	1.08	16.3	60	0.90	50.72	2,656	6.25E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
210	34.37	34.53	0.2	34.45	181,600	2,640	4,134	42.9	1.49	2.31	61.8	2.18	61.8	2.18	1.62	19.2	0.71	18.4	13.6	3.31	1.07	17.9	61	0.90	52.28	2,745	6.08E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
211	34.53	34.69	0.2	34.61	210,400	3,020	4,154	49.7	1.46	2.25	71.4	2.13	71.4	2.13	1.51	21.8	0.71	16.7	15.4	2.94	1.06	19.2	65	0.90	53.59	2,820	5.94E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
212	34.69	34.86	0.2	34.78	237,600	3,780	4,173	55.9	1.62	2.24	80.5	2.12	80.5	2.12	1.49	24.5	0.71	16.4	17.3	2.87	1.06	21.1	68	0.90	55.29	2,916	5.78E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
213	34.86	35.02	0.2	34.94	288,400	4,700	4,193	67.8	1.65	2.18	97.5	2.06	97.5	2.06	1.39	29.1	0.70	14.8	20.5	2.43	1.05	23.9	71	0.90	57.59	3,045	5.56E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
214	35.02	35.19	0.2	35.10	297,000	5,420	4,213	69.5	1.85	2.21	100.1	2.09	100.1	2.09	1.44	30.3	0.70	15.5	21.3	2.65	1.05	25.0	74	0.89	58.48	3,099	5.43E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
215	35.19	35.35	0.2	35.27	293,000	5,420	4,232	68.2	1.88	2.22	98.6	2.10	98.6	2.10	1.45	30.0	0.70	15.8	21.0	2.72	1.05	24.8	72	0.89	58.35	3,100	5.45E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
216	35.35	35.52	0.2	35.43	343,200	5,220	4,252	79.7	1.54	2.11	115.2	1.99	115.2	1.99	1.29	33.6	0.70	12.7	23.5	1.80	1.04	26.2	75	0.89	59.37	3,161	5.37E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
217	35.52	35.68	0.2	35.60	531,800	6,380	4,272	123.5	1.21	1.90	178.0	1.78	178.0	1.78	1.10	48.3	0.70	7.8	33.7	0.25	1.01	34.4	84	0.89	65.02	3,470	4.91E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
218	35.68	35.84	0.2	35.76	815,000	7,000	4,291	188.9	0.86	1.66	272.2	1.55	272.2	1.55	1.00	68.4	0.70	3.6	47.6	0.00	1.00	47.6	95	0.89	72.48	3,877	4.42E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
219	35.84	36.01	0.2	35.93	1,002,200	7,840	4,311	231.5	0.79	1.57	334.0	1.46	334.0	1.46	1.00	81.7	0.69	2.3	56.7	0.00	1.00	56.7	95	0.89	76.85	4,120	4.18E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
220	36.01	36.17	0.2	36.09	1,055,600	9,220	4,331	242.7	0.88	1.59	351.0	1.49	351.0	1.49	1.00	86.7	0.69	2.6	60.1	0.00	1.00	60.1	95	0.88	78.33	4,209	4.06E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
221	36.17	36.34	0.2	36.25	1,132,600	9,400	4,350	259.3	0.83	1.55	375.7	1.45	375.7	1.45	1.00	91.9	0.69	2.2	63.6	0.00	1.00	63.6	95	0.88	79.82	4,299	3.99E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
222	36.34	36.50	0.2	36.42	1,162,600	9,140	4,370	265.0	0.79	1.53	384.8	1.43	384.8	1.43	1.00	93.6	0.69	1.8	64.6	0.00	1.00	64.6	95	0.88	80.25	4,332	3.98E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
223	36.50	36.66	0.2	36.58	978,800	7,160	4,390	222.0	0.73	1.56	323.3	1.45	323.3	1.45	1.00	79.5	0.69	2.2	54.7	0.00	1.00	54.7	95	0.88	75.92	4,107	4.22E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
224	36.66	36.83	0.2	36.75	746,000	5,220	4,409	168.2	0.70	1.64	245.8	1.52	245.8	1.52	1.00	61.9	0.69	3.1	42.5	0.00	1.00	42.5	92	0.88	69.80	3,785	4.60E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
225	36.83	36.99	0.2	36.91	584,400	3,940	4,429	130.9	0.68	1.71	192.1	1.59	192.1	1.59	1.00	49.6	0.69	4.1	34.0	0.00	1.00	34.0	83	0.88	64.78	3,520	4.97E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
226	36.99	37.16	0.2	37.07	450,200	4,140	4,449	100.2	0.93	1.89	147.7	1.76	147.7	1.76	1.08	40.6	0.68	7.3	27.7	0.17	1.01	28.2	78	0.88	60.86	3,314	5.30E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
227	37.16	37.32	0.2	37.24	369,800	3,680	4,469	81.8	1.01	1.98	121.0	1.85	121.0	1.85	1.14	34.4	0.68	9.2	23.5	0.62	1.02	24.5	72	0.87	58.08	3,170	5.50E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
228	37.32	37.48	0.2	37.40	301,800	3,080	4,488	66.2	1.04	2.06	98.6	1.92	98.6	1.92	1.21	28.9	0.68	11.0	19.6	1.21	1.03	21.4	68	0.87	55.50	3,036	5.77E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
229	37.48	37.65	0.2	37.57	233,200	2,800	4,508	50.7	1.22	2.20	76.0	2.06	76.0	2.06	1.38	23.5	0.68	14.6	15.9	2.38	1.05	19.0	65	0.87	53.41	2,928	6.01E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
230	37.65	37.81	0.2	37.73	185,000	2,900	4,528	39.9	1.61	2.35	60.2	2.21	60.2	2.21	1.70	19.8	0.68	19.4	13.4	3.51	1.08	17.9	61	0.87	52.36	2,877	6.14E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
231	37.81	37.98	0.2	37.89	150,000	3,140	4,547	32.0	2.16	2.51	48.7	2.37	48.7	2.37	2.18	17.2	0.68	25.0	11.6	4.29	1.12	17.2	61	0.87	51.66	2,844	6.24E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
232	37.98	38.14	0.2	38.06	133,200	3,200	4,567	28.2	2.49	2.59	43.1	2.45	43.1	2.45	2.51	15.8	0.67	28.3	10.7	4.58	1.14	16.8	60	0.87	51.17	2,824	6.31E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
233	38.14	38.30	0.2	38.22	120,800	3,320	4,587	25.3	2.86	2.66	25.3	2.66	25.3	2.66	unsusceptible		0.67	38.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.87	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
234	38.30	38.47	0.2	38.39	119,000	3,280	4,606	24.8	2.87	2.67	24.8	2.67	24.8	2.67	unsusceptible		0.67	38.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.87	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
235	38.47	38.63	0.2	38.55	127,600	3,060	4,626	26.6	2.49	2.61	26.6	2.61	26.6	2.61	unsusceptible		0.67	35.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.87	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
236	38.63	38.80	0.2	38.71	133,400	2,800	4,646	27.7	2.17	2.56	42.8	2.41	42.8	2.41	2.35	15.6	0.67	26.8	10.4	4.46	1.13	16.2	60	0.87	50.63	2,818	6.43E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
237	38.80	38.96	0.2	38.88	120,600	2,320	4,665	24.9	2.00	2.57	38.6	2.42	38.6	2.42	2.40	14.2	0.67	27.3	9.4	4.50	1.13	15.2	57	0.87	49.54	2,763	6.59E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
238	38.96	39.12	0.2	39.04	121,400	2,100	4,685	24.9	1.80	2.54	38.8	2.39	38.8	2.39	2.27	14.1	0.67	26.0	9.4	4.39	1.12	14.9	55	0.87	49.22	2,751	6.65E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
239	39.12	39.29	0.2	39.21	151,400	2,500	4,705	31.2	1.70	2.45	48.3	2.30	48.3	2.30	1.95	16.8	0.66	22.6	11.2	4.00	1.10	16.3	60	0.86	50.70	2,840	6.39E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
240	39.29	39.45	0.2	39.37	222,600	2,860	4,724	46.1	1.31	2.25	70.9	2.10	70.9	2.10	1.46	22.8	0.66	15.8	15.1	2.72	1.05	18.6	63	0.86	53.03	2,976	6.12E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
241	39.45	39.62	0.2	39.53	310,200	2,940	4,744	64.4	0.96	2.05	98.5	1.90	98.5	1.90	1.19	29.4	0.66	10.5	19.5	1.04	1.02	21.0	67	0.86	55.17	3,103	5.90E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
242	39.62	39.78	0.2	39.70	308,400	3,540	4,764	63.7	1.17	2.10	97.8	1.96	97.8	1.96	1.25	29.9	0.66	11.9	19.7	1.52	1.03	21.9	68	0.86	55.94	3,153	5.83E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
243	39.78	39.94	0.2	39.86	292,400	3,160	4,783	60.1	1.10	2.11	92.5	1.96	92.5	1.96	1.25	28.4	0.66	12.0	18.7	1.54	1.03	20.8	67	0.86	55.02	3,107	5.94E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
244	39.94	40.11	0.2	40.03	249,800	3,360	4,803	51.0	1.37	2.22	78.9	2.08	78.9	2.08	1.42	25.3	0.66	15.1	16.7	2.54	1.05	20.0	67	0.86	54.31	3,073	6.03E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
245	40.11	40.27	0.2	40.19	280,800	3,180	4,823	57.2	1.15	2.14	88.5	1.99	88.5	1.99	1.29	27.5	0.66	12.7	18.1	1.79	1.04	20.5	67	0.85	54.73	3,104	5.92E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
246	40.27	40.44	0.2	40.35	297,600	3,940	4,843	60.5	1.35	2.16	93.6	2.02	93.6	2.02	1.32	29.5	0.66	13.4	19.3	2.02	1.04	22.1	70	0.85	56.11	3,188	5.79E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
247	40.44	40.60	0.2	40.52	292,400	4,800	4,862	59.1	1.67	2.23	91.8	2.09	91.8	2.09	1.43	29.7	0.65	15.4	19.5	2.61	1.05	23.0	71	0.85	56.92	3,240	5.72E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
248	40.60	40.76	0.2	40.68	289,600	5,360	4,882	58.3	1.88	2.27	90.7	2.13	90.7	2.13	1.50	29.9	0.65	16.6	19.5	2.92	1.06	23.6	71	0.85	57.36	3,272	5.69E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
249	40.76	40.93	0.2	40.85	287,800	5,520	4,902	57.7	1.95	2.28	89.9	2.14	89.9	2.14	1.53	29.9	0.65	17.0	19.5	3.02	1.06	23.7	71	0.85	57.44	3,283	5.69E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
250	40.93	41.09	0.2	41.01	269,400	5,660	4,921	53.7	2.14	2.33	84.0	2.19	84.0	2.19	1.64	28.6	0.65	18.6	18.6	3.36	1.07	23.2	71	0.85	57.08	3,270	5.74E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
251	41.09	41.26	0.2	41.17	244,200	5,760	4,941	48.4	2.41	2.40	76.0	2.26	76.0	2.26	1.82	26.6	0.65	20.9	17.3	3.77	1.09	22.5	70	0.84	56.49	3,242	5.74E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
252	41.26	41.42	0.2	41.34	233,200	5,540	4,961	46.0	2.43	2.42	72.4	2.27	72.4	2.27	1.87	25.6	0.65	21.5	16.6	3.86	1.09	22.0	68	0.84	56.00	3,220	5.80E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
253	41.42	41.58	0.2	41.50	234,000	5,260	4,980	46.0	2.30	2.40	72.6	2.26	72.6	2.26	1.82	25.5	0.65	20.9	16.5	3.77	1.09	21.7	68	0.84	55.77	3,213	5.84E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
254	41.58	41.75	0.2	41.67	265,600	5,140	5,000	52.1	1.97	2.32	82.2	2.17	82.2	2.17	1.60	28.0	0.64	18.0	18.0	3.24	1.07	22.5	70	0.84	56.45	3,259	5.78E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
255	41.75	41.91	0.2	41.83	294,600	4,940	5,020	57.7	1.71	2.24	91.0	2.10	91.0	2.10	1.45	30.1	0.64	15.7	19.4	2.68	1.05	23.1	71	0.84	56.92	3,293	5.74E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
256	41.91	42.08	0.2	41.99	293,400	4,640	5,039	57.2	1.61	2.23	90.4	2.08	90.4	2.08	1.42	29.8	0.64	15.2	19.1	2.56	1.05	22.6	70	0.84	56.57	3,279	5.79E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
257	42.08	42.24	0.2	42.16	257,400	3,680	5,059	49.9	1.46	2.25	79.2	2.09	79.2	2.09	1.44	26.3	0.64	15.6	16.8	2.67	1.05	20.4	67	0.83	54.63	3,173	5.94E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
258	42.24	42.40	0.2	42.32	257,800	3,480	5,079	49.8	1.38	2.23	79.2	2.08	79.2	2.08	1.42	26.1	0.64	15.1	16.7	2.54	1.05	20.1	67	0.83	54.36	3,163	5.98E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
259	42.40	42.57	0.2	42.49	287,600	3,840	5,098	55.4	1.36	2.19	88.1	2.04	88.1	2.04	1.35	28.7	0.64	14.0	18.3	2.21	1.04	21.3	68	0.83	55.47	3,234	5.87E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
260	42.57	42.73	0.2	42.65	276,200	4,200	5,118	53.0	1.55	2.24	84.5	2.09	84.5	2.09	1.44	28.1	0.64	15.5	17.9	2.64	1.05	21.5	68	0.83	55.62	3,249	5.86E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
261	42.73	42.90	0.2	42.81	234,600	4,220	5,138	44.7	1.84	2.35	71.6	2.19	71.6	2.19	1.65	24.9	0.64	18.8	15.9	3.39	1.07	20.4	67	0.83	54.64	3,198	5.98E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
262	42.90	43.06	0.2	42.98	219,400	4,080	5,157	41.5	1.90	2.38	66.8	2.23	66.8	2.23	1.73	23.6	0.64	19.9	15.0	3.59	1.08	19.8	65	0.83	54.09	3,172	6.05E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
263	43.06	43.23	0.2	43.14	214,200	4,120	5,177	40.4	1.97	2.40	65.1	2.24	65.1	2.24	1.78	23.3	0.63	20.5	14.7	3.70	1.08	19.7	65	0.83	53.98	3,171	6.08E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
264	43.23	43.39	0.2	43.31	235,400	4,320	5,197	44.3	1.88	2.36	71.5	2.20	71.5	2.20	1.67	25.1	0.63	19.0	15.9	3.44	1.07	20.5	67	0.83	54.70	3,220	6.01E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
265	43.39	43.55	0.2	43.47	275,800	5,240	5,217	51.9	1.94	2.31	83.6	2.16	83.6	2.16	1.58	28.9	0.63	17.7	18.3	3.17	1.06	22.6	70	0.83	56.55	3,335	5.82E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
266	43.55	43.72	0.2	43.64	323,400	6,400	5,236	60.8	2.01	2.27	97.8	2.12	97.8	2.12	1.50	33.4	0.63	16.5	21.1	2.90	1.06	25.2	74	0.83	58.60	3,462	5.63E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
267	43.72	43.88	0.2	43.80	353,800	7,460	5,256	66.3	2.14	2.26	106.8	2.12	106.8	2.12	1.49	36.4	0.63	16.3	22.9	2.85	1.06	27.1	77	0.83	60.04	3,554	5.50E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
268	43.88	44.05	0.2	43.96	335,400	7,780	5,276	62.6	2.36	2.31	101.0	2.16	101.0	2.16	1.58	35.2	0.63	17.8	22.1	3.19	1.07	26.7	75	0.83	59.81	3,547	5.54E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
269	44.05	44.21	0.2	44.13	350,000	7,140	5,295	65.1	2.07	2.26	105.2	2.11	105.2	2.11	1.47	36.0	0.63	16.1	22.5	2.80	1.05	26.6	75	0.82	59.69	3,546	5.49E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
270	44.21	44.37	0.2	44.29	402,200	6,380	5,315	74.7	1.61	2.14	120.7	1.99	120.7	1.99	1.29	39.4	0.63	12.7	24.7	1.79	1.04	27.3	77	0.82	60.23	3,585	5.45E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
271	44.37	44.54	0.2	44.46	486,600	5,620	5,335	90.2	1.17	1.99	145.8	1.83	145.8	1.83	1.13	45.0	0.62	8.9	28.1	0.52	1.02	29.1	79	0.82	61.50	3,667	5.35E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
272	44.54	44.70	0.2	44.62	564,000	4,740	5,354	104.3	0.85	1.85	168.7	1.69	168.7	1.69	1.03	49.6	0.62	6.0	30.9	0.03	1.00	31.1	81	0.82	62.89	3,757	5.24E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
273	44.70	44.87	0.2	44.78	593,600	4,220	5,374	109.5	0.72	1.79	177.2	1.63	177.2	1.63	1.00	51.1	0.62	4.8	31.8	0.00	1.00	31.8	81	0.82	63.35	3,792	5.21E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
274	44.87	45.03	0.2	44.95	558,400	4,100	5,394	102.5	0.74	1.82	166.4	1.66	166.4	1.66	1.01	48.5	0.62	5.3	30.1	0.01	1.00	30.2	80	0.82	62.29	3,735	5.31E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
275	45.03	45.19	0.2	45.11	562,200	4,920	5,413	102.9	0.88	1.87	167.2	1.71	167.2	1.71	1.04	49.7	0.62	6.3	30.8	0.05	1.01	31.0	81	0.81	62.85	3,775	5.21E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
276	45.19	45.36	0.2	45.28	634,400	5,980	5,433	115.8	0.95	1.85	188.3	1.69	188.3	1.69	1.03	55.8	0.62	6.0	34.5	0.03	1.00	34.7	84	0.81	65.24	3,926	5.03E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
277	45.36	45.52	0.2	45.44	855,600	7,160	5,453	155.9	0.84	1.72	253.5	1.56	253.5	1.56	1.00	72.1	0.62	3.8	44.5	0.00	1.00	44.5	94	0.81	70.88	4,274	4.63E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
278	45.52	45.69	0.2	45.60	1,011,000	8,860	5,472	183.7	0.88	1.68	299.0	1.53	299.0	1.53	1.00	84.3	0.62	3.3	51.9	0.00	1.00	51.9	95	0.81	74.62	4,507	4.41E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
279	45.69	45.85	0.2	45.77	1,023,800	9,500	5,492	185.4	0.93	1.69	302.3	1.55	302.3	1.55	1.00	85.8	0.62	3.5	52.8	0.00	1.00	52.8	95	0.81	75.02	4,540	4.40E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
280	45.85	46.01	0.2	45.93	937,800	8,640	5,512	169.1	0.93	1.72	276.4	1.57	276.4	1.57	1.00	79.2	0.61	3.9	48.6	0.00	1.00	48.6	95	0.81	73.00	4,425	4.52E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
281	46.01	46.18	0.2	46.10	818,000	7,400	5,531	146.9	0.91	1.76	240.7	1.61	240.7	1.61	1.00	69.8	0.61	4.4	42.8	0.00	1.00	42.8	92	0.80	69.98	4,249	4.67E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
282	46.18	46.34	0.2	46.26	647,200	6,600	5,551	115.6	1.03	1.87	190.1	1.71	190.1	1.71	1.05	57.3	0.61	6.4	35.1	0.05	1.01	35.4	85	0.80	65.65	3,994	4.99E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
283	46.34	46.51	0.2	46.42	483,600	6,040	5,571	85.8	1.26	2.03	141.8	1.87	141.8	1.87	1.16	45.2	0.61	9.6	27.6	0.74	1.02	28.9	78	0.80	61.40	3,742	5.34E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
284	46.51	46.67	0.2	46.59	411,400	7,120	5,591	72.6	1.75	2.18	120.4	2.02	120.4	2.02	1.32	40.8	0.61	13.5	24.9	2.03	1.04	27.9	77	0.80	60.64	3,702	5.42E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
285	46.67	46.83	0.2	46.75	390,400	9,520	5,610	68.6	2.47	2.30	114.1	2.14	114.1	2.14	1.54	40.7	0.61	17.2	24.8	3.06	1.06	29.3	79	0.80	61.68	3,772	5.34E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
286	46.83	47.00	0.2	46.92	372,000	10,500	5,630	65.1	2.87	2.36	108.5	2.21	108.5	2.21	1.68	39.8	0.61	19.2	24.2	3.48	1.07	29.4	79	0.80	61.75	3,783	5.34E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
287	47.00	47.16	0.2	47.08	365,200	9,540	5,650	63.6	2.65	2.34	106.3	2.19	106.3	2.19	1.64	38.7	0.61	18.6	23.5	3.35	1.07	28.5	78	0.80	61.08	3,749	5.41E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
288	47.16	47.33	0.2	47.24	368,200	7,580	5,669	63.9	2.09	2.27	107.0	2.11	107.0	2.11	1.47	37.8	0.61	16.1	22.9	2.79	1.05	26.9	75	0.79	59.95	3,686	5.45E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
289	47.33	47.49	0.2	47.41	357,800	6,500	5,689	61.9	1.85	2.24	103.8	2.08	103.8	2.08	1.42	36.3	0.60	15.2	21.9	2.55	1.05	25.6	74	0.79	58.93	3,629	5.55E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
290	47.49	47.65	0.2	47.57	354,000	5,460	5,709	61.0	1.57	2.20	102.5	2.03	102.5	2.03	1.35	35.3	0.60	13.9	21.3	2.16	1.04	24.3	72	0.79	57.95	3,575	5.66E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
291	47.65	47.82	0.2	47.74	347,200	4,820	5,728	59.6	1.41	2.18	100.4	2.01	100.4	2.01	1.31	34.3	0.60	13.2	20.6	1.94	1.04	23.4	71	0.79	57.18	3,533	5.74E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
292	47.82	47.98	0.2	47.90	307,600	4,500	5,748	52.5	1.49	2.24	88.8	2.06	88.8	2.06	1.39	31.0	0.60	14.7	18.7	2.42	1.05	21.9	68	0.79	55.99	3,466	5.88E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
293	47.98	48.15	0.2	48.06	268,800	4,460	5,768	45.6	1.70	2.32	77.4	2.14	77.4	2.14	1.54	28.0	0.60	17.2	16.8	3.06	1.06	20.9	67	0.79	55.09	3,416	5.98E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
294	48.15	48.31	0.2	48.23	250,800	4,720	5,787	42.3	1.93	2.38	72.1	2.21	72.1	2.21	1.68	26.8	0.60	19.2	16.1	3.46	1.07	20.7	67	0.78	54.92	3,411	5.93E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
295	48.31	48.47	0.2	48.39	225,200	4,620	5,807	37.8	2.11	2.44	64.7	2.27	64.7	2.27	1.84	24.7	0.60	21.3	14.8	3.82	1.09	19.9	65	0.78	54.19	3,372	6.02E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
296	48.47	48.64	0.2	48.56	212,000	4,080	5,827	35.4	1.98	2.45	60.8	2.27	60.8	2.27	1.85	23.2	0.60	21.3	13.9	3.83	1.09	19.0	63	0.78	53.32	3,323	6.13E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
297	48.64	48.80	0.2	48.72	215,400	3,860	5,846	35.8	1.84	2.42	61.6	2.24	61.6	2.24	1.78	23.4	0.60	20.5	13.9	3.69	1.08	18.8	63	0.78	53.16	3,319	6.16E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
298	48.80	48.97	0.2	48.88	210,400	4,000	5,866	34.9	1.96	2.45	60.1	2.27	60.1	2.27	1.85	23.1	0.60	21.4	13.7	3.83	1.09	18.8	63	0.78	53.17	3,325	6.17E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
299	48.97	49.13	0.2	49.05	225,400	4,240	5,886	37.3	1.93	2.42	64.3	2.24	64.3	2.24	1.78	24.5	0.59	20.5	14.5	3.69	1.08	19.4	65	0.78	53.76	3,368	6.11E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
300	49.13	49.29	0.2	49.21	274,000	5,380	5,906	45.4	2.01	2.37	78.0	2.19	78.0	2.19	1.65	29.1	0.59	18.7	17.3	3.38	1.07	21.9	68	0.77	55.95	3,510	5.81E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
301	49.29	49.46	0.2	49.38	300,000	6,420	5,925	49.6	2.18	2.36	85.3	2.19	85.3	2.19	1.64	31.8	0.59	18.7	18.9	3.37	1.07	23.6	71	0.77	57.35	3,604	5.68E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
302	49.46	49.62	0.2	49.54	297,800	6,900	5,945	49.1	2.36	2.39	84.5	2.22	84.5	2.22	1.71	32.0	0.59	19.6	18.9	3.55	1.08	23.9	71	0.77	57.62	3,628	5.66E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
																													TOTAL SETTLEMENT (INCHES):			1.76

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft): 15.0
IDENTIFICATION: CPT-3
TOTAL DRY SETTLEMENT (IN.): 0.39

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}
93	15.01	15.17	0.2	15.09	158,040	3,116	1,811	86.3	1.99	2.16	81.3	2.18	81.3	2.18	1.61	16.7
94	15.17	15.34	0.2	15.26	170,160	2,669	1,831	91.9	1.59	2.07	87.0	2.09	87.0	2.09	1.43	17.3
95	15.34	15.50	0.2	15.42	182,740	2,504	1,850	97.8	1.38	2.01	93.0	2.03	93.0	2.03	1.34	18.2
96	15.50	15.67	0.2	15.58	168,140	2,370	1,870	88.9	1.43	2.05	85.1	2.06	85.1	2.06	1.39	17.0
97	15.67	15.83	0.2	15.75	154,380	2,323	1,890	80.7	1.52	2.10	77.7	2.11	77.7	2.11	1.48	15.9
98	15.83	15.99	0.2	15.91	143,260	2,273	1,909	74.0	1.61	2.14	71.7	2.15	71.7	2.15	1.56	15.0
99	15.99	16.16	0.2	16.08	141,080	2,249	1,929	72.1	1.62	2.15	70.3	2.16	70.3	2.16	1.58	14.8
100	16.16	16.32	0.2	16.24	144,860	2,359	1,949	73.3	1.65	2.15	71.8	2.16	71.8	2.16	1.58	15.2
101	16.32	16.49	0.2	16.40	160,160	2,269	1,969	80.4	1.43	2.08	79.0	2.09	79.0	2.09	1.44	16.3
102	16.49	16.65	0.2	16.57	177,700	2,206	1,988	88.4	1.26	2.02	87.2	2.02	87.2	2.02	1.33	17.6
103	16.65	16.81	0.2	16.73	194,600	2,214	2,008	95.9	1.15	1.96	95.0	1.97	95.0	1.97	1.26	18.9
104	16.81	16.98	0.2	16.90	219,960	3,000	2,028	107.5	1.38	1.98	106.9	1.98	106.9	1.98	1.28	21.5
105	16.98	17.14	0.2	17.06	275,940	5,341	2,047	133.8	1.95	2.02	133.4	2.02	133.4	2.02	1.33	27.4
106	17.14	17.31	0.2	17.22	350,540	3,853	2,067	168.6	1.11	1.77	168.7	1.77	168.7	1.77	1.09	31.7
107	17.31	17.47	0.2	17.39	440,620	4,560	2,087	210.2	1.04	1.69	211.1	1.69	211.1	1.69	1.03	38.7
108	17.47	17.63	0.2	17.55	439,360	4,875	2,106	207.6	1.11	1.71	209.5	1.71	209.5	1.71	1.04	38.9
109	17.63	17.80	0.2	17.72	440,380	7,465	2,126	206.1	1.70	1.86	209.0	1.85	209.0	1.85	1.15	41.0
110	17.80	17.96	0.2	17.88	526,580	7,058	2,146	244.4	1.35	1.73	248.7	1.72	248.7	1.72	1.05	46.8
111	17.96	18.13	0.2	18.04	517,420	7,472	2,165	238.0	1.45	1.76	243.3	1.76	243.3	1.76	1.08	46.5
112	18.13	18.29	0.2	18.21	370,340	6,052	2,185	168.5	1.64	1.90	173.4	1.89	173.4	1.89	1.18	35.0
113	18.29	18.45	0.2	18.37	320,960	4,497	2,205	144.6	1.41	1.90	149.6	1.88	149.6	1.88	1.17	30.2
114	18.45	18.62	0.2	18.54	300,180	3,293	2,224	133.9	1.11	1.84	139.3	1.83	139.3	1.83	1.13	27.7
115	18.62	18.78	0.2	18.70	294,020	3,167	2,244	130.0	1.09	1.85	135.8	1.83	135.8	1.83	1.13	27.2
116	18.78	18.95	0.2	18.86	311,020	3,291	2,264	136.4	1.07	1.83	143.0	1.81	143.0	1.81	1.12	28.5
117	18.95	19.11	0.2	19.03	345,320	3,746	2,283	150.2	1.09	1.80	158.1	1.79	158.1	1.79	1.10	31.4
118	19.11	19.27	0.2	19.19	373,200	3,972	2,303	161.0	1.07	1.78	170.2	1.76	170.2	1.76	1.08	33.6
119	19.27	19.44	0.2	19.36	363,460	3,636	2,323	155.5	1.01	1.77	165.0	1.75	165.0	1.75	1.07	32.6
120	19.44	19.60	0.2	19.52	352,000	2,962	2,343	149.3	0.85	1.73	159.1	1.71	159.1	1.71	1.05	31.2
121	19.60	19.77	0.2	19.69	348,140	2,960	2,362	146.4	0.86	1.74	156.7	1.72	156.7	1.72	1.05	30.9
122	19.77	19.93	0.2	19.85	343,420	2,992	2,382	143.2	0.88	1.75	154.0	1.73	154.0	1.73	1.06	30.6
123	19.93	20.10	0.2	20.01	330,780	3,272	2,402	136.7	1.00	1.81	147.7	1.78	147.7	1.78	1.09	30.0
124	20.10	20.26	0.2	20.18	317,040	3,363	2,421	129.9	1.07	1.84	141.0	1.82	141.0	1.82	1.12	29.1
125	20.26	20.42	0.2	20.34	303,520	3,697	2,441	123.3	1.23	1.90	134.4	1.87	134.4	1.87	1.17	28.5
126	20.42	20.59	0.2	20.51	295,940	3,711	2,461	119.3	1.26	1.92	130.5	1.89	130.5	1.89	1.18	28.0
127	20.59	20.75	0.2	20.67	282,200	3,461	2,480	112.8	1.24	1.93	124.0	1.90	124.0	1.90	1.19	26.7
128	20.75	20.92	0.2	20.83	276,600	3,089	2,500	109.6	1.13	1.91	121.0	1.88	121.0	1.88	1.17	26.0
129	20.92	21.08	0.2	21.00	275,940	2,842	2,520	108.5	1.04	1.89	120.3	1.86	120.3	1.86	1.15	25.8
130	21.08	21.24	0.2	21.16	262,520	2,914	2,539	102.4	1.12	1.93	114.0	1.90	114.0	1.90	1.19	24.9
131	21.24	21.41	0.2	21.33	278,860	3,050	2,559	108.0	1.10	1.91	120.6	1.88	120.6	1.88	1.17	26.2
132	21.41	21.57	0.2	21.49	296,680	3,467	2,579	114.0	1.18	1.91	127.8	1.88	127.8	1.88	1.17	27.9
133	21.57	21.74	0.2	21.65	305,860	3,523	2,598	116.7	1.16	1.90	131.3	1.87	131.3	1.87	1.16	28.6
134	21.74	21.90	0.2	21.82	309,480	3,602	2,618	117.2	1.17	1.90	132.3	1.87	132.3	1.87	1.16	28.9
135	21.90	22.06	0.2	21.98	325,540	3,329	2,638	122.4	1.03	1.85	138.7	1.81	138.7	1.81	1.12	29.9
136	22.06	22.23	0.2	22.15	329,500	3,486	2,657	123.0	1.07	1.86	139.9	1.82	139.9	1.82	1.12	30.3
137	22.23	22.39	0.2	22.31	339,200	3,155	2,677	125.7	0.94	1.82	143.4	1.77	143.4	1.77	1.09	30.7
138	22.39	22.56	0.2	22.47	385,940	3,623	2,697	142.1	0.95	1.78	162.6	1.74	162.6	1.74	1.06	34.5
139	22.56	22.72	0.2	22.64	392,340	4,575	2,717	143.4	1.17	1.84	164.7	1.80	164.7	1.80	1.11	35.8
140	22.72	22.88	0.2	22.80	412,620	4,505	2,736	149.8	1.10	1.81	172.6	1.76	172.6	1.76	1.08	37.2
141	22.88	23.05	0.2	22.97	388,040	4,679	2,756	139.8	1.21	1.86	161.7	1.81	161.7	1.81	1.12	35.6
142	23.05	23.21	0.2	23.13	423,500	4,290	2,776	151.6	1.02	1.78	175.9	1.73	175.9	1.73	1.06	37.8
143	23.21	23.38	0.2	23.29	408,360	3,960	2,795	145.1	0.98	1.78	169.0	1.73	169.0	1.73	1.06	36.4
144	23.38	23.54	0.2	23.46	381,800	3,453	2,815	134.6	0.91	1.79	157.5	1.74	157.5	1.74	1.06	34.1
145	23.54	23.70	0.2	23.62	388,520	2,918	2,835	136.1	0.76	1.73	159.7	1.68	159.7	1.68	1.02	34.0
146	23.70	23.87	0.2	23.79	395,700	2,747	2,854	137.6	0.70	1.70	162.1	1.65	162.1	1.65	1.00	34.3
147	23.87	24.03	0.2	23.95	377,820	2,814	2,874	130.5	0.75	1.74	154.2	1.69	154.2	1.69	1.03	33.2
148	24.03	24.20	0.2	24.11	369,200	3,164	2,894	126.6	0.86	1.79	150.2	1.73	150.2	1.73	1.06	33.0
149	24.20	24.36	0.2	24.28	370,840	3,747	2,913	126.3	1.02	1.84	150.3	1.78	150.3	1.78	1.09	33.7
150	24.36	24.52	0.2	24.44	356,640	4,476	2,933	120.6	1.27	1.92	144.1	1.86	144.1	1.86	1.16	33.3
151	24.52	24.69	0.2	24.61	341,560	5,107	2,953	114.7	1.51	1.99	137.5	1.93	137.5	1.93	1.22	32.7
152	24.69	24.85	0.2	24.77	329,040	5,385	2,972	109.7	1.65	2.03	132.1	1.97	132.1	1.97	1.26	32.0
153	24.85	25.02	0.2	24.93	306,540	5,635	2,992	101.4	1.86	2.09	122.6	2.03	122.6	2.03	1.34	30.5
154	25.02	25.18	0.2	25.10	287,000	5,910	3,012	94.3	2.08	2.15	114.4	2.09	114.4	2.09	1.43	29.2
155	25.18	25.34	0.2	25.26	270,480	6,444	3,031	88.2	2.41	2.21	107.5	2.15	107.5	2.15	1.56	28.3
156	25.34	25.51	0.2	25.43	264,660	6,862	3,051	85.7	2.62	2.25	104.8	2.19	104.8	2.19	1.64	28.1
157	25.51	25.67	0.2	25.59	258,760	6,928	3,071	83.3	2.71	2.27	102.2	2.21	102.2	2.21	1.68	27.6
158	25.67	25.84	0.2	25.75	234,160	7,192	3,091	74.8	3.11	2.34	92.2	2.28	92.2	2.28	1.89	25.8
159	25.84	26.00	0.2	25.92	229,120	7,230	3,110	72.7	3.20	2.36	89.9	2.30	89.9	2.30	1.94	25.4
160	26.00	26.16	0.2	26.08	224,620	7,993	3,130	70.8	3.61	2.40	87.9	2.34	87.9	2.34	2.09	25.4
161	26.16	26.33	0.2	26.25	217,060	7,763	3,150	67.9	3.63	2.42	84.6	2.36	84.6	2.36	2.14	24.7
162	26.33	26.49	0.2	26.41	224,420	7,368	3,169	69.8	3.33	2.38	87.2	2.32	87.2	2.32	2.01	25.2
163	26.49	26.66	0.2	26.57	226,500	7,086	3,189	70.0	3.17	2.37	87.8	2.30	87.8	2.30	1.95	25.2
164	26.66	26.82	0.2	26.74	236,780	6,947	3,209	72.8	2.97	2.34	91.5	2.27	91.5	2.27	1.85	26.0
165	26.82	26.98	0.2	26.90	250,760	6,691	3,228	76.7	2.70	2.29	96.6	2.22	96.6	2.22	1.72	27.0
166	26.98	27.15	0.2	27.07	254,960	6,195	3,248	77.5	2.46	2.26	97.9	2.19	97.9	2.19	1.64	27.0
167	27.15	27.31	0.2	27.23	264,320	6,051	3,268	79.9	2.32	2.23	101.2	2.16	101.2	2.16	1.57	27.7
168	27.31	27.48	0.2	27.40	279,540	5,839	3,287	84.0	2.11	2.19	106.7	2.11	106.7	2.11	1.48	28.7
169	27.48	27.64	0.2	27.56	297,080	6,028	3,307	88.8	2.05	2.16	113.0	2.09	113.0	2.09	1.43	30.2
170	27.64	27.81	0.2	27.72	296,520	6,017	3,327	88.1	2.05	2.16	112.5	2.09	112.5	2.09	1.43	30.2
171	27.81	27.97	0.2	27.89	284,240	5,977	3,346	83.9	2.13	2.19	107.5	2.11	107.5	2.11	1.48	29.2
172	27.97	28.13	0.2	28.05	282,640	6,483	3,366	83.0	2.32	2.22	106.6	2.14	106.6	2.14	1.54	29.4

LAYER NUMBER	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	1.07	18.3	17.9	3.29	1.07	22.4	70	0.97	56.37	1,959	4.02E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
94	1.07	15.4	18.5	2.62	1.05	22.0	70	0.97	56.06	1,958	4.07E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
95	1.06	13.7	19.3	2.11	1.04	22.1	70	0.97	56.16	1,973	4.08E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
96	1.05	14.7	17.9	2.42	1.05	21.1	68	0.97	55.30	1,953	4.17E-04	1.40E-03	0.134%	0.134%	0.269%	0.0053
97	1.05	16.2	16.7	2.82	1.06	20.4	67	0.97	54.64	1,939	4.24E-04	1.40E-03	0.140%	0.140%	0.280%	0.0055
98	1.04	17.5	15.6	3.12	1.06	19.7	65	0.97	54.06	1,929	4.31E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
99	1.04	17.8	15.4	3.18	1.06	19.5	65	0.97	53.87	1,932	4.34E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
100	1.03	17.7	15.7	3.17	1.06	19.9	65	0.97	54.18	1,953	4.34E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
101	1.03	15.5	16.8	2.64	1.05	20.3	67	0.97	54.53	1,975	4.34E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
102	1.02	13.5	18.0	2.04	1.04	20.8	67	0.97	54.97	2,001	4.32E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
103	1.02	12.1	19.2	1.57	1.03	21.4	68	0.97	55.54	2,032	4.30E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
104	1.01	12.4	21.8	1.70	1.03	24.2	72	0.97	57.84	2,126	4.15E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
105	1.01	13.6	27.6	2.07	1.04	30.8	80	0.97	62.66	2,315	3.85E-04	1.20E-03	0.072%	0.072%	0.144%	0.0028
106	1.00	7.5	31.8	0.21	1.01	32.4	82	0.96	63.73	2,366	3.76E-04	1.20E-03	0.065%	0.065%	0.130%	0.0026
107	1.00	5.9	38.6	0.02	1.00	38.8	88	0.96	67.70	2,525	3.56E-04	8.50E-04	0.031%	0.031%	0.063%	0.0012
108	0.99	6.3	38.6	0.05	1.01	38.9	88	0.96	67.78	2,540	3.57E-04	8.50E-04	0.031%	0.031%	0.063%	0.0012
109	0.99	9.3	40.5	0.63	1.02	41.9	91	0.96	69.47	2,615	3.50E-04	8.50E-04	0.026%	0.026%	0.051%	0.0010
110	0.98	6.6	46.1	0.07	1.01	46.5	95	0.96	71.92	2,720	3.40E-04	8.50E-04	0.015%	0.015%	0.031%	0.0006
111	0.98	7.2	45.6	0.15	1.01	46.2	95	0.96	71.75	2,726	3.42E-04	8.50E-04	0.015%	0.015%	0.031%	0.0006
112	0.98	10.2	34.1	0.93	1.02	35.8	85	0.96	65.92	2,516	3.74E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
113	0.97	10.0	29.4	0.88	1.02	30.9	80	0.96	62.75	2,406	3.95E-04	1.20E-03	0.072%	0.072%	0.144%	0.0028
114	0.97	8.8	26.8	0.50	1.02	27.7	77	0.96	60.55	2,332	4.11E-04	1.20E-03	0.086%	0.086%	0.173%	0.0034
115	0.96	8.9	26.2	0.52	1.02	27.1	77	0.96	60.09	2,324	4.16E-04	1.20E-03	0.086%	0.086%	0.173%	0.0034
116	0.96	8.4	27.3	0.39	1.01	28.1	78	0.96	60.83	2,363	4.12E-04	1.00E-03	0.068%	0.068%	0.136%	0.0027
117	0.95	7.9	30.0	0.27	1.01	30.6	80	0.96	62.56	2,441	4.03E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
118	0.95	7.3	31.9	0.16	1.01	32.4	82	0.96	63.76	2,499	3.97E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
119	0.95	7.1	30.9	0.13	1.01	31.3	81	0.96	63.01	2,480	4.03E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
120	0.94	6.3	29.4	0.05	1.01	29.6	79	0.96	61.85	2,444	4.13E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
121	0.94	6.5	29.0	0.06	1.01	29.2	79	0.96	61.62	2,445	4.16E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
122	0.93	6.7	28.6	0.09	1.01	28.9	78	0.96	61.38	2,446	4.19E-04	1.00E-03	0.068%	0.068%	0.136%	0.0027
123	0.93	7.7	27.9	0.24	1.01	28.5	78	0.96	61.10	2,445	4.23E-04	1.00E-03	0.068%	0.068%	0.136%	0.0027
124	0.93	8.5	27.0	0.42	1.01	27.8	77	0.95	60.61	2,435	4.24E-04	1.00E-03	0.072%	0.072%	0.144%	0.0028
125	0.92	9.8	26.3	0.80	1.02	27.6	77	0.95	60.46	2,439	4.26E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
126	0.92	10.2	25.7	0.94	1.02	27.2	77	0.95	60.16	2,437	4.30E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
127	0.92	10.4	24.5	1.02	1.02	26.1	75	0.95	59.32	2,412	4.38E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
128	0.91	10.0	23.7	0.86	1.02	25.1	74	0.95	58.56	2,391	4.46E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
129	0.91	9.5	23.4	0.70	1.02	24.5	72	0.95	58.12	2,382	4.51E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
130	0.91	10.4	22.5	1.00	1.02	24.0	72	0.95	57.71	2,375	4.56E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
131	0.90	9.8	23.6	0.82	1.02	24.9	72	0.95	58.42	2,413	4.52E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
132	0.90	9.9	25.0	0.83	1.02	26.4	75	0.95	59.54	2,469	4.45E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
133	0.89	9.6	25.6	0.73	1.02	26.8	75	0.95	59.87	2,492	4.44E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
134	0.89	9.6	25.8	0.73	1.02	27.0	77	0.95	60.03	2,508	4.45E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
135	0.89	8.4	26.5	0.39	1.01	27.3	77	0.95	60.21	2,525	4.45E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
136	0.88	8.5	26.8	0.43	1.01	27.6	77	0.95	60.47	2,545	4.45E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
137	0.88	7.6	27.1	0.21	1.01	27.6	77	0.95	60.41	2,552	4.47E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
138	0.88	6.8	30.3	0.10	1.01	30.6	80	0.95	62.55	2,652	4.33E-04	1.45E-03	0.087%	0.087%	0.174%	0.0034
139	0.88	8.1	31.3	0.32	1.01	32.1	82	0.95	63.54	2,704	4.28E-04	1.45E-03	0.078%	0.078%	0.157%	0.0031
140	0.87	7.4	32.4	0.17	1.01	32.9	82	0.95	64.11	2,738	4.26E-04	1.45E-03	0.078%	0.078%	0.157%	0.0031
141	0.87	8.4	30.9	0.40	1.01	31.8	81	0.95	63.36	2,716	4.32E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
142	0.87	6.8	32.7	0.09	1.01	33.1	83	0.95	64.19	2,761	4.28E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
143	0.86	6.8	31.4	0.09	1.01	31.8	81	0.95	63.34	2,734	4.36E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
144	0.86	6.8	29.3	0.10	1.01	29.6	79	0.95	61.88	2,681	4.47E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
145	0.86	5.7	29.1	0.02	1.00	29.2	79	0.95	61.61	2,678	4.51E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
146	0.85	5.2	29.3	0.01	1.00	29.3	79	0.95	61.69	2,691	4.52E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
147	0.85	5.9	28.2	0.02	1.00	28.3	78	0.95	60.98	2,669	4.59E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
148	0.85	6.8	27.9	0.09	1.01	28.2	78	0.94	60.91	2,675	4.56E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
149	0.84	7.8	28.4	0.25	1.01	29.0	79	0.94	61.46	2,709	4.53E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
150	0.84	9.5	28.1	0.71	1.02	29.3	79	0.94	61.66	2,727	4.54E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
151	0.84	11.2	27.5	1.26	1.03	29.5	79	0.94	61.78	2,741	4.54E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
152	0.84	12.2	26.8	1.62	1.03	29.3	79	0.94	61.64	2,744	4.57E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
153	0.83	13.8	25.4	2.14	1.04	28.6	78	0.94	61.19	2,733	4.62E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
154	0.83	15.4	24.3	2.62	1.05	28.1	78	0.94	60.82	2,725	4.66E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
155	0.83	17.5	23.4	3.12	1.06	28.0	78	0.94	60.74	2,730	4.68E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
156	0.83	18.6	23.2	3.35	1.07	28.1	78	0.94	60.84	2,744	4.69E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
157	0.82	19.2	22.7	3.47	1.07	27.9	77	0.94	60.66	2,745	4.72E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
158	0.82	21.8	21.2	3.90	1.09	27.0	77	0.94	60.02	2,724	4.78E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
159	0.82	22.4	20.8	3.98	1.10	26.8	75	0.94	59.84	2,725	4.81E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
160	0.82	24.1	20.7	4.20	1.11	27.2	77	0.94	60.14	2,747	4.80E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
161	0.81	24.6	20.1	4.25	1.11	26.6	75	0.94	59.70	2,736	4.85E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
162	0.81	23.2	20.4	4.08	1.10	26.5	75	0.94	59.66	2,742	4.87E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
163	0.81	22.6	20.3	4.00	1.10	26.3	75	0.94	59.50	2,743	4.90E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
164	0.81	21.4	20.9	3.83	1.09	26.6	75	0.94	59.70	2,761	4.90E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
165	0.80	19.7	21.6	3.57	1.08	26.9	75	0.94	59.91	2,780	4.90E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
166	0.80	18.6	21.6	3.35	1.07	26.5	75	0.94	59.62	2,774	4.94E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
167	0.80	17.6	22.1	3.15	1.06	26.7	75	0.93	59.74	2,788	4.89E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
168	0.80	16.2	22.9	2.82	1.06	27.0	75	0.93	59.97	2,807	4.88E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
169	0.79	15.4	24.0	2.61	1.05	27.8	77	0.93	60.59	2,845	4.85E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
170	0.79	15.5	23.9	2.62	1.05	27.7	77	0.93	60.52	2,850	4.87E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
171	0.79	16.2	23.0	2.82	1.06	27.1	77	0.93	60.10	2,839	4.92E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
172	0.79	17.2	23.1	3.05	1.06	27.6	77	0.93	60.43	2,863	4.90E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	290,660	6,952	3,386	84.8	2.42	2.22	109.3	2.15	109.3	2.15	1.55	30.3	0.78	17.3	23.8	3.09	1.06	28.3	78	0.93	60.98	2,897	4.87E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
174	28.30	28.46	0.2	28.38	306,600	7,043	3,406	89.0	2.32	2.20	115.0	2.12	115.0	2.12	1.50	31.6	0.78	16.5	24.7	2.89	1.06	29.0	79	0.93	61.46	2,928	4.85E-04	1.50E-03	0.096%	0.096%	0.192%	0.0038
175	28.46	28.63	0.2	28.54	311,280	7,282	3,425	89.9	2.37	2.20	116.4	2.12	116.4	2.12	1.50	32.2	0.78	16.5	25.1	2.90	1.06	29.4	79	0.93	61.72	2,950	4.84E-04	1.50E-03	0.096%	0.096%	0.192%	0.0038
176	28.63	28.79	0.2	28.71	311,840	7,661	3,445	89.5	2.48	2.22	116.3	2.14	116.3	2.14	1.53	32.4	0.78	17.1	25.2	3.03	1.06	29.7	79	0.93	61.97	2,970	4.84E-04	1.50E-03	0.096%	0.096%	0.192%	0.0038
177	28.79	28.95	0.2	28.87	318,960	8,067	3,465	91.1	2.56	2.22	118.6	2.14	118.6	2.14	1.54	33.2	0.77	17.2	25.7	3.05	1.06	30.4	80	0.93	62.40	2,999	4.82E-04	1.50E-03	0.090%	0.090%	0.180%	0.0035
178	28.95	29.12	0.2	29.04	354,080	8,299	3,484	100.6	2.37	2.17	131.3	2.09	131.3	2.09	1.44	36.1	0.77	15.5	27.9	2.64	1.05	31.9	81	0.93	63.46	3,058	4.75E-04	1.50E-03	0.086%	0.086%	0.171%	0.0034
179	29.12	29.28	0.2	29.20	403,800	7,797	3,504	114.2	1.95	2.07	149.3	1.99	149.3	1.99	1.29	39.6	0.77	12.7	30.5	1.78	1.04	33.3	83	0.93	64.36	3,111	4.70E-04	1.00E-03	0.051%	0.051%	0.102%	0.0020
180	29.28	29.45	0.2	29.36	425,580	6,497	3,524	119.8	1.54	1.98	156.9	1.90	156.9	1.90	1.19	40.3	0.77	10.4	31.0	0.99	1.02	32.7	82	0.93	63.93	3,099	4.74E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
181	29.45	29.61	0.2	29.53	437,500	5,901	3,543	122.5	1.36	1.93	160.8	1.85	160.8	1.85	1.15	40.7	0.77	9.3	31.2	0.63	1.02	32.4	82	0.93	63.75	3,099	4.77E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
182	29.61	29.77	0.2	29.69	428,280	4,745	3,563	119.2	1.12	1.88	157.0	1.80	157.0	1.80	1.10	39.1	0.76	8.1	29.9	0.31	1.01	30.6	80	0.93	62.53	3,048	4.88E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
183	29.77	29.94	0.2	29.86	385,920	4,220	3,583	106.7	1.10	1.92	141.1	1.83	141.1	1.83	1.13	35.6	0.76	8.7	27.1	0.48	1.02	28.0	78	0.93	60.75	2,969	5.03E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
184	29.94	30.10	0.2	30.02	360,460	4,194	3,602	99.1	1.18	1.96	131.4	1.87	131.4	1.87	1.16	33.7	0.76	9.6	25.6	0.75	1.02	26.9	75	0.93	59.93	2,937	5.12E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
185	30.10	30.27	0.2	30.18	316,280	4,266	3,622	86.3	1.36	2.05	115.0	1.96	115.0	1.96	1.25	30.6	0.76	11.8	23.2	1.47	1.03	25.3	74	0.92	58.75	2,887	5.18E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
186	30.27	30.43	0.2	30.35	294,220	4,311	3,642	79.8	1.48	2.10	106.7	2.00	106.7	2.00	1.30	29.0	0.76	13.0	21.9	1.90	1.04	24.6	72	0.92	58.18	2,867	5.24E-04	1.30E-03	0.109%	0.109%	0.218%	0.0043
187	30.43	30.59	0.2	30.51	293,260	4,277	3,661	79.1	1.48	2.10	106.0	2.00	106.0	2.00	1.31	28.9	0.75	13.1	21.8	1.91	1.04	24.5	72	0.92	58.08	2,870	5.26E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
188	30.59	30.76	0.2	30.68	304,700	4,219	3,681	81.8	1.40	2.07	109.9	1.98	109.9	1.98	1.27	29.7	0.75	12.3	22.3	1.67	1.03	24.7	72	0.92	58.28	2,887	5.26E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
189	30.76	30.92	0.2	30.84	323,220	4,223	3,701	86.3	1.32	2.04	116.3	1.94	116.3	1.94	1.23	31.1	0.75	11.4	23.3	1.36	1.03	25.3	74	0.92	58.74	2,918	5.23E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
190	30.92	31.09	0.2	31.00	355,140	4,910	3,720	94.5	1.40	2.02	127.4	1.93	127.4	1.93	1.22	34.0	0.75	11.1	25.4	1.26	1.03	27.4	77	0.92	60.28	3,002	5.11E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
191	31.09	31.25	0.2	31.17	423,520	6,995	3,740	112.2	1.67	2.02	151.5	1.93	151.5	1.93	1.22	40.6	0.75	11.2	30.3	1.29	1.03	32.4	82	0.92	63.78	3,185	4.85E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
192	31.25	31.41	0.2	31.33	488,860	7,455	3,760	129.0	1.54	1.96	174.5	1.87	174.5	1.87	1.16	45.8	0.74	9.6	34.0	0.75	1.02	35.5	85	0.92	65.70	3,289	4.72E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
193	31.41	31.58	0.2	31.50	508,680	3,568	3,780	133.6	0.71	1.72	181.1	1.62	181.1	1.62	1.00	43.6	0.74	4.6	32.3	0.00	1.00	32.3	82	0.92	63.72	3,199	4.88E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
194	31.58	31.74	0.2	31.66	639,380	3,516	3,799	167.3	0.55	1.58	227.0	1.47	227.0	1.47	1.00	52.3	0.74	2.5	38.7	0.00	1.00	38.7	88	0.92	67.64	3,404	4.61E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
195	31.74	31.91	0.2	31.82	881,920	5,252	3,819	229.9	0.60	1.49	312.3	1.39	312.3	1.39	1.00	70.4	0.74	1.5	51.9	0.00	1.00	51.9	95	0.92	74.62	3,765	4.19E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
196	31.91	32.07	0.2	31.99	1,137,340	7,131	3,839	295.3	0.63	1.43	401.7	1.34	401.7	1.34	1.00	89.1	0.74	0.8	65.6	0.00	1.00	65.6	95	0.92	80.67	4,081	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
197	32.07	32.23	0.2	32.15	1,286,740	8,047	3,858	332.5	0.63	1.39	453.3	1.30	453.3	1.30	1.00	99.8	0.73	0.4	73.3	0.00	1.00	73.3	95	0.91	83.69	4,245	3.71E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
198	32.23	32.40	0.2	32.32	1,380,220	9,078	3,878	354.9	0.66	1.39	485.0	1.30	485.0	1.30	1.00	107.0	0.73	0.4	78.4	0.00	1.00	78.4	95	0.91	85.59	4,352	3.64E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
199	32.40	32.56	0.2	32.48	1,444,640	8,393	3,898	369.6	0.58	1.34	506.3	1.25	506.3	1.25	1.00	110.2	0.73	0.0	80.5	0.00	1.00	80.5	95	0.91	86.36	4,402	3.61E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
200	32.56	32.73	0.2	32.64	1,515,680	7,314	3,917	385.9	0.48	1.26	529.9	1.17	529.9	1.17	1.00	113.1	0.73	0.0	82.4	0.00	1.00	82.4	95	0.91	87.03	4,448	3.59E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
201	32.73	32.89	0.2	32.81	1,678,820	14,301	3,937	425.4	0.85	1.43	585.5	1.35	585.5	1.35	1.00	132.0	0.73	0.9	96.0	0.00	1.00	96.0	95	0.91	91.57	4,691	3.43E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
202	32.89	33.05	0.2	32.97	1,730,280	16,681	3,957	436.3	0.97	1.46	601.9	1.39	601.9	1.39	1.00	137.8	0.73	1.4	99.9	0.00	1.00	99.9	95	0.91	92.80	4,766	3.39E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
203	33.05	33.22	0.2	33.14	1,601,080	14,148	3,976	401.6	0.89	1.45	555.6	1.37	555.6	1.37	1.00	126.9	0.72	1.2	91.8	0.00	1.00	91.8	95	0.91	90.22	4,645	3.49E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
204	33.22	33.38	0.2	33.30	1,505,760	10,349	3,996	375.8	0.69	1.39	521.2	1.30	521.2	1.30	1.00	116.6	0.72	0.4	84.2	0.00	1.00	84.2	95	0.91	87.64	4,524	3.61E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
205	33.38	33.55	0.2	33.46	1,304,520	11,203	4,016	323.9	0.86	1.50	450.4	1.41	450.4	1.41	1.00	104.7	0.72	1.7	75.4	0.00	1.00	75.4	95	0.91	84.48	4,371	3.75E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
206	33.55	33.71	0.2	33.63	1,021,520	11,228	4,035	252.1	1.10	1.65	351.9	1.56	351.9	1.56	1.00	86.1	0.72	3.8	61.8	0.00	1.00	61.8	95	0.91	79.07	4,101	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
207	33.71	33.87	0.2	33.79	878,640	11,851	4,055	215.7	1.35	1.77	301.9	1.68	301.9	1.68	1.02	76.8	0.72	5.7	55.0	0.02	1.00	55.2	95	0.91	76.17	3,960	4.18E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
208	33.87	34.04	0.2	33.96	903,440	12,685	4,075	220.7	1.41	1.77	309.7	1.68	309.7	1.68	1.03	79.2	0.71	5.8	56.6	0.02	1.00	56.8	95	0.91	76.90	4,008	4.15E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
209	34.04	34.20	0.2	34.12	1,085,580	13,571	4,094	264.1	1.25	1.68	371.2	1.60	371.2	1.60	1.00	92.4	0.71	4.3	65.9	0.00	1.00	65.9	95	0.90	80.78	4,220	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
																													TOTAL SETTLEMENT (INCHES):			0.39

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft): 15.0
IDENTIFICATION: CPT-4
TOTAL DRY SETTLEMENT (IN.): 0.42

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	15.01	15.17	0.2	15.09	177,480	2,274	1,811	97.0	1.29	1.99	91.3	2.01	91.3	2.01	1.32	17.5	1.07	13.3	18.8	1.99	1.04	21.5	68	0.97	55.63	1,933	4.08E-04	1.40E-03	0.134%	0.134%	0.269%	0.0053
94	15.17	15.34	0.2	15.26	190,920	1,953	1,831	103.3	1.03	1.91	97.6	1.93	97.6	1.93	1.22	18.3	1.07	11.1	19.5	1.23	1.03	21.2	68	0.97	55.37	1,934	4.12E-04	1.40E-03	0.134%	0.134%	0.269%	0.0053
95	15.34	15.50	0.2	15.42	182,940	1,967	1,850	97.9	1.09	1.94	93.1	1.96	93.1	1.96	1.25	17.7	1.06	11.8	18.8	1.49	1.03	20.8	67	0.97	55.03	1,933	4.16E-04	1.40E-03	0.140%	0.140%	0.280%	0.0055
96	15.50	15.67	0.2	15.58	162,500	2,007	1,870	85.9	1.25	2.02	82.2	2.04	82.2	2.04	1.35	16.2	1.05	14.0	17.1	2.20	1.04	20.0	67	0.97	54.31	1,918	4.24E-04	1.40E-03	0.140%	0.140%	0.280%	0.0055
97	15.67	15.83	0.2	15.75	149,460	1,842	1,890	78.1	1.25	2.05	75.2	2.07	75.2	2.07	1.40	15.1	1.05	14.8	15.8	2.45	1.05	19.0	65	0.97	53.39	1,895	4.34E-04	1.90E-03	0.200%	0.200%	0.399%	0.0079
98	15.83	15.99	0.2	15.91	144,000	1,735	1,909	74.4	1.22	2.06	72.1	2.08	72.1	2.08	1.41	14.6	1.04	15.1	15.2	2.52	1.05	18.5	63	0.97	52.87	1,886	4.40E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
99	15.99	16.16	0.2	16.08	155,280	1,655	1,929	79.5	1.08	2.01	77.4	2.02	77.4	2.02	1.32	15.4	1.04	13.4	16.0	2.03	1.04	18.6	63	0.97	53.01	1,901	4.41E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
100	16.16	16.32	0.2	16.24	171,740	1,781	1,949	87.1	1.05	1.97	85.1	1.98	85.1	1.98	1.27	16.7	1.03	12.3	17.3	1.67	1.03	19.6	65	0.97	53.88	1,942	4.37E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
101	16.32	16.49	0.2	16.40	192,640	2,020	1,969	96.9	1.06	1.94	95.0	1.94	95.0	1.94	1.23	18.5	1.03	11.5	19.1	1.37	1.03	21.0	67	0.97	55.16	1,998	4.29E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
102	16.49	16.65	0.2	16.57	206,840	2,144	1,988	103.0	1.05	1.91	101.5	1.92	101.5	1.92	1.21	19.7	1.02	10.8	20.2	1.15	1.03	21.8	68	0.97	55.91	2,035	4.25E-04	1.20E-03	0.115%	0.115%	0.230%	0.0045
103	16.65	16.81	0.2	16.73	222,640	2,328	2,008	109.9	1.06	1.89	108.7	1.90	108.7	1.90	1.19	21.1	1.02	10.3	21.4	0.98	1.02	22.9	70	0.97	56.82	2,079	4.20E-04	1.20E-03	0.110%	0.110%	0.221%	0.0043
104	16.81	16.98	0.2	16.90	228,260	2,523	2,028	111.6	1.12	1.91	110.9	1.91	110.9	1.91	1.20	21.7	1.01	10.6	22.0	1.06	1.02	23.5	71	0.97	57.32	2,108	4.19E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
105	16.98	17.14	0.2	17.06	232,220	2,692	2,047	112.4	1.17	1.92	112.3	1.92	112.3	1.92	1.21	22.1	1.01	10.8	22.3	1.14	1.03	24.0	72	0.97	57.71	2,132	4.18E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
106	17.14	17.31	0.2	17.22	235,180	2,723	2,067	112.8	1.17	1.92	113.2	1.91	113.2	1.91	1.20	22.4	1.00	10.7	22.5	1.12	1.03	24.1	72	0.96	57.80	2,146	4.15E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
107	17.31	17.47	0.2	17.39	236,200	2,762	2,087	112.2	1.18	1.92	113.1	1.92	113.1	1.92	1.21	22.5	1.00	10.8	22.5	1.14	1.03	24.2	72	0.96	57.84	2,157	4.16E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
108	17.47	17.63	0.2	17.55	242,780	2,753	2,106	114.3	1.14	1.90	115.8	1.90	115.8	1.90	1.19	23.0	0.99	10.4	22.9	1.01	1.02	24.4	72	0.96	58.01	2,174	4.17E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
109	17.63	17.80	0.2	17.72	248,140	2,860	2,126	115.7	1.16	1.91	117.8	1.90	117.8	1.90	1.19	23.5	0.99	10.4	23.2	1.00	1.02	24.8	72	0.96	58.32	2,195	4.17E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
110	17.80	17.96	0.2	17.88	241,120	2,841	2,146	111.4	1.19	1.92	113.9	1.92	113.9	1.92	1.21	23.0	0.98	10.8	22.6	1.14	1.03	24.3	72	0.96	57.97	2,192	4.21E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
111	17.96	18.13	0.2	18.04	232,300	2,908	2,165	106.3	1.26	1.96	109.2	1.95	109.2	1.95	1.24	22.4	0.98	11.6	22.0	1.41	1.03	24.0	72	0.96	57.71	2,192	4.25E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
112	18.13	18.29	0.2	18.21	214,660	2,920	2,185	97.2	1.37	2.01	100.5	2.00	100.5	2.00	1.30	21.1	0.98	12.9	20.6	1.87	1.04	23.2	71	0.96	57.06	2,178	4.32E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
113	18.29	18.45	0.2	18.37	203,940	3,014	2,205	91.5	1.49	2.05	95.0	2.04	95.0	2.04	1.36	20.4	0.97	14.1	19.8	2.24	1.04	22.9	70	0.96	56.79	2,177	4.36E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
114	18.45	18.62	0.2	18.54	209,000	2,881	2,224	93.0	1.39	2.03	97.0	2.02	97.0	2.02	1.32	20.7	0.97	13.4	20.0	2.01	1.04	22.8	70	0.96	56.69	2,183	4.39E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
115	18.62	18.78	0.2	18.70	231,400	3,171	2,244	102.1	1.38	2.00	106.9	1.98	106.9	1.98	1.28	22.6	0.96	12.5	21.8	1.71	1.03	24.2	72	0.96	57.86	2,238	4.32E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
116	18.78	18.95	0.2	18.86	241,380	3,865	2,264	105.6	1.62	2.03	111.0	2.02	111.0	2.02	1.32	23.9	0.96	13.4	22.9	2.03	1.04	25.8	74	0.96	59.12	2,297	4.24E-04	1.00E-03	0.080%	0.080%	0.160%	0.0031
117	18.95	19.11	0.2	19.03	254,760	3,514	2,283	110.6	1.39	1.97	116.7	1.96	116.7	1.96	1.25	24.6	0.95	11.8	23.5	1.49	1.03	25.7	74	0.96	59.04	2,304	4.27E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
118	19.11	19.27	0.2	19.19	284,400	3,349	2,303	122.5	1.19	1.89	129.7	1.88	129.7	1.88	1.17	26.7	0.95	9.8	25.4	0.81	1.02	26.7	75	0.96	59.78	2,342	4.23E-04	1.00E-03	0.076%	0.076%	0.152%	0.0030
119	19.27	19.44	0.2	19.36	349,620	3,399	2,323	149.5	0.98	1.77	158.7	1.75	158.7	1.75	1.07	31.4	0.95	7.2	29.7	0.14	1.01	30.1	80	0.96	62.25	2,449	4.08E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
120	19.44	19.60	0.2	19.52	396,600	3,315	2,343	168.3	0.84	1.69	179.3	1.67	179.3	1.67	1.02	34.6	0.94	5.6	32.6	0.01	1.00	32.7	82	0.96	63.98	2,528	3.99E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
121	19.60	19.77	0.2	19.69	365,040	2,943	2,362	153.5	0.81	1.71	164.3	1.69	164.3	1.69	1.03	32.1	0.94	5.9	30.1	0.02	1.00	30.2	80	0.96	62.30	2,472	4.11E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
122	19.77	19.93	0.2	19.85	308,940	2,169	2,382	128.7	0.71	1.73	138.5	1.71	138.5	1.71	1.04	27.3	0.93	6.2	25.5	0.04	1.01	25.7	74	0.96	59.02	2,352	4.36E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
123	19.93	20.10	0.2	20.01	275,200	2,601	2,402	113.6	0.95	1.85	122.9	1.83	122.9	1.83	1.13	25.4	0.93	8.7	23.6	0.48	1.02	24.5	72	0.96	58.08	2,324	4.45E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
124	20.10	20.26	0.2	20.18	277,900	2,937	2,421	113.8	1.07	1.89	123.6	1.86	123.6	1.86	1.15	25.9	0.93	9.4	24.0	0.69	1.02	25.2	74	0.95	58.61	2,355	4.38E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
125	20.26	20.42	0.2	20.34	282,580	3,384	2,441	114.8	1.21	1.92	125.2	1.89	125.2	1.89	1.18	26.7	0.92	10.2	24.6	0.94	1.02	26.1	75	0.95	59.34	2,394	4.34E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
126	20.42	20.59	0.2	20.51	291,580	4,155	2,461	117.5	1.44	1.96	128.6	1.94	128.6	1.94	1.23	28.0	0.92	11.3	25.7	1.31	1.03	27.8	77	0.95	60.56	2,453	4.27E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
127	20.59	20.75	0.2	20.67	326,020	4,651	2,480	130.4	1.44	1.93	143.2	1.90	143.2	1.90	1.19	30.9	0.92	10.5	28.3	1.03	1.02	30.0	80	0.95	62.16	2,528	4.18E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
128	20.75	20.92	0.2	20.83	327,500	5,674	2,500	130.0	1.75	1.99	143.3	1.97	143.3	1.97	1.26	31.8	0.91	12.0	29.0	1.57	1.03	31.5	81	0.95	63.15	2,578	4.13E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
129	20.92	21.08	0.2	21.00	344,580	5,284	2,520	135.8	1.54	1.94	150.2	1.91	150.2	1.91	1.20	32.8	0.91	10.7	29.8	1.10	1.02	31.6	81	0.95	63.26	2,593	4.14E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
130	21.08	21.24	0.2	21.16	284,720	4,622	2,539	111.1	1.64	2.02	123.6	1.99	123.6	1.99	1.29	27.9	0.91	12.7	25.2	1.77	1.03	27.9	77	0.95	60.65	2,496	4.34E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
131	21.24	21.41	0.2	21.33	296,880	2,847	2,559	115.0	0.97	1.85	128.4	1.82	128.4	1.82	1.12	27.3	0.90	8.5	24.6	0.42	1.01	25.4	74	0.95	58.79	2,428	4.49E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
132	21.41	21.57	0.2	21.49	302,700	2,570	2,579	116.4	0.86	1.82	130.4	1.78	130.4	1.78	1.09	27.4	0.90	7.7	24.6	0.23	1.01	25.1	74	0.95	58.60	2,430	4.52E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
133	21.57	21.74	0.2	21.65	277,800	2,729	2,598	105.9	0.99	1.89	119.2	1.85	119.2	1.85	1.14	25.8	0.89	9.2	23.1	0.62	1.02	24.1	72	0.95	57.81	2,406	4.60E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
134	21.74	21.90	0.2	21.82	262,900	3,126	2,618	99.4	1.20	1.96	112.4	1.92	112.4	1.92	1.21	25.1	0.89	11.0	22.4	1.20	1.03	24.2	72	0.95	57.84	2,417	4.62E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
135	21.90	22.06	0.2	21.98	271,540	3,654	2,638	101.9	1.36	1.99	115.7	1.95	115.7	1.95	1.24	26.2	0.89	11.7	23.3	1.44	1.03	25.4	74	0.95	58.81	2,466	4.56E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
136	22.06	22.23	0.2	22.15	279,840	3,709	2,657	104.3	1.34	1.98	118.8	1.94	118.8	1.94	1.23	26.9	0.88	11.4	23.8	1.33	1.03	25.8	74	0.95	59.09	2,487	4.55E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
137	22.23	22.39	0.2	22.31	259,300	3,759	2,677	95.9	1.46	2.03	109.7	1.99	109.7	1.99	1.29	25.4	0.88	12.7	22.4	1.79	1.04	25.0	72	0.95	58.47	2,470	4.62E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
138	22.39	22.56	0.2	22.47	235,660	3,679	2,697	86.4	1.58	2.09	99.3	2.04	99.3	2.04	1.36	23.6	0.88	14.2	20.7	2.26	1.04	23.9	71	0.95	57.59	2,442	4.71E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
139	22.56	22.72	0.2	22.64	232,120	3,716	2,717	84.4	1.62	2.10	97.5	2.06	97.5	2.06	1.38	23.4	0.88	14.6	20.4	2.38	1.05	23.8	71	0.95	57.49	2,447	4.73E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
140	22.72	22.88	0.2	22.80	236,700	4,018	2,736	85.5	1.72	2.12	99.0	2.07	99.0	2.07	1.41	23.9	0.87	15.0	20.9	2.49	1.05	24.4	72	0.95	57.97	2,476	4.71E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
141	22.88	23.05	0.2	22.97	240,360	4,078	2,756	86.2	1.72	2.11	100.2	2.07	100.2	2.07	1.40	24.3	0.87	14.8	21.1	2.45	1.05	24.5	72	0.95	58.12	2,491	4.71E-04	1.30E-03	0.109%	0.109%	0.218%	0.0043
142	23.05	23.21	0.2	23.13	242,240	4,323	2,776	86.3	1.81	2.13	100.6	2.08	100.6	2.08	1.42	24.6	0.87	15.3	21.3	2.57	1.05	24.9	72	0.95	58.42	2,513	4.71E-04	1.30E-03	0.109%	0.109%	0.218%	0.0043
143	23.21	23.38	0.2	23.29	250,260	4,537	2,795	88.5	1.83	2.13	103.6	2.08	103.6	2.08	1.42	25.4	0.86	15.1	21.9	2.54	1.05	25.5	74	0.95	58.86	2,541	4.69E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
144	23.38	23.54	0.2	23.46	267,860	4,673	2,815	94.2	1.76	2.09	110.5	2.05	110.5	2.05	1.36	26.8	0.86	14.2	23.1	2.27	1.04	26.3	75	0.95	59.50	2,578	4.65E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
145	23.54	23.70	0.2	23.62	324,060	4,987	2,835	113.3	1.55	2.00	133.2	1.95	133.2	1.95	1.24	31.3	0.86	11.6	26.8	1.43	1.03	29.0	79	0.95	61.45	2,671	4.52E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
146	23.70	23.87	0.2	23.79	411,240	4,772	2,854	143.1	1.17	1.84	168.4	1.79	168.4	1.79	1.10	37.4	0.85	7.9	31.9	0.28	1.01	32.6	82	0.95	63.90	2,788	4.36E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
147	23.87	24.03	0.2	23.95	435,820	6,194	2,874	150.6	1.43	1.89	177.9	1.84	177.9	1.84	1.14	40.4	0.85	9.0	34.3	0.55	1.02	35.5	85	0.95	65.71	2,876	4.26E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
148	24.03	24.20	0.2	24.11	448,840	4,412	2,894	154.1	0.99	1.77	182.6	1.71	182.6	1.71	1.05	39.8	0.85	6.4	33.7	0.05	1.01	34.0	83	0.94	64.78	2,845	4.29E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
149	24.20	24.36	0.2	24.28	332,920	4,406	2,913	113.3	1.34	1.95	135.0	1.90	135.0	1.90	1.19	31.5	0.84	10.4	26.6	0.99	1.02	28.2	78	0.94	60.91	2,684	4.58E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
150	24.36	24.52	0.2	24.44	331,660	3,678	2,933	112.1	1.12	1.90	134.0	1.85	134.0	1.85	1.14	30.8	0.84	9.2	25.9	0.61	1.02	27.0	77	0.94	60.01	2,654	4.66E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
151	24.52	24.69	0.2	24.61	377,800	4,415	2,953	126.9	1.18	1.88	152.1	1.82	152.1	1.82	1.12	34.8	0.84	8.6	29.2	0.45	1.02	30.1	80	0.94	62.22	2,760	4.51E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
152	24.69	24.85	0.2	24.77	504,100	4,547	2,972	168.6	0.91	1.71	202.3	1.66	202.3	1.66	1.01	43.8	0.84	5.3	36.6	0.01	1.00	36.7	86	0.94	66.47	2,959	4.23E-04	9.20E-04	0.039%	0.039%	0.077%	0.0015
153	24.85	25.02	0.2	24.93	577,460	5,326	2,992	192.0	0.93	1.68	231.0	1.62	231.0	1.62	1.00	49.6	0.83	4.7	41.4	0.00	1.00	41.4	91	0.94	69.16	3,089	4.08E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
154	25.02	25.18	0.2	25.10	593,860	5,251	3,012	196.2	0.89	1.66	236.8	1.60	236.8	1.60	1.00	50.7	0.83	4.4	42.1	0.00	1.00	42.1	92	0.94	69.57	3,118	4.07E-04	9.20E-04	0.025%	0.025%	0.050%	0.0010
155	25.18	25.34	0.2	25.26	506,360	4,299	3,031	166.0	0.85	1.70	201.2	1.64	201.2	1.64	1.00	43.7	0.83	5.0	36.2	0.00	1.00	36.3	86	0.94	66.20	2,976	4.29E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
156	25.34	25.51	0.2	25.43	378,400	3,767	3,051	123.0	1.00	1.84	149.9	1.78	149.9	1.78	1.09	34.3	0.83	7.7	28.3	0.23	1.01	28.9	78	0.94	61.36	2,768	4.65E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
157	25.51	25.67	0.2	25.59	319,080	3,210	3,071	102.9	1.02	1.91	126.0	1.84	126.0	1.84	1.14	29.6	0.82	9.0	24.3	0.55	1.02	25.3	74	0.94	58.70	2,656	4.87E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
158	25.67	25.84	0.2	25.75	295,320	3,334	3,091	94.6	1.14	1.97	116.2	1.90	116.2	1.90	1.19	28.0	0.82	10.4	22.9	0.99	1.02	24.5	72	0.94	58.05	2,635	4.94E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
159	25.84	26.00	0.2	25.92	288,160	3,706	3,110	91.6	1.30	2.01	113.1	1.95	113.1	1.95	1.24	27.8	0.82	11.5	22.7	1.39	1.03	24.8	72	0.94	58.29	2,654	4.94E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
160	26.00	26.16	0.2	26.08	290,060	4,080	3,130	91.7	1.42	2.04	113.4	1.97	113.4	1.97	1.26	28.2	0.82	12.2	23.0	1.62	1.03	25.4	74	0.94	58.77	2,685	4.92E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
161	26.16	26.33	0.2	26.25	300,420	4,211	3,150	94.4	1.42	2.03	117.1	1.96	117.1	1.96	1.25	29.1	0.81	11.9	23.7	1.52	1.03	25.9	74	0.94	59.18	2,712	4.90E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
162	26.33	26.49	0.2	26.41	318,780	4,559	3,169	99.6	1.44	2.02	123.9	1.95	123.9	1.95	1.24	30.8	0.81	11.6	24.9	1.42	1.03	27.1	77	0.94	60.05	2,760	4.84E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
163	26.49	26.66	0.2	26.57	328,380	4,626	3,189	102.0	1.42	2.01	127.2	1.94	127.2	1.94	1.23	31.5	0.81	11.3	25.5	1.31	1.03	27.5	77	0.94	60.35	2,783	4.83E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
164	26.66	26.82	0.2	26.74	321,540	4,644	3,209	99.2	1.46	2.02	124.2	1.95	124.2	1.95	1.24	31.0	0.81	11.7	25.0	1.44	1.03	27.2	77	0.94	60.14	2,781	4.86E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
165	26.82	26.98	0.2	26.90	315,360	4,729	3,228	96.7	1.51	2.04	121.4	1.97	121.4	1.97	1.26	30.7	0.80	12.2	24.6	1.61	1.03	27.0	77	0.94	60.01	2,784	4.89E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
166	26.98	27.15	0.2	27.07	313,760	4,683	3,248	95.6	1.51	2.04	120.5	1.97	120.5	1.97	1.26	30.5	0.80	12.2	24.4	1.62	1.03	26.8	75	0.94	59.88	2,786	4.91E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
167	27.15	27.31	0.2	27.23	322,600	4,725	3,268	97.7	1.48	2.03	123.5	1.96	123.5	1.96	1.25	31.2	0.80	11.8	24.9	1.50	1.03	27.2	77	0.93	60.13	2,806	4.86E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
168	27.31	27.48	0.2	27.40	339,100	4,701	3,287	102.2	1.40	2.00	129.4	1.93	129.4	1.93	1.21	32.4	0.80	11.0	25.8	1.22	1.03	27.7	77	0.93	60.52	2,833	4.84E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
169	27.48	27.64	0.2	27.56	355,080	4,623	3,307	106.4	1.31	1.97	135.1	1.89	135.1	1.89	1.18	33.6	0.79	10.2	26.6	0.95	1.02	28.2	78	0.93	60.85	2,857	4.83E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
170	27.64	27.81	0.2	27.72	377,360	4,301	3,327	112.4	1.15	1.91	143.2	1.83	143.2	1.83	1.13	34.9	0.79	8.9	27.6	0.52	1.02	28.6	78	0.93	61.14	2,880	4.82E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
171	27.81	27.97	0.2	27.89	424,620	4,368	3,346	125.9	1.04	1.84	160.6	1.77	160.6	1.77	1.08	38.3	0.79	7.4	30.2	0.19	1.01	30.7	80	0.93	62.64	2,959	4.72E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
172	27.97	28.13	0.2	28.05	571,860	4,781	3,366	168.9	0.84	1.69	215.7	1.61	215.7	1.61	1.00	49.0	0.79	4.6	38.5	0.00	1.00	38.5	88	0.93	67.52	3,199	4.39E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	769,000	5,435	3,386	226.1	0.71	1.55	289.2	1.47	289.2	1.47	1.00	62.9	0.78	2.4	49.3	0.00	1.00	49.3	95	0.93	73.32	3,483	4.05E-04	9.20E-04	0.014%	0.014%	0.028%	0.0005
174	28.30	28.46	0.2	28.38	848,360	5,481	3,406	248.1	0.65	1.49	318.1	1.41	318.1	1.41	1.00	68.1	0.78	1.7	53.2	0.00	1.00	53.2	95	0.93	75.23	3,585	3.96E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
175	28.46	28.63	0.2	28.54	873,000	5,355	3,425	253.9	0.62	1.47	326.4	1.39	326.4	1.39	1.00	69.6	0.78	1.4	54.2	0.00	1.00	54.2	95	0.93	75.69	3,617	3.95E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
176	28.63	28.79	0.2	28.71	910,960	5,178	3,445	263.4	0.57	1.43	339.6	1.35	339.6	1.35	1.00	71.8	0.78	1.0	55.8	0.00	1.00	55.8	95	0.93	76.42	3,662	3.92E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
177	28.79	28.95	0.2	28.87	934,540	4,833	3,465	268.7	0.52	1.40	347.4	1.32	347.4	1.32	1.00	72.8	0.77	0.6	56.4	0.00	1.00	56.4	95	0.93	76.71	3,687	3.92E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
178	28.95	29.12	0.2	29.04	1,012,900	4,763	3,484	289.7	0.47	1.35	375.5	1.27	375.5	1.27	1.00	77.7	0.77	0.1	60.0	0.00	1.00	60.0	95	0.93	78.30	3,774	3.85E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
179	29.12	29.28	0.2	29.20	1,117,520	5,750	3,504	317.9	0.52	1.34	413.1	1.26	413.1	1.26	1.00	85.7	0.77	0.1	66.0	0.00	1.00	66.0	95	0.93	80.83	3,907	3.74E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
180	29.28	29.45	0.2	29.36	1,263,900	6,632	3,524	357.7	0.53	1.31	465.9	1.24	465.9	1.24	1.00	96.1	0.77	0.0	73.8	0.00	1.00	73.8	95	0.93	83.90	4,066	3.61E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
181	29.45	29.61	0.2	29.53	1,456,000	8,183	3,543	409.9	0.56	1.30	535.2	1.22	535.2	1.22	1.00	110.2	0.77	0.0	84.4	0.00	1.00	84.4	95	0.93	87.74	4,265	3.47E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
182	29.61	29.77	0.2	29.69	1,582,340	10,161	3,563	443.1	0.64	1.32	580.1	1.25	580.1	1.25	1.00	120.7	0.76	0.0	92.2	0.00	1.00	92.2	95	0.93	90.36	4,404	3.37E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
183	29.77	29.94	0.2	29.86	1,676,120	7,700	3,583	466.8	0.46	1.19	612.7	1.12	612.7	1.12	1.00	123.0	0.76	0.0	93.7	0.00	1.00	93.7	95	0.93	90.86	4,440	3.37E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
184	29.94	30.10	0.2	30.02	1,733,840	9,441	3,602	480.3	0.55	1.24	632.1	1.17	632.1	1.17	1.00	129.2	0.76	0.0	98.2	0.00	1.00	98.2	95	0.93	92.26	4,521	3.32E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
185	30.10	30.27	0.2	30.18	1,609,160	10,648	3,622	443.3	0.66	1.33	585.1	1.26	585.1	1.26	1.00	123.1	0.76	0.0	93.3	0.00	1.00	93.3	95	0.92	90.70	4,457	3.35E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
186	30.27	30.43	0.2	30.35	1,713,440	6,878	3,642	469.5	0.40	1.15	621.3	1.07	621.3	1.07	1.00	124.0	0.76	0.0	93.7	0.00	1.00	93.7	95	0.92	90.85	4,476	3.36E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
187	30.43	30.59	0.2	30.51	1,664,640	9,112	3,661	453.6	0.55	1.26	602.0	1.18	602.0	1.18	1.00	124.5	0.75	0.0	93.9	0.00	1.00	93.9	95	0.92	90.89	4,491	3.36E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
188	30.59	30.76	0.2	30.68	1,563,140	7,609	3,681	423.6	0.49	1.24	563.7	1.16	563.7	1.16	1.00	116.1	0.75	0.0	87.3	0.00	1.00	87.3	95	0.92	88.73	4,395	3.46E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
189	30.76	30.92	0.2	30.84	1,391,000	6,550	3,701	374.9	0.47	1.27	500.3	1.18	500.3	1.18	1.00	104.0	0.75	0.0	78.0	0.00	1.00	78.0	95	0.92	85.45	4,244	3.60E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
190	30.92	31.09	0.2	31.00	1,176,320	7,314	3,720	315.2	0.62	1.40	422.0	1.32	422.0	1.32	1.00	91.7	0.75	0.6	68.6	0.00	1.00	68.6	95	0.92	81.87	4,077	3.77E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
191	31.09	31.25	0.2	31.17	1,037,200	7,175	3,740	276.3	0.69	1.48	371.1	1.39	371.1	1.39	1.00	82.7	0.75	1.4	61.7	0.00	1.00	61.7	95	0.92	79.01	3,945	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
192	31.25	31.41	0.2	31.33	890,340	6,425	3,760	235.8	0.72	1.54	317.7	1.45	317.7	1.45	1.00	72.3	0.74	2.2	53.8	0.00	1.00	53.8	95	0.92	75.49	3,779	4.10E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
193	31.41	31.58	0.2	31.50	730,400	6,040	3,780	192.3	0.83	1.64	260.0	1.55	260.0	1.55	1.00	61.3	0.74	3.6	45.5	0.00	1.00	45.5	94	0.92	71.39	3,583	4.35E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
194	31.58	31.74	0.2	31.66	631,600	5,772	3,799	165.2	0.92	1.72	224.2	1.63	224.2	1.63	1.00	54.4	0.74	4.8	40.2	0.00	1.00	40.2	90	0.92	68.53	3,449	4.55E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
195	31.74	31.91	0.2	31.82	576,580	5,799	3,819	150.0	1.01	1.78	204.2	1.69	204.2	1.69	1.00	50.6	0.74	5.9	37.4	0.02	1.00	37.5	87	0.92	66.97	3,379	4.66E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
196	31.91	32.07	0.2	31.99	535,100	5,635	3,839	138.4	1.06	1.82	189.0	1.73	189.0	1.73	1.05	47.6	0.74	6.6	35.0	0.07	1.01	35.4	85	0.92	65.64	3,321	4.77E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
197	32.07	32.23	0.2	32.15	439,520	5,776	3,858	112.9	1.33	1.95	154.8	1.85	154.8	1.85	1.15	40.9	0.73	9.3	30.1	0.66	1.02	31.3	81	0.91	63.01	3,196	4.93E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
198	32.23	32.40	0.2	32.32	414,440	5,654	3,878	105.9	1.38	1.98	145.6	1.89	145.6	1.89	1.18	39.0	0.73	10.0	28.6	0.88	1.02	30.1	80	0.91	62.21	3,163	5.00E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
199	32.40	32.56	0.2	32.48	420,160	6,473	3,898	106.8	1.56	2.02	147.3	1.92	147.3	1.92	1.21	40.1	0.73	10.9	29.3	1.17	1.03	31.2	81	0.91	62.98	3,210	4.96E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
200	32.56	32.73	0.2	32.64	447,680	7,016	3,917	113.3	1.58	2.00	156.5	1.91	156.5	1.91	1.20	42.5	0.73	10.6	31.0	1.07	1.02	32.8	82	0.91	64.03	3,272	4.89E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
201	32.73	32.89	0.2	32.81	467,540	7,027	3,937	117.8	1.52	1.98	163.0	1.88	163.0	1.88	1.17	44.0	0.73	10.0	32.0	0.86	1.02	33.5	83	0.91	64.49	3,304	4.86E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
202	32.89	33.05	0.2	32.97	490,400	7,236	3,957	122.9	1.49	1.96	170.6	1.86	170.6	1.86	1.16	45.8	0.73	9.5	33.2	0.72	1.02	34.6	84	0.91	65.16	3,347	4.83E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
203	33.05	33.22	0.2	33.14	538,520	7,571	3,976	134.4	1.42	1.92	186.9	1.82	186.9	1.82	1.12	49.6	0.72	8.6	35.8	0.44	1.02	36.8	86	0.91	66.54	3,426	4.74E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
204	33.22	33.38	0.2	33.30	624,480	8,203	3,996	155.3	1.32	1.85	216.2	1.76	216.2	1.76	1.08	56.2	0.72	7.2	40.5	0.15	1.01	41.1	91	0.91	69.00	3,561	4.58E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
205	33.38	33.55	0.2	33.46	714,080	8,285	4,016	176.8	1.17	1.78	246.6	1.68	246.6	1.68	1.02	62.5	0.72	5.7	45.0	0.02	1.00	45.2	94	0.91	71.23	3,686	4.45E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
206	33.55	33.71	0.2	33.63	715,600	7,840	4,035	176.3	1.10	1.76	246.5	1.66	246.5	1.66	1.01	62.2	0.72	5.4	44.7	0.01	1.00	44.8	94	0.91	71.04	3,684	4.47E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
207	33.71	33.87	0.2	33.79	758,400	7,634	4,055	186.0	1.01	1.72	260.6	1.62	260.6	1.62	1.00	65.0	0.72	4.6	46.6	0.00	1.00	46.6	95	0.91	71.95	3,741	4.42E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
208	33.87	34.04	0.2	33.96	899,400	7,787	4,075	219.7	0.87	1.62	308.3	1.52	308.3	1.52	1.00	74.6	0.71	3.1	53.3	0.00	1.00	53.3	95	0.91	75.28	3,924	4.24E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
209	34.04	34.20	0.2	34.12	981,760	8,053	4,094	238.8	0.82	1.58	335.7	1.48	335.7	1.48	1.00	80.4	0.71	2.5	57.3	0.00	1.00	57.3	95	0.90	77.10	4,028	4.10E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
210	34.20	34.37	0.2	34.28	839,920	7,516	4,114	203.2	0.90	1.65	286.5	1.55	286.5	1.55	1.00	70.4	0.71	3.6	50.1	0.00	1.00	50.1	95	0.90	73.72	3,861	4.30E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
211	34.37	34.53	0.2	34.45	670,180	6,509	4,134	161.1	0.98	1.75	228.1	1.64	228.1	1.64	1.00	58.0	0.71	5.1	41.1	0.00	1.00	41.2	91	0.90	69.07	3,626	4.60E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
212	34.53	34.69	0.2	34.61	558,300	5,814	4,154	133.4	1.05	1.83	189.6	1.72	189.6	1.72	1.05	49.6	0.71	6.5	35.1	0.07	1.01	35.4	85	0.90	65.66	3,455	4.85E-04	1.30E-03	0.053%	0.053%	0.106%	0.0023
213	34.69	34.86	0.2	34.78	519,600	5,017	4,173	123.5	0.97	1.83	176.0	1.72	176.0	1.72	1.05	46.1	0.71	6.5	32.6	0.06	1.01	32.9	82	0.90	64.06	3,379	4.99E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
214	34.86	35.02	0.2	34.94	508,080	5,221	4,193	120.2	1.04	1.86	171.7	1.75	171.7	1.75	1.07	45.5	0.70	7.0	32.1	0.12	1.01	32.5	82	0.90	63.81	3,374	5.02E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
215	35.02	35.19	0.2	35.10	447,360	6,008	4,213	105.2	1.36	1.98	150.8	1.87	150.8	1.87	1.16	41.9	0.70	9.7	29.4	0.77	1.02	30.8	80	0.89	62.69	3,322	5.06E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
216	35.19	35.35	0.2	35.27	422,300	7,012	4,232	98.8	1.68	2.06	142.0	1.96	142.0	1.96	1.25	40.8	0.70	11.8	28.6	1.47	1.03	31.0	80	0.89	62.81	3,336	5.06E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
217	35.35	35.52	0.2	35.43	388,540	7,507	4,252	90.4	1.95	2.14	130.4	2.03	130.4	2.03	1.34	38.7	0.70	13.8	27.0	2.13	1.04	30.3	80	0.89	62.33	3,319	5.11E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
218	35.52	35.68	0.2	35.60	392,600	8,058	4,272	90.9	2.08	2.16	131.4	2.05	131.4	2.05	1.37	39.3	0.70	14.2	27.4	2.28	1.04	30.9	80	0.89	62.77	3,350	5.09E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
219	35.68	35.84	0.2	35.76	489,380	6,953	4,291	113.0	1.43	1.98	163.5	1.86	163.5	1.86	1.16	45.7	0.70	9.5	31.8	0.72	1.02	33.2	83	0.89	64.27	3,437	4.98E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
220	35.84	36.01	0.2	35.93	673,500	7,319	4,311	155.2	1.09	1.79	224.5	1.68	224.5	1.68	1.03	59.1	0.69	5.8	41.0	0.02	1.00	41.2	91	0.89	69.09	3,704	4.65E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
221	36.01	36.17	0.2	36.09	726,480	7,058	4,331	166.8	0.98	1.74	241.6	1.63	241.6	1.63	1.00	62.5	0.69	4.8	43.3	0.00	1.00	43.3	93	0.88	70.23	3,774	4.53E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
222	36.17	36.34	0.2	36.25	725,020	7,209	4,350	165.7	1.00	1.75	240.5	1.64	240.5	1.64	1.00	62.5	0.69	5.0	43.2	0.00	1.00	43.2	93	0.88	70.20	3,781	4.54E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
223	36.34	36.50	0.2	36.42	652,000	7,782	4,370	148.2	1.20	1.84	215.8	1.73	215.8	1.73	1.06	58.0	0.69	6.6	40.0	0.08	1.01	40.4	90	0.88	68.62	3,704	4.66E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
224	36.50	36.66	0.2	36.58	551,580	8,579	4,390	124.7	1.57	1.97	182.2	1.86	182.2	1.86	1.15	51.5	0.69	9.5	35.5	0.71	1.02	36.8	86	0.88	66.55	3,600	4.81E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
225	36.66	36.83	0.2	36.75	497,320	9,202	4,409	111.8	1.87	2.06	163.9	1.95	163.9	1.95	1.24	48.0	0.69	11.6	33.0	1.42	1.03	35.3	85	0.88	65.64	3,559	4.89E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
226	36.83	36.99	0.2	36.91	509,780	9,483	4,429	114.1	1.88	2.06	167.6	1.94	167.6	1.94	1.23	49.1	0.69	11.5	33.6	1.38	1.03	36.0	86	0.88	66.04	3,589	4.87E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
227	36.99	37.16	0.2	37.07	534,920	10,140	4,449	119.2	1.91	2.05	175.5	1.94	175.5	1.94	1.23	51.4	0.68	11.3	35.1	1.32	1.03	37.5	87	0.88	66.92	3,644	4.82E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
228	37.16	37.32	0.2	37.24	572,520	9,977	4,469	127.1	1.76	2.00	187.4	1.89	187.4	1.89	1.18	54.1	0.68	10.2	36.9	0.93	1.02	38.6	88	0.87	67.62	3,691	4.72E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
229	37.32	37.48	0.2	37.40	571,800	9,376	4,488	126.4	1.65	1.99	186.8	1.87	186.8	1.87	1.16	53.6	0.68	9.7	36.5	0.78	1.02	38.0	88	0.87	67.25	3,679	4.76E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
230	37.48	37.65	0.2	37.57	552,220	8,491	4,508	121.5	1.55	1.98	180.0	1.86	180.0	1.86	1.15	51.6	0.68	9.5	35.0	0.70	1.02	36.4	86	0.87	66.28	3,634	4.84E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
231	37.65	37.81	0.2	37.73	581,100	7,702	4,528	127.3	1.34	1.92	189.0	1.80	189.0	1.80	1.11	53.1	0.68	8.1	36.0	0.32	1.01	36.7	86	0.87	66.49	3,653	4.84E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
232	37.81	37.98	0.2	37.89	664,360	6,999	4,547	145.1	1.06	1.81	215.6	1.69	215.6	1.69	1.03	58.3	0.68	5.9	39.4	0.02	1.00	39.6	89	0.87	68.18	3,754	4.73E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
233	37.98	38.14	0.2	38.06	783,920	7,230	4,567	170.7	0.93	1.72	253.8	1.60	253.8	1.60	1.00	66.7	0.67	4.3	45.0	0.00	1.00	45.0	94	0.87	71.15	3,926	4.54E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
234	38.14	38.30	0.2	38.22	935,680	4,888	4,587	203.0	0.52	1.50	302.3	1.36	302.3	1.36	1.00	74.0	0.67	1.1	49.8	0.00	1.00	49.8	95	0.87	73.59	4,069	4.40E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
235	38.30	38.47	0.2	38.39	1,107,380	6,895	4,606	239.4	0.63	1.49	357.0	1.37	357.0	1.37	1.00	87.6	0.67	1.2	58.9	0.00	1.00	58.9	95	0.87	77.81	4,312	4.17E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
236	38.47	38.63	0.2	38.55	1,188,280	9,232	4,626	255.9	0.78	1.54	382.3	1.42	382.3	1.42	1.00	95.6	0.67	1.8	64.1	0.00	1.00	64.1	95	0.87	80.06	4,446	4.06E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
237	38.63	38.80	0.2	38.71	1,345,000	11,527	4,646	288.5	0.86	1.53	431.8	1.42	431.8	1.42	1.00	108.3	0.67	1.8	72.5	0.00	1.00	72.5	95	0.87	83.39	4,641	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
238	38.80	38.96	0.2	38.88	1,426,860	7,763	4,665	304.8	0.55	1.37	457.1	1.25	457.1	1.25	1.00	109.0	0.67	0.0	72.8	0.00	1.00	72.8	95	0.87	83.51	4,658	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
239	38.96	39.12	0.2	39.04	1,600,540	7,528	4,685	340.6	0.47	1.30	511.7	1.17	511.7	1.17	1.00	119.5	0.67	0.0	79.6	0.00	1.00	79.6	95	0.87	86.03	4,808	3.80E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
240	39.12	39.29	0.2	39.21	1,531,540	0	4,705	324.5	0.00	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.66	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.86	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.0000
241	39.29	39.37	0.1	39.33	1,751,720	0	4,719	370.2	0.00	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.66	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.86	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.0000
																													TOTAL SETTLEMENT (INCHES):			0.42

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
© 1993 by Marshall Lew (rev. 2005)

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft): 15.0
IDENTIFICATION: CPT-4A
TOTAL DRY SETTLEMENT (IN.): 0.38

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	15.01	15.17	0.2	15.09	169,880	2,641	1,811	92.8	1.57	2.06	87.3	2.08	87.3	2.08	1.43	17.3	1.07	15.3	18.5	2.59	1.05	22.0	70	0.97	56.06	1,948	4.04E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
94	15.17	15.34	0.2	15.26	167,100	2,753	1,831	90.3	1.67	2.09	85.5	2.11	85.5	2.11	1.47	17.1	1.07	16.1	18.3	2.78	1.05	22.1	70	0.97	56.09	1,959	4.06E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
95	15.34	15.50	0.2	15.42	161,580	2,675	1,850	86.3	1.67	2.11	82.2	2.12	82.2	2.12	1.50	16.7	1.06	16.5	17.7	2.89	1.06	21.6	68	0.97	55.68	1,956	4.12E-04	1.40E-03	0.134%	0.134%	0.269%	0.0053
96	15.50	15.67	0.2	15.58	162,420	2,525	1,870	85.9	1.57	2.09	82.2	2.10	82.2	2.10	1.46	16.6	1.05	15.9	17.5	2.75	1.05	21.2	68	0.97	55.38	1,955	4.16E-04	1.40E-03	0.134%	0.134%	0.269%	0.0053
97	15.67	15.83	0.2	15.75	166,140	2,346	1,890	86.9	1.43	2.06	83.6	2.07	83.6	2.07	1.40	16.8	1.05	14.9	17.6	2.48	1.05	20.9	67	0.97	55.12	1,956	4.20E-04	1.40E-03	0.140%	0.140%	0.280%	0.0055
98	15.83	15.99	0.2	15.91	174,600	2,282	1,909	90.4	1.32	2.02	87.4	2.03	87.4	2.03	1.35	17.4	1.04	13.9	18.2	2.16	1.04	21.1	68	0.97	55.24	1,971	4.21E-04	1.20E-03	0.115%	0.115%	0.230%	0.0045
99	15.99	16.16	0.2	16.08	188,140	2,078	1,929	96.5	1.12	1.95	93.7	1.96	93.7	1.96	1.25	18.2	1.04	12.0	18.9	1.54	1.03	21.1	68	0.97	55.24	1,981	4.24E-04	1.20E-03	0.115%	0.115%	0.230%	0.0045
100	16.16	16.32	0.2	16.24	200,200	2,149	1,949	101.7	1.08	1.93	99.2	1.94	99.2	1.94	1.22	19.2	1.03	11.3	19.9	1.30	1.03	21.7	68	0.97	55.79	2,011	4.22E-04	1.20E-03	0.115%	0.115%	0.230%	0.0045
101	16.32	16.49	0.2	16.40	205,540	1,981	1,969	103.4	0.97	1.89	101.4	1.90	101.4	1.90	1.19	19.5	1.03	10.4	20.0	0.99	1.02	21.5	68	0.97	55.57	2,013	4.25E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
102	16.49	16.65	0.2	16.57	211,240	2,002	1,988	105.2	0.96	1.88	103.7	1.89	103.7	1.89	1.18	19.9	1.02	10.1	20.4	0.89	1.02	21.7	68	0.97	55.78	2,031	4.26E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
103	16.65	16.81	0.2	16.73	217,000	1,978	2,008	107.1	0.92	1.86	106.0	1.87	106.0	1.87	1.16	20.3	1.02	9.6	20.7	0.75	1.02	21.8	68	0.97	55.90	2,045	4.27E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
104	16.81	16.98	0.2	16.90	223,380	1,995	2,028	109.2	0.90	1.85	108.6	1.85	108.6	1.85	1.15	20.8	1.01	9.3	21.1	0.65	1.02	22.1	70	0.97	56.13	2,064	4.27E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
105	16.98	17.14	0.2	17.06	233,900	2,292	2,047	113.3	0.99	1.87	113.1	1.87	113.1	1.87	1.16	21.9	1.01	9.6	22.1	0.74	1.02	23.2	71	0.97	57.06	2,108	4.22E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
106	17.14	17.31	0.2	17.22	239,160	2,323	2,067	114.7	0.98	1.86	115.1	1.86	115.1	1.86	1.15	22.3	1.00	9.4	22.4	0.68	1.02	23.5	71	0.96	57.26	2,126	4.19E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
107	17.31	17.47	0.2	17.39	228,600	2,150	2,087	108.6	0.95	1.87	109.5	1.87	109.5	1.87	1.16	21.4	1.00	9.6	21.3	0.73	1.02	22.5	70	0.96	56.46	2,106	4.27E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
108	17.47	17.63	0.2	17.55	215,600	2,120	2,106	101.4	0.99	1.90	102.8	1.90	102.8	1.90	1.19	20.4	0.99	10.4	20.3	0.99	1.02	21.8	68	0.96	55.83	2,092	4.33E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
109	17.63	17.80	0.2	17.72	205,440	1,962	2,126	95.6	0.96	1.92	97.5	1.91	97.5	1.91	1.20	19.5	0.99	10.6	19.3	1.07	1.02	20.9	67	0.96	55.06	2,073	4.42E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
110	17.80	17.96	0.2	17.88	200,000	1,817	2,146	92.2	0.92	1.91	94.5	1.91	94.5	1.91	1.19	19.0	0.98	10.5	18.7	1.05	1.02	20.2	67	0.96	54.47	2,060	4.48E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
111	17.96	18.13	0.2	18.04	207,020	1,644	2,165	94.6	0.80	1.87	97.3	1.86	97.3	1.86	1.15	19.3	0.98	9.5	18.9	0.69	1.02	20.0	65	0.96	54.28	2,062	4.52E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
112	18.13	18.29	0.2	18.21	223,480	2,191	2,185	101.3	0.99	1.90	104.6	1.89	104.6	1.89	1.18	21.1	0.98	10.2	20.6	0.94	1.02	22.0	70	0.96	56.04	2,139	4.40E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
113	18.29	18.45	0.2	18.37	254,940	3,783	2,205	114.6	1.50	1.98	118.8	1.97	118.8	1.97	1.27	24.8	0.97	12.2	24.1	1.63	1.03	26.5	75	0.96	59.65	2,287	4.15E-04	1.20E-03	0.091%	0.091%	0.182%	0.0036
114	18.45	18.62	0.2	18.54	306,020	3,524	2,224	136.6	1.16	1.85	142.0	1.84	142.0	1.84	1.14	28.4	0.97	9.0	27.4	0.56	1.02	28.4	78	0.96	61.05	2,351	4.07E-04	1.20E-03	0.082%	0.082%	0.163%	0.0032
115	18.62	18.78	0.2	18.70	444,400	4,615	2,244	197.0	1.04	1.71	205.3	1.70	205.3	1.70	1.03	39.1	0.96	6.0	37.7	0.03	1.00	37.9	87	0.96	67.17	2,598	3.72E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
116	18.78	18.95	0.2	18.86	504,080	4,393	2,264	221.7	0.88	1.62	231.8	1.60	231.8	1.60	1.00	43.0	0.96	4.4	41.2	0.00	1.00	41.2	91	0.96	69.10	2,684	3.63E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
117	18.95	19.11	0.2	19.03	539,280	3,345	2,283	235.2	0.62	1.50	246.9	1.48	246.9	1.48	1.00	44.2	0.95	2.6	42.2	0.00	1.00	42.2	92	0.96	69.62	2,716	3.62E-04	8.00E-04	0.022%	0.022%	0.043%	0.0009
118	19.11	19.27	0.2	19.19	523,840	3,578	2,303	226.4	0.69	1.54	238.8	1.52	238.8	1.52	1.00	43.5	0.95	3.1	41.3	0.00	1.00	41.3	91	0.96	69.14	2,709	3.66E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
119	19.27	19.44	0.2	19.36	451,200	3,168	2,323	193.2	0.71	1.59	204.9	1.58	204.9	1.58	1.00	38.2	0.95	4.0	36.1	0.00	1.00	36.1	86	0.96	66.10	2,601	3.84E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
120	19.44	19.60	0.2	19.52	365,900	3,142	2,343	155.2	0.86	1.72	165.4	1.70	165.4	1.70	1.04	32.3	0.94	6.2	30.4	0.04	1.01	30.7	80	0.96	62.59	2,474	4.08E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
121	19.60	19.77	0.2	19.69	376,160	2,534	2,362	158.2	0.68	1.65	169.4	1.63	169.4	1.63	1.00	32.4	0.94	4.8	30.4	0.00	1.00	30.4	80	0.96	62.39	2,476	4.11E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
122	19.77	19.93	0.2	19.85	436,260	2,789	2,382	182.2	0.64	1.59	195.6	1.56	195.6	1.56	1.00	36.7	0.93	3.8	34.3	0.00	1.00	34.3	84	0.96	65.01	2,590	3.96E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
123	19.93	20.10	0.2	20.01	492,460	3,322	2,402	204.1	0.68	1.57	219.9	1.54	219.9	1.54	1.00	41.2	0.93	3.4	38.3	0.00	1.00	38.3	88	0.96	67.43	2,698	3.83E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
124	20.10	20.26	0.2	20.18	498,180	3,566	2,421	204.8	0.72	1.58	221.5	1.56	221.5	1.56	1.00	41.9	0.93	3.7	38.8	0.00	1.00	38.8	88	0.95	67.71	2,720	3.79E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
125	20.26	20.42	0.2	20.34	481,920	3,086	2,441	196.4	0.64	1.56	213.4	1.54	213.4	1.54	1.00	40.2	0.92	3.4	37.1	0.00	1.00	37.1	87	0.95	66.72	2,692	3.86E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
126	20.42	20.59	0.2	20.51	392,760	2,702	2,461	158.6	0.69	1.65	173.3	1.62	173.3	1.62	1.00	33.8	0.92	4.8	31.0	0.00	1.00	31.0	81	0.95	62.85	2,546	4.12E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
127	20.59	20.75	0.2	20.67	339,820	2,582	2,480	136.0	0.77	1.73	149.3	1.70	149.3	1.70	1.04	30.0	0.92	6.2	27.5	0.04	1.01	27.6	77	0.95	60.48	2,459	4.30E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
128	20.75	20.92	0.2	20.83	316,920	2,556	2,500	125.8	0.81	1.78	138.7	1.74	138.7	1.74	1.07	28.4	0.91	7.0	25.9	0.12	1.01	26.2	75	0.95	59.41	2,425	4.39E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
129	20.92	21.08	0.2	21.00	318,600	2,944	2,520	125.4	0.93	1.82	138.9	1.78	138.9	1.78	1.09	28.9	0.91	7.7	26.3	0.24	1.01	26.8	75	0.95	59.86	2,454	4.38E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
130	21.08	21.24	0.2	21.16	349,640	3,384	2,539	136.7	0.97	1.80	151.8	1.77	151.8	1.77	1.08	31.6	0.91	7.4	28.6	0.19	1.01	29.0	79	0.95	61.48	2,529	4.28E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
131	21.24	21.41	0.2	21.33	389,640	3,898	2,559	151.3	1.01	1.78	168.5	1.74	168.5	1.74	1.07	34.9	0.90	7.0	31.5	0.12	1.01	31.8	81	0.95	63.39	2,618	4.16E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
132	21.41	21.57	0.2	21.49	410,760	3,478	2,579	158.3	0.85	1.71	177.0	1.68	177.0	1.68	1.02	36.0	0.90	5.7	32.3	0.02	1.00	32.4	82	0.95	63.78	2,644	4.16E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
133	21.57	21.74	0.2	21.65	380,560	3,332	2,598	145.5	0.88	1.75	163.4	1.71	163.4	1.71	1.05	33.7	0.89	6.4	30.2	0.05	1.01	30.4	80	0.95	62.43	2,598	4.26E-04	1.45E-03	0.087%	0.087%	0.174%	0.0034
134	21.74	21.90	0.2	21.82	355,440	3,246	2,618	134.8	0.92	1.79	152.0	1.75	152.0	1.75	1.07	31.9	0.89	7.1	28.4	0.13	1.01	28.8	78	0.95	61.31	2,561	4.36E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
135	21.90	22.06	0.2	21.98	344,200	4,298	2,638	129.5	1.26	1.89	146.6	1.86	146.6	1.86	1.15	32.1	0.89	9.3	28.5	0.66	1.02	29.7	79	0.95	61.91	2,596	4.33E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
136	22.06	22.23	0.2	22.15	344,280	3,489	2,657	128.6	1.02	1.83	146.1	1.79	146.1	1.79	1.10	31.4	0.88	8.0	27.7	0.29	1.01	28.4	78	0.95	61.01	2,568	4.41E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
137	22.23	22.39	0.2	22.31	335,060	3,567	2,677	124.2	1.07	1.86	141.7	1.82	141.7	1.82	1.12	30.8	0.88	8.5	27.1	0.42	1.01	28.0	77	0.95	60.70	2,565	4.45E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
138	22.39	22.56	0.2	22.47	328,200	3,907	2,697	120.7	1.20	1.90	138.3	1.86	138.3	1.86	1.15	30.6	0.88	9.4	26.9	0.68	1.02	28.1	78	0.95	60.79	2,578	4.46E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
139	22.56	22.72	0.2	22.64	324,160	4,177	2,717	118.3	1.30	1.93	136.1	1.89	136.1	1.89	1.18	30.6	0.88	10.1	26.7	0.90	1.02	28.2	78	0.95	60.91	2,592	4.47E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
140	22.72	22.88	0.2	22.80	298,460	4,121	2,736	108.1	1.39	1.98	124.8	1.94	124.8	1.94	1.22	28.6	0.87	11.3	25.0	1.30	1.03	27.0	75	0.95	59.98	2,562	4.55E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
141	22.88	23.05	0.2	22.97	269,680	3,946	2,756	96.9	1.48	2.03	112.4	1.99	112.4	1.99	1.28	26.4	0.87	12.6	22.9	1.75	1.03	25.5	74	0.95	58.84	2,522	4.66E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
142	23.05	23.21	0.2	23.13	250,380	3,990	2,776	89.2	1.61	2.08	104.0	2.04	104.0	2.04	1.35	25.0	0.87	14.0	21.6	2.19	1.04	24.7	72	0.95	58.27	2,507	4.72E-04	1.30E-03	0.109%	0.109%	0.218%	0.0043
143	23.21	23.38	0.2	23.29	237,440	4,061	2,795	83.9	1.73	2.13	98.3	2.08	98.3	2.08	1.41	24.1	0.86	15.1	20.8	2.52	1.05	24.3	72	0.95	57.92	2,500	4.76E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
144	23.38	23.54	0.2	23.46	231,860	4,080	2,815	81.4	1.78	2.14	95.6	2.09	95.6	2.09	1.44	23.7	0.86	15.6	20.3	2.66	1.05	24.0	72	0.95	57.73	2,501	4.80E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
145	23.54	23.70	0.2	23.62	232,320	4,152	2,835	81.0	1.81	2.15	95.5	2.10	95.5	2.10	1.45	23.7	0.86	15.8	20.3	2.71	1.05	24.1	72	0.95	57.79	2,512	4.81E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
146	23.70	23.87	0.2	23.79	239,400	4,367	2,854	82.9	1.85	2.15	98.1	2.10	98.1	2.10	1.45	24.5	0.85	15.7	20.9	2.69	1.05	24.7	72	0.95	58.21	2,539	4.79E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
147	23.87	24.03	0.2	23.95	251,620	4,490	2,874	86.5	1.81	2.13	102.7	2.08	102.7	2.08	1.41	25.5	0.85	15.1	21.7	2.52	1.05	25.3	74	0.95	58.68	2,568	4.77E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
148	24.03	24.20	0.2	24.11	278,400	4,536	2,894	95.2	1.65	2.07	113.2	2.02	113.2	2.02	1.32	27.6	0.85	13.4	23.4	2.02	1.04	26.3	75	0.94	59.48	2,613	4.67E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
149	24.20	24.36	0.2	24.28	367,360	4,400	2,913	125.1	1.21	1.89	148.9	1.84	148.9	1.84	1.14	34.0	0.84	8.9	28.7	0.54	1.02	29.8	79	0.94	61.98	2,731	4.50E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
150	24.36	24.52	0.2	24.44	509,700	5,400	2,933	172.8	1.07	1.75	205.9	1.70	205.9	1.70	1.04	45.0	0.84	6.1	37.9	0.04	1.01	38.1	88	0.94	67.30	2,976	4.16E-04	9.20E-04	0.034%	0.034%	0.068%	0.0013
151	24.52	24.69	0.2	24.61	572,140	5,991	2,953	192.8	1.05	1.72	230.4	1.66	230.4	1.66	1.01	49.8	0.84	5.5	41.8	0.01	1.00	42.0	91	0.94	69.50	3,083	4.04E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
152	24.69	24.85	0.2	24.77	492,440	4,983	2,972	164.7	1.02	1.75	197.6	1.70	197.6	1.70	1.04	43.4	0.84	6.1	36.3	0.03	1.01	36.5	86	0.94	66.36	2,954	4.24E-04	9.20E-04	0.039%	0.039%	0.077%	0.0015
153	24.85	25.02	0.2	24.93	465,940	4,020	2,992	154.7	0.87	1.73	186.4	1.67	186.4	1.67	1.02	40.6	0.83	5.5	33.9	0.01	1.00	34.0	83	0.94	64.79	2,894	4.36E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
154	25.02	25.18	0.2	25.10	533,520	4,516	3,012	176.1	0.85	1.68	212.7	1.62	212.7	1.62	1.00	45.8	0.83	4.7	38.1	0.00	1.00	38.1	88	0.94	67.27	3,015	4.21E-04	9.20E-04	0.034%	0.034%	0.068%	0.0013
155	25.18	25.34	0.2	25.26	729,020	6,006	3,031	239.5	0.83	1.58	289.7	1.52	289.7	1.52	1.00	60.5	0.83	3.1	50.1	0.00	1.00	50.1	95	0.94	73.75	3,315	3.85E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
156	25.34	25.51	0.2	25.43	892,400	6,530	3,051	291.5	0.73	1.48	353.5	1.42	353.5	1.42	1.00	71.9	0.83	1.8	59.3	0.00	1.00	59.3	95	0.94	78.01	3,518	3.66E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
157	25.51	25.67	0.2	25.59	931,780	5,818	3,071	302.4	0.63	1.42	367.9	1.36	367.9	1.36	1.00	73.6	0.82	1.1	60.5	0.00	1.00	60.5	95	0.94	78.53	3,553	3.64E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
158	25.67	25.84	0.2	25.75	846,100	4,017	3,091	272.8	0.48	1.37	333.0	1.31	333.0	1.31	1.00	65.7	0.82	0.5	53.9	0.00	1.00	53.9	95	0.94	75.54	3,429	3.80E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
159	25.84	26.00	0.2	25.92	638,920	3,977	3,110	204.4	0.63	1.54	250.7	1.48	250.7	1.48	1.00	52.3	0.82	2.5	42.8	0.00	1.00	42.8	92	0.94	69.95	3,185	4.12E-04	9.20E-04	0.025%	0.025%	0.050%	0.0010
160	26.00	26.16	0.2	26.08	459,520	4,494	3,130	145.8	0.98	1.78	179.7	1.72	179.7	1.72	1.05	40.8	0.82	6.4	33.2	0.06	1.01	33.5	83	0.94	64.48	2,945	4.48E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
161	26.16	26.33	0.2	26.25	385,180	4,388	3,150	121.3	1.15	1.89	150.2	1.82	150.2	1.82	1.12	35.4	0.81	8.6	28.8	0.43	1.02	29.7	79	0.94	61.91	2,837	4.68E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
162	26.33	26.49	0.2	26.41	339,040	4,364	3,169	106.0	1.30	1.97	131.8	1.90	131.8	1.90	1.19	32.1	0.81	10.3	26.0	0.98	1.02	27.6	77	0.94	60.43	2,778	4.81E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
163	26.49	26.66	0.2	26.57	322,900	4,513	3,189	100.3	1.41	2.01	125.1	1.94	125.1	1.94	1.23	31.0	0.81	11.4	25.1	1.33	1.03	27.1	77	0.94	60.08	2,770	4.85E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
164	26.66	26.82	0.2	26.74	334,780	4,785	3,209	103.3	1.44	2.01	129.3	1.94	129.3	1.94	1.22	32.1	0.81	11.3	25.9	1.30	1.03	27.9	77	0.94	60.66	2,805	4.82E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
165	26.82	26.98	0.2	26.90	330,400	5,094	3,228	101.3	1.56	2.03	127.2	1.96	127.2	1.96	1.26	32.1	0.80	12.0	25.7	1.55	1.03	28.1	78	0.94	60.80	2,821	4.82E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
166	26.98	27.15	0.2	27.07	320,320	4,996	3,248	97.6	1.58	2.05	123.0	1.98	123.0	1.98	1.27	31.2	0.80	12.4	25.0	1.68	1.03	27.5	77	0.94	60.38	2,810	4.87E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
167	27.15	27.31	0.2	27.23	307,920	4,963	3,268	93.2	1.63	2.07	117.9	2.00	117.9	2.00	1.30	30.3	0.80	13.0	24.2	1.89	1.04	27.0	75	0.93	59.97	2,799	4.87E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
168	27.31	27.48	0.2	27.40	297,260	5,090	3,287	89.4	1.73	2.11	113.4	2.03	113.4	2.03	1.34	29.6	0.80	13.8	23.5	2.15	1.04	26.7	75	0.93	59.76	2,798	4.90E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
169	27.48	27.64	0.2	27.56	274,720	5,105	3,307	82.1	1.88	2.16	104.5	2.08	104.5	2.08	1.42	27.9	0.79	15.3	22.1	2.58	1.05	25.8	74	0.93	59.11	2,775	4.97E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
170	27.64	27.81	0.2	27.72	266,480	5,060	3,327	79.1	1.92	2.18	101.1	2.10	101.1	2.10	1.45	27.3	0.79	15.8	21.6	2.72	1.05	25.4	74	0.93	58.80	2,769	5.01E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
171	27.81	27.97	0.2	27.89	291,300	5,240	3,346	86.0	1.82	2.13	110.2	2.06	110.2	2.06	1.38	29.3	0.79	14.5	23.1	2.36	1.05	26.5	75	0.93	59.63	2,816	4.96E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
172	27.97	28.13	0.2	28.05	338,100	5,394	3,366	99.4	1.61	2.05	127.5	1.97	127.5	1.97	1.27	32.9	0.79	12.3	25.9	1.64	1.03	28.4	78	0.93	61.01	2,890	4.86E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	397,240	5,359	3,386	116.3	1.36	1.95	149.4	1.87	149.4	1.87	1.17	37.3	0.78	9.8	29.2	0.79	1.02	30.6	80	0.93	62.56	2,972	4.75E-04	1.50E-03	0.090%	0.090%	0.180%	0.0035
174	28.30	28.46	0.2	28.38	473,740	5,453	3,406	138.1	1.16	1.85	177.6	1.77	177.6	1.77	1.09	42.8	0.78	7.5	33.5	0.20	1.01	34.0	84	0.93	64.81	3,088	4.60E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
175	28.46	28.63	0.2	28.54	563,240	5,488	3,425	163.4	0.98	1.75	210.6	1.67	210.6	1.67	1.02	49.1	0.78	5.5	38.3	0.01	1.00	38.4	88	0.93	67.48	3,225	4.43E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
176	28.63	28.79	0.2	28.71	653,560	5,394	3,445	188.7	0.83	1.65	243.7	1.57	243.7	1.57	1.00	55.2	0.78	3.9	42.9	0.00	1.00	42.9	92	0.93	70.01	3,355	4.28E-04	1.30E-03	0.035%	0.035%	0.070%	0.0014
177	28.79	28.95	0.2	28.87	695,000	5,014	3,465	199.6	0.73	1.59	258.4	1.51	258.4	1.51	1.00	57.6	0.77	3.0	44.6	0.00	1.00	44.6	94	0.93	70.92	3,409	4.24E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
178	28.95	29.12	0.2	29.04	725,280	4,775	3,484	207.2	0.66	1.55	268.9	1.47	268.9	1.47	1.00	59.3	0.77	2.4	45.8	0.00	1.00	45.8	94	0.93	71.56	3,449	4.21E-04	9.20E-04	0.018%	0.018%	0.037%	0.0007
179	29.12	29.28	0.2	29.20	756,680	5,766	3,504	215.0	0.77	1.59	279.7	1.51	279.7	1.51	1.00	62.5	0.77	2.9	48.2	0.00	1.00	48.2	95	0.93	72.77	3,517	4.16E-04	8.20E-04	0.013%	0.013%	0.026%	0.0005
180	29.28	29.45	0.2	29.36	785,280	6,615	3,524	221.9	0.85	1.61	289.5	1.53	289.5	1.53	1.00	65.4	0.77	3.2	50.2	0.00	1.00	50.2	95	0.93	73.79	3,576	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
181	29.45	29.61	0.2	29.53	824,280	4,881	3,543	231.6	0.59	1.49	303.0	1.40	303.0	1.40	1.00	65.9	0.77	1.5	50.5	0.00	1.00	50.5	95	0.93	73.93	3,593	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
182	29.61	29.77	0.2	29.69	931,960	5,279	3,563	260.6	0.57	1.44	341.6	1.35	341.6	1.35	1.00	73.4	0.76	1.0	56.1	0.00	1.00	56.1	95	0.93	76.54	3,731	3.98E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
183	29.77	29.94	0.2	29.86	983,820	3,716	3,583	273.6	0.38	1.31	359.7	1.21	359.7	1.21	1.00	74.3	0.76	0.0	56.6	0.00	1.00	56.6	95	0.93	76.80	3,753	3.98E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
184	29.94	30.10	0.2	30.02	1,136,540	4,642	3,602	314.5	0.41	1.28	414.4	1.19	414.4	1.19	1.00	85.3	0.76	0.0	64.8	0.00	1.00	64.8	95	0.93	80.33	3,937	3.82E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
185	30.10	30.27	0.2	30.18	1,226,100	5,814	3,622	337.5	0.48	1.30	445.8	1.22	445.8	1.22	1.00	92.7	0.76	0.0	70.2	0.00	1.00	70.2	95	0.92	82.51	4,055	3.69E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
186	30.27	30.43	0.2	30.35	1,319,120	7,604	3,642	361.2	0.58	1.34	478.3	1.26	478.3	1.26	1.00	101.0	0.76	0.0	76.3	0.00	1.00	76.3	95	0.92	84.84	4,180	3.59E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
187	30.43	30.59	0.2	30.51	1,504,020	2,318	3,661	409.8	0.15	0.95	543.9	0.84	543.9	0.84	1.00	102.3	0.75	0.0	77.1	0.00	1.00	77.1	95	0.92	85.13	4,206	3.59E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
188	30.59	30.76	0.2	30.68	1,609,820	4,761	3,681	436.3	0.30	1.08	580.6	0.99	580.6	0.99	1.00	114.0	0.75	0.0	85.7	0.00	1.00	85.7	95	0.92	88.17	4,368	3.48E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
189	30.76	30.92	0.2	30.84	1,701,860	7,054	3,701	458.9	0.42	1.16	612.1	1.08	612.1	1.08	1.00	123.7	0.75	0.0	92.7	0.00	1.00	92.7	95	0.92	90.53	4,496	3.40E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
190	30.92	31.09	0.2	31.00	1,706,160	9,566	3,720	457.6	0.56	1.26	612.1	1.19	612.1	1.19	1.00	127.8	0.75	0.0	95.6	0.00	1.00	95.6	95	0.92	91.44	4,554	3.37E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
191	31.09	31.25	0.2	31.17	1,661,640	12,230	3,740	443.3	0.74	1.36	594.5	1.29	594.5	1.29	1.00	128.4	0.75	0.3	95.8	0.00	1.00	95.8	95	0.92	91.51	4,569	3.38E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
192	31.25	31.41	0.2	31.33	1,544,140	13,508	3,760	409.7	0.88	1.44	551.0	1.37	551.0	1.37	1.00	122.3	0.74	1.2	91.0	0.00	1.00	91.0	95	0.92	89.96	4,504	3.44E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
193	31.41	31.58	0.2	31.50	1,338,260	13,474	3,780	353.1	1.01	1.53	476.3	1.46	476.3	1.46	1.00	108.9	0.74	2.3	80.8	0.00	1.00	80.8	95	0.92	86.47	4,340	3.59E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
194	31.58	31.74	0.2	31.66	1,120,800	11,610	3,799	294.0	1.04	1.59	397.9	1.51	397.9	1.51	1.00	92.8	0.74	3.0	68.7	0.00	1.00	68.7	95	0.92	81.91	4,122	3.80E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
195	31.74	31.91	0.2	31.82	923,540	9,646	3,819	240.8	1.05	1.65	327.0	1.57	327.0	1.57	1.00	77.8	0.74	3.8	57.4	0.00	1.00	57.4	95	0.92	77.17	3,894	4.05E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
196	31.91	32.07	0.2	31.99	756,380	9,173	3,839	196.0	1.22	1.76	267.1	1.67	267.1	1.67	1.02	66.1	0.74	5.6	48.6	0.01	1.00	48.8	95	0.92	73.08	3,697	4.28E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
197	32.07	32.23	0.2	32.15	639,980	9,184	3,858	164.9	1.44	1.86	225.4	1.77	225.4	1.77	1.09	57.9	0.73	7.6	42.5	0.22	1.01	43.2	93	0.91	70.19	3,560	4.42E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
198	32.23	32.40	0.2	32.32	567,560	9,971	3,878	145.4	1.77	1.97	199.4	1.88	199.4	1.88	1.17	53.3	0.73	9.8	39.0	0.82	1.02	40.7	90	0.91	68.78	3,497	4.53E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
199	32.40	32.56	0.2	32.48	539,300	8,467	3,898	137.4	1.58	1.95	189.0	1.85	189.0	1.85	1.15	50.2	0.73	9.3	36.7	0.65	1.02	38.0	88	0.91	67.25	3,428	4.64E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
200	32.56	32.73	0.2	32.64	513,140	8,379	3,917	130.0	1.65	1.98	179.4	1.88	179.4	1.88	1.17	48.3	0.73	10.0	35.2	0.86	1.02	36.8	86	0.91	66.52	3,399	4.70E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
201	32.73	32.89	0.2	32.81	493,960	7,942	3,937	124.5	1.62	1.98	172.3	1.89	172.3	1.89	1.18	46.6	0.73	10.1	33.9	0.91	1.02	35.5	85	0.91	65.74	3,368	4.77E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
202	32.89	33.05	0.2	32.97	498,440	7,852	3,957	125.0	1.59	1.98	173.4	1.88	173.4	1.88	1.17	46.9	0.73	9.9	34.0	0.84	1.02	35.5	85	0.91	65.75	3,377	4.78E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
203	33.05	33.22	0.2	33.14	525,800	8,393	3,976	131.2	1.61	1.97	182.5	1.87	182.5	1.87	1.16	49.2	0.72	9.7	35.6	0.76	1.02	37.1	87	0.91	66.70	3,434	4.73E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
204	33.22	33.38	0.2	33.30	563,040	8,362	3,996	139.9	1.50	1.92	194.9	1.83	194.9	1.83	1.13	51.9	0.72	8.7	37.5	0.48	1.02	38.5	88	0.91	67.55	3,487	4.68E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
205	33.38	33.55	0.2	33.46	597,640	7,558	4,016	147.8	1.27	1.86	206.4	1.76	206.4	1.76	1.08	53.8	0.72	7.2	38.7	0.16	1.01	39.2	89	0.91	67.95	3,516	4.66E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
206	33.55	33.71	0.2	33.63	650,000	7,493	4,035	160.1	1.16	1.80	223.9	1.70	223.9	1.70	1.04	57.4	0.72	6.2	41.2	0.04	1.01	41.5	91	0.91	69.23	3,591	4.59E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
207	33.71	33.87	0.2	33.79	735,200	7,384	4,055	180.3	1.01	1.72	252.6	1.62	252.6	1.62	1.00	63.2	0.72	4.8	45.3	0.00	1.00	45.3	94	0.91	71.27	3,706	4.47E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
208	33.87	34.04	0.2	33.96	953,940	8,360	4,075	233.1	0.88	1.60	327.0	1.51	327.0	1.51	1.00	78.9	0.71	2.9	56.3	0.00	1.00	56.3	95	0.91	76.67	3,996	4.16E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
209	34.04	34.20	0.2	34.12	1,133,560	9,459	4,094	275.9	0.84	1.54	387.6	1.44	387.6	1.44	1.00	91.8	0.71	2.1	65.5	0.00	1.00	65.5	95	0.90	80.60	4,211	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
210	34.20	34.37	0.2	34.28	1,195,820	9,978	4,114	289.7	0.84	1.52	407.9	1.43	407.9	1.43	1.00	96.5	0.71	1.9	68.6	0.00	1.00	68.6	95	0.90	81.87	4,288	3.87E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
211	34.37	34.53	0.2	34.45	1,204,120	9,177	4,134	290.3	0.76	1.49	409.8	1.40	409.8	1.40	1.00	96.2	0.71	1.5	68.2	0.00	1.00	68.2	95	0.90	81.71	4,290	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
212	34.53	34.69	0.2	34.61	1,155,620	11,275	4,154	277.2	0.98	1.59	392.4	1.49	392.4	1.49	1.00	95.2	0.71	2.8	67.3	0.00	1.00	67.3	95	0.90	81.37	4,282	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
213	34.69	34.86	0.2	34.78	1,222,660	10,524	4,173	292.0	0.86	1.53	414.1	1.44	414.1	1.44	1.00	98.8	0.71	2.0	69.8	0.00	1.00	69.8	95	0.90	82.34	4,343	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
214	34.86	35.02	0.2	34.94	1,347,100	10,220	4,193	320.3	0.76	1.46	455.2	1.37	455.2	1.37	1.00	106.6	0.70	1.1	75.1	0.00	1.00	75.1	95	0.90	84.37	4,461	3.79E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
215	35.02	35.19	0.2	35.10	1,159,800	8,976	4,213	274.3	0.78	1.52	391.0	1.42	391.0	1.42	1.00	93.1	0.70	1.7	65.4	0.00	1.00	65.4	95	0.89	80.60	4,271	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
216	35.19	35.35	0.2	35.27	1,199,980	9,197	4,232	282.5	0.77	1.50	403.6	1.40	403.6	1.40	1.00	96.0	0.70	1.6	67.3	0.00	1.00	67.3	95	0.89	81.35	4,321	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
217	35.35	35.52	0.2	35.43	997,380	9,405	4,252	233.6	0.95	1.63	334.7	1.52	334.7	1.52	1.00	82.9	0.70	3.2	58.0	0.00	1.00	58.0	95	0.89	77.42	4,122	4.12E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
218	35.52	35.68	0.2	35.60	893,480	5,305	4,272	208.2	0.60	1.52	299.1	1.41	299.1	1.41	1.00	71.6	0.70	1.6	49.9	0.00	1.00	49.9	95	0.89	73.65	3,930	4.34E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
219	35.68	35.84	0.2	35.76	700,160	5,317	4,291	162.2	0.76	1.67	233.9	1.56	233.9	1.56	1.00	58.9	0.70	3.7	41.0	0.00	1.00	41.0	90	0.89	68.96	3,688	4.64E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
220	35.84	36.01	0.2	35.93	582,400	5,175	4,311	134.1	0.90	1.78	194.1	1.66	194.1	1.66	1.01	50.7	0.69	5.5	35.2	0.01	1.00	35.3	85	0.89	65.64	3,519	4.89E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
221	36.01	36.17	0.2	36.09	507,160	5,143	4,331	116.1	1.02	1.87	168.6	1.75	168.6	1.75	1.07	45.5	0.69	7.1	31.5	0.13	1.01	31.9	81	0.88	63.45	3,409	5.01E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
222	36.17	36.34	0.2	36.25	457,100	5,576	4,350	104.1	1.23	1.96	151.6	1.84	151.6	1.84	1.14	42.3	0.69	9.0	29.3	0.54	1.02	30.3	80	0.88	62.35	3,358	5.11E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
223	36.34	36.50	0.2	36.42	444,160	7,247	4,370	100.6	1.65	2.05	147.0	1.94	147.0	1.94	1.23	42.7	0.69	11.4	29.5	1.34	1.03	31.6	81	0.88	63.25	3,414	5.05E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
224	36.50	36.66	0.2	36.58	468,600	7,980	4,390	105.7	1.72	2.05	154.8	1.94	154.8	1.94	1.23	45.0	0.69	11.3	31.0	1.33	1.03	33.2	83	0.88	64.27	3,477	4.98E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
225	36.66	36.83	0.2	36.75	519,440	8,581	4,409	116.8	1.67	2.01	171.2	1.90	171.2	1.90	1.19	49.2	0.69	10.4	33.8	1.00	1.02	35.6	85	0.88	65.77	3,566	4.88E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
226	36.83	36.99	0.2	36.91	555,840	9,260	4,429	124.5	1.68	1.99	182.8	1.88	182.8	1.88	1.17	52.3	0.69	10.0	35.9	0.87	1.02	37.5	87	0.88	66.95	3,638	4.81E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
227	36.99	37.16	0.2	37.07	588,560	10,378	4,449	131.3	1.78	2.00	193.1	1.89	193.1	1.89	1.18	55.5	0.68	10.1	37.9	0.90	1.02	39.7	89	0.88	68.21	3,715	4.73E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
228	37.16	37.32	0.2	37.24	552,000	10,366	4,469	122.5	1.89	2.04	180.7	1.93	180.7	1.93	1.22	52.8	0.68	11.1	36.0	1.23	1.03	38.2	88	0.87	67.37	3,677	4.74E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
229	37.32	37.48	0.2	37.40	512,780	9,273	4,488	113.3	1.82	2.05	167.5	1.94	167.5	1.94	1.22	49.2	0.68	11.3	33.5	1.30	1.03	35.7	85	0.87	65.88	3,603	4.86E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
230	37.48	37.65	0.2	37.57	509,280	8,942	4,508	112.0	1.77	2.04	166.0	1.93	166.0	1.93	1.22	48.7	0.68	11.1	33.1	1.24	1.03	35.2	85	0.87	65.57	3,595	4.89E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
231	37.65	37.81	0.2	37.73	540,700	8,902	4,528	118.4	1.66	2.01	175.8	1.89	175.8	1.89	1.18	51.0	0.68	10.2	34.6	0.93	1.02	36.3	86	0.87	66.22	3,638	4.86E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
232	37.81	37.98	0.2	37.89	559,840	9,512	4,547	122.1	1.71	2.01	181.7	1.89	181.7	1.89	1.18	52.9	0.68	10.2	35.8	0.94	1.02	37.5	87	0.87	66.94	3,686	4.81E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
233	37.98	38.14	0.2	38.06	581,200	9,940	4,567	126.3	1.72	2.00	188.2	1.88	188.2	1.88	1.17	54.7	0.67	10.0	36.9	0.87	1.02	38.6	88	0.87	67.60	3,730	4.78E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
234	38.14	38.30	0.2	38.22	593,160	9,641	4,587	128.3	1.64	1.98	191.6	1.86	191.6	1.86	1.16	55.4	0.67	9.5	37.3	0.71	1.02	38.7	88	0.87	67.67	3,742	4.78E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
235	38.30	38.47	0.2	38.39	654,720	9,456	4,606	141.1	1.45	1.91	211.1	1.80	211.1	1.80	1.10	59.7	0.67	8.0	40.1	0.30	1.01	40.9	90	0.87	68.93	3,820	4.71E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
236	38.47	38.63	0.2	38.55	803,940	9,203	4,626	172.8	1.15	1.78	258.6	1.66	258.6	1.66	1.01	70.0	0.67	5.4	46.9	0.01	1.00	47.0	95	0.87	72.20	4,009	4.50E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
237	38.63	38.80	0.2	38.71	993,620	7,732	4,646	212.9	0.78	1.59	319.0	1.47	319.0	1.47	1.00	81.3	0.67	2.5	54.4	0.00	1.00	54.4	95	0.87	75.78	4,217	4.30E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
238	38.80	38.96	0.2	38.88	1,167,340	9,662	4,665	249.2	0.83	1.57	374.0	1.45	374.0	1.45	1.00	94.8	0.67	2.2	63.3	0.00	1.00	63.3	95	0.87	79.70	4,445	4.10E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
239	38.96	39.12	0.2	39.04	1,263,660	10,844	4,685	268.7	0.86	1.55	404.0	1.44	404.0	1.44	1.00	102.3	0.67	2.1	68.2	0.00	1.00	68.2	95	0.87	81.71	4,566	4.00E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
240	39.12	39.29	0.2	39.21	1,347,520	12,172	4,705	285.4	0.91	1.55	429.9	1.44	429.9	1.44	1.00	109.2	0.66	2.1	72.6	0.00	1.00	72.6	95	0.86	83.44	4,673	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
241	39.29	39.45	0.2	39.37	1,310,480	13,332	4,724	276.4	1.02	1.60	417.2	1.49	417.2	1.49	1.00	107.9	0.66	2.8	71.6	0.00	1.00	71.6	95	0.86	83.05	4,661	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
242	39.45	39.62	0.2	39.53	1,269,160	13,803	4,744	266.5	1.09	1.64	403.2	1.53	403.2	1.53	1.00	105.6	0.66	3.2	69.9	0.00	1.00	69.9	95	0.86	82.39	4,634	3.95E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
243	39.62	39.78	0.2	39.70	1,188,700	3,527	4,764	248.5	0.30	1.28	376.9	1.13	376.9	1.13	1.00	87.6	0.66	0.0	57.9	0.00	1.00	57.9	95	0.86	77.38	4,361	4.21E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
244	39.78	39.94	0.2	39.86	1,131,120	2,361	4,783	235.5	0.21	1.22	357.9	1.06	357.9	1.06	1.00	81.8	0.66	0.0	53.9	0.00	1.00	53.9	95	0.86	75.57	4,268	4.32E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
245	39.94	40.11	0.2	40.03	1,198,320	4,174	4,803	248.5	0.35	1.32	378.3	1.17	378.3	1.17	1.00	89.5	0.66	0.0	58.9	0.00	1.00	58.9	95	0.86	77.80	4,403	4.21E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
246	40.11	40.27	0.2	40.19	1,357,920	8,956	4,823	280.6	0.66	1.46	427.9	1.34	427.9	1.34	1.00	106.4	0.66	0.8	69.9	0.00	1.00	69.9	95	0.85	82.38	4,671	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
247	40.27	40.44	0.2	40.35	1,581,340	4,797	4,843	325.6	0.30	1.19	497.2	1.05	497.2	1.05	1.00	113.8	0.66	0.0	74.6	0.00	1.00	74.6	95	0.85	84.18	4,783	3.86E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
248	40.44	40.60	0.2	40.52	1,694,440	6,405	4,862	347.5	0.38	1.23	531.7	1.09	531.7	1.09	1.00	123.5	0.65	0.0	80.8	0.00	1.00	80.8	95	0.85	86.46	4,922	3.77E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
249	40.60	40.76	0.2	40.68	1,697,780	705	4,882	346.8	0.04	0.94	531.7	0.76	531.7	0.76	1.00	113.1	0.65	0.0	73.8	0.00	1.00	73.8	95	0.85	83.90	4,787	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
250	40.76	40.93	0.2	40.85	1,715,300	4,377	4,902	348.9	0.26	1.12	536.1	0.97	536.1	0.97	1.00	120.9	0.65	0.0	78.7	0.00	1.00	78.7	95	0.85	85.72	4,900	3.81E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
251	40.93	41.09	0.2	41.01	1,754,240	2,998	4,921	355.5	0.17	1.03	547.2	0.86	547.2	0.86	1.00	120.0	0.65	0.0	78.0	0.00	1.00	78.0	95	0.85	85.46	4,895	3.83E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
252	41.09	41.26	0.2	41.17	1,760,220	7,811	4,941	355.3	0.44	1.26	547.9	1.14	547.9	1.14	1.00	129.9	0.65	0.0	84.3	0.00	1.00	84.3	95	0.84	87.69	5,033	3.70E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
																													TOTAL SETTLEMENT (INCHES):			0.38

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.):	120	MAGNITUDE CORRECTION FACTOR:	1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT):	60		
EARTHQUAKE MAGNITUDE:	7.5		
PEAK GROUND ACCELERATION (g):	0.69		
DEPTH OF EXCAVATION (ft)	15.0		
IDENTIFICATION:	CPT-5		
TOTAL DRY SETTLEMENT (IN.):	0.92		

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR
92	15.01	15.17	0.2	15.09	539,080	6,747	1,811	296.7	1.26	1.65	277.2	1.67	277.2	1.67	1.02	47.1	1.07
93	15.17	15.34	0.2	15.26	465,180	5,874	1,831	253.1	1.27	1.70	237.9	1.72	237.9	1.72	1.05	41.3	1.07
94	15.34	15.50	0.2	15.42	285,020	6,884	1,850	153.0	2.43	2.06	145.0	2.07	145.0	2.07	1.41	28.8	1.06
95	15.50	15.67	0.2	15.58	225,640	3,294	1,870	119.7	1.47	1.97	114.2	1.98	114.2	1.98	1.28	22.0	1.05
96	15.67	15.83	0.2	15.75	191,400	3,177	1,890	100.3	1.68	2.06	96.3	2.07	96.3	2.07	1.41	19.4	1.05
97	15.83	15.99	0.2	15.91	155,540	3,114	1,909	80.5	2.03	2.19	77.9	2.20	77.9	2.20	1.66	16.5	1.04
98	15.99	16.16	0.2	16.08	145,140	2,846	1,929	74.2	1.99	2.21	72.3	2.21	72.3	2.21	1.70	15.6	1.04
99	16.16	16.32	0.2	16.24	139,440	2,580	1,949	70.6	1.88	2.20	69.1	2.21	69.1	2.21	1.69	14.9	1.03
100	16.32	16.49	0.2	16.40	142,380	2,649	1,969	71.3	1.89	2.20	70.2	2.21	70.2	2.21	1.69	15.2	1.03
101	16.49	16.65	0.2	16.57	158,460	2,821	1,988	78.7	1.80	2.16	77.8	2.16	77.8	2.16	1.58	16.6	1.02
102	16.65	16.81	0.2	16.73	170,820	2,510	2,008	84.1	1.49	2.08	83.4	2.08	83.4	2.08	1.42	17.4	1.02
103	16.81	16.98	0.2	16.90	186,840	2,638	2,028	91.2	1.43	2.04	90.8	2.04	90.8	2.04	1.36	18.7	1.01
104	16.98	17.14	0.2	17.06	224,920	2,613	2,047	108.9	1.17	1.93	108.8	1.93	108.8	1.93	1.22	21.5	1.01
105	17.14	17.31	0.2	17.22	335,580	2,493	2,067	161.4	0.75	1.67	161.5	1.67	161.5	1.67	1.02	29.3	1.00
106	17.31	17.47	0.2	17.39	422,140	2,132	2,087	201.3	0.51	1.49	202.2	1.49	202.2	1.49	1.00	34.7	1.00
107	17.47	17.63	0.2	17.55	407,640	1,562	2,106	192.5	0.39	1.43	194.4	1.43	194.4	1.43	1.00	32.9	0.99
108	17.63	17.80	0.2	17.72	364,160	1,670	2,126	170.3	0.46	1.52	172.8	1.52	172.8	1.52	1.00	30.2	0.99
109	17.80	17.96	0.2	17.88	353,540	1,991	2,146	163.8	0.57	1.59	167.0	1.58	167.0	1.58	1.00	30.0	0.98
110	17.96	18.13	0.2	18.04	348,520	2,040	2,165	160.0	0.59	1.61	163.9	1.60	163.9	1.60	1.00	29.7	0.98
111	18.13	18.29	0.2	18.21	312,620	2,063	2,185	142.1	0.66	1.68	146.3	1.67	146.3	1.67	1.02	27.3	0.98
112	18.29	18.45	0.2	18.37	284,220	2,026	2,205	127.9	0.72	1.74	132.5	1.72	132.5	1.72	1.05	25.3	0.97
113	18.45	18.62	0.2	18.54	255,260	1,908	2,224	113.8	0.75	1.79	118.4	1.78	118.4	1.78	1.09	23.1	0.97
114	18.62	18.78	0.2	18.70	236,720	1,978	2,244	104.5	0.84	1.85	109.3	1.83	109.3	1.83	1.13	21.9	0.96
115	18.78	18.95	0.2	18.86	226,260	1,993	2,264	98.9	0.89	1.88	104.1	1.86	104.1	1.86	1.16	21.2	0.96
116	18.95	19.11	0.2	19.03	228,840	2,120	2,283	99.2	0.94	1.89	104.8	1.88	104.8	1.88	1.17	21.5	0.95
117	19.11	19.27	0.2	19.19	243,640	2,321	2,303	104.8	0.96	1.88	111.1	1.86	111.1	1.86	1.16	22.8	0.95
118	19.27	19.44	0.2	19.36	269,360	2,677	2,323	115.0	1.00	1.86	122.3	1.84	122.3	1.84	1.14	25.0	0.95
119	19.44	19.60	0.2	19.52	301,660	2,907	2,343	127.8	0.97	1.82	136.4	1.80	136.4	1.80	1.11	27.6	0.94
120	19.60	19.77	0.2	19.69	383,280	2,988	2,362	161.3	0.78	1.68	172.6	1.66	172.6	1.66	1.01	33.4	0.94
121	19.77	19.93	0.2	19.85	521,020	2,663	2,382	217.7	0.51	1.47	233.6	1.44	233.6	1.44	1.00	42.2	0.93
122	19.93	20.10	0.2	20.01	657,140	2,973	2,402	272.6	0.45	1.36	293.4	1.33	293.4	1.33	1.00	51.4	0.93
123	20.10	20.26	0.2	20.18	757,060	3,223	2,421	311.7	0.43	1.29	336.7	1.27	336.7	1.27	1.00	58.1	0.93
124	20.26	20.42	0.2	20.34	879,280	3,812	2,441	359.2	0.43	1.25	389.4	1.23	389.4	1.23	1.00	66.7	0.92
125	20.42	20.59	0.2	20.51	1,080,380	5,082	2,461	438.1	0.47	1.22	476.6	1.19	476.6	1.19	1.00	81.1	0.92
126	20.59	20.75	0.2	20.67	1,252,800	6,574	2,480	504.1	0.53	1.21	550.4	1.19	550.4	1.19	1.00	94.0	0.92
127	20.75	20.92	0.2	20.83	1,256,260	7,704	2,500	501.5	0.61	1.27	549.8	1.24	549.8	1.24	1.00	95.8	0.91
128	20.92	21.08	0.2	21.00	1,166,340	7,748	2,520	461.9	0.67	1.32	508.4	1.29	508.4	1.29	1.00	90.2	0.91
129	21.08	21.24	0.2	21.16	995,420	6,499	2,539	391.0	0.65	1.36	432.2	1.33	432.2	1.33	1.00	77.8	0.91
130	21.24	21.41	0.2	21.33	775,120	6,534	2,559	301.9	0.85	1.52	335.3	1.49	335.3	1.49	1.00	63.7	0.90
131	21.41	21.57	0.2	21.49	574,360	6,202	2,579	221.7	1.08	1.69	247.5	1.65	247.5	1.65	1.01	49.9	0.90
132	21.57	21.74	0.2	21.65	457,500	4,694	2,598	175.1	1.03	1.74	196.4	1.70	196.4	1.70	1.04	40.4	0.89
133	21.74	21.90	0.2	21.82	347,760	4,341	2,618	131.8	1.26	1.89	148.7	1.85	148.7	1.85	1.15	32.3	0.89
134	21.90	22.06	0.2	21.98	296,220	4,109	2,638	111.3	1.40	1.97	126.2	1.93	126.2	1.93	1.22	28.4	0.89
135	22.06	22.23	0.2	22.15	268,900	3,900	2,657	100.2	1.46	2.02	114.1	1.98	114.1	1.98	1.27	26.2	0.88
136	22.23	22.39	0.2	22.31	263,600	3,786	2,677	97.5	1.45	2.03	111.5	1.98	111.5	1.98	1.28	25.8	0.88
137	22.39	22.56	0.2	22.47	279,260	3,939	2,697	102.6	1.42	2.00	117.7	1.96	117.7	1.96	1.25	27.1	0.88
138	22.56	22.72	0.2	22.64	321,740	4,164	2,717	117.4	1.31	1.94	135.1	1.89	135.1	1.89	1.18	30.4	0.88
139	22.72	22.88	0.2	22.80	417,160	3,611	2,736	151.5	0.87	1.73	174.5	1.69	174.5	1.69	1.03	36.7	0.87
140	22.88	23.05	0.2	22.97	540,820	3,745	2,756	195.2	0.70	1.59	225.4	1.54	225.4	1.54	1.00	45.2	0.87
141	23.05	23.21	0.2	23.13	526,720	4,067	2,776	188.8	0.78	1.63	218.8	1.58	218.8	1.58	1.00	44.7	0.87
142	23.21	23.38	0.2	23.29	468,280	4,139	2,795	166.5	0.89	1.71	193.8	1.66	193.8	1.66	1.01	40.8	0.86
143	23.38	23.54	0.2	23.46	433,060	4,462	2,815	152.8	1.04	1.78	178.6	1.74	178.6	1.74	1.06	38.7	0.86
144	23.54	23.70	0.2	23.62	415,140	4,360	2,835	145.5	1.06	1.80	170.6	1.76	170.6	1.76	1.08	37.3	0.86
145	23.70	23.87	0.2	23.79	356,980	4,075	2,854	124.1	1.15	1.88	146.2	1.83	146.2	1.83	1.13	32.9	0.85
146	23.87	24.03	0.2	23.95	297,000	3,811	2,874	102.3	1.30	1.98	121.2	1.92	121.2	1.92	1.21	28.4	0.85
147	24.03	24.20	0.2	24.11	266,760	3,691	2,894	91.2	1.40	2.04	108.5	1.98	108.5	1.98	1.28	26.0	0.85
148	24.20	24.36	0.2	24.28	257,600	4,123	2,913	87.4	1.62	2.09	104.4	2.04	104.4	2.04	1.35	25.7	0.84
149	24.36	24.52	0.2	24.44	278,400	4,185	2,933	93.9	1.52	2.05	112.5	1.99	112.5	1.99	1.29	27.3	0.84
150	24.52	24.69	0.2	24.61	301,580	3,882	2,953	101.1	1.30	1.98	121.4	1.92	121.4	1.92	1.21	28.8	0.84
151	24.69	24.85	0.2	24.77	298,440	3,891	2,972	99.4	1.32	1.99	119.8	1.93	119.8	1.93	1.22	28.6	0.84
152	24.85	25.02	0.2	24.93	290,700	3,624	2,992	96.2	1.26	1.99	116.3	1.93	116.3	1.93	1.22	27.8	0.83
153	25.02	25.18	0.2	25.10	253,200	3,801	3,012	83.1	1.52	2.09	101.0	2.03	101.0	2.03	1.34	25.2	0.83
154	25.18	25.34	0.2	25.26	221,440	3,559	3,031	72.0	1.63	2.16	88.0	2.09	88.0	2.09	1.44	22.6	0.83
155	25.34	25.51	0.2	25.43	208,240	3,526	3,051	67.2	1.72	2.19	82.5	2.13	82.5	2.13	1.51	21.5	0.83
156	25.51	25.67	0.2	25.59	197,580	4,103	3,071	63.3	2.11	2.27	78.0	2.21	78.0	2.21	1.69	21.1	0.82
157	25.67	25.84	0.2	25.75	201,940	4,511	3,091	64.3	2.27	2.29	79.5	2.22	79.5	2.22	1.73	21.7	0.82
158	25.84	26.00	0.2	25.92	217,560	4,660	3,110	68.9	2.17	2.26	85.4	2.19	85.4	2.19	1.64	23.1	0.82
159	26.00	26.16	0.2	26.08	226,820	4,916	3,130	71.5	2.20	2.25	88.7	2.18	88.7	2.18	1.62	24.0	0.82
160	26.16	26.33	0.2	26.25	237,480	4,924	3,150	74.4	2.10	2.22	92.6	2.15	92.6	2.15	1.56	24.8	0.81
161	26.33	26.49	0.2	26.41	239,280	5,259	3,169	74.5	2.23	2.24	93.0	2.17	93.0	2.17	1.60	25.2	0.81
162	26.49	26.66	0.2	26.57	246,340	4,953	3,189	76.2	2.04	2.20	95.5	2.14	95.5	2.14	1.52	25.6	0.81
163	26.66	26.82	0.2	26.74	250,320	4,854	3,209	77.0	1.96	2.19	96.7	2.12	96.7	2.12	1.49	25.8	0.81
164	26.82	26.98	0.2	26.90	267,300	4,999	3,228	81.8	1.89	2.16	102.9	2.09	102.9	2.09	1.44	27.2	0.80
165	26.98	27.15	0.2	27.07	287,720	4,970	3,248	87.6	1.75	2.11	110.5	2.04	110.5	2.04	1.36	28.8	0.80
166	27.15	27.31	0.2	27.23	299,740	4,978	3,268	90.7	1.68	2.09	114.7	2.02	114.7	2.02	1.33	29.7	0.80
167	27.31	27.48	0.2	27.40	310,540	5,479	3,287	93.5	1.78	2.10	118.5	2.03	118.5	2.03	1.34	30.9	0.80
168	27.48	27.64	0.2	27.56	335,600	6,377	3,307	100.5	1.92	2.10	127.7	2.03	127.7	2.03	1.34	33.4	0.79
169	27.64	27.81	0.2	27.72	365,220	7,262	3,327	108.8	2.01	2.09	138.6	2.02	138.6	2.02	1.33	36.2	0.79
170	27.81	27.97	0.2	27.89	392,400	7,679	3,346	116.3	1.97	2.07	148.4	2.00	148.4	2.00	1.29	38.5	0.79
171	27.97	28.13	0.2	28.05	400,820	7,105	3,366	118.1	1.79	2.03	151.2	1.96	151.2	1.96	1.25	38.8	0.79

LAYER NUMBER	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	5.6	50.5	0.01	1.00	50.6	95	0.97	73.99	2,571	3.06E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
93	6.4	44.0	0.06	1.01	44.3	94	0.97	70.77	2,472	3.22E-04	8.50E-04	0.019%	0.019%	0.037%	0.0007
94	15.0	30.6	2.49	1.05	34.5	84	0.97	65.12	2,287	3.52E-04	9.20E-04	0.044%	0.044%	0.088%	0.0017
95	12.4	23.2	1.70	1.03	25.7	74	0.97	59.03	2,084	3.90E-04	1.40E-03	0.112%	0.112%	0.224%	0.0044
96	15.0	20.3	2.50	1.05	23.8	71	0.97	57.52	2,042	4.03E-04	1.40E-03	0.123%	0.123%	0.246%	0.0049
97	18.9	17.3	3.41	1.07	21.9	68	0.97	55.97	1,997	4.16E-04	1.20E-03	0.115%	0.115%	0.230%	0.0045
98	19.5	16.1	3.52	1.08	20.9	67	0.97	55.08	1,975	4.25E-04	1.20E-03	0.120%	0.120%	0.240%	0.0047
99	19.4	15.4	3.50	1.08	20.1	67	0.97	54.36	1,959	4.33E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
100	19.2	15.6	3.48	1.07	20.3	67	0.97	54.55	1,976	4.33E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
101	17.7	17.0	3.18	1.06	21.3	68	0.97	55.42	2,018	4.29E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
102	15.3	17.7	2.58	1.05	21.1	68	0.97	55.28	2,023	4.32E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
103	14.2	18.9	2.25	1.04	22.0	68	0.97	56.04	2,060	4.28E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
104	11.1	21.7	1.23	1.03	23.5	71	0.97	57.30	2,117	4.21E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
105	5.6	29.4	0.01	1.00	29.5	79	0.96	61.79	2,294	3.88E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
106	2.7	34.6	0.00	1.00	34.6	84	0.96	65.19	2,431	3.70E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
107	1.9	32.7	0.00	1.00	32.7	82	0.96	63.94	2,396	3.78E-04	1.20E-03	0.065%	0.065%	0.130%	0.0026
108	3.1	29.9	0.00	1.00	29.9	79	0.96	62.06	2,336	3.92E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
109	4.1	29.5	0.00	1.00	29.5	79	0.96	61.79	2,337	3.95E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
110	4.3	29.1	0.00	1.00	29.1	79	0.96	61.52	2,337	3.99E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
111	5.6	26.6	0.01	1.00	26.7	75	0.96	59.79	2,282	4.12E-04	1.20E-03	0.091%	0.091%	0.182%	0.0036
112	6.6	24.6	0.07	1.01	24.8	72	0.96	58.32	2,236	4.25E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
113	7.6	22.4	0.22	1.01	22.8	70	0.96	56.73	2,185	4.38E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
114	8.9	21.1	0.51	1.02	21.9	68	0.96	55.98	2,165	4.46E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
115	9.6	20.3	0.73	1.02	21.4	68	0.96	55.53	2,157	4.52E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
116	9.8	20.5	0.81	1.02	21.7	68	0.96	55.82	2,178	4.51E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
117	9.6	21.6	0.72	1.02	22.8	70	0.96	56.71	2,222	4.46E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
118	9.1	23.7	0.59	1.02	24.7	72	0.96	58.21	2,291	4.37E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
119	8.1	26.0	0.33	1.01	26.6	75	0.96	59.73	2,360	4.27E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
120	5.4	31.3	0.01	1.00	31.4	81	0.96	63.10	2,504	4.06E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
121	2.0	39.4	0.00	1.00	39.4	89	0.96	68.07	2,713	3.78E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
122	0.7	47.9	0.00	1.00	47.9	95	0.96	72.61	2,905	3.56E-04	8.00E-04	0.014%	0.014%	0.027%	0.0005
123	0.1	53.9	0.00	1.00	53.9	95	0.95	75.54	3,035	3.40E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
124	0.0	61.6	0.00	1.00	61.6	95	0.95	78.98	3,186	3.26E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
125	0.0	74.6	0.00	1.00	74.6	95	0.95	84.18	3,410	3.07E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
126	0.0	86.0	0.00	1.00	86.0	95	0.95	88.30	3,590	2.94E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
127	0.0	87.3	0.00	1.00	87.3	95	0.95	88.74	3,623	2.94E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
128	0.3	81.9	0.00	1.00	81.9	95	0.95	86.87	3,560	3.02E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
129	0.7	70.5	0.00	1.00	70.5	95	0.95	82.60	3,399	3.18E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
130	2.6	57.4	0.00	1.00	57.4	95	0.95	77.14	3,186	3.42E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
131	5.3	44.8	0.01	1.00	44.9	94	0.95	71.07	2,947	3.73E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
132	6.2	36.2	0.04	1.01	36.4	86	0.95	66.28	2,759	4.01E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
133	9.2	28.8	0.63	1.02	30.0	79	0.95	62.13	2,596	4.30E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
134	11.2	25.2	1.29	1.03	27.2	77	0.95	60.16	2,523	4.46E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
135	12.4	23.2	1.68	1.03	25.7	74	0.95	59.00	2,483	4.56E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
136	12.5	22.7	1.72	1.03	25.2	74	0.95	58.64	2,477	4.60E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
137	11.9	23.8	1.52	1.03	26.0	75	0.95	59.27	2,513	4.57E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
138	10.2	26.6	0.93	1.02	28.1	78	0.95	60.81	2,588	4.47E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
139	5.9	32.0	0.03	1.00	32.1	82	0.95	63.58	2,715	4.29E-04	1.45E-03	0.078%	0.078%	0.157%	0.0031
140	3.4	39.3	0.00	1.00	39.3	89	0.95	67.99	2,914	4.03E-04	9.20E-04	0.032%	0.032%	0.064%	0.0013
141	4.1	38.7	0.00	1.00	38.7	88	0.95	67.63	2,909	4.07E-04	9.20E-04	0.034%	0.034%	0.068%	0.0013
142	5.4	35.2	0.01	1.00	35.3	85	0.95	65.59	2,831	4.21E-04	9.20E-04	0.041%	0.041%	0.083%	0.0016
143	6.8	33.2	0.09	1.01	33.6	83	0.95	64.53	2,795	4.29E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
144	7.2	32.0	0.15	1.01	32.4	82	0.95	63.77	2,772	4.36E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
145	8.7	28.1	0.48	1.02	29.0	79	0.95	61.48	2,682	4.53E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
146	11.0	24.1	1.19	1.03	26.0	74	0.95	59.22	2,592	4.72E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
147	12.4	22.1	1.70	1.03	24.5	72	0.94	58.11	2,552	4.78E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
148	14.0	21.7	2.19	1.04	24.8	72	0.94	58.34	2,571	4.78E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
149	12.8	23.0	1.82	1.04	25.7	74	0.94	58.99	2,608	4.74E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
150	11.0	24.2	1.20	1.03	26.0	75	0.94	59.26	2,629	4.73E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
151	11.2	23.9	1.27	1.03	25.8	74	0.94	59.13	2,632	4.76E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
152	11.1	23.2	1.23	1.03	25.0	74	0.94	58.52	2,614	4.83E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
153	13.7	20.9	2.12	1.04	23.9	71	0.94	57.61	2,581	4.92E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
154	15.6	18.7	2.66	1.05	22.3	70	0.94	56.32	2,532	5.05E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
155	16.7	17.8	2.94	1.06	21.8	68	0.94	55.84	2,518	5.11E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
156	19.3	17.4	3.48	1.07	22.2	70	0.94	56.17	2,542	5.09E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
157	19.8	17.8	3.58	1.08	22.8	70	0.94	56.72	2,575	5.06E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
158	18.6	18.9	3.36	1.07	23.6	71	0.94	57.34	2,611	5.02E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
159	18.4	19.5	3.31	1.07	24.2	72	0.94	57.85	2,642	4.99E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
160	17.5	20.2	3.12	1.06	24.6	72	0.94	58.14	2,664	4.98E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
161	18.0	20.4	3.24	1.07	25.0	74	0.94	58.48	2,688	4.97E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
162	16.9	20.6	2.99	1.06	24.9	72	0.94	58.37	2,691	5.00E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
163	16.4	20.8	2.87	1.06	24.8	72	0.94	58.35	2,699	5.01E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
164	15.5	21.9	2.63	1.05	25.6	74	0.94	58.95	2,735	4.98E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
165	14.1	23.0	2.25	1.04	26.3	75	0.94	59.45	2,767	4.95E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
166	13.5	23.7	2.04	1.04	26.7	75	0.93	59.76	2,789	4.89E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
167	13.7	24.6	2.12	1.04	27.7	77	0.93	60.50	2,832	4.84E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
168	13.8	26.5	2.13	1.04	29.7	79	0.93	61.94	2,908	4.74E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
169	13.5	28.6	2.05	1.04	31.8	81	0.93	63.38	2,985	4.65E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
170	12.8	30.4	1.83	1.04	33.3	83	0.93	64.34	3,039	4.59E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
171	11.8	30.5	1.50	1.03	32.9	82	0.93	64.10	3,037	4.62E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
172	28.13	28.30	0.2	28.22	419,200	6,658	3,386	122.8	1.60	1.98	157.6	1.91	157.6	1.91	1.20	39.9	0.78	10.6	31.2	1.08	1.02	33.1	83	0.93	64.21	3,051	4.63E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
173	28.30	28.46	0.2	28.38	460,060	6,038	3,406	134.1	1.32	1.90	172.5	1.82	172.5	1.82	1.12	42.4	0.78	8.6	33.1	0.44	1.02	34.0	84	0.93	64.82	3,089	4.60E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
174	28.46	28.63	0.2	28.54	500,440	5,872	3,425	145.1	1.18	1.84	187.1	1.76	187.1	1.76	1.08	45.1	0.78	7.3	35.1	0.17	1.01	35.7	85	0.93	65.83	3,146	4.54E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
175	28.63	28.79	0.2	28.71	484,880	5,513	3,445	139.8	1.15	1.84	180.8	1.76	180.8	1.76	1.08	43.7	0.78	7.3	34.0	0.17	1.01	34.5	84	0.93	65.09	3,119	4.61E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
176	28.79	28.95	0.2	28.87	528,020	5,233	3,465	151.4	1.00	1.77	196.3	1.69	196.3	1.69	1.03	46.5	0.77	6.0	36.0	0.03	1.00	36.2	86	0.93	66.17	3,180	4.54E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
177	28.95	29.12	0.2	29.04	668,620	5,985	3,484	190.9	0.90	1.67	247.9	1.59	247.9	1.59	1.00	56.9	0.77	4.2	43.9	0.00	1.00	43.9	93	0.93	70.57	3,401	4.27E-04	1.30E-03	0.031%	0.031%	0.062%	0.0012
178	29.12	29.28	0.2	29.20	812,020	5,807	3,504	230.7	0.72	1.54	300.2	1.46	300.2	1.46	1.00	66.2	0.77	2.3	51.0	0.00	1.00	51.0	95	0.93	74.18	3,585	4.08E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
179	29.28	29.45	0.2	29.36	856,220	7,174	3,524	242.0	0.84	1.58	315.6	1.50	315.6	1.50	1.00	70.7	0.77	2.9	54.3	0.00	1.00	54.3	95	0.93	75.73	3,670	4.00E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
180	29.45	29.61	0.2	29.53	836,940	6,432	3,543	235.2	0.77	1.56	307.7	1.48	307.7	1.48	1.00	68.6	0.77	2.6	52.6	0.00	1.00	52.6	95	0.93	74.92	3,641	4.06E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
181	29.61	29.77	0.2	29.69	935,980	6,373	3,563	261.7	0.68	1.49	343.1	1.41	343.1	1.41	1.00	75.0	0.76	1.6	57.3	0.00	1.00	57.3	95	0.93	77.11	3,758	3.95E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
182	29.77	29.94	0.2	29.86	1,062,100	6,245	3,583	295.5	0.59	1.41	388.3	1.33	388.3	1.33	1.00	83.0	0.76	0.7	63.2	0.00	1.00	63.2	95	0.93	79.67	3,894	3.84E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
183	29.94	30.10	0.2	30.02	1,103,780	6,363	3,602	305.4	0.58	1.39	402.4	1.31	402.4	1.31	1.00	85.8	0.76	0.5	65.2	0.00	1.00	65.2	95	0.93	80.49	3,944	3.81E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
184	30.10	30.27	0.2	30.18	1,082,940	7,459	3,622	298.0	0.69	1.45	393.7	1.37	393.7	1.37	1.00	85.8	0.76	1.2	65.1	0.00	1.00	65.1	95	0.92	80.44	3,953	3.78E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
185	30.27	30.43	0.2	30.35	944,140	7,112	3,642	258.3	0.76	1.53	342.3	1.44	342.3	1.44	1.00	76.5	0.76	2.1	57.8	0.00	1.00	57.8	95	0.92	77.33	3,810	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
186	30.43	30.59	0.2	30.51	689,240	5,740	3,661	187.2	0.84	1.66	249.2	1.57	249.2	1.57	1.00	58.1	0.75	3.8	43.8	0.00	1.00	43.8	93	0.92	70.51	3,483	4.34E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
187	30.59	30.76	0.2	30.68	532,160	5,120	3,681	143.6	0.97	1.78	191.9	1.69	191.9	1.69	1.03	46.8	0.75	6.0	35.2	0.03	1.00	35.4	85	0.92	65.65	3,252	4.67E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
188	30.76	30.92	0.2	30.84	467,220	5,453	3,701	125.2	1.18	1.88	168.1	1.79	168.1	1.79	1.10	42.6	0.75	8.0	31.9	0.29	1.01	32.6	82	0.92	63.89	3,174	4.81E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
189	30.92	31.09	0.2	31.00	443,880	5,756	3,720	118.3	1.31	1.93	159.2	1.84	159.2	1.84	1.14	41.2	0.75	9.0	30.8	0.57	1.02	31.9	81	0.92	63.41	3,158	4.86E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
190	31.09	31.25	0.2	31.17	435,180	5,853	3,740	115.4	1.36	1.95	155.7	1.86	155.7	1.86	1.15	40.6	0.75	9.5	30.3	0.70	1.02	31.6	81	0.92	63.21	3,156	4.89E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
191	31.25	31.41	0.2	31.33	446,160	5,959	3,760	117.7	1.35	1.94	159.2	1.85	159.2	1.85	1.15	41.5	0.74	9.3	30.9	0.63	1.02	32.1	82	0.92	63.54	3,181	4.88E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
192	31.41	31.58	0.2	31.50	456,560	5,921	3,780	119.8	1.31	1.93	162.5	1.84	162.5	1.84	1.13	42.2	0.74	8.9	31.3	0.53	1.02	32.4	82	0.92	63.75	3,200	4.87E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
193	31.58	31.74	0.2	31.66	461,860	6,318	3,799	120.6	1.38	1.94	164.0	1.85	164.0	1.85	1.15	43.0	0.74	9.2	31.8	0.63	1.02	33.0	82	0.92	64.14	3,228	4.86E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
194	31.74	31.91	0.2	31.82	456,640	7,157	3,819	118.6	1.58	1.99	161.7	1.90	161.7	1.90	1.19	43.2	0.74	10.4	31.9	0.99	1.02	33.6	83	0.92	64.56	3,257	4.84E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
195	31.91	32.07	0.2	31.99	455,040	7,085	3,839	117.5	1.57	1.99	160.7	1.90	160.7	1.90	1.19	43.1	0.74	10.3	31.7	0.98	1.02	33.4	83	0.92	64.43	3,259	4.86E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
196	32.07	32.23	0.2	32.15	492,100	6,946	3,858	126.5	1.42	1.94	173.4	1.84	173.4	1.84	1.14	45.7	0.73	9.1	33.5	0.58	1.02	34.7	84	0.91	65.23	3,308	4.76E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
197	32.23	32.40	0.2	32.32	506,260	6,122	3,878	129.5	1.22	1.88	177.9	1.79	177.9	1.79	1.10	46.0	0.73	7.8	33.7	0.27	1.01	34.4	84	0.91	65.03	3,306	4.79E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
198	32.40	32.56	0.2	32.48	499,740	5,068	3,898	127.2	1.02	1.84	175.2	1.74	175.2	1.74	1.06	44.6	0.73	6.8	32.6	0.10	1.01	33.0	82	0.91	64.12	3,269	4.87E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
199	32.56	32.73	0.2	32.64	513,260	4,592	3,917	130.0	0.90	1.79	179.4	1.69	179.4	1.69	1.03	45.1	0.73	5.9	32.9	0.03	1.00	33.1	83	0.91	64.19	3,280	4.87E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
200	32.73	32.89	0.2	32.81	520,300	4,663	3,937	131.2	0.90	1.79	181.4	1.69	181.4	1.69	1.03	45.7	0.73	5.9	33.2	0.02	1.00	33.4	83	0.91	64.40	3,299	4.87E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
201	32.89	33.05	0.2	32.97	511,740	5,242	3,957	128.3	1.03	1.84	178.0	1.73	178.0	1.73	1.06	45.7	0.73	6.8	33.1	0.09	1.01	33.5	83	0.91	64.45	3,310	4.88E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
202	33.05	33.22	0.2	33.14	473,860	5,637	3,976	118.2	1.20	1.91	164.4	1.81	164.4	1.81	1.11	43.4	0.72	8.2	31.4	0.35	1.01	32.1	82	0.91	63.59	3,274	4.96E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
203	33.22	33.38	0.2	33.30	419,100	5,990	3,996	103.9	1.44	2.00	145.1	1.90	145.1	1.90	1.19	39.7	0.72	10.4	28.7	1.01	1.02	30.3	80	0.91	62.38	3,220	5.07E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
204	33.38	33.55	0.2	33.46	427,260	6,148	4,016	105.4	1.45	2.00	147.5	1.90	147.5	1.90	1.19	40.4	0.72	10.3	29.1	0.99	1.02	30.8	80	0.91	62.67	3,243	5.05E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
205	33.55	33.71	0.2	33.63	507,940	6,394	4,035	124.9	1.27	1.91	175.0	1.80	175.0	1.80	1.11	46.5	0.72	8.2	33.4	0.35	1.01	34.2	84	0.91	64.90	3,366	4.89E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
206	33.71	33.87	0.2	33.79	605,460	8,310	4,055	148.3	1.38	1.88	208.0	1.78	208.0	1.78	1.09	55.0	0.72	7.8	39.4	0.25	1.01	40.1	90	0.91	68.43	3,558	4.65E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
207	33.87	34.04	0.2	33.96	607,960	8,261	4,075	148.2	1.37	1.88	208.4	1.78	208.4	1.78	1.09	55.1	0.71	7.7	39.4	0.23	1.01	40.0	90	0.91	68.43	3,566	4.66E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
208	34.04	34.20	0.2	34.12	595,420	7,548	4,094	144.4	1.28	1.86	203.6	1.76	203.6	1.76	1.08	53.7	0.71	7.3	38.2	0.17	1.01	38.8	88	0.90	67.71	3,537	4.67E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
209	34.20	34.37	0.2	34.28	582,680	6,111	4,114	140.6	1.06	1.82	198.8	1.71	198.8	1.71	1.04	51.5	0.71	6.3	36.6	0.05	1.01	36.9	86	0.90	66.59	3,487	4.76E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
210	34.37	34.53	0.2	34.45	612,680	3,981	4,134	147.2	0.65	1.66	208.5	1.55	208.5	1.55	1.00	51.3	0.71	3.5	36.4	0.00	1.00	36.4	86	0.90	66.29	3,480	4.79E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
211	34.53	34.69	0.2	34.61	538,740	3,234	4,154	128.7	0.60	1.69	182.9	1.57	182.9	1.57	1.00	45.5	0.71	3.9	32.2	0.00	1.00	32.2	82	0.90	63.61	3,347	5.01E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
212	34.69	34.86	0.2	34.78	415,440	2,803	4,173	98.5	0.68	1.81	140.7	1.69	140.7	1.69	1.03	36.5	0.71	5.9	25.8	0.03	1.00	25.9	74	0.90	59.19	3,122	5.40E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
213	34.86	35.02	0.2	34.94	316,000	2,872	4,193	74.4	0.92	1.99	106.8	1.87	106.8	1.87	1.16	29.6	0.70	9.6	20.8	0.73	1.02	22.0	68	0.90	56.00	2,961	5.72E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
214	35.02	35.19	0.2	35.10	273,520	3,203	4,213	63.9	1.19	2.11	92.2	1.99	92.2	1.99	1.28	26.8	0.70	12.6	18.8	1.75	1.03	21.2	68	0.89	55.35	2,933	5.73E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
215	35.19	35.35	0.2	35.27	261,460	3,811	4,232	60.8	1.48	2.19	87.9	2.06	87.9	2.06	1.39	26.4	0.70	14.8	18.5	2.43	1.05	21.8	68	0.89	55.85	2,967	5.69E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
216	35.35	35.52	0.2	35.43	267,040	4,255	4,252	61.8	1.62	2.20	89.6	2.08	89.6	2.08	1.43	27.1	0.70	15.4	19.0	2.60	1.05	22.5	70	0.89	56.49	3,008	5.64E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
217	35.52	35.68	0.2	35.60	269,680	4,518	4,272	62.1	1.70	2.22	90.3	2.10	90.3	2.10	1.45	27.6	0.70	15.7	19.2	2.70	1.05	22.9	70	0.89	56.82	3,032	5.62E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
218	35.68	35.84	0.2	35.76	288,360	4,515	4,291	66.2	1.59	2.18	96.3	2.06	96.3	2.06	1.38	29.0	0.70	14.5	20.2	2.36	1.05	23.5	71	0.89	57.25	3,062	5.59E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
219	35.84	36.01	0.2	35.93	347,400	4,776	4,311	79.6	1.39	2.08	115.8	1.96	115.8	1.96	1.25	33.6	0.69	11.9	23.4	1.51	1.03	25.6	74	0.89	58.94	3,160	5.45E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
220	36.01	36.17	0.2	36.09	412,480	5,212	4,331	94.2	1.28	2.00	137.2	1.88	137.2	1.88	1.17	38.8	0.69	9.9	26.9	0.84	1.02	28.3	78	0.88	60.94	3,275	5.22E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
221	36.17	36.34	0.2	36.25	462,800	5,631	4,350	105.4	1.23	1.95	153.5	1.83	153.5	1.83	1.13	42.8	0.69	8.9	29.6	0.52	1.02	30.6	80	0.88	62.54	3,368	5.10E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
222	36.34	36.50	0.2	36.42	546,240	6,314	4,370	124.0	1.17	1.88	180.8	1.77	180.8	1.77	1.08	49.3	0.69	7.5	34.0	0.19	1.01	34.6	84	0.88	65.15	3,517	4.90E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
223	36.50	36.66	0.2	36.58	834,780	7,154	4,390	189.2	0.86	1.66	275.7	1.55	275.7	1.55	1.00	69.9	0.69	3.5	48.1	0.00	1.00	48.1	95	0.88	72.75	3,936	4.40E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
224	36.66	36.83	0.2	36.75	1,193,380	8,943	4,409	269.6	0.75	1.51	393.2	1.40	393.2	1.40	1.00	95.5	0.69	1.6	65.6	0.00	1.00	65.6	95	0.88	80.64	4,372	3.98E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
225	36.83	36.99	0.2	36.91	1,330,480	10,350	4,429	299.4	0.78	1.49	437.4	1.39	437.4	1.39	1.00	105.9	0.69	1.4	72.6	0.00	1.00	72.6	95	0.88	83.42	4,533	3.86E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
226	36.99	37.16	0.2	37.07	1,260,020	10,875	4,449	282.2	0.87	1.54	413.4	1.44	413.4	1.44	1.00	101.9	0.68	2.0	69.7	0.00	1.00	69.7	95	0.88	82.30	4,482	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
227	37.16	37.32	0.2	37.24	1,077,040	9,412	4,469	240.0	0.88	1.59	352.6	1.48	352.6	1.48	1.00	88.4	0.68	2.6	60.3	0.00	1.00	60.3	95	0.87	78.44	4,281	4.07E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
228	37.32	37.48	0.2	37.40	832,060	7,637	4,488	184.4	0.92	1.69	271.8	1.57	271.8	1.57	1.00	70.3	0.68	3.9	47.9	0.00	1.00	47.9	95	0.87	72.62	3,972	4.41E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
229	37.48	37.65	0.2	37.57	642,720	6,233	4,508	141.6	0.98	1.79	209.5	1.67	209.5	1.67	1.02	56.1	0.68	5.5	38.1	0.01	1.00	38.2	88	0.87	67.36	3,693	4.76E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
230	37.65	37.81	0.2	37.73	499,060	5,387	4,528	109.2	1.09	1.91	162.3	1.78	162.3	1.78	1.09	45.3	0.68	7.7	30.7	0.23	1.01	31.3	81	0.87	63.00	3,461	5.10E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
231	37.81	37.98	0.2	37.89	418,120	5,907	4,547	91.0	1.43	2.04	135.7	1.92	135.7	1.92	1.21	39.9	0.68	10.8	27.0	1.15	1.03	28.8	78	0.87	61.31	3,376	5.26E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
232	37.98	38.14	0.2	38.06	399,500	5,931	4,567	86.5	1.50	2.07	129.4	1.95	129.4	1.95	1.24	38.5	0.67	11.6	26.0	1.41	1.03	28.2	78	0.87	60.86	3,358	5.31E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
233	38.14	38.30	0.2	38.22	404,300	6,104	4,587	87.1	1.53	2.08	130.6	1.95	130.6	1.95	1.24	39.0	0.67	11.6	26.3	1.43	1.03	28.5	78	0.87	61.08	3,378	5.30E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
234	38.30	38.47	0.2	38.39	403,720	6,077	4,606	86.6	1.52	2.08	130.2	1.95	130.2	1.95	1.24	39.0	0.67	11.6	26.2	1.43	1.03	28.4	78	0.87	61.02	3,381	5.32E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
235	38.47	38.63	0.2	38.55	409,340	5,975	4,626	87.5	1.48	2.07	131.7	1.94	131.7	1.94	1.23	39.3	0.67	11.3	26.4	1.32	1.03	28.4	78	0.87	61.03	3,389	5.33E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
236	38.63	38.80	0.2	38.71	419,620	6,102	4,646	89.3	1.47	2.06	134.7	1.93	134.7	1.93	1.22	40.2	0.67	11.1	26.9	1.25	1.03	28.9	78	0.87	61.35	3,414	5.31E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
237	38.80	38.96	0.2	38.88	406,240	6,160	4,665	86.1	1.53	2.08	130.1	1.95	130.1	1.95	1.24	39.2	0.67	11.7	26.2	1.45	1.03	28.4	78	0.87	61.05	3,405	5.35E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
238	38.96	39.12	0.2	39.04	379,820	6,121	4,685	80.1	1.63	2.12	121.4	1.99	121.4	1.99	1.29	37.3	0.67	12.8	24.8	1.81	1.04	27.5	77	0.87	60.38	3,375	5.42E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
239	39.12	39.29	0.2	39.21	364,320	6,221	4,705	76.4	1.73	2.15	116.2	2.02	116.2	2.02	1.33	36.2	0.66	13.6	24.1	2.09	1.04	27.1	77	0.86	60.08	3,365	5.39E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
240	39.29	39.45	0.2	39.37	373,220	6,408	4,724	78.0	1.74	2.15	118.8	2.02	118.8	2.02	1.33	37.0	0.66	13.5	24.5	2.04	1.04	27.6	77	0.86	60.41	3,390	5.37E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
241	39.45	39.62	0.2	39.53	358,760	6,956	4,744	74.6	1.96	2.20	114.0	2.07	114.0	2.07	1.40	36.3	0.66	14.9	24.0	2.48	1.05	27.6	77	0.86	60.47	3,401	5.38E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
242	39.62	39.78	0.2	39.70	356,460	7,252	4,764	73.8	2.06	2.22	113.0	2.09	113.0	2.09	1.43	36.3	0.66	15.5	24.0	2.63	1.05	27.8	77	0.86	60.61	3,415	5.38E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
243	39.78	39.94	0.2	39.86	338,640	6,738	4,783	69.8	2.02	2.23	107.1	2.10	107.1	2.10	1.45	34.6	0.66	15.7	22.8	2.70	1.05	26.7	75	0.86	59.79	3,376	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
244	39.94	40.11	0.2	40.03	331,120	8,365	4,803	67.9	2.56	2.31	104.5	2.18	104.5	2.18	1.62	35.0	0.66	18.4	23.0	3.31	1.07	27.9	77	0.86	60.68	3,434	5.40E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
245	40.11	40.27	0.2	40.19	392,820	8,030	4,823	80.5	2.07	2.19	123.8	2.06	123.8	2.06	1.39	39.6	0.66	14.7	26.0	2.42	1.05	29.6	79	0.85	61.89	3,509	5.24E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
246	40.27	40.44	0.2	40.35	471,220	7,859	4,843	96.3	1.69	2.07	148.2	1.94	148.2	1.94	1.23	45.4	0.66	11.5	29.7	1.38	1.03	32.0	81	0.85	63.48	3,607	5.12E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
247	40.44	40.60	0.2	40.52	512,900	7,295	4,862	104.5	1.44	2.00	161.0	1.87	161.0	1.87	1.16	48.0	0.65	9.7	31.4	0.76	1.02	32.8	82	0.85	64.02	3,645	5.09E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
248	40.60	40.76	0.2	40.68	550,780	5,486	4,882	111.8	1.00	1.87	172.5	1.74	172.5	1.74	1.06	49.2	0.65	6.8	32.1	0.10	1.01	32.5	82	0.85	63.79	3,639	5.11E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
249	40.76	40.93	0.2	40.85	562,740	5,043	4,902	113.8	0.90	1.84	175.9	1.70	175.9	1.70	1.04	49.6	0.65	6.1	32.3	0.03	1.00	32.5	82	0.85	63.83	3,648	5.12E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
250	40.93	41.09	0.2	41.01	504,980	3,810	4,921	101.6	0.76	1.83	157.5	1.68	157.5	1.68	1.03	44.3	0.65	5.8	28.8	0.02	1.00	28.9	78	0.85	61.39	3,516	5.34E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
251	41.09	41.26	0.2	41.17	448,060	3,238	4,941	89.7	0.73	1.86	139.5	1.71	139.5	1.71	1.05	39.7	0.65	6.3	25.7	0.05	1.01	25.9	74	0.84	59.21	3,398	5.48E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
252	41.26	41.42	0.2	41.34	373,580	3,088	4,961	74.3	0.84	1.97	116.1	1.81	116.1	1.81	1.12	34.3	0.65	8.4	22.2	0.39	1.01	22.9	70	0.84	56.78	3,265	5.72E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
253	41.42	41.58	0.2	41.50	337,220	3,180	4,980	66.7	0.96	2.04	104.6	1.88	104.6	1.88	1.17	31.7	0.65	10.0	20.5	0.87	1.02	21.8	68	0.84	55.89	3,220	5.83E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
254	41.58	41.75	0.2	41.67	328,560	3,293	5,000	64.7	1.02	2.06	101.7	1.91	101.7	1.91	1.20	31.2	0.64	10.6	20.1	1.08	1.02	21.7	68	0.84	55.80	3,222	5.85E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
255	41.75	41.91	0.2	41.83	358,080	4,780	5,020	70.3	1.35	2.11	110.6	1.96	110.6	1.96	1.26	34.8	0.64	12.0	22.4	1.56	1.03	24.6	72	0.84	58.20	3,367	5.62E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
256	41.91	42.08	0.2	41.99	546,080	5,023	5,039	107.4	0.93	1.87	168.3	1.72	168.3	1.72	1.05	48.5	0.64	6.5	31.2	0.06	1.01	31.4	81	0.84	63.11	3,658	5.19E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
257	42.08	42.24	0.2	42.16	847,560	5,955	5,059	166.5	0.71	1.64	260.7	1.50	260.7	1.50	1.00	69.9	0.64	2.9	44.8	0.00	1.00	44.8	94	0.83	71.06	4,127	4.56E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
258	42.24	42.40	0.2	42.32	814,480	7,229	5,079	159.4	0.89	1.73	250.1	1.59	250.1	1.59	1.00	69.1	0.64	4.2	44.2	0.00	1.00	44.2	94	0.83	70.74	4,116	4.59E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
259	42.40	42.57	0.2	42.49	716,680	7,414	5,098	139.6	1.04	1.81	219.6	1.67	219.6	1.67	1.02	62.7	0.64	5.7	40.0	0.02	1.00	40.2	90	0.83	68.50	3,993	4.75E-04	1.30E-03	0.043%	0.043%	0.086%	0.0017
260	42.57	42.73	0.2	42.65	604,140	7,359	5,118	117.0	1.23	1.92	184.8	1.78	184.8	1.78	1.09	54.8	0.64	7.7	34.9	0.23	1.01	35.5	85	0.83	65.75	3,841	4.96E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
261	42.73	42.90	0.2	42.81	572,980	7,299	5,138	110.5	1.29	1.95	174.9	1.81	174.9	1.81	1.11	52.5	0.64	8.3	33.4	0.37	1.01	34.2	84	0.83	64.95	3,801	5.03E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
262	42.90	43.06	0.2	42.98	594,440	6,965	5,157	114.3	1.18	1.91	181.1	1.77	181.1	1.77	1.09	53.8	0.64	7.5	34.1	0.20	1.01	34.7	84	0.83	65.24	3,825	5.02E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
263	43.06	43.23	0.2	43.14	631,480	6,526	5,177	121.0	1.04	1.86	192.0	1.71	192.0	1.71	1.05	56.0	0.63	6.4	35.5	0.06	1.01	35.8	85	0.83	65.89	3,871	4.98E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
264	43.23	43.39	0.2	43.31	710,320	6,787	5,197	135.7	0.96	1.80	215.6	1.66	215.6	1.66	1.01	61.7	0.63	5.3	39.0	0.01	1.00	39.1	89	0.83	67.89	3,996	4.84E-04	1.30E-03	0.046%	0.046%	0.091%	0.0018
265	43.39	43.55	0.2	43.47	846,420	7,256	5,217	161.3	0.86	1.71	256.4	1.57	256.4	1.57	1.00	71.4	0.63	3.9	45.1	0.00	1.00	45.1	94	0.83	71.19	4,198	4.63E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
266	43.55	43.72	0.2	43.64	1,016,500	8,506	5,236	193.1	0.84	1.65	307.4	1.51	307.4	1.51	1.00	84.1	0.63	3.0	53.0	0.00	1.00	53.0	95	0.83	75.12	4,439	4.39E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
267	43.72	43.88	0.2	43.80	1,149,360	9,393	5,256	217.7	0.82	1.60	346.9	1.47	346.9	1.47	1.00	93.8	0.63	2.4	59.0	0.00	1.00	59.0	95	0.83	77.87	4,609	4.24E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
268	43.88	44.05	0.2	43.96	1,247,900	10,001	5,276	235.5	0.80	1.57	375.9	1.44	375.9	1.44	1.00	100.9	0.63	2.0	63.4	0.00	1.00	63.4	95	0.83	79.74	4,729	4.15E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
269	44.05	44.21	0.2	44.13	1,434,600	9,825	5,295	269.9	0.69	1.48	431.4	1.35	431.4	1.35	1.00	112.8	0.63	0.9	70.7	0.00	1.00	70.7	95	0.82	82.70	4,913	3.96E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
270	44.21	44.37	0.2	44.29	1,529,180	13,050	5,315	286.7	0.86	1.53	459.0	1.41	459.0	1.41	1.00	122.5	0.63	1.6	76.6	0.00	1.00	76.6	95	0.82	84.95	5,057	3.87E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
271	44.37	44.54	0.2	44.46	1,547,640	14,808	5,335	289.1	0.96	1.57	463.7	1.45	463.7	1.45	1.00	125.5	0.62	2.1	78.4	0.00	1.00	78.4	95	0.82	85.58	5,104	3.84E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}
272	44.54	44.70	0.2	44.62	1,547,940	14,662	5,354	288.1	0.95	1.57	462.9	1.44	462.9	1.44	1.00	125.4
273	44.70	44.87	0.2	44.78	1,491,380	12,927	5,374	276.5	0.87	1.55	445.2	1.42	445.2	1.42	1.00	120.0
274	44.87	45.03	0.2	44.95	1,211,080	12,026	5,394	223.5	1.00	1.66	360.8	1.52	360.8	1.52	1.00	100.6
275	45.03	45.19	0.2	45.11	923,860	14,667	5,413	169.7	1.60	1.89	274.8	1.76	274.8	1.76	1.08	83.1
276	45.19	45.36	0.2	45.28	763,540	11,874	5,433	139.5	1.57	1.94	226.7	1.80	226.7	1.80	1.11	69.8
277	45.36	45.52	0.2	45.44	645,820	12,041	5,453	117.4	1.88	2.05	191.4	1.91	191.4	1.91	1.20	61.4
278	45.52	45.69	0.2	45.60	612,460	11,386	5,472	110.9	1.88	2.06	181.2	1.92	181.2	1.92	1.21	58.5
279	45.69	45.85	0.2	45.77	583,740	10,515	5,492	105.3	1.82	2.07	172.4	1.93	172.4	1.93	1.21	55.8
280	45.85	46.01	0.2	45.93	565,620	9,330	5,512	101.6	1.67	2.05	166.7	1.91	166.7	1.91	1.20	53.7
281	46.01	46.18	0.2	46.10	466,580	8,511	5,531	83.3	1.85	2.15	137.3	2.00	137.3	2.00	1.29	45.8
282	46.18	46.34	0.2	46.26	415,180	8,165	5,551	73.8	1.99	2.21	121.9	2.06	121.9	2.06	1.38	41.7
283	46.34	46.51	0.2	46.42	392,700	7,739	5,571	69.5	2.00	2.23	115.1	2.07	115.1	2.07	1.41	39.7
284	46.51	46.67	0.2	46.59	380,540	7,465	5,591	67.1	1.99	2.24	111.4	2.08	111.4	2.08	1.42	38.6
285	46.67	46.83	0.2	46.75	367,160	7,003	5,610	64.4	1.94	2.24	107.3	2.08	107.3	2.08	1.43	37.3
286	46.83	47.00	0.2	46.92	351,540	6,709	5,630	61.4	1.94	2.26	102.5	2.10	102.5	2.10	1.45	35.9
287	47.00	47.16	0.2	47.08	358,660	6,731	5,650	62.5	1.91	2.25	104.4	2.09	104.4	2.09	1.43	36.5
288	47.16	47.33	0.2	47.24	398,040	8,865	5,669	69.2	2.26	2.27	115.7	2.11	115.7	2.11	1.48	40.9
289	47.33	47.49	0.2	47.41	426,500	7,514	5,689	74.0	1.79	2.17	123.7	2.02	123.7	2.02	1.32	42.2
290	47.49	47.65	0.2	47.57	365,820	6,671	5,709	63.1	1.85	2.24	105.9	2.07	105.9	2.07	1.41	37.0
291	47.65	47.82	0.2	47.74	388,060	6,278	5,728	66.7	1.64	2.18	112.2	2.02	112.2	2.02	1.33	38.5
292	47.82	47.98	0.2	47.90	362,760	5,527	5,748	62.1	1.55	2.19	104.7	2.02	104.7	2.02	1.33	36.0
293	47.98	48.15	0.2	48.06	369,140	5,984	5,768	63.0	1.65	2.20	106.4	2.04	106.4	2.04	1.35	36.8
294	48.15	48.31	0.2	48.23	369,600	6,387	5,787	62.9	1.76	2.22	106.3	2.06	106.3	2.06	1.38	37.2
295	48.31	48.47	0.2	48.39	363,660	6,596	5,807	61.6	1.84	2.24	104.4	2.08	104.4	2.08	1.41	36.9
296	48.47	48.64	0.2	48.56	347,340	6,929	5,827	58.6	2.03	2.29	99.6	2.12	99.6	2.12	1.49	35.8
297	48.64	48.80	0.2	48.72	331,960	6,715	5,846	55.8	2.06	2.31	95.0	2.14	95.0	2.14	1.53	34.5
298	48.80	48.97	0.2	48.88	332,120	6,093	5,866	55.6	1.87	2.28	94.9	2.11	94.9	2.11	1.47	34.1
299	48.97	49.13	0.2	49.05	327,420	5,670	5,886	54.6	1.76	2.27	93.4	2.10	93.4	2.10	1.45	33.5
300	49.13	49.29	0.2	49.21	337,500	5,665	5,906	56.1	1.71	2.25	96.1	2.08	96.1	2.08	1.42	34.2
301	49.29	49.46	0.2	49.38	324,340	6,883	5,925	53.7	2.16	2.33	92.2	2.16	92.2	2.16	1.58	34.0
302	49.46	49.62	0.2	49.54	304,940	7,830	5,945	50.3	2.62	2.41	86.5	2.24	86.5	2.24	1.78	33.1
303	49.62	49.79	0.2	49.70	286,800	8,604	5,965	47.1	3.06	2.48	81.3	2.31	81.3	2.31	1.99	32.1
304	49.79	49.95	0.2	49.87	271,360	9,548	5,984	44.3	3.60	2.55	76.8	2.38	76.8	2.38	2.23	31.3
305	49.95	50.11	0.2	50.03	271,180	10,012	6,004	44.2	3.78	2.56	76.6	2.40	76.6	2.40	2.30	31.5
306	50.11	50.28	0.2	50.20	250,500	10,460	6,024	40.6	4.28	2.63	40.6	2.63	40.6	2.63	unsusceptible	
307	50.28	50.44	0.2	50.36	227,480	10,632	6,043	36.6	4.80	2.69	36.6	2.69	36.6	2.69	unsusceptible	
308	50.44	50.61	0.2	50.52	222,440	10,166	6,063	35.7	4.70	2.69	35.7	2.69	35.7	2.69	unsusceptible	
309	50.61	50.77	0.2	50.69	241,900	10,239	6,083	38.8	4.34	2.64	38.8	2.64	38.8	2.64	unsusceptible	
310	50.77	50.94	0.2	50.85	255,640	10,270	6,102	40.9	4.12	2.61	40.9	2.61	40.9	2.61	unsusceptible	
311	50.94	51.10	0.2	51.02	271,920	10,413	6,122	43.4	3.92	2.58	76.0	2.41	76.0	2.41	2.36	31.8
312	51.10	51.26	0.2	51.18	290,140	10,478	6,142	46.2	3.69	2.54	81.0	2.37	81.0	2.37	2.21	33.3
313	51.26	51.43	0.2	51.35	295,140	10,263	6,161	46.9	3.55	2.52	82.3	2.36	82.3	2.36	2.14	33.6
314	51.43	51.59	0.2	51.51	311,400	10,197	6,181	49.4	3.34	2.49	86.7	2.32	86.7	2.32	2.02	34.9
315	51.59	51.76	0.2	51.67	329,740	9,952	6,201	52.2	3.08	2.45	91.6	2.28	91.6	2.28	1.88	36.3
316	51.76	51.92	0.2	51.84	323,760	9,441	6,220	51.0	2.97	2.44	89.8	2.27	89.8	2.27	1.87	35.6
317	51.92	52.08	0.2	52.00	337,160	8,560	6,240	53.0	2.59	2.39	93.4	2.22	93.4	2.22	1.71	36.2
318	52.08	52.25	0.2	52.17	372,360	7,875	6,260	58.5	2.15	2.30	103.0	2.13	103.0	2.13	1.51	38.5
319	52.25	52.41	0.2	52.33	363,600	7,690	6,280	56.9	2.15	2.31	100.4	2.14	100.4	2.14	1.53	37.8
320	52.41	52.58	0.2	52.49	339,980	7,294	6,299	53.0	2.19	2.34	93.7	2.16	93.7	2.16	1.58	35.7
321	52.58	52.74	0.2	52.66	339,120	7,480	6,319	52.7	2.25	2.35	93.3	2.17	93.3	2.17	1.60	35.7
322	52.74	52.90	0.2	52.82	350,400	7,921	6,339	54.3	2.30	2.35	96.3	2.17	96.3	2.17	1.60	36.9
323	52.90	53.07	0.2	52.99	371,040	8,682	6,358	57.4	2.38	2.34	101.8	2.17	101.8	2.17	1.59	39.0
324	53.07	53.23	0.2	53.15	371,640	9,107	6,378	57.3	2.49	2.35	101.8	2.18	101.8	2.18	1.62	39.3
325	53.23	53.40	0.2	53.31	351,300	9,002	6,398	53.9	2.61	2.39	96.1	2.21	96.1	2.21	1.70	37.6
326	53.40	53.56	0.2	53.48	322,040	8,856	6,417	49.2	2.81	2.44	88.0	2.26	88.0	2.26	1.83	35.2
327	53.56	53.72	0.2	53.64	301,300	8,958	6,437	45.8	3.04	2.48	82.2	2.31	82.2	2.31	1.97	33.6
328	53.72	53.89	0.2	53.81	272,460	9,169	6,457	41.2	3.45	2.56	74.2	2.38	74.2	2.38	2.22	31.3
329	53.89	54.05	0.2	53.97	242,440	9,367	6,476	36.4	3.97	2.64	36.4	2.64	36.4	2.64	unsusceptible	
330	54.05	54.22	0.2	54.13	236,900	10,108	6,496	35.5	4.39	2.67	35.5	2.67	35.5	2.67	unsusceptible	
331	54.22	54.38	0.2	54.30	235,220	10,844	6,516	35.1	4.74	2.70	35.1	2.70	35.1	2.70	unsusceptible	
332	54.38	54.54	0.2	54.46	247,260	10,930	6,535	36.8	4.54	2.67	36.8	2.67	36.8	2.67	unsusceptible	
333	54.54	54.71	0.2	54.63	280,140	9,969	6,555	41.7	3.64	2.57	75.7	2.39	75.7	2.39	2.27	32.4
334	54.71	54.87	0.2	54.79	317,120	8,851	6,575	47.2	2.85	2.46	85.6	2.27	85.6	2.27	1.87	34.9
335	54.87	55.04	0.2	54.95	376,940	8,000	6,594	56.2	2.16	2.32	101.6	2.13	101.6	2.13	1.52	39.1
336	55.04	55.20	0.2	55.12	453,340	7,321	6,614	67.5	1.64	2.18	122.0	1.99	122.0	1.99	1.29	44.5
337	55.20	55.36	0.2	55.28	508,560	7,156	6,634	75.7	1.43	2.10	136.6	1.92	136.6	1.92	1.20	48.4
338	55.36	55.53	0.2	55.45	545,540	6,753	6,654	81.0	1.25	2.04	146.3	1.85	146.3	1.85	1.15	50.8
339	55.53	55.69	0.2	55.61	566,700	7,644	6,673	83.9	1.36	2.06	151.8	1.87	151.8	1.87	1.16	53.1
340	55.69	55.86	0.2	55.77	576,120	8,809	6,693	85.1	1.55	2.09	154.1	1.91	154.1	1.91	1.19	54.7
341	55.86	56.02	0.2	55.94	501,240	9,461	6,713	73.7	1.91	2.20	133.9	2.01	133.9	2.01	1.32	49.6
342	56.02	56.18	0.2	56.10	454,320	9,411	6,732	66.5	2.10	2.26	121.2	2.07	121.2	2.07	1.41	46.0
343	56.18	56.35	0.2	56.27	443,160	9,714	6,752	64.6	2.23	2.28	118.0	2.10	118.0	2.10	1.46	45.3
344	56.35	56.51	0.2	56.43	437,740	9,950	6,772	63.6	2.31	2.30	116.4	2.12	116.4	2.12	1.48	45.1
345	56.51	56.68	0.2	56.59	433,860	9,394	6,791	62.9	2.20	2.29	115.2	2.10	115.2	2.10	1.46	44.4
346	56.68	56.84	0.2	56.76	431,180	9,086	6,811	62.3	2.14	2.28	114.3	2.10	114.3	2.10	1.45	44.1
347	56.84	57.00	0.2	56.92	426,780	7,861	6,831	61.5	1.87	2.25	113.0	2.06	113.0	2.06	1.38	42.9
348	57.00	57.17	0.2	57.09	418,800	8,298	6,850	60.1	2.01	2.28	110.7	2.09	110.7	2.09	1.43	42.6
349	57.17	57.33	0.2	57.25	407,760	7,889	6,870	58.4	1.97	2.28	107.6	2.09	107.6	2.09	1.43	41.5
350	57.33	57.50	0.2	57.41	401,700	8,659	6,890	57.3	2.19	2.32	105.9	2.13	105.9	2.13	1.51	41.5
351	57.50	57.66	0.2	57.58	372,000	9,178	6,909	52.8	2.51	2.38	97.9	2.19	97.9	2.19	1.65	39.5
352	57.66	57.82	0.2	57.74	351,700	9,611	6,929	49.8	2.79	2.43	92.5	2.24	92.5	2.24	1.78	38.2
353	57.82	57.99	0.2	57.91	341,000	10,499	6,949	48.1	3.14	2.48	89.5	2.29	89.5	2.29	1.92	37.8
354	57.99	58.15	0.2	58.07	345,620	11,188	6,969	48.6	3.30	2.49	90.6	2.30	90.6	2.30	1.96	38.5
355	58.15	58.32	0.2	58.23	353,940	11,610	6,988	49.6	3.35	2.49	92.6	2.30	92.6	2.30	1.96	39.4
356	58.32	58.48	0.2	58.40	354,500	11,742	7,008	49.6	3.38	2.49	92.7	2.31	92.7	2.31	1.97	39.5
357	58.48	58.65	0.2	58.56	357,000	11,693	7,028	49.8	3.34	2.49	93.2	2.30	93.2	2.30	1.95	39.7
358	58.65	58.81	0.2	58.73	364,820	11,771	7,047	50.8	3.29	2.48	95.1	2.29	95.1	2.29	1.92	40.4
359	58.81	58.97	0.2	58.89	359,300	11,542	7,067	49.8	3.28	2.48	93.5	2.29	93.5	2.29	1.93	39.8
360	58.97	59.14	0.2	59.06	346,400	11,200	7,087	47.9	3.30	2.50	90.0	2.31	90.0	2.31	1.97	38.6
361	59.14	59.30	0.2	59.22	339,080	10,556	7,106	46.7	3.18	2.49	88.0	2.30	88.0	2.30	1.95	37.7
362	59.30	59.47	0.2	59.38	343,440	10,211	7,126	47.2	3.04	2.47	89.0	2.28	89.0	2.28	1.89	37.9
363	59.47	59.63	0.2	59.55	360,920	9,916	7,146	49.5	2.80	2.44	93.4	2.24	93.4	2.24	1.78	39.2
364	59.63	59.79	0.2	59.71	370,020	9,810	7,165	50.6	2.70	2.42	95.6	2.22	95.6	2.22	1.73	39.8

LAYER NUMBER	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
272	0.62	2.1	78.2	0.00	1.00	78.2	95	0.82	85.51	5,109	3.85E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
273	0.62	1.8	74.6	0.00	1.00	74.6	95	0.82	84.21	5,040	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
274	0.62	3.2	62.5	0.00	1.00	62.5	95	0.82	79.37	4,759	4.17E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
275	0.62	7.2	51.5	0.15	1.01	52.2	95	0.81	74.73	4,489	4.38E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
276	0.62	8.1	43.2	0.33	1.01	44.1	94	0.81	70.64	4,252	4.64E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
277	0.62	10.6	37.9	1.08	1.02	39.9	89	0.81	68.35	4,121	4.81E-04	1.30E-03	0.046%	0.046%	0.091%	0.0018
278	0.62	11.0	36.1	1.19	1.03	38.2	88	0.81	67.37	4,069	4.89E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
279	0.62	11.0	34.4	1.22	1.03	36.5	86	0.81	66.34	4,014	4.97E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
280	0.61	10.6	33.0	1.06	1.02	34.9	84	0.81	65.33	3,960	5.06E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
281	0.61	12.8	28.1	1.84	1.04	30.9	80	0.80	62.79	3,813	5.20E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
282	0.61	14.5	25.5	2.35	1.05	29.0	79	0.80	61.48	3,740	5.33E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
283	0.61	15.0	24.3	2.50	1.05	28.0	77	0.80	60.70	3,699	5.40E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
284	0.61	15.3	23.6	2.57	1.05	27.3	77	0.80	60.23	3,677	5.46E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
285	0.61	15.3	22.7	2.59	1.05	26.5	75	0.80	59.59	3,644	5.52E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
286	0.61	15.8	21.8	2.70	1.05	25.7	74	0.80	59.02	3,616	5.59E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
287	0.61	15.4	22.1	2.62	1.05	25.9	74	0.80	59.16	3,631	5.58E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
288	0.61	16.1	24.8	2.80	1.05	28.9	78	0.79	61.40	3,775	5.32E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
289	0.60	13.4	25.5	2.01	1.04	28.5	78	0.79	61.11	3,763	5.36E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
290	0.60	15.0	22.4	2.51	1.05	25.9	74	0.79	59.21	3,652	5.54E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
291	0.60	13.5	23.2	2.04	1.04	26.1	75	0.79	59.34	3,667	5.53E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
292	0.60	13.6	21.7	2.07	1.04	24.6	72	0.79	58.15	3,600	5.66E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
293	0.60	14.0	22.1	2.19	1.04	25.2	74	0.79	58.66	3,638	5.62E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
294	0.60	14.5	22.3	2.36	1.05	25.6	74	0.78	58.98	3,663	5.53E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
295	0.60	15.1	22.1	2.53	1.05	25.7	74	0.78	58.99	3,671	5.53E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
296	0.60	16.5	21.4	2.88	1.06	25.5	74	0.78	58.87	3,669	5.56E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
297	0.60	17.0	20.6	3.02	1.06	24.8	72	0.78	58.36	3,643	5.61E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
298	0.60	16.1	20.3	2.80	1.05	24.2	72	0.78	57.86	3,619	5.67E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
299	0.59	15.7	19.9	2.70	1.05	23.6	71	0.78	57.39	3,595	5.73E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
300	0.59	15.2	20.3	2.55	1.05	23.9	71	0.77	57.58	3,613	5.64E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
301	0.59	17.8	20.2	3.19	1.07	24.7	72	0.77	58.23	3,660	5.59E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
302	0.59	20.5	19.6	3.70	1.08	24.9	72	0.77	58.39	3,676	5.58E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
303	0.59	23.0	18.9	4.05	1.10	24.9	72	0.77	58.39	3,682	5.59E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
304	0.59	25.6	18.4	4.35	1.12	25.0	72	0.77	58.47	3,693	5.60E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
305	0.59	26.3	18.5	4.41	1.12	25.3	74	0.77	58.67	3,712	5.59E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
306	0.59	36.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
307	0.59	40.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
308	0.59	40.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
309	0.58	37.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
310	0.58	35.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
311	0.58	26.9	18.5	4.47	1.13	25.4	74	0.76	58.77	3,754	5.56E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
312	0.58	25.3	19.4	4.32	1.12	26.0	74	0.76	59.24	3,791	5.52E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
313	0.58	24.7	19.5	4.25	1.11	26.0	74	0.76	59.25	3,797	5.53E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
314	0.58	23.3	20.3	4.10	1.10	26.5	75	0.76	59.59	3,825	5.51E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
315	0.58	21.7	21.0	3.89	1.09	26.8	75	0.76	59.88	3,850	5.49E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
316	0.58	21.5	20.6	3.86	1.09	26.3	75	0.76	59.47	3,829	5.54E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
317	0.58	19.6	20.9	3.54	1.08	26.0	75	0.76	59.27	3,823	5.56E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
318	0.58	16.7	22.2	2.94	1.06	26.5	75	0.76	59.59	3,850	5.54E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
319	0.58	17.0	21.7	3.00	1.06	26.0	75	0.76	59.27	3,835	5.58E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
320	0.57	17.8	20.5	3.18	1.06	25.0	74	0.76	58.49	3,790	5.66E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
321	0.57	18.1	20.5	3.25	1.07	25.1	74	0.76	58.57	3,802	5.67E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
322	0.57	18.0	21.1	3.24	1.07	25.8	74	0.76	59.08	3,841	5.63E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
323	0.57	17.8	22.3	3.20	1.07	26.9	75	0.76	59.96	3,904	5.55E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
324	0.57	18.3	22.4	3.30	1.07	27.3	77	0.76	60.19	3,925	5.54E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
325	0.57	19.4	21.4	3.50	1.08	26.6	75	0.76	59.68	3,897	5.60E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
326	0.57	21.1	20.0	3.79	1.09	25.6	74	0.76	58.92	3,854	5.68E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
327	0.57	22.7	19.1	4.03	1.10	25.0	72	0.76	58.48	3,831	5.73E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
328	0.57	25.5	17.8	4.34	1.12	24.2	72	0.76	57.87	3,797	5.80E-04	2.00E-03	0.168%	0.168%	0.336%	0.0066
329	0.57	37.2	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
330	0.57	39.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
331	0.57	40.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
332	0.56	39.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.76	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
333	0.56	25.9	18.2	4.38	1.12	24.9	72	0.76	58.37	3,859	5.79E-04	2.00E-03	0.168%	0.168%	0.336%	0.0066
334	0.56	21.6	19.6	3.86	1.09	25.2	74	0.76	58.66	3,884	5.77E-04	2.00E-03	0.160%	0.160%	0.320%	0.0063
335	0.56	16.9	22.0	2.98	1.06	26.2	75	0.76	59.44	3,941	5.70E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
336	0.56	12.8	24.9	1.81	1.04	27.6	77	0.70	60.47	4,015	5.17E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
337	0.56	10.8	27.1	1.13	1.03	28.9	78	0.70	61.41	4,084	5.10E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
338	0.56	9.3	28.4	0.65	1.02	29.6	79	0.70	61.86	4,120	5.07E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
339	0.56	9.7	29.6	0.77	1.02	31.0	81	0.70	62.83	4,191	5.00E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
340	0.56	10.5	30.5	1.05	1.02	32.3	82	0.70	63.67	4,253	4.94E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
341	0.56	13.4	27.6	2.00	1.04	30.7	80	0.70	62.61	4,188	5.03E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
342	0.56	15.0	25.6	2.51	1.05	29.3	79	0.70	61.67	4,131	5.12E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
343	0.56	15.8	25.2	2.72	1.05	29.2	79	0.70	61.60	4,133	5.13E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
344	0.55	16.3	25.0	2.84	1.06	29.2	79	0.70	61.60	4,139	5.14E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
345	0.55	15.9	24.6	2.75	1.05	28.7	78	0.70	61.20	4,118	5.18E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
346	0.55	15.7	24.3	2.69	1.05	28.3	78	0.70	60.96	4,108	5.21E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
347	0.55	14.6	23.7	2.37	1.05	27.1	77	0.70	60.11	4,056	5.29E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
348	0.55	15.4	23.5	2.61	1.05	27.3	77	0.70	60.21	4,069	5.29E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
349	0.55	15.5	22.8	2.62	1.05	26.6	75	0.70	59.72	4,042	5.34E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
350	0.55	16.6	22.8	2.93	1.06	27.1	77	0.70	60.06	4,070	5.31E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
351	0.55	18.8	21.7	3.39	1.07	26.6	75	0.70	59.73	4,054	5.35E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
352	0.55	20.5	20.9	3.70	1.08	26.3	75	0.70	59.51	4,045	5.38E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
353	0.55	22.2	20.7	3.96	1.09	26.6	75	0.70	59.70	4,063	5.37E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
354	0.55	22.7	21.0	4.02	1.10	27.1	77	0.70	60.09	4,096	5.34E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
355	0.55	22.6	21.5	4.01	1.10	27.6	77	0.70	60.45	4,126	5.32E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
356	0.54	22.7	21.5	4.03	1.10	27.7	77	0.70	60.50	4,135	5.32E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
357	0.54	22.5	21.6	4.00	1.10	27.7	77	0.70	60.51	4,142	5.33E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
358	0.54	22.1	21.9	3.95	1.09	28.0	77	0.70	60.70	4,160	5.32E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
359	0.54	22.3	21.6	3.96	1.10	27.6	77	0.70	60.46	4,150	5.35E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
360	0.54	22.8	20.9	4.03	1.10	27.0	77	0.70	60.01	4,125	5.39E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
361	0.54	22.6	20.4	4.00	1.10	26.4	75	0.70	59.54	4,098	5.44E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
362	0.54	21.9	20.5	3.91	1.09	26.3	75	0.70	59.46	4,098	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
363	0.54	20.5	21.1	3.69	1.08	26.6	75	0.70	59.67	4,119	5.45E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
364	0.54	19.8	21.5	3.58	1.08	26.7	75	0.70	59.79	4,132	5.44E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
													TOTAL SETTLEMENT (INCHES):			0.92

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
© 1993 by Marshall Lew (rev. 2005)

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft): 15.0
IDENTIFICATION: CPT-6
TOTAL DRY SETTLEMENT (IN.): 0.66

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	15.01	15.17	0.2	15.09	220,940	1,820	1,811	121.0	0.83	1.80	113.6	1.82	113.6	1.82	1.12	20.3	1.07	8.5	21.8	0.41	1.01	22.5	70	0.97	56.45	1,961	4.02E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
94	15.17	15.34	0.2	15.26	240,980	1,656	1,831	130.6	0.69	1.72	123.2	1.74	123.2	1.74	1.06	21.5	1.07	6.9	23.0	0.11	1.01	23.3	71	0.97	57.09	1,994	3.99E-04	1.40E-03	0.123%	0.123%	0.246%	0.0049
95	15.34	15.50	0.2	15.42	319,960	1,812	1,850	171.9	0.57	1.57	162.8	1.59	162.8	1.59	1.00	27.2	1.06	4.2	28.8	0.00	1.00	28.8	78	0.97	61.34	2,154	3.74E-04	1.20E-03	0.082%	0.082%	0.163%	0.0032
96	15.50	15.67	0.2	15.58	453,780	1,893	1,870	241.7	0.42	1.37	229.6	1.39	229.6	1.39	1.00	36.2	1.05	1.4	38.2	0.00	1.00	38.2	88	0.97	67.33	2,377	3.42E-04	9.20E-04	0.034%	0.034%	0.068%	0.0013
97	15.67	15.83	0.2	15.75	552,980	2,232	1,890	291.6	0.41	1.30	278.3	1.32	278.3	1.32	1.00	43.1	1.05	0.6	45.2	0.00	1.00	45.2	94	0.97	71.24	2,529	3.25E-04	8.50E-04	0.017%	0.017%	0.034%	0.0007
98	15.83	15.99	0.2	15.91	556,400	2,718	1,909	290.4	0.49	1.36	278.6	1.37	278.6	1.37	1.00	44.1	1.04	1.2	46.0	0.00	1.00	46.0	94	0.97	71.66	2,557	3.25E-04	7.50E-04	0.015%	0.015%	0.030%	0.0006
99	15.99	16.16	0.2	16.08	495,380	2,793	1,929	255.8	0.57	1.44	246.8	1.45	246.8	1.45	1.00	40.2	1.04	2.2	41.8	0.00	1.00	41.8	91	0.97	69.40	2,489	3.37E-04	7.50E-04	0.023%	0.023%	0.045%	0.0009
100	16.16	16.32	0.2	16.24	398,880	2,848	1,949	203.7	0.72	1.58	197.7	1.59	197.7	1.59	1.00	33.9	1.03	4.2	35.0	0.00	1.00	35.0	85	0.97	65.45	2,359	3.59E-04	8.50E-04	0.038%	0.038%	0.077%	0.0015
101	16.32	16.49	0.2	16.40	347,940	2,858	1,969	175.8	0.83	1.67	171.6	1.68	171.6	1.68	1.02	30.5	1.03	5.7	31.3	0.02	1.00	31.4	81	0.97	63.13	2,287	3.74E-04	1.00E-03	0.057%	0.057%	0.114%	0.0022
102	16.49	16.65	0.2	16.57	363,160	3,270	1,988	181.7	0.91	1.69	178.2	1.69	178.2	1.69	1.03	32.0	1.02	6.0	32.7	0.03	1.00	32.9	82	0.97	64.07	2,333	3.71E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
103	16.65	16.81	0.2	16.73	416,180	4,476	2,008	206.3	1.08	1.71	203.2	1.71	203.2	1.71	1.04	36.8	1.02	6.3	37.5	0.05	1.01	37.7	87	0.97	67.09	2,454	3.56E-04	8.50E-04	0.033%	0.033%	0.066%	0.0013
104	16.81	16.98	0.2	16.90	478,360	5,671	2,028	234.9	1.19	1.70	232.5	1.70	232.5	1.70	1.04	42.2	1.01	6.2	42.8	0.04	1.01	43.0	93	0.97	70.08	2,576	3.42E-04	8.50E-04	0.020%	0.020%	0.041%	0.0008
105	16.98	17.14	0.2	17.06	501,340	6,593	2,047	243.9	1.32	1.72	242.5	1.72	242.5	1.72	1.05	44.6	1.01	6.6	44.9	0.07	1.01	45.3	94	0.97	71.31	2,635	3.38E-04	8.50E-04	0.017%	0.017%	0.034%	0.0007
106	17.14	17.31	0.2	17.22	505,040	6,110	2,067	243.3	1.21	1.70	243.1	1.70	243.1	1.70	1.04	44.5	1.00	6.0	44.6	0.03	1.00	44.9	94	0.96	71.07	2,638	3.37E-04	7.50E-04	0.017%	0.017%	0.033%	0.0006
107	17.31	17.47	0.2	17.39	514,480	5,999	2,087	245.6	1.17	1.68	246.4	1.68	246.4	1.68	1.02	45.1	1.00	5.7	45.0	0.02	1.00	45.2	94	0.96	71.23	2,657	3.38E-04	8.50E-04	0.017%	0.017%	0.034%	0.0007
108	17.47	17.63	0.2	17.55	584,500	5,391	2,106	276.5	0.93	1.57	278.7	1.57	278.7	1.57	1.00	49.3	0.99	3.8	49.0	0.00	1.00	49.0	95	0.96	73.18	2,742	3.31E-04	7.50E-04	0.012%	0.012%	0.024%	0.0005
109	17.63	17.80	0.2	17.72	751,880	5,261	2,126	352.7	0.70	1.41	356.8	1.41	356.8	1.41	1.00	60.2	0.99	1.6	59.6	0.00	1.00	59.6	95	0.96	78.10	2,940	3.11E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
110	17.80	17.96	0.2	17.88	969,540	5,398	2,146	450.9	0.56	1.26	458.0	1.26	458.0	1.26	1.00	74.2	0.98	0.0	73.1	0.00	1.00	73.1	95	0.96	83.63	3,163	2.92E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
111	17.96	18.13	0.2	18.04	1,126,380	6,761	2,165	519.2	0.60	1.25	529.7	1.25	529.7	1.25	1.00	85.9	0.98	0.0	84.2	0.00	1.00	84.2	95	0.96	87.66	3,331	2.80E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
112	18.13	18.29	0.2	18.21	1,074,380	7,052	2,185	490.7	0.66	1.30	502.9	1.29	502.9	1.29	1.00	83.0	0.98	0.3	81.0	0.00	1.00	81.0	95	0.96	86.54	3,303	2.85E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
113	18.29	18.45	0.2	18.37	1,068,420	7,872	2,205	483.6	0.74	1.34	497.9	1.33	497.9	1.33	1.00	83.7	0.97	0.8	81.3	0.00	1.00	81.3	95	0.96	86.63	3,321	2.86E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
114	18.45	18.62	0.2	18.54	1,127,240	7,940	2,224	505.8	0.71	1.31	523.0	1.31	523.0	1.31	1.00	87.5	0.97	0.5	84.6	0.00	1.00	84.6	95	0.96	87.81	3,382	2.83E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
115	18.62	18.78	0.2	18.70	1,271,740	8,277	2,244	565.7	0.65	1.26	587.4	1.25	587.4	1.25	1.00	97.1	0.96	0.0	93.4	0.00	1.00	93.4	95	0.96	90.76	3,510	2.75E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
116	18.78	18.95	0.2	18.86	1,191,200	8,289	2,264	525.2	0.70	1.30	547.8	1.29	547.8	1.29	1.00	92.0	0.96	0.3	88.2	0.00	1.00	88.2	95	0.96	89.04	3,459	2.82E-04	5.20E-04	0.007%	0.007%	0.015%	0.0003
117	18.95	19.11	0.2	19.03	993,160	7,454	2,283	433.9	0.75	1.38	454.8	1.36	454.8	1.36	1.00	78.5	0.95	1.1	74.9	0.00	1.00	74.9	95	0.96	84.31	3,290	2.99E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
118	19.11	19.27	0.2	19.19	904,220	6,574	2,303	391.6	0.73	1.39	412.3	1.38	412.3	1.38	1.00	71.8	0.95	1.3	68.2	0.00	1.00	68.2	95	0.96	81.73	3,202	3.10E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
119	19.27	19.44	0.2	19.36	883,260	7,364	2,323	379.3	0.84	1.45	401.0	1.43	401.0	1.43	1.00	71.3	0.95	1.9	67.5	0.00	1.00	67.5	95	0.96	81.44	3,205	3.12E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
120	19.44	19.60	0.2	19.52	913,820	7,648	2,343	389.1	0.84	1.44	413.1	1.43	413.1	1.43	1.00	73.7	0.94	1.9	69.4	0.00	1.00	69.4	95	0.96	82.19	3,248	3.11E-04	5.70E-04	0.008%	0.008%	0.016%	0.0003
121	19.60	19.77	0.2	19.69	876,120	7,414	2,362	369.9	0.85	1.46	394.4	1.44	394.4	1.44	1.00	71.0	0.94	2.1	66.6	0.00	1.00	66.6	95	0.96	81.07	3,217	3.16E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
122	19.77	19.93	0.2	19.85	834,920	6,680	2,382	349.5	0.80	1.46	374.3	1.44	374.3	1.44	1.00	67.5	0.93	2.0	63.1	0.00	1.00	63.1	95	0.96	79.62	3,173	3.23E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
123	19.93	20.10	0.2	20.01	803,940	6,546	2,402	333.8	0.82	1.48	359.0	1.46	359.0	1.46	1.00	65.4	0.93	2.2	60.8	0.00	1.00	60.8	95	0.96	78.66	3,148	3.29E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
124	20.10	20.26	0.2	20.18	791,240	6,024	2,421	325.8	0.76	1.46	351.9	1.44	351.9	1.44	1.00	64.0	0.93	2.0	59.3	0.00	1.00	59.3	95	0.95	78.00	3,134	3.29E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
125	20.26	20.42	0.2	20.34	846,580	6,590	2,441	345.8	0.78	1.45	374.9	1.43	374.9	1.43	1.00	68.3	0.92	1.9	63.0	0.00	1.00	63.0	95	0.95	79.59	3,211	3.24E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
126	20.42	20.59	0.2	20.51	839,800	6,085	2,461	340.3	0.73	1.43	370.5	1.41	370.5	1.41	1.00	67.3	0.92	1.6	61.9	0.00	1.00	61.9	95	0.95	79.09	3,204	3.27E-04	7.10E-04	0.010%	0.010%	0.020%	0.0004
127	20.59	20.75	0.2	20.67	695,680	4,692	2,480	279.5	0.68	1.47	305.7	1.44	305.7	1.44	1.00	56.3	0.92	2.0	51.6	0.00	1.00	51.6	95	0.95	74.44	3,027	3.49E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
128	20.75	20.92	0.2	20.83	527,040	3,872	2,500	209.8	0.74	1.58	230.6	1.55	230.6	1.55	1.00	44.2	0.91	3.6	40.3	0.00	1.00	40.3	90	0.95	68.59	2,800	3.80E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
129	20.92	21.08	0.2	21.00	434,580	4,280	2,520	171.5	0.99	1.73	189.4	1.70	189.4	1.70	1.04	38.4	0.91	6.2	34.9	0.04	1.01	35.1	85	0.95	65.47	2,683	4.00E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
130	21.08	21.24	0.2	21.16	384,240	4,676	2,539	150.3	1.22	1.84	166.8	1.81	166.8	1.81	1.11	35.2	0.91	8.3	31.8	0.37	1.01	32.7	82	0.95	63.93	2,630	4.11E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
131	21.24	21.41	0.2	21.33	343,120	4,967	2,559	133.1	1.46	1.93	148.4	1.90	148.4	1.90	1.19	32.5	0.90	10.3	29.3	0.98	1.02	30.9	80	0.95	62.78	2,593	4.20E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
132	21.41	21.57	0.2	21.49	319,100	4,627	2,579	122.7	1.46	1.96	137.5	1.92	137.5	1.92	1.21	30.5	0.90	10.9	27.4	1.18	1.03	29.3	79	0.95	61.62	2,555	4.30E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
133	21.57	21.74	0.2	21.65	304,740	4,301	2,598	116.3	1.42	1.96	130.8	1.93	130.8	1.93	1.22	29.2	0.89	11.1	26.1	1.24	1.03	28.0	78	0.95	60.76	2,529	4.38E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
134	21.74	21.90	0.2	21.82	305,560	3,755	2,618	115.7	1.24	1.92	130.7	1.89	130.7	1.89	1.18	28.8	0.89	10.1	25.7	0.89	1.02	27.1	77	0.95	60.09	2,510	4.44E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
135	21.90	22.06	0.2	21.98	306,480	3,994	2,638	115.2	1.31	1.94	130.6	1.90	130.6	1.90	1.19	29.1	0.89	10.5	25.8	1.04	1.02	27.5	77	0.95	60.35	2,531	4.44E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
136	22.06	22.23	0.2	22.15	299,200	4,365	2,657	111.6	1.47	1.99	127.0	1.95	127.0	1.95	1.24	28.8	0.88	11.6	25.5	1.41	1.03	27.7	77	0.95	60.50	2,546	4.45E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
137	22.23	22.39	0.2	22.31	297,200	5,078	2,677	110.0	1.72	2.04	125.7	2.00	125.7	2.00	1.30	29.2	0.88	13.0	25.8	1.87	1.04	28.6	78	0.95	61.15	2,583	4.42E-04	1.45E-03	0.099%	0.099%	0.197%	0.0039
138	22.39	22.56	0.2	22.47	300,760	5,515	2,697	110.5	1.85	2.06	126.7	2.02	126.7	2.02	1.33	29.8	0.88	13.5	26.2	2.05	1.04	29.3	79	0.95	61.63	2,613	4.40E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
139	22.56	22.72	0.2	22.64	314,220	5,677	2,717	114.7	1.82	2.05	131.9	2.00	131.9	2.00	1.30	30.9	0.88	13.0	27.1	1.90	1.04	30.0	79	0.95	62.14	2,644	4.38E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
140	22.72	22.88	0.2	22.80	325,880	5,353	2,736	118.1	1.66	2.01	136.3	1.96	136.3	1.96	1.25	31.6	0.87	12.0	27.6	1.55	1.03	30.0	79	0.95	62.12	2,653	4.39E-04	1.45E-03	0.093%	0.093%	0.186%	0.0037
141	22.88	23.05	0.2	22.97	343,160	4,896	2,756	123.5	1.44	1.95	143.0	1.90	143.0	1.90	1.19	32.6	0.87	10.5	28.3	1.04	1.02	30.0	79	0.95	62.14	2,664	4.41E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
142	23.05	23.21	0.2	23.13	416,600	5,611	2,776	149.1	1.36	1.87	173.0	1.83	173.0	1.83	1.13	38.4	0.87	8.8	33.3	0.49	1.02	34.3	84	0.95	64.98	2,795	4.23E-04	9.20E-04	0.044%	0.044%	0.088%	0.0017
143	23.21	23.38	0.2	23.29	524,240	6,709	2,795	186.5	1.29	1.79	217.0	1.75	217.0	1.75	1.07	47.0	0.86	7.0	40.5	0.12	1.01	41.0	91	0.95	68.97	2,977	4.00E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
144	23.38	23.54	0.2	23.46	484,620	6,282	2,815	171.2	1.30	1.82	199.9	1.77	199.9	1.77	1.09	43.9	0.86	7.6	37.7	0.22	1.01	38.3	88	0.95	67.44	2,921	4.11E-04	9.20E-04	0.034%	0.034%	0.068%	0.0013
145	23.54	23.70	0.2	23.62	453,240	4,700	2,835	158.9	1.04	1.77	186.3	1.72	186.3	1.72	1.05	40.3	0.86	6.6	34.5	0.07	1.01	34.8	84	0.95	65.32	2,840	4.25E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
146	23.70	23.87	0.2	23.79	512,560	3,938	2,854	178.6	0.77	1.65	209.9	1.60	209.9	1.60	1.00	43.6	0.85	4.3	37.2	0.00	1.00	37.2	87	0.95	66.79	2,913	4.17E-04	9.20E-04	0.036%	0.036%	0.072%	0.0014
147	23.87	24.03	0.2	23.95	465,560	3,532	2,874	161.0	0.76	1.68	190.0	1.62	190.0	1.62	1.00	40.0	0.85	4.7	34.0	0.00	1.00	34.0	84	0.95	64.81	2,837	4.32E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
148	24.03	24.20	0.2	24.11	391,940	3,162	2,894	134.4	0.81	1.75	159.4	1.70	159.4	1.70	1.04	34.5	0.85	6.1	29.3	0.03	1.00	29.5	79	0.94	61.77	2,713	4.50E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
149	24.20	24.36	0.2	24.28	334,400	3,295	2,913	113.8	0.99	1.87	135.6	1.81	135.6	1.81	1.11	30.6	0.84	8.3	25.9	0.37	1.01	26.6	75	0.94	59.72	2,632	4.67E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
150	24.36	24.52	0.2	24.44	292,280	3,725	2,933	98.6	1.29	1.99	118.1	1.93	118.1	1.93	1.22	28.0	0.84	11.1	23.6	1.25	1.03	25.5	74	0.94	58.83	2,601	4.75E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
151	24.52	24.69	0.2	24.61	278,680	4,386	2,953	93.4	1.59	2.07	112.2	2.01	112.2	2.01	1.31	27.5	0.84	13.2	23.1	1.95	1.04	25.9	74	0.94	59.19	2,626	4.74E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
152	24.69	24.85	0.2	24.77	269,540	5,131	2,972	89.7	1.92	2.14	108.2	2.08	108.2	2.08	1.42	27.3	0.84	15.2	22.9	2.55	1.05	26.6	75	0.94	59.67	2,656	4.72E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
153	24.85	25.02	0.2	24.93	264,000	5,888	2,992	87.2	2.26	2.19	105.6	2.14	105.6	2.14	1.53	27.4	0.83	17.0	22.9	3.00	1.06	27.2	77	0.94	60.16	2,687	4.69E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
154	25.02	25.18	0.2	25.10	264,620	6,237	3,012	86.9	2.38	2.21	105.5	2.16	105.5	2.16	1.56	27.7	0.83	17.5	23.0	3.13	1.06	27.6	77	0.94	60.43	2,708	4.69E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
155	25.18	25.34	0.2	25.26	273,340	6,398	3,031	89.2	2.37	2.20	108.6	2.14	108.6	2.14	1.54	28.5	0.83	17.2	23.6	3.05	1.06	28.1	78	0.94	60.78	2,733	4.68E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
156	25.34	25.51	0.2	25.43	302,900	6,055	3,051	98.3	2.02	2.12	120.0	2.06	120.0	2.06	1.39	30.5	0.83	14.7	25.2	2.43	1.05	28.8	78	0.94	61.32	2,766	4.65E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
157	25.51	25.67	0.2	25.59	310,540	5,884	3,071	100.1	1.91	2.10	122.6	2.04	122.6	2.04	1.36	31.0	0.82	14.1	25.5	2.23	1.04	28.9	78	0.94	61.34	2,776	4.66E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
158	25.67	25.84	0.2	25.75	294,060	5,837	3,091	94.1	2.01	2.13	115.7	2.07	115.7	2.07	1.41	29.8	0.82	15.0	24.4	2.50	1.05	28.1	78	0.94	60.79	2,759	4.72E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
159	25.84	26.00	0.2	25.92	299,080	5,775	3,110	95.2	1.95	2.12	117.3	2.06	117.3	2.06	1.39	30.1	0.82	14.6	24.6	2.39	1.05	28.1	78	0.94	60.83	2,770	4.73E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
160	26.00	26.16	0.2	26.08	297,780	5,542	3,130	94.1	1.88	2.11	116.5	2.05	116.5	2.05	1.37	29.9	0.82	14.3	24.3	2.31	1.04	27.7	77	0.94	60.54	2,765	4.77E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
161	26.16	26.33	0.2	26.25	299,320	5,278	3,150	94.0	1.78	2.10	116.7	2.03	116.7	2.03	1.35	29.8	0.81	13.8	24.2	2.16	1.04	27.4	77	0.94	60.29	2,763	4.81E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
162	26.33	26.49	0.2	26.41	305,980	5,123	3,169	95.5	1.69	2.08	118.9	2.01	118.9	2.01	1.31	30.2	0.81	13.2	24.5	1.97	1.04	27.4	77	0.94	60.28	2,771	4.82E-04	1.50E-03	0.108%	0.108%	0.216%	0.0043
163	26.49	26.66	0.2	26.57	295,760	4,200	3,189	91.7	1.44	2.04	114.6	1.97	114.6	1.97	1.26	28.8	0.81	12.2	23.2	1.62	1.03	25.6	74	0.94	58.95	2,718	4.95E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
164	26.66	26.82	0.2	26.74	301,440	3,664	3,209	92.9	1.23	1.99	116.4	1.92	116.4	1.92	1.21	28.8	0.81	10.9	23.2	1.17	1.03	24.9	72	0.94	58.42	2,702	5.01E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
165	26.82	26.98	0.2	26.90	307,140	3,398	3,228	94.1	1.12	1.96	118.3	1.89	118.3	1.89	1.18	29.0	0.80	10.1	23.2	0.90	1.02	24.6	72	0.94	58.20	2,700	5.04E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
166	26.98	27.15	0.2	27.07	308,460	3,426	3,248	94.0	1.12	1.96	118.4	1.89	118.4	1.89	1.18	29.1	0.80	10.1	23.3	0.90	1.02	24.7	72	0.94	58.24	2,710	5.05E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
167	27.15	27.31	0.2	27.23	303,220	3,688	3,268	91.8	1.23	2.00	116.1	1.92	116.1	1.92	1.21	28.9	0.80	10.9	23.1	1.18	1.03	24.9	72	0.93	58.38	2,725	5.00E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
168	27.31	27.48	0.2	27.40	300,800	3,101	3,287	90.5	1.04	1.96	114.8	1.88	114.8	1.88	1.17	28.2	0.80	9.8	22.5	0.81	1.02	23.7	71	0.93	57.49	2,691	5.10E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
169	27.48	27.64	0.2	27.56	314,560	2,856	3,307	94.1	0.92	1.91	119.7	1.83	119.7	1.83	1.13	29.0	0.79	8.7	23.0	0.47	1.02	23.8	71	0.93	57.56	2,703	5.10E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
170	27.64	27.81	0.2	27.72	319,960	2,636	3,327	95.2	0.83	1.88	121.4	1.79	121.4	1.79	1.10	29.2	0.79	8.0	23.1	0.30	1.01	23.7	71	0.93	57.41	2,704	5.13E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
171	27.81	27.97	0.2	27.89	369,840	3,252	3,346	109.5	0.89	1.85	139.9	1.77	139.9	1.77	1.08	33.4	0.79	7.4	26.3	0.18	1.01	26.8	75	0.93	59.82	2,825	4.94E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
172	27.97	28.13	0.2	28.05	444,260	3,139	3,366	131.0	0.71	1.73	167.6	1.64	167.6	1.64	1.00	38.4	0.79	5.1	30.2	0.00	1.00	30.3	80	0.93	62.32	2,952	4.76E-04	1.50E-03	0.090%	0.090%	0.180%	0.0035

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	415,200	2,860	3,386	121.6	0.69	1.75	156.1	1.66	156.1	1.66	1.01	36.1	0.78	5.4	28.3	0.01	1.00	28.4	78	0.93	61.01	2,899	4.87E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
174	28.30	28.46	0.2	28.38	388,400	2,395	3,406	113.1	0.62	1.74	145.6	1.65	145.6	1.65	1.01	33.7	0.78	5.3	26.3	0.01	1.00	26.4	75	0.93	59.56	2,838	5.01E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
175	28.46	28.63	0.2	28.54	308,480	2,006	3,425	89.1	0.66	1.84	115.3	1.75	115.3	1.75	1.07	27.7	0.78	7.1	21.6	0.13	1.01	21.9	68	0.93	55.94	2,673	5.34E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
176	28.63	28.79	0.2	28.71	253,680	1,260	3,445	72.6	0.50	1.85	94.6	1.76	94.6	1.76	1.08	22.8	0.78	7.2	17.7	0.15	1.01	18.0	63	0.93	52.45	2,514	5.72E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
177	28.79	28.95	0.2	28.87	206,660	1,076	3,465	58.6	0.53	1.95	76.8	1.84	76.8	1.84	1.14	19.2	0.77	9.1	14.9	0.58	1.02	15.7	57	0.93	50.08	2,407	6.00E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
178	28.95	29.12	0.2	29.04	190,060	1,692	3,484	53.5	0.91	2.10	70.5	2.00	70.5	2.00	1.31	18.7	0.77	13.1	14.5	1.91	1.04	16.9	60	0.93	51.34	2,475	5.87E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
179	29.12	29.28	0.2	29.20	231,480	2,097	3,504	65.1	0.92	2.04	85.6	1.94	85.6	1.94	1.23	22.3	0.77	11.4	17.1	1.35	1.03	19.0	63	0.93	53.35	2,579	5.67E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
180	29.28	29.45	0.2	29.36	448,300	2,379	3,524	126.2	0.53	1.67	165.3	1.57	165.3	1.57	1.00	37.8	0.77	3.9	29.1	0.00	1.00	29.1	79	0.93	61.50	2,981	4.93E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
181	29.45	29.61	0.2	29.53	678,460	3,235	3,543	190.5	0.48	1.49	249.4	1.40	249.4	1.40	1.00	54.2	0.77	1.5	41.6	0.00	1.00	41.6	91	0.93	69.27	3,367	4.39E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
182	29.61	29.77	0.2	29.69	756,960	2,954	3,563	211.5	0.39	1.40	277.5	1.31	277.5	1.31	1.00	58.8	0.76	0.5	45.0	0.00	1.00	45.0	94	0.93	71.11	3,466	4.29E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
183	29.77	29.94	0.2	29.86	756,840	3,142	3,583	210.2	0.42	1.42	276.7	1.33	276.7	1.33	1.00	59.1	0.76	0.7	45.1	0.00	1.00	45.1	94	0.93	71.17	3,478	4.30E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
184	29.94	30.10	0.2	30.02	672,460	3,941	3,602	185.7	0.59	1.56	245.2	1.47	245.2	1.47	1.00	54.9	0.76	2.4	41.7	0.00	1.00	41.7	91	0.93	69.35	3,399	4.42E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
185	30.10	30.27	0.2	30.18	553,660	3,381	3,622	151.9	0.61	1.64	201.3	1.54	201.3	1.54	1.00	46.3	0.76	3.4	35.1	0.00	1.00	35.1	85	0.92	65.47	3,217	4.65E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
186	30.27	30.43	0.2	30.35	430,200	3,293	3,642	117.1	0.77	1.79	156.0	1.69	156.0	1.69	1.03	37.8	0.76	5.9	28.6	0.03	1.00	28.7	78	0.92	61.25	3,018	4.98E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
187	30.43	30.59	0.2	30.51	376,480	3,609	3,661	101.8	0.97	1.90	136.1	1.80	136.1	1.80	1.11	34.4	0.75	8.1	25.9	0.32	1.01	26.6	75	0.92	59.69	2,949	5.12E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
188	30.59	30.76	0.2	30.68	345,340	3,937	3,681	92.8	1.15	1.97	124.5	1.88	124.5	1.88	1.17	32.5	0.75	9.9	24.4	0.84	1.02	25.8	74	0.92	59.06	2,926	5.19E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
189	30.76	30.92	0.2	30.84	357,960	4,058	3,701	95.7	1.15	1.96	128.8	1.87	128.8	1.87	1.16	33.5	0.75	9.6	25.1	0.74	1.02	26.4	75	0.92	59.52	2,956	5.17E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
190	30.92	31.09	0.2	31.00	333,640	3,852	3,720	88.7	1.17	1.99	119.7	1.90	119.7	1.90	1.19	31.6	0.75	10.3	23.6	0.97	1.02	25.1	74	0.92	58.56	2,916	5.26E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
191	31.09	31.25	0.2	31.17	360,360	3,627	3,740	95.3	1.02	1.93	128.9	1.83	128.9	1.83	1.13	33.3	0.75	8.8	24.8	0.50	1.02	25.7	74	0.92	59.04	2,948	5.23E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
192	31.25	31.41	0.2	31.33	376,100	3,720	3,760	99.0	1.00	1.91	134.2	1.81	134.2	1.81	1.12	34.5	0.74	8.4	25.7	0.40	1.01	26.4	75	0.92	59.58	2,983	5.20E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
193	31.41	31.58	0.2	31.50	389,380	3,847	3,780	102.0	1.00	1.90	138.6	1.80	138.6	1.80	1.11	35.6	0.74	8.2	26.4	0.34	1.01	27.1	77	0.92	60.08	3,016	5.17E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
194	31.58	31.74	0.2	31.66	388,720	3,721	3,799	101.3	0.97	1.90	138.0	1.79	138.0	1.79	1.10	35.4	0.74	8.0	26.2	0.30	1.01	26.9	75	0.92	59.89	3,014	5.20E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
195	31.74	31.91	0.2	31.82	418,020	3,993	3,819	108.5	0.96	1.87	148.0	1.77	148.0	1.77	1.09	37.8	0.74	7.5	27.9	0.20	1.01	28.4	78	0.92	61.02	3,079	5.12E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
196	31.91	32.07	0.2	31.99	564,280	4,572	3,839	146.0	0.82	1.73	199.3	1.63	199.3	1.63	1.00	48.6	0.74	4.8	35.7	0.00	1.00	35.7	85	0.92	65.88	3,333	4.75E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
197	32.07	32.23	0.2	32.15	661,420	5,071	3,858	170.4	0.77	1.66	233.0	1.56	233.0	1.56	1.00	55.7	0.73	3.8	40.9	0.00	1.00	40.9	90	0.91	68.90	3,494	4.51E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
198	32.23	32.40	0.2	32.32	697,780	5,633	3,878	178.9	0.81	1.66	245.2	1.56	245.2	1.56	1.00	58.8	0.73	3.8	43.0	0.00	1.00	43.0	93	0.91	70.09	3,564	4.44E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
199	32.40	32.56	0.2	32.48	686,860	6,585	3,898	175.2	0.96	1.72	240.7	1.62	240.7	1.62	1.00	59.0	0.73	4.7	43.1	0.00	1.00	43.1	93	0.91	70.12	3,575	4.45E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
200	32.56	32.73	0.2	32.64	705,160	7,197	3,917	179.0	1.03	1.73	246.5	1.64	246.5	1.64	1.00	60.9	0.73	5.0	44.3	0.00	1.00	44.3	94	0.91	70.79	3,618	4.42E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
201	32.73	32.89	0.2	32.81	682,800	7,125	3,937	172.4	1.05	1.75	238.1	1.65	238.1	1.65	1.01	59.3	0.73	5.3	43.1	0.01	1.00	43.2	93	0.91	70.16	3,595	4.47E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
202	32.89	33.05	0.2	32.97	571,200	7,125	3,957	143.4	1.26	1.86	198.7	1.76	198.7	1.76	1.08	51.5	0.73	7.4	37.3	0.18	1.01	37.9	87	0.91	67.18	3,450	4.68E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
203	33.05	33.22	0.2	33.14	532,760	6,052	3,976	133.0	1.14	1.86	184.9	1.76	184.9	1.76	1.08	47.9	0.72	7.2	34.6	0.15	1.01	35.1	85	0.91	65.49	3,372	4.81E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
204	33.22	33.38	0.2	33.30	483,920	5,950	3,996	120.1	1.24	1.91	167.5	1.81	167.5	1.81	1.11	44.4	0.72	8.3	32.0	0.38	1.01	32.8	82	0.91	64.04	3,306	4.93E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
205	33.38	33.55	0.2	33.46	421,660	5,954	4,016	104.0	1.43	2.00	145.6	1.90	145.6	1.90	1.19	39.9	0.72	10.3	28.7	0.97	1.02	30.3	80	0.91	62.38	3,227	5.08E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
206	33.55	33.71	0.2	33.63	380,700	5,655	4,035	93.3	1.50	2.05	131.1	1.94	131.1	1.94	1.23	36.7	0.72	11.5	26.3	1.37	1.03	28.5	78	0.91	61.06	3,167	5.20E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
207	33.71	33.87	0.2	33.79	411,340	6,310	4,055	100.4	1.55	2.04	141.3	1.93	141.3	1.93	1.22	39.4	0.72	11.2	28.2	1.26	1.03	30.3	80	0.91	62.33	3,241	5.11E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
208	33.87	34.04	0.2	33.96	469,360	7,031	4,075	114.2	1.51	1.99	160.9	1.89	160.9	1.89	1.18	44.2	0.71	10.0	31.6	0.88	1.02	33.2	83	0.91	64.26	3,349	4.97E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
209	34.04	34.20	0.2	34.12	491,680	7,279	4,094	119.1	1.49	1.97	168.1	1.87	168.1	1.87	1.16	46.0	0.71	9.6	32.8	0.76	1.02	34.2	84	0.90	64.93	3,392	4.87E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
210	34.20	34.37	0.2	34.28	495,020	7,419	4,114	119.3	1.51	1.97	168.9	1.87	168.9	1.87	1.16	46.4	0.71	9.7	33.0	0.78	1.02	34.4	84	0.90	65.06	3,408	4.87E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
211	34.37	34.53	0.2	34.45	536,080	7,095	4,134	128.7	1.33	1.91	182.4	1.81	182.4	1.81	1.11	49.1	0.71	8.3	34.8	0.37	1.01	35.7	85	0.90	65.85	3,457	4.83E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
212	34.53	34.69	0.2	34.61	723,300	7,155	4,154	173.1	0.99	1.73	245.6	1.63	245.6	1.63	1.00	62.2	0.71	4.8	44.0	0.00	1.00	44.0	94	0.90	70.63	3,716	4.51E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
213	34.69	34.86	0.2	34.78	932,480	7,057	4,173	222.4	0.76	1.57	315.9	1.47	315.9	1.47	1.00	76.1	0.71	2.4	53.7	0.00	1.00	53.7	95	0.90	75.48	3,981	4.23E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
214	34.86	35.02	0.2	34.94	1,084,420	6,847	4,193	257.6	0.63	1.47	366.5	1.37	366.5	1.37	1.00	85.7	0.70	1.1	60.4	0.00	1.00	60.4	95	0.90	78.47	4,149	4.08E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
215	35.02	35.19	0.2	35.10	1,165,540	7,746	4,213	275.7	0.67	1.47	392.9	1.36	392.9	1.36	1.00	92.1	0.70	1.1	64.7	0.00	1.00	64.7	95	0.89	80.29	4,255	3.95E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
216	35.19	35.35	0.2	35.27	1,200,660	7,232	4,232	282.7	0.60	1.43	403.8	1.32	403.8	1.32	1.00	93.7	0.70	0.6	65.7	0.00	1.00	65.7	95	0.89	80.69	4,286	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
217	35.35	35.52	0.2	35.43	1,281,160	6,143	4,252	300.3	0.48	1.34	429.9	1.23	429.9	1.23	1.00	97.2	0.70	0.0	68.0	0.00	1.00	68.0	95	0.89	81.64	4,346	3.90E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
218	35.52	35.68	0.2	35.60	1,380,340	8,237	4,272	322.1	0.60	1.39	462.1	1.28	462.1	1.28	1.00	106.4	0.70	0.2	74.2	0.00	1.00	74.2	95	0.89	84.05	4,485	3.80E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
219	35.68	35.84	0.2	35.76	1,303,740	8,342	4,291	302.8	0.64	1.43	435.5	1.32	435.5	1.32	1.00	101.7	0.70	0.6	70.8	0.00	1.00	70.8	95	0.89	82.74	4,425	3.87E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
220	35.84	36.01	0.2	35.93	1,302,260	10,294	4,311	301.1	0.79	1.50	434.0	1.39	434.0	1.39	1.00	103.9	0.69	1.5	72.2	0.00	1.00	72.2	95	0.89	83.27	4,464	3.85E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
221	36.01	36.17	0.2	36.09	1,354,140	11,380	4,331	311.7	0.84	1.51	450.3	1.41	450.3	1.41	1.00	108.5	0.69	1.6	75.2	0.00	1.00	75.2	95	0.88	84.40	4,535	3.77E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
222	36.17	36.34	0.2	36.25	1,461,840	11,813	4,350	335.0	0.81	1.47	485.0	1.37	485.0	1.37	1.00	115.9	0.69	1.2	80.1	0.00	1.00	80.1	95	0.88	86.23	4,644	3.70E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
223	36.34	36.50	0.2	36.42	1,569,060	12,955	4,370	358.0	0.83	1.46	519.4	1.37	519.4	1.37	1.00	124.1	0.69	1.1	85.6	0.00	1.00	85.6	95	0.88	88.14	4,757	3.63E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
224	36.50	36.66	0.2	36.58	1,676,340	11,508	4,390	380.9	0.69	1.38	553.6	1.28	553.6	1.28	1.00	129.3	0.69	0.2	89.0	0.00	1.00	89.0	95	0.88	89.29	4,830	3.59E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
225	36.66	36.83	0.2	36.75	1,616,120	12,359	4,409	365.5	0.77	1.43	532.5	1.33	532.5	1.33	1.00	126.5	0.69	0.7	86.8	0.00	1.00	86.8	95	0.88	88.57	4,802	3.62E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
226	36.83	36.99	0.2	36.91	1,428,440	12,645	4,429	321.5	0.89	1.51	469.7	1.42	469.7	1.42	1.00	114.7	0.69	1.7	78.6	0.00	1.00	78.6	95	0.88	85.67	4,655	3.76E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
227	36.99	37.16	0.2	37.07	1,242,800	10,773	4,449	278.4	0.87	1.55	407.7	1.44	407.7	1.44	1.00	100.7	0.68	2.1	68.8	0.00	1.00	68.8	95	0.88	81.97	4,464	3.93E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
228	37.16	37.32	0.2	37.24	988,180	8,528	4,469	220.1	0.87	1.62	323.5	1.50	323.5	1.50	1.00	81.6	0.68	2.9	55.7	0.00	1.00	55.7	95	0.87	76.38	4,169	4.18E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
229	37.32	37.48	0.2	37.40	727,260	6,343	4,488	161.0	0.88	1.72	237.5	1.60	237.5	1.60	1.00	61.9	0.68	4.3	42.2	0.00	1.00	42.2	92	0.87	69.61	3,808	4.60E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
230	37.48	37.65	0.2	37.57	545,600	5,941	4,508	120.0	1.10	1.88	177.8	1.75	177.8	1.75	1.07	49.0	0.68	7.2	33.3	0.14	1.01	33.8	83	0.87	64.64	3,543	4.96E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
231	37.65	37.81	0.2	37.73	424,980	5,409	4,528	92.9	1.29	2.01	138.2	1.88	138.2	1.88	1.17	40.0	0.68	9.9	27.1	0.84	1.02	28.5	78	0.87	61.09	3,356	5.26E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
232	37.81	37.98	0.2	37.89	373,800	4,929	4,547	81.2	1.33	2.06	121.3	1.93	121.3	1.93	1.22	35.8	0.68	11.2	24.2	1.27	1.03	26.2	75	0.87	59.37	3,269	5.43E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
233	37.98	38.14	0.2	38.06	350,820	5,314	4,567	75.8	1.53	2.12	113.6	1.99	113.6	1.99	1.29	34.4	0.67	12.8	23.2	1.82	1.04	25.9	74	0.87	59.17	3,265	5.46E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
234	38.14	38.30	0.2	38.22	347,740	5,520	4,587	74.8	1.61	2.14	112.4	2.01	112.4	2.01	1.32	34.4	0.67	13.3	23.1	1.98	1.04	26.0	75	0.87	59.26	3,277	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
235	38.30	38.47	0.2	38.39	358,060	5,986	4,606	76.7	1.69	2.15	115.4	2.02	115.4	2.02	1.33	35.5	0.67	13.5	23.8	2.05	1.04	26.8	75	0.87	59.88	3,318	5.42E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
236	38.47	38.63	0.2	38.55	360,580	6,163	4,626	76.9	1.73	2.15	116.0	2.03	116.0	2.03	1.33	35.8	0.67	13.6	24.0	2.10	1.04	27.1	77	0.87	60.06	3,335	5.41E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
237	38.63	38.80	0.2	38.71	382,000	6,287	4,646	81.2	1.67	2.12	122.6	2.00	122.6	2.00	1.30	37.5	0.67	12.9	25.1	1.84	1.04	27.9	77	0.87	60.63	3,374	5.37E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
238	38.80	38.96	0.2	38.88	431,220	6,221	4,665	91.4	1.46	2.05	138.1	1.92	138.1	1.92	1.21	41.1	0.67	10.9	27.5	1.16	1.03	29.3	79	0.87	61.68	3,440	5.29E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
239	38.96	39.12	0.2	39.04	557,420	7,003	4,685	118.0	1.27	1.92	178.2	1.80	178.2	1.80	1.11	50.9	0.67	8.1	33.9	0.32	1.01	34.7	84	0.87	65.22	3,645	5.02E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
240	39.12	39.29	0.2	39.21	735,040	7,818	4,705	155.2	1.07	1.79	234.5	1.66	234.5	1.66	1.01	64.0	0.66	5.5	42.6	0.01	1.00	42.7	92	0.86	69.91	3,915	4.63E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
241	39.29	39.45	0.2	39.37	822,660	7,675	4,724	173.1	0.94	1.71	261.9	1.59	261.9	1.59	1.00	69.9	0.66	4.2	46.4	0.00	1.00	46.4	95	0.86	71.86	4,033	4.52E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
242	39.45	39.62	0.2	39.53	846,920	6,971	4,744	177.5	0.83	1.67	269.1	1.54	269.1	1.54	1.00	70.8	0.66	3.4	46.9	0.00	1.00	46.9	95	0.86	72.12	4,056	4.51E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
243	39.62	39.78	0.2	39.70	906,300	7,245	4,764	189.2	0.80	1.64	287.3	1.51	287.3	1.51	1.00	75.1	0.66	3.0	49.6	0.00	1.00	49.6	95	0.86	73.49	4,141	4.44E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
244	39.78	39.94	0.2	39.86	1,068,460	7,977	4,783	222.4	0.75	1.57	338.0	1.44	338.0	1.44	1.00	86.6	0.66	2.1	57.1	0.00	1.00	57.1	95	0.86	77.01	4,349	4.24E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
245	39.94	40.11	0.2	40.03	1,166,580	8,769	4,803	241.9	0.75	1.54	368.3	1.42	368.3	1.42	1.00	93.9	0.66	1.8	61.8	0.00	1.00	61.8	95	0.86	79.06	4,474	4.14E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
246	40.11	40.27	0.2	40.19	1,167,540	8,058	4,823	241.1	0.69	1.52	367.9	1.39	367.9	1.39	1.00	93.1	0.66	1.4	61.2	0.00	1.00	61.2	95	0.85	78.80	4,468	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
247	40.27	40.44	0.2	40.35	1,093,580	6,981	4,843	224.8	0.64	1.52	343.9	1.39	343.9	1.39	1.00	87.1	0.66	1.4	57.1	0.00	1.00	57.1	95	0.85	77.00	4,375	4.22E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
248	40.44	40.60	0.2	40.52	886,040	6,178	4,862	181.2	0.70	1.61	278.0	1.48	278.0	1.48	1.00	72.6	0.65	2.5	47.5	0.00	1.00	47.5	95	0.85	72.43	4,124	4.50E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
249	40.60	40.76	0.2	40.68	715,660	5,985	4,882	145.6	0.84	1.74	224.1	1.60	224.1	1.60	1.00	61.0	0.65	4.4	39.8	0.00	1.00	39.8	89	0.85	68.31	3,897	4.78E-04	1.30E-03	0.046%	0.046%	0.091%	0.0018
250	40.76	40.93	0.2	40.85	600,220	6,544	4,902	121.5	1.10	1.87	187.6	1.74	187.6	1.74	1.06	53.6	0.65	6.9	34.9	0.10	1.01	35.3	85	0.85	65.62	3,751	4.98E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
251	40.93	41.09	0.2	41.01	554,300	7,044	4,921	111.6	1.28	1.95	172.9	1.81	172.9	1.81	1.12	50.8	0.65	8.4	33.0	0.39	1.01	33.9	83	0.85	64.73	3,708	5.06E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
252	41.09	41.26	0.2	41.17	572,100	7,546	4,941	114.8	1.33	1.95	178.1	1.81	178.1	1.81	1.12	52.5	0.65	8.4	34.1	0.40	1.01	35.0	84	0.84	65.41	3,754	4.96E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
253	41.26	41.42	0.2	41.34	577,740	6,811	4,961	115.5	1.19	1.91	179.5	1.78	179.5	1.78	1.09	52.3	0.65	7.6	33.9	0.22	1.01	34.5	84	0.84	65.10	3,744	4.99E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
254	41.42	41.58	0.2	41.50	595,900	6,937	4,980	118.7	1.17	1.90	184.8	1.76	184.8	1.76	1.08	53.7	0.65	7.4	34.7	0.18	1.01	35.2	85	0.84	65.57	3,779	4.97E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
255	41.58	41.75	0.2	41.67	617,340	7,380	5,000	122.5	1.21	1.90	191.0	1.76	191.0	1.76	1.08	55.6	0.64	7.3	35.9	0.17	1.01	36.4	86	0.84	66.29	3,827	4.92E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
256	41.75	41.91	0.2	41.83	796,840	7,729	5,020	157.7	0.98	1.76	246.1	1.62	246.1	1.62	1.00	68.4	0.64	4.7	44.0	0.00	1.00	44.0	94	0.84	70.62	4,085	4.63E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
257	41.91	42.08	0.2	41.99	1,107,540	8,968	5,039	218.8	0.81	1.60	341.4	1.47	341.4	1.47	1.00	90.4	0.64	2.4	58.1	0.00	1.00	58.1	95	0.84	77.46	4,490	4.23E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
258	42.08	42.24	0.2	42.16	1,456,740	12,229	5,059	286.9	0.84	1.53	448.2	1.41	448.2	1.41	1.00	116.7	0.64	1.6	74.8	0.00	1.00	74.8	95	0.83	84.28	4,895	3.85E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
259	42.24	42.40	0.2	42.32	1,555,400	14,453	5,079	305.3	0.93	1.54	477.6	1.43	477.6	1.43	1.00	125.4	0.64	1.9	80.3	0.00	1.00	80.3	95	0.83	86.27	5,020	3.77E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
260	42.40	42.57	0.2	42.49	1,378,140	14,518	5,098	269.3	1.06	1.62	422.3	1.50	422.3	1.50	1.00	113.8	0.64	2.9	72.7	0.00	1.00	72.7	95	0.83	83.47	4,866	3.90E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
261	42.57	42.73	0.2	42.65	1,262,240	13,465	5,118	245.6	1.07	1.65	386.1	1.53	386.1	1.53	1.00	105.2	0.64	3.3	67.0	0.00	1.00	67.0	95	0.83	81.25	4,746	4.01E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
262	42.73	42.90	0.2	42.81	1,203,900	11,720	5,138	233.3	0.98	1.64	367.5	1.51	367.5	1.51	1.00	99.7	0.64	3.0	63.4	0.00	1.00	63.4	95	0.83	79.76	4,668	4.10E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
263	42.90	43.06	0.2	42.98	1,151,260	10,284	5,157	222.2	0.90	1.62	350.8	1.49	350.8	1.49	1.00	94.8	0.64	2.7	60.2	0.00	1.00	60.2	95	0.83	78.38	4,596	4.18E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
264	43.06	43.23	0.2	43.14	1,051,180	10,540	5,177	202.0	1.01	1.69	319.7	1.56	319.7	1.56	1.00	88.4	0.63	3.7	56.0	0.00	1.00	56.0	95	0.83	76.53	4,496	4.29E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
265	43.23	43.39	0.2	43.31	951,920	9,088	5,197	182.2	0.96	1.71	288.9	1.57	288.9	1.57	1.00	80.3	0.63	3.9	50.8	0.00	1.00	50.8	95	0.83	74.08	4,361	4.44E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
266	43.39	43.55	0.2	43.47	793,380	9,024	5,217	151.1	1.14	1.82	240.4	1.68	240.4	1.68	1.02	69.5	0.63	5.7	43.9	0.02	1.00	44.1	94	0.83	70.64	4,166	4.66E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
267	43.55	43.72	0.2	43.64	608,200	8,943	5,236	115.2	1.48	1.98	183.9	1.84	183.9	1.84	1.14	56.4	0.63	9.0	35.5	0.56	1.02	36.7	86	0.83	66.46	3,927	4.96E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
268	43.72	43.88	0.2	43.80	502,100	8,798	5,256	94.5	1.77	2.09	151.5	1.95	151.5	1.95	1.24	48.5	0.63	11.7	30.5	1.46	1.03	32.9	82	0.83	64.09	3,794	5.16E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
269	43.88	44.05	0.2	43.96	438,060	9,048	5,276	82.0	2.09	2.19	132.0	2.05	132.0	2.05	1.37	43.9	0.63	14.3	27.6	2.29	1.04	31.1	81	0.83	62.87	3,728	5.27E-04	1.60E-03	0.091%	0.091%	0.182%	0.0036
270	44.05	44.21	0.2	44.13	424,220	9,537	5,295	79.1	2.28	2.23	127.6	2.09	127.6	2.09	1.43	43.1	0.63	15.4	27.0	2.60	1.05	31.0	81	0.82	62.83	3,733	5.22E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
271	44.21	44.37	0.2	44.29	423,620	9,920	5,315	78.7	2.37	2.24	127.1	2.10	127.1	2.10	1.45	43.3	0.63	15.8	27.1	2.72	1.05	31.3	81	0.82	63.00	3,750	5.21E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
272	44.37	44.54	0.2	44.46	437,540	9,083	5,335	81.0	2.10	2.19	131.1	2.05	131.1	2.05	1.37	43.9	0.62	14.4	27.4	2.32	1.04	31.0	80	0.82	62.80	3,745	5.24E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
273	44.54	44.70	0.2	44.62	456,340	9,150	5,354	84.2	2.03	2.17	136.5	2.03	136.5	2.03	1.34	45.4	0.62	13.7	28.3	2.12	1.04	31.6	81	0.82	63.21	3,776	5.21E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
274	44.70	44.87	0.2	44.78	464,760	9,107	5,374	85.5	1.98	2.16	138.7	2.02	138.7	2.02	1.32	46.0	0.62	13.4	28.6	2.01	1.04	31.7	81	0.82	63.33	3,791	5.21E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
275	44.87	45.03	0.2	44.95	462,760	8,904	5,394	84.8	1.95	2.16	137.9	2.01	137.9	2.01	1.32	45.7	0.62	13.3	28.4	1.98	1.04	31.5	81	0.82	63.14	3,786	5.24E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
276	45.03	45.19	0.2	45.11	457,980	8,536	5,413	83.6	1.89	2.15	136.2	2.01	136.2	2.01	1.31	45.1	0.62	13.1	28.0	1.92	1.04	30.9	80	0.81	62.79	3,772	5.21E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
277	45.19	45.36	0.2	45.28	457,040	8,199	5,433	83.1	1.82	2.14	135.7	1.99	135.7	1.99	1.29	44.9	0.62	12.8	27.8	1.82	1.04	30.6	80	0.81	62.53	3,763	5.24E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
278	45.36	45.52	0.2	45.44	443,740	8,171	5,453	80.4	1.86	2.16	131.5	2.01	131.5	2.01	1.32	43.8	0.62	13.3	27.1	1.98	1.04	30.1	80	0.81	62.21	3,751	5.28E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
279	45.52	45.69	0.2	45.60	424,460	8,192	5,472	76.6	1.96	2.19	125.6	2.04	125.6	2.04	1.36	42.4	0.62	14.1	26.1	2.23	1.04	29.5	79	0.81	61.79	3,732	5.33E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
280	45.69	45.85	0.2	45.77	416,500	8,123	5,492	74.8	1.98	2.20	123.0	2.05	123.0	2.05	1.37	41.8	0.62	14.3	25.7	2.31	1.04	29.2	79	0.81	61.55	3,725	5.36E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
281	45.85	46.01	0.2	45.93	414,000	8,061	5,512	74.1	1.97	2.20	122.0	2.05	122.0	2.05	1.37	41.5	0.61	14.4	25.5	2.32	1.04	29.0	78	0.81	61.44	3,724	5.38E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
282	46.01	46.18	0.2	46.10	414,080	7,977	5,531	73.9	1.95	2.20	121.8	2.05	121.8	2.05	1.37	41.5	0.61	14.3	25.5	2.30	1.04	28.9	78	0.80	61.36	3,726	5.33E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
283	46.18	46.34	0.2	46.26	420,580	8,113	5,551	74.8	1.95	2.20	123.5	2.05	123.5	2.05	1.36	42.1	0.61	14.2	25.8	2.27	1.04	29.2	79	0.80	61.56	3,745	5.32E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
284	46.34	46.51	0.2	46.42	425,360	8,097	5,571	75.4	1.93	2.19	124.7	2.04	124.7	2.04	1.35	42.5	0.61	14.0	25.9	2.21	1.04	29.3	79	0.80	61.62	3,755	5.32E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
285	46.51	46.67	0.2	46.59	423,860	8,495	5,591	74.8	2.03	2.21	124.0	2.06	124.0	2.06	1.38	42.6	0.61	14.5	26.0	2.36	1.05	29.5	79	0.80	61.82	3,774	5.31E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
286	46.67	46.83	0.2	46.75	423,960	7,751	5,610	74.6	1.85	2.18	123.9	2.03	123.9	2.03	1.34	42.1	0.61	13.7	25.7	2.11	1.04	28.8	78	0.80	61.32	3,750	5.37E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
287	46.83	47.00	0.2	46.92	420,700	7,863	5,630	73.7	1.89	2.19	122.7	2.04	122.7	2.04	1.35	42.0	0.61	14.0	25.5	2.20	1.04	28.8	78	0.80	61.30	3,755	5.38E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
288	47.00	47.16	0.2	47.08	417,240	8,485	5,650	72.9	2.06	2.22	121.5	2.07	121.5	2.07	1.40	42.1	0.61	14.8	25.6	2.45	1.05	29.2	79	0.80	61.60	3,781	5.36E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
289	47.16	47.33	0.2	47.24	411,020	9,041	5,669	71.5	2.23	2.25	119.4	2.10	119.4	2.10	1.45	42.0	0.61	15.7	25.4	2.70	1.05	29.5	79	0.79	61.78	3,798	5.29E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
290	47.33	47.49	0.2	47.41	415,900	9,408	5,689	72.1	2.29	2.26	120.7	2.10	120.7	2.10	1.46	42.6	0.60	15.9	25.8	2.75	1.05	29.9	79	0.79	62.07	3,822	5.27E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
291	47.49	47.65	0.2	47.57	414,040	9,552	5,709	71.5	2.34	2.27	119.9	2.11	119.9	2.11	1.48	42.6	0.60	16.2	25.7	2.81	1.06	29.9	79	0.79	62.09	3,830	5.28E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
292	47.65	47.82	0.2	47.74	398,680	9,419	5,728	68.6	2.40	2.29	115.3	2.13	115.3	2.13	1.51	41.3	0.60	16.8	24.9	2.96	1.06	29.3	79	0.79	61.66	3,810	5.33E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
293	47.82	47.98	0.2	47.90	382,000	9,189	5,748	65.5	2.44	2.31	110.3	2.15	110.3	2.15	1.55	39.9	0.60	17.4	24.0	3.10	1.06	28.6	78	0.79	61.15	3,785	5.38E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
294	47.98	48.15	0.2	48.06	363,360	8,799	5,768	62.0	2.46	2.33	104.7	2.17	104.7	2.17	1.59	38.2	0.60	17.9	22.9	3.22	1.07	27.7	77	0.79	60.49	3,751	5.45E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
295	48.15	48.31	0.2	48.23	356,900	8,545	5,787	60.7	2.43	2.33	102.7	2.17	102.7	2.17	1.60	37.6	0.60	18.0	22.5	3.23	1.07	27.2	77	0.78	60.18	3,738	5.42E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
296	48.31	48.47	0.2	48.39	377,420	9,063	5,807	64.0	2.44	2.31	108.4	2.15	108.4	2.15	1.56	39.5	0.60	17.5	23.6	3.13	1.06	28.2	78	0.78	60.91	3,790	5.36E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
297	48.47	48.64	0.2	48.56	410,720	9,478	5,827	69.5	2.34	2.28	117.7	2.12	117.7	2.12	1.49	42.3	0.60	16.3	25.3	2.85	1.06	29.5	79	0.78	61.83	3,854	5.29E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
298	48.64	48.80	0.2	48.72	454,280	9,372	5,846	76.7	2.09	2.21	130.0	2.05	130.0	2.05	1.37	45.6	0.60	14.4	27.2	2.32	1.04	30.7	80	0.78	62.65	3,911	5.23E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
299	48.80	48.97	0.2	48.88	537,040	8,334	5,866	90.5	1.57	2.07	153.4	1.91	153.4	1.91	1.20	51.1	0.60	10.7	30.4	1.09	1.02	32.3	82	0.78	63.67	3,982	5.15E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
300	48.97	49.13	0.2	49.05	558,720	7,369	5,886	93.9	1.33	2.01	159.4	1.85	159.4	1.85	1.14	51.9	0.59	9.2	30.9	0.61	1.02	32.0	82	0.78	63.51	3,978	5.18E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
301	49.13	49.29	0.2	49.21	529,360	6,673	5,906	88.6	1.27	2.02	150.7	1.85	150.7	1.85	1.15	49.2	0.59	9.2	29.2	0.63	1.02	30.4	80	0.77	62.41	3,916	5.21E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
302	49.29	49.46	0.2	49.38	547,740	6,405	5,925	91.4	1.18	1.99	155.7	1.82	155.7	1.82	1.12	50.3	0.59	8.5	29.8	0.42	1.01	30.7	80	0.77	62.62	3,935	5.20E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
303	49.46	49.62	0.2	49.54	503,620	7,648	5,945	83.7	1.54	2.09	142.9	1.93	142.9	1.93	1.21	48.2	0.59	11.0	28.5	1.21	1.03	30.5	80	0.77	62.46	3,932	5.22E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
304	49.62	49.79	0.2	49.70	459,700	8,456	5,965	76.1	1.86	2.18	130.2	2.01	130.2	2.01	1.32	45.5	0.59	13.3	26.8	2.00	1.04	29.9	79	0.77	62.07	3,914	5.26E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
305	49.79	49.95	0.2	49.87	455,780	8,826	5,984	75.2	1.96	2.20	128.9	2.03	128.9	2.03	1.35	45.4	0.59	13.9	26.8	2.17	1.04	30.1	80	0.77	62.19	3,928	5.26E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
306	49.95	50.11	0.2	50.03	476,540	8,710	6,004	78.4	1.85	2.17	134.6	2.00	134.6	2.00	1.30	46.9	0.59	13.0	27.6	1.90	1.04	30.5	80	0.77	62.51	3,955	5.24E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
307	50.11	50.28	0.2	50.20	567,520	8,662	6,024	93.2	1.54	2.06	160.0	1.89	160.0	1.89	1.18	53.6	0.59	10.2	31.5	0.95	1.02	33.2	83	0.76	64.27	4,072	5.04E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
308	50.28	50.44	0.2	50.36	650,060	8,889	6,043	106.6	1.38	1.98	183.0	1.82	183.0	1.82	1.12	59.8	0.59	8.5	35.1	0.43	1.01	36.0	86	0.76	66.05	4,192	4.91E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
309	50.44	50.61	0.2	50.52	634,060	9,181	6,063	103.6	1.46	2.01	178.2	1.85	178.2	1.85	1.14	58.9	0.59	9.1	34.5	0.59	1.02	35.7	85	0.76	65.83	4,185	4.94E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
310	50.61	50.77	0.2	50.69	547,700	7,753	6,083	89.0	1.43	2.05	153.7	1.88	153.7	1.88	1.17	51.5	0.58	10.0	30.1	0.85	1.02	31.6	81	0.76	63.25	4,028	5.15E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
311	50.77	50.94	0.2	50.85	455,460	7,087	6,102	73.8	1.57	2.14	127.9	1.97	127.9	1.97	1.26	44.3	0.58	12.1	25.9	1.57	1.03	28.3	78	0.76	60.93	3,886	5.35E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
312	50.94	51.10	0.2	51.02	414,300	7,622	6,122	66.7	1.87	2.22	115.9	2.05	115.9	2.05	1.37	41.5	0.58	14.3	24.2	2.30	1.04	27.6	77	0.76	60.43	3,861	5.41E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
313	51.10	51.26	0.2	51.18	397,020	7,760	6,142	63.6	1.99	2.25	110.9	2.08	110.9	2.08	1.42	40.3	0.58	15.3	23.5	2.57	1.05	27.2	77	0.76	60.15	3,849	5.44E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
314	51.26	51.43	0.2	51.35	391,580	9,258	6,161	62.6	2.40	2.32	109.2	2.15	109.2	2.15	1.55	40.8	0.58	17.3	23.7	3.08	1.06	28.3	78	0.76	60.93	3,905	5.38E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
315	51.43	51.59	0.2	51.51	399,400	10,880	6,181	63.6	2.77	2.35	111.2	2.19	111.2	2.19	1.64	42.4	0.58	18.6	24.6	3.36	1.07	29.7	79	0.76	61.91	3,974	5.30E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
316	51.59	51.76	0.2	51.67	410,940	12,312	6,201	65.3	3.04	2.37	114.2	2.21	114.2	2.21	1.70	44.0	0.58	19.4	25.5	3.51	1.08	30.9	80	0.76	62.78	4,037	5.24E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
317	51.76	51.92	0.2	51.84	393,660	12,663	6,220	62.3	3.27	2.41	109.2	2.25	109.2	2.25	1.80	42.8	0.58	20.7	24.8	3.73	1.08	30.6	80	0.76	62.53	4,027	5.27E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
318	51.92	52.08	0.2	52.00	379,880	12,140	6,240	59.9	3.25	2.42	105.2	2.26	105.2	2.26	1.82	41.5	0.58	21.0	23.9	3.77	1.09	29.8	79	0.76	61.99	3,998	5.32E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
319	52.08	52.25	0.2	52.17	421,800	11,552	6,260	66.4	2.78	2.34	116.7	2.18	116.7	2.18	1.61	44.5	0.58	18.2	25.7	3.28	1.07	30.7	80	0.76	62.61	4,045	5.28E-04	1.60E-03	0.096%	0.096%	0.192%	0.0038
320	52.25	52.41	0.2	52.33	499,020	11,729	6,280	78.5	2.38	2.24	137.8	2.08	137.8	2.08	1.42	50.6	0.58	15.2	29.1	2.55	1.05	33.1	83	0.76	64.22	4,155	5.15E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
321	52.41	52.58	0.2	52.49	534,940	11,789	6,299	83.9	2.23	2.20	147.5	2.04	147.5	2.04	1.35	53.4	0.57	14.0	30.7	2.20	1.04	34.2	84	0.76	64.91	4,206	5.10E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
322	52.58	52.74	0.2	52.66	531,660	11,397	6,319	83.1	2.17	2.20	146.3	2.03	146.3	2.03	1.34	52.9	0.57	13.8	30.4	2.14	1.04	33.8	83	0.76	64.64	4,195	5.13E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
323	52.74	52.90	0.2	52.82	516,340	11,596	6,339	80.5	2.27	2.22	141.9	2.06	141.9	2.06	1.38	51.9	0.57	14.5	29.7	2.35	1.05	33.4	83	0.76	64.42	4,187	5.16E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
324	52.90	53.07	0.2	52.99	507,420	11,608	6,358	78.8	2.32	2.23	139.2	2.07	139.2	2.07	1.40	51.2	0.57	14.8	29.3	2.45	1.05	33.1	83	0.76	64.23	4,182	5.18E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
325	53.07	53.23	0.2	53.15	524,500	11,753	6,378	81.2	2.27	2.22	143.7	2.05	143.7	2.05	1.37	52.6	0.57	14.4	30.0	2.31	1.04	33.7	83	0.76	64.60	4,212	5.16E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
326	53.23	53.40	0.2	53.31	567,760	10,940	6,398	87.7	1.95	2.15	155.3	1.98	155.3	1.98	1.27	55.4	0.57	12.4	31.6	1.68	1.03	34.3	84	0.76	65.00	4,245	5.14E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
327	53.40	53.56	0.2	53.48	577,080	10,971	6,417	88.9	1.92	2.14	157.6	1.97	157.6	1.97	1.26	56.1	0.57	12.1	31.9	1.60	1.03	34.6	84	0.76	65.16	4,262	5.13E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
328	53.56	53.72	0.2	53.64	585,980	9,719	6,437	90.0	1.68	2.09	159.8	1.92	159.8	1.92	1.21	55.9	0.57	10.9	31.8	1.18	1.03	33.8	83	0.76	64.67	4,236	5.18E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
329	53.72	53.89	0.2	53.81	640,580	10,245	6,457	98.2	1.62	2.06	174.4	1.88	174.4	1.88	1.17	60.3	0.57	10.0	34.2	0.87	1.02	35.8	85	0.76	65.94	4,326	5.09E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
330	53.89	54.05	0.2	53.97	679,060	9,698	6,476	103.9	1.44	2.00	184.6	1.83	184.6	1.83	1.13	62.7	0.57	8.8	35.5	0.49	1.02	36.6	86	0.76	66.40	4,363	5.06E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
331	54.05	54.22	0.2	54.13	643,100	10,910	6,496	98.0	1.71	2.07	174.6	1.90	174.6	1.90	1.19	61.0	0.57	10.5	34.5	1.03	1.02	36.4	86	0.76	66.26	4,360	5.08E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
332	54.22	54.38	0.2	54.30	695,800	12,441	6,516	105.8	1.80	2.07	188.6	1.90	188.6	1.90	1.19	65.9	0.57	10.4	37.2	0.99	1.02	39.1	89	0.76	67.87	4,473	4.96E-04	1.30E-03	0.046%	0.046%	0.091%	0.0018
333	54.38	54.54	0.2	54.46	821,220	14,068	6,535	124.7	1.73	2.00	222.3	1.84	222.3	1.84	1.14	76.1	0.56	9.0	42.9	0.55	1.02	44.2	94	0.76	70.72	4,668	4.77E-04	1.30E-03	0.029%	0.029%	0.057%	0.0011
334	54.54	54.71	0.2	54.63	995,220	14,834	6,555	150.8	1.50	1.90	269.0	1.74	269.0	1.74	1.07	89.0	0.56	6.9	50.1	0.11	1.01	50.7	95	0.76	74.01	4,892	4.57E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
335	54.71	54.87	0.2	54.79	1,147,640	16,262	6,575	173.6	1.43	1.84	309.7	1.69	309.7	1.69	1.03	100.7	0.56	5.9	56.7	0.02	1.00	56.9	95	0.76	76.94	5,094	4.40E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
336	54.87	55.04	0.2	54.95	1,231,360	16,164	6,594	185.7	1.32	1.80	331.8	1.64	331.8	1.64	1.00	106.5	0.56	5.1	59.8	0.00	1.00	59.9	95	0.76	78.25	5,188	4.33E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
337	55.04	55.20	0.2	55.12	1,332,540	19,417	6,614	200.5	1.46	1.81	358.5	1.66	358.5	1.66	1.01	115.9	0.56	5.4	65.0	0.01	1.00	65.2	95	0.70	80.49	5,345	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
338	55.20	55.36	0.2	55.28	1,520,900	17,725	6,634	228.3	1.17	1.70	408.6	1.55	408.6	1.55	1.00	127.5	0.56	3.5	71.4	0.00	1.00	71.4	95	0.70	82.96	5,517	3.78E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
339	55.36	55.53	0.2	55.45	1,554,180	5,440	6,654	232.6	0.35	1.34	416.9	1.14	416.9	1.14	1.00	115.0	0.56	0.0	64.3	0.00	1.00	64.3	95	0.70	80.13	5,336	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
340	55.53	55.69	0.2	55.61	1,398,760	6,211	6,673	208.6	0.45	1.44	374.7	1.25	374.7	1.25	1.00	106.7	0.56	0.0	59.6	0.00	1.00	59.6	95	0.70	78.12	5,211	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
341	55.69	55.86	0.2	55.77	1,103,780	7,714	6,693	163.9	0.70	1.65	295.2	1.46	295.2	1.46	1.00	90.0	0.56	2.3	50.1	0.00	1.00	50.1	95	0.70	73.75	4,927	4.27E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
342	55.86	56.02	0.2	55.94	861,400	8,753	6,713	127.3	1.02	1.84	230.1	1.66	230.1	1.66	1.01	74.8	0.56	5.3	41.6	0.01	1.00	41.7	91	0.70	69.38	4,641	4.54E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
343	56.02	56.18	0.2	56.10	667,640	9,250	6,732	98.2	1.40	2.01	178.0	1.83	178.0	1.83	1.13	61.7	0.56	8.8	34.3	0.50	1.02	35.3	85	0.70	65.62	4,396	4.81E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
344	56.18	56.35	0.2	56.27	606,720	9,480	6,752	88.9	1.58	2.08	161.6	1.90	161.6	1.90	1.19	57.4	0.56	10.4	31.9	0.99	1.02	33.6	83	0.70	64.54	4,330	4.90E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
345	56.35	56.51	0.2	56.43	655,860	10,840	6,772	95.9	1.67	2.07	174.4	1.89	174.4	1.89	1.18	62.0	0.55	10.3	34.4	0.96	1.02	36.1	86	0.70	66.10	4,442	4.79E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
346	56.51	56.68	0.2	56.59	737,380	11,185	6,791	107.6	1.53	2.01	195.8	1.83	195.8	1.83	1.13	68.2	0.55	8.9	37.7	0.51	1.02	38.9	88	0.70	67.74	4,558	4.68E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
347	56.68	56.84	0.2	56.76	838,940	10,911	6,811	122.2	1.31	1.92	222.4	1.75	222.4	1.75	1.07	75.2	0.55	7.0	41.5	0.12	1.01	42.0	92	0.70	69.54	4,686	4.56E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
348	56.84	57.00	0.2	56.92	916,080	10,946	6,831	133.1	1.20	1.87	242.5	1.69	242.5	1.69	1.03	80.6	0.55	6.0	44.5	0.03	1.00	44.7	94	0.70	70.99	4,791	4.48E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
349	57.00	57.17	0.2	57.09	891,900	10,029	6,850	129.2	1.13	1.86	235.8	1.68	235.8	1.68	1.03	78.2	0.55	5.8	43.1	0.02	1.00	43.3	93	0.70	70.21	4,744	4.53E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
350	57.17	57.33	0.2	57.25	861,140	7,518	6,870	124.3	0.88	1.80	227.3	1.61	227.3	1.61	1.00	73.7	0.55	4.5	40.5	0.00	1.00	40.5	90	0.70	68.71	4,650	4.64E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
351	57.33	57.50	0.2	57.41	954,100	6,858	6,890	137.5	0.72	1.71	251.5	1.52	251.5	1.52	1.00	79.2	0.55	3.1	43.5	0.00	1.00	43.5	93	0.70	70.35	4,768	4.54E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
352	57.50	57.66	0.2	57.58	1,076,900	10,518	6,909	154.9	0.98	1.76	283.5	1.58	283.5	1.58	1.00	91.3	0.55	4.1	50.1	0.00	1.00	50.1	95	0.70	73.72	5,003	4.34E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
353	57.66	57.82	0.2	57.74	1,200,820	9,996	6,929	172.3	0.84	1.68	315.7	1.50	315.7	1.50	1.00	99.0	0.55	2.8	54.3	0.00	1.00	54.3	95	0.70	75.72	5,146	4.23E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
354	57.82	57.99	0.2	57.91	1,364,740	10,383	6,949	195.4	0.76	1.61	358.2	1.43	358.2	1.43	1.00	110.2	0.55	1.9	60.3	0.00	1.00	60.3	95	0.70	78.43	5,338	4.09E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
355	57.99	58.15	0.2	58.07	1,443,120	12,002	6,969	206.1	0.84	1.62	378.3	1.45	378.3	1.45	1.00	117.1	0.55	2.1	64.0	0.00	1.00	64.0	95	0.70	80.00	5,453	4.01E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
356	58.15	58.32	0.2	58.23	1,530,720	12,600	6,988	218.0	0.83	1.60	400.7	1.43	400.7	1.43	1.00	123.5	0.55	1.9	67.4	0.00	1.00	67.4	95	0.70	81.38	5,555	3.95E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
357	58.32	58.48	0.2	58.40	1,558,000	10,434	7,008	221.3	0.67	1.54	407.2	1.36	407.2	1.36	1.00	122.8	0.54	1.0	66.9	0.00	1.00	66.9	95	0.70	81.19	5,550	3.96E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
358	58.48	58.65	0.2	58.56	1,558,280	6,808	7,028	220.7	0.44	1.42	406.7	1.22	406.7	1.22	1.00	117.8	0.54	0.0	64.1	0.00	1.00	64.1	95	0.70	80.05	5,479	4.03E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005

TOTAL SETTLEMENT (INCHES): 0.66

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-7
TOTAL DRY SETTLEMENT (IN.): 1.88

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	15.01	15.17	0.2	15.09	152,380	1,675	1,811	83.1	1.11	2.00	78.4	2.02	78.4	2.02	1.33	15.1	1.07	13.5	16.2	2.06	1.04	18.9	63	0.97	53.28	1,851	4.26E-04	1.90E-03	0.219%	0.219%	0.437%	0.0086
94	15.17	15.34	0.2	15.26	159,080	1,567	1,831	85.9	1.00	1.96	81.4	1.98	81.4	1.98	1.27	15.5	1.07	12.4	16.5	1.69	1.03	18.8	63	0.97	53.17	1,857	4.29E-04	1.90E-03	0.219%	0.219%	0.437%	0.0086
95	15.34	15.50	0.2	15.42	177,480	1,392	1,850	94.9	0.79	1.87	90.3	1.88	90.3	1.88	1.17	16.7	1.06	10.0	17.7	0.87	1.02	19.0	63	0.97	53.33	1,873	4.30E-04	1.90E-03	0.219%	0.219%	0.437%	0.0086
96	15.50	15.67	0.2	15.58	209,880	1,291	1,870	111.2	0.62	1.75	106.2	1.76	106.2	1.76	1.08	18.9	1.05	7.4	20.0	0.18	1.01	20.3	67	0.97	54.59	1,927	4.22E-04	1.40E-03	0.140%	0.140%	0.280%	0.0055
97	15.67	15.83	0.2	15.75	255,820	1,963	1,890	134.4	0.77	1.74	128.8	1.75	128.8	1.75	1.07	23.0	1.05	7.2	24.1	0.15	1.01	24.5	72	0.97	58.08	2,061	3.99E-04	1.40E-03	0.118%	0.118%	0.235%	0.0046
98	15.83	15.99	0.2	15.91	361,740	3,446	1,909	188.4	0.96	1.69	181.1	1.71	181.1	1.71	1.04	32.0	1.04	6.2	33.4	0.04	1.01	33.6	83	0.97	64.54	2,303	3.61E-04	8.50E-04	0.043%	0.043%	0.087%	0.0017
99	15.99	16.16	0.2	16.08	450,860	4,465	1,929	232.7	0.99	1.64	224.6	1.65	224.6	1.65	1.01	39.1	1.04	5.3	40.6	0.01	1.00	40.7	90	0.97	68.81	2,468	3.40E-04	8.50E-04	0.028%	0.028%	0.056%	0.0011
100	16.16	16.32	0.2	16.24	465,540	4,784	1,949	237.9	1.03	1.65	230.8	1.66	230.8	1.66	1.01	40.5	1.03	5.3	41.8	0.01	1.00	41.9	91	0.97	69.47	2,504	3.39E-04	8.50E-04	0.026%	0.026%	0.051%	0.0010
101	16.32	16.49	0.2	16.40	532,000	3,902	1,969	269.3	0.74	1.50	262.4	1.51	262.4	1.51	1.00	44.1	1.03	3.0	45.3	0.00	1.00	45.3	94	0.97	71.29	2,583	3.32E-04	7.50E-04	0.015%	0.015%	0.030%	0.0006
102	16.49	16.65	0.2	16.57	621,760	2,794	1,988	311.7	0.45	1.31	305.1	1.32	305.1	1.32	1.00	48.4	1.02	0.6	49.5	0.00	1.00	49.5	95	0.97	73.45	2,674	3.23E-04	7.50E-04	0.011%	0.011%	0.023%	0.0004
103	16.65	16.81	0.2	16.73	712,560	3,371	2,008	353.9	0.47	1.29	348.0	1.29	348.0	1.29	1.00	55.1	1.02	0.3	56.0	0.00	1.00	56.0	95	0.97	76.54	2,800	3.12E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
104	16.81	16.98	0.2	16.90	713,780	3,997	2,028	351.0	0.56	1.34	346.9	1.34	346.9	1.34	1.00	56.0	1.01	0.9	56.8	0.00	1.00	56.8	95	0.97	76.87	2,826	3.12E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
105	16.98	17.14	0.2	17.06	867,400	4,369	2,047	422.7	0.50	1.25	419.5	1.25	419.5	1.25	1.00	66.3	1.01	0.0	66.8	0.00	1.00	66.8	95	0.97	81.15	2,998	2.97E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
106	17.14	17.31	0.2	17.22	900,780	4,236	2,067	434.8	0.47	1.22	433.5	1.22	433.5	1.22	1.00	68.2	1.00	0.0	68.4	0.00	1.00	68.4	95	0.96	81.79	3,036	2.93E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
107	17.31	17.47	0.2	17.39	868,000	5,004	2,087	415.0	0.58	1.30	415.8	1.30	415.8	1.30	1.00	67.3	1.00	0.4	67.1	0.00	1.00	67.1	95	0.96	81.29	3,032	2.96E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
108	17.47	17.63	0.2	17.55	738,460	4,498	2,106	349.6	0.61	1.37	352.1	1.37	352.1	1.37	1.00	58.4	0.99	1.1	58.0	0.00	1.00	58.0	95	0.96	77.43	2,901	3.13E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
109	17.63	17.80	0.2	17.72	619,640	3,648	2,126	290.5	0.59	1.41	294.1	1.41	294.1	1.41	1.00	49.7	0.99	1.6	49.1	0.00	1.00	49.1	95	0.96	73.25	2,758	3.32E-04	7.50E-04	0.011%	0.011%	0.023%	0.0004
110	17.80	17.96	0.2	17.88	490,840	3,772	2,146	227.8	0.77	1.57	231.9	1.56	231.9	1.56	1.00	41.3	0.98	3.8	40.7	0.00	1.00	40.7	90	0.96	68.80	2,602	3.55E-04	8.50E-04	0.028%	0.028%	0.056%	0.0011
111	17.96	18.13	0.2	18.04	387,920	2,933	2,165	178.1	0.76	1.64	182.4	1.64	182.4	1.64	1.00	33.5	0.98	5.0	32.8	0.00	1.00	32.8	82	0.96	64.02	2,432	3.83E-04	1.20E-03	0.065%	0.065%	0.130%	0.0026
112	18.13	18.29	0.2	18.21	296,120	2,503	2,185	134.5	0.85	1.77	138.6	1.76	138.6	1.76	1.08	26.6	0.98	7.2	26.0	0.15	1.01	26.4	75	0.96	59.54	2,273	4.14E-04	1.20E-03	0.091%	0.091%	0.182%	0.0036
113	18.29	18.45	0.2	18.37	219,600	2,140	2,205	98.6	0.98	1.91	102.3	1.90	102.3	1.90	1.19	20.8	0.97	10.3	20.2	0.99	1.02	21.6	68	0.96	55.74	2,137	4.44E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
114	18.45	18.62	0.2	18.54	177,080	2,049	2,224	78.6	1.17	2.03	82.2	2.02	82.2	2.02	1.33	17.6	0.97	13.5	17.0	2.05	1.04	19.7	65	0.96	54.01	2,080	4.60E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
115	18.62	18.78	0.2	18.70	155,460	2,006	2,244	68.3	1.31	2.11	71.8	2.10	71.8	2.10	1.45	15.9	0.96	15.7	15.3	2.68	1.05	18.8	63	0.96	53.15	2,056	4.70E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
116	18.78	18.95	0.2	18.86	135,180	1,943	2,264	58.7	1.46	2.19	62.2	2.17	62.2	2.17	1.61	14.3	0.96	18.1	13.7	3.26	1.07	17.8	61	0.96	52.26	2,030	4.80E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
117	18.95	19.11	0.2	19.03	117,200	1,749	2,283	50.3	1.52	2.26	53.7	2.24	53.7	2.24	1.76	12.7	0.95	20.2	12.1	3.65	1.08	16.7	60	0.96	51.14	1,995	4.93E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
118	19.11	19.27	0.2	19.19	101,020	1,447	2,303	42.9	1.47	2.30	46.1	2.28	46.1	2.28	1.88	11.1	0.95	21.7	10.6	3.88	1.09	15.4	57	0.96	49.77	1,950	5.08E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
119	19.27	19.44	0.2	19.36	83,220	1,350	2,323	34.8	1.67	2.41	37.8	2.38	37.8	2.38	2.23	9.6	0.95	25.6	9.1	4.35	1.12	14.5	55	0.96	48.77	1,919	5.21E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
120	19.44	19.60	0.2	19.52	66,260	1,474	2,343	27.3	2.31	2.58	30.0	2.55	30.0	2.55	3.01	8.2	0.94	32.8	7.8	4.87	1.18	14.0	55	0.96	48.23	1,906	5.29E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
121	19.60	19.77	0.2	19.69	54,580	1,484	2,362	22.1	2.84	2.71	22.1	2.71	22.1	2.71	unsusceptible		0.94	40.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
122	19.77	19.93	0.2	19.85	50,940	1,566	2,382	20.4	3.22	2.77	20.4	2.77	20.4	2.77	unsusceptible		0.93	44.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
123	19.93	20.10	0.2	20.01	64,400	1,429	2,402	25.8	2.31	2.60	28.8	2.56	28.8	2.56	3.09	8.1	0.93	33.4	7.5	4.90	1.18	13.8	53	0.96	47.96	1,919	5.39E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
124	20.10	20.26	0.2	20.18	132,620	1,363	2,421	53.8	1.05	2.14	59.0	2.10	59.0	2.10	1.46	13.6	0.93	15.9	12.6	2.75	1.05	16.0	60	0.95	50.41	2,025	5.09E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
125	20.26	20.42	0.2	20.34	320,320	1,526	2,441	130.2	0.48	1.63	141.9	1.60	141.9	1.60	1.00	27.3	0.92	4.3	25.2	0.00	1.00	25.2	74	0.95	58.62	2,365	4.40E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
126	20.42	20.59	0.2	20.51	319,020	1,739	2,461	128.6	0.55	1.67	140.7	1.63	140.7	1.63	1.00	27.5	0.92	4.9	25.3	0.00	1.00	25.3	74	0.95	58.70	2,377	4.41E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
127	20.59	20.75	0.2	20.67	268,360	2,301	2,480	107.2	0.87	1.85	117.9	1.82	117.9	1.82	1.12	24.6	0.92	8.4	22.6	0.41	1.01	23.3	71	0.95	57.12	2,323	4.55E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
128	20.75	20.92	0.2	20.83	232,580	2,585	2,500	92.0	1.12	1.97	101.8	1.94	101.8	1.94	1.23	22.3	0.91	11.3	20.4	1.32	1.03	22.3	70	0.95	56.26	2,297	4.64E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
129	20.92	21.08	0.2	21.00	208,980	2,208	2,520	81.9	1.07	2.00	91.1	1.96	91.1	1.96	1.25	20.2	0.91	11.9	18.4	1.52	1.03	20.5	67	0.95	54.72	2,243	4.79E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
130	21.08	21.24	0.2	21.16	171,420	1,703	2,539	66.5	1.01	2.05	74.4	2.01	74.4	2.01	1.32	16.9	0.91	13.3	15.3	1.98	1.04	17.9	61	0.95	52.33	2,153	5.03E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
131	21.24	21.41	0.2	21.33	134,440	2,037	2,559	51.5	1.54	2.25	58.2	2.21	58.2	2.21	1.70	14.4	0.90	19.4	13.0	3.51	1.08	17.5	61	0.95	51.89	2,143	5.09E-04	1.80E-03	0.225%	0.225%	0.450%	0.0089
132	21.41	21.57	0.2	21.49	99,860	2,243	2,579	37.7	2.31	2.47	43.0	2.42	43.0	2.42	2.41	11.7	0.90	27.4	10.5	4.51	1.13	16.5	60	0.95	50.88	2,110	5.21E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
133	21.57	21.74	0.2	21.65	101,420	2,155	2,598	38.0	2.18	2.45	43.5	2.40	43.5	2.40	2.33	11.8	0.89	26.6	10.6	4.44	1.13	16.4	60	0.95	50.77	2,113	5.24E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
134	21.74	21.90	0.2	21.82	117,920	1,762	2,618	44.0	1.53	2.30	50.4	2.26	50.4	2.26	1.82	12.9	0.89	21.0	11.5	3.77	1.09	16.2	60	0.95	50.64	2,116	5.27E-04	2.70E-03	0.365%	0.365%	0.729%	0.0144
135	21.90	22.06	0.2	21.98	125,120	1,318	2,638	46.4	1.08	2.20	53.3	2.15	53.3	2.15	1.54	13.0	0.89	17.2	11.6	3.07	1.06	15.4	57	0.95	49.71	2,085	5.39E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
136	22.06	22.23	0.2	22.15	132,960	1,184	2,657	49.0	0.91	2.13	56.4	2.08	56.4	2.08	1.43	13.5	0.88	15.3	12.0	2.59	1.05	15.1	57	0.95	49.48	2,083	5.44E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
137	22.23	22.39	0.2	22.31	157,440	1,491	2,677	57.8	0.96	2.09	66.6	2.04	66.6	2.04	1.36	15.7	0.88	14.0	13.9	2.22	1.04	16.7	60	0.95	51.09	2,159	5.28E-04	2.70E-03	0.365%	0.365%	0.729%	0.0144
138	22.39	22.56	0.2	22.47	208,720	1,908	2,697	76.4	0.93	1.98	87.9	1.93	87.9	1.93	1.22	20.0	0.88	11.2	17.6	1.28	1.03	19.3	65	0.95	53.68	2,276	5.05E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
139	22.56	22.72	0.2	22.64	239,340	1,782	2,717	87.1	0.75	1.88	100.5	1.83	100.5	1.83	1.13	22.1	0.88	8.8	19.4	0.51	1.02	20.2	67	0.95	54.45	2,317	5.00E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
140	22.72	22.88	0.2	22.80	281,500	1,860	2,736	101.9	0.67	1.80	117.8	1.75	117.8	1.75	1.07	25.2	0.87	7.0	22.0	0.12	1.01	22.3	70	0.95	56.29	2,404	4.85E-04	1.80E-03	0.166%	0.166%	0.331%	0.0065
141	22.88	23.05	0.2	22.97	348,800	2,442	2,756	125.6	0.71	1.74	145.4	1.69	145.4	1.69	1.03	30.6	0.87	5.9	26.6	0.02	1.00	26.8	75	0.95	59.82	2,564	4.58E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
142	23.05	23.21	0.2	23.13	463,660	3,530	2,776	166.0	0.77	1.67	192.6	1.62	192.6	1.62	1.00	39.8	0.87	4.7	34.4	0.00	1.00	34.4	84	0.95	65.07	2,799	4.22E-04	9.20E-04	0.044%	0.044%	0.088%	0.0017
143	23.21	23.38	0.2	23.29	640,020	3,699	2,795	228.0	0.58	1.48	264.9	1.44	264.9	1.44	1.00	51.7	0.86	2.0	44.6	0.00	1.00	44.6	94	0.95	70.94	3,063	3.89E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
144	23.38	23.54	0.2	23.46	755,000	5,438	2,815	267.2	0.72	1.50	311.4	1.46	311.4	1.46	1.00	61.4	0.86	2.2	52.8	0.00	1.00	52.8	95	0.95	75.02	3,250	3.69E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
145	23.54	23.70	0.2	23.62	809,300	5,156	2,835	284.5	0.64	1.44	332.6	1.40	332.6	1.40	1.00	64.6	0.86	1.5	55.3	0.00	1.00	55.3	95	0.95	76.22	3,313	3.65E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
146	23.70	23.87	0.2	23.79	843,560	4,860	2,854	294.5	0.58	1.40	345.5	1.35	345.5	1.35	1.00	66.4	0.85	1.0	56.7	0.00	1.00	56.7	95	0.95	76.85	3,352	3.63E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
147	23.87	24.03	0.2	23.95	891,120	5,914	2,874	309.1	0.67	1.43	363.7	1.38	363.7	1.38	1.00	70.9	0.85	1.3	60.3	0.00	1.00	60.3	95	0.95	78.42	3,433	3.57E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
148	24.03	24.20	0.2	24.11	940,000	6,512	2,894	323.8	0.69	1.43	382.4	1.38	382.4	1.38	1.00	74.7	0.85	1.3	63.4	0.00	1.00	63.4	95	0.94	79.74	3,502	3.48E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
149	24.20	24.36	0.2	24.28	928,720	9,087	2,913	317.8	0.98	1.55	376.5	1.51	376.5	1.51	1.00	76.8	0.84	2.9	64.9	0.00	1.00	64.9	95	0.94	80.36	3,541	3.47E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
150	24.36	24.52	0.2	24.44	825,100	7,333	2,933	280.3	0.89	1.55	333.4	1.51	333.4	1.51	1.00	68.2	0.84	2.9	57.4	0.00	1.00	57.4	95	0.94	77.16	3,412	3.62E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
151	24.52	24.69	0.2	24.61	654,940	6,040	2,953	220.8	0.93	1.64	263.7	1.58	263.7	1.58	1.00	55.5	0.84	4.1	46.6	0.00	1.00	46.6	95	0.94	71.97	3,193	3.90E-04	9.20E-04	0.017%	0.017%	0.033%	0.0007
152	24.69	24.85	0.2	24.77	503,100	3,344	2,972	168.3	0.67	1.62	201.9	1.56	201.9	1.56	1.00	42.4	0.84	3.8	35.5	0.00	1.00	35.5	85	0.94	65.71	2,925	4.28E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
153	24.85	25.02	0.2	24.93	378,180	3,184	2,992	125.4	0.85	1.79	151.3	1.73	151.3	1.73	1.06	33.7	0.83	6.6	28.1	0.08	1.01	28.3	78	0.94	60.98	2,724	4.63E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
154	25.02	25.18	0.2	25.10	307,780	3,159	3,012	101.2	1.04	1.92	122.7	1.85	122.7	1.85	1.15	28.7	0.83	9.3	23.8	0.64	1.02	24.9	72	0.94	58.40	2,617	4.85E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
155	25.18	25.34	0.2	25.26	268,220	3,327	3,031	87.5	1.25	2.02	106.6	1.95	106.6	1.95	1.24	25.9	0.83	11.7	21.5	1.46	1.03	23.6	71	0.94	57.36	2,579	4.96E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
156	25.34	25.51	0.2	25.43	245,540	3,299	3,051	79.5	1.36	2.07	97.3	2.01	97.3	2.01	1.31	24.2	0.83	13.1	20.0	1.94	1.04	22.7	70	0.94	56.62	2,553	5.04E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
157	25.51	25.67	0.2	25.59	225,840	3,316	3,071	72.5	1.49	2.13	89.2	2.06	89.2	2.06	1.39	22.8	0.82	14.7	18.7	2.40	1.05	22.0	68	0.94	56.03	2,535	5.11E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
158	25.67	25.84	0.2	25.75	216,860	3,282	3,091	69.2	1.54	2.15	85.4	2.08	85.4	2.08	1.43	22.0	0.82	15.3	18.1	2.59	1.05	21.6	68	0.94	55.69	2,528	5.15E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
159	25.84	26.00	0.2	25.92	209,040	3,515	3,110	66.2	1.71	2.20	82.0	2.13	82.0	2.13	1.51	21.6	0.82	16.7	17.7	2.94	1.06	21.7	68	0.94	55.74	2,538	5.17E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
160	26.00	26.16	0.2	26.08	202,540	3,731	3,130	63.7	1.87	2.24	79.2	2.17	79.2	2.17	1.59	21.3	0.82	17.9	17.4	3.21	1.07	21.7	68	0.94	55.79	2,548	5.18E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
161	26.16	26.33	0.2	26.25	189,540	3,897	3,150	59.2	2.09	2.29	73.9	2.22	73.9	2.22	1.72	20.4	0.81	19.7	16.6	3.57	1.08	21.4	68	0.94	55.54	2,545	5.22E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
162	26.33	26.49	0.2	26.41	177,300	3,689	3,169	54.9	2.12	2.32	68.9	2.25	68.9	2.25	1.79	19.3	0.81	20.6	15.6	3.72	1.08	20.6	67	0.94	54.86	2,522	5.30E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
163	26.49	26.66	0.2	26.57	166,860	3,225	3,189	51.3	1.97	2.32	64.7	2.25	64.7	2.25	1.79	18.1	0.81	20.6	14.6	3.71	1.08	19.6	65	0.94	53.91	2,486	5.41E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
164	26.66	26.82	0.2	26.74	168,780	2,835	3,209	51.6	1.71	2.28	65.2	2.20	65.2	2.20	1.67	18.0	0.81	19.1	14.5	3.45	1.07	19.0	65	0.94	53.39	2,469	5.48E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
165	26.82	26.98	0.2	26.90	183,660	2,857	3,228	55.9	1.58	2.23	70.7	2.15	70.7	2.15	1.56	19.2	0.80	17.5	15.4	3.12	1.06	19.5	65	0.94	53.84	2,498	5.45E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
166	26.98	27.15	0.2	27.07	219,420	2,899	3,248	66.6	1.34	2.13	84.2	2.05	84.2	2.05	1.37	22.0	0.80	14.3	17.6	2.30	1.04	20.7	67	0.94	54.90	2,555	5.36E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
167	27.15	27.31	0.2	27.23	231,000	2,791	3,268	69.7	1.23	2.09	88.4	2.01	88.4	2.01	1.31	22.8	0.80	13.2	18.2	1.94	1.04	20.8	67	0.93	55.02	2,568	5.31E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
168	27.31	27.48	0.2	27.40	206,240	2,410	3,287	61.7	1.19	2.12	78.7	2.04	78.7	2.04	1.35	20.6	0.80	14.0	16.4	2.20	1.04	19.3	65	0.93	53.62	2,510	5.46E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
169	27.48	27.64	0.2	27.56	177,660	2,172	3,307	52.7	1.25	2.19	67.6	2.10	67.6	2.10	1.46	18.2	0.79	15.9	14.4	2.74	1.05	17.9	61	0.93	52.35	2,458	5.61E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
170	27.64	27.81	0.2	27.72	169,980	2,252	3,327	50.1	1.35	2.23	64.5	2.14	64.5	2.14	1.53	17.7	0.79	17.1	14.0	3.03	1.06	17.8	61	0.93	52.27	2,461	5.64E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
171	27.81	27.97	0.2	27.89	175,780	2,605	3,346	51.5	1.51	2.25	66.5	2.16	66.5	2.16	1.58	18.4	0.79	17.7	14.5	3.17	1.06	18.6	63	0.93	53.03	2,505	5.57E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
172	27.97	28.13	0.2	28.05	178,320	2,840	3,366	52.0	1.62	2.26	67.3	2.18	67.3	2.18	1.61	18.8	0.79	18.3	14.8	3.29	1.07	19.1	65	0.93	53.46	2,532	5.54E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	171,140	2,734	3,386	49.5	1.63	2.28	64.4	2.19	64.4	2.19	1.65	18.2	0.78	18.8	14.3	3.39	1.07	18.7	63	0.93	53.05	2,520	5.60E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
174	28.30	28.46	0.2	28.38	159,960	2,459	3,406	46.0	1.57	2.30	60.0	2.21	60.0	2.21	1.68	17.1	0.78	19.2	13.4	3.47	1.07	17.8	61	0.93	52.24	2,489	5.71E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
175	28.46	28.63	0.2	28.54	147,060	1,996	3,425	41.9	1.39	2.30	55.0	2.20	55.0	2.20	1.67	15.7	0.78	19.1	12.2	3.45	1.07	16.6	60	0.93	50.98	2,436	5.86E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
176	28.63	28.79	0.2	28.71	136,680	1,436	3,445	38.7	1.08	2.26	51.0	2.16	51.0	2.16	1.58	14.3	0.78	17.8	11.1	3.18	1.06	15.0	57	0.93	49.38	2,366	6.07E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
177	28.79	28.95	0.2	28.87	140,660	1,570	3,465	39.6	1.14	2.27	52.3	2.17	52.3	2.17	1.59	14.8	0.77	18.0	11.5	3.23	1.07	15.4	57	0.93	49.81	2,394	6.04E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
178	28.95	29.12	0.2	29.04	166,420	1,903	3,484	46.8	1.17	2.21	61.7	2.12	61.7	2.12	1.49	17.1	0.77	16.3	13.2	2.85	1.06	16.8	60	0.93	51.25	2,470	5.88E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
179	29.12	29.28	0.2	29.20	214,080	2,295	3,504	60.1	1.09	2.11	79.1	2.01	79.1	2.01	1.32	21.2	0.77	13.3	16.3	1.98	1.04	18.9	63	0.93	53.29	2,575	5.67E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
180	29.28	29.45	0.2	29.36	260,940	2,363	3,524	73.1	0.92	1.99	96.2	1.90	96.2	1.90	1.19	24.7	0.77	10.4	19.0	1.00	1.02	20.4	67	0.93	54.68	2,650	5.55E-04	1.60E-03	0.160%	0.160%	0.320%	0.0063
181	29.45	29.61	0.2	29.53	299,740	2,244	3,543	83.6	0.76	1.90	110.2	1.80	110.2	1.80	1.11	27.4	0.77	8.2	21.0	0.34	1.01	21.6	68	0.93	55.71	2,707	5.46E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
182	29.61	29.77	0.2	29.69	319,640	2,131	3,563	88.7	0.67	1.85	117.2	1.75	117.2	1.75	1.07	28.7	0.76	7.1	21.9	0.13	1.01	22.2	70	0.93	56.25	2,741	5.42E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
183	29.77	29.94	0.2	29.86	321,620	2,062	3,583	88.8	0.65	1.84	117.6	1.74	117.6	1.74	1.06	28.7	0.76	6.9	21.9	0.10	1.01	22.2	70	0.93	56.19	2,746	5.44E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
184	29.94	30.10	0.2	30.02	340,500	2,044	3,602	93.5	0.61	1.80	124.1	1.70	124.1	1.70	1.04	30.1	0.76	6.2	22.8	0.04	1.01	23.0	70	0.93	56.88	2,787	5.39E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
185	30.10	30.27	0.2	30.18	433,540	1,996	3,622	118.7	0.46	1.65	157.6	1.55	157.6	1.55	1.00	36.4	0.76	3.6	27.6	0.00	1.00	27.6	77	0.92	60.41	2,968	5.03E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
186	30.27	30.43	0.2	30.35	534,420	2,662	3,642	145.7	0.50	1.60	193.8	1.50	193.8	1.50	1.00	44.1	0.76	2.8	33.3	0.00	1.00	33.3	83	0.92	64.35	3,171	4.74E-04	1.00E-03	0.051%	0.051%	0.102%	0.0020
187	30.43	30.59	0.2	30.51	601,780	2,671	3,661	163.4	0.45	1.53	217.6	1.43	217.6	1.43	1.00	48.5	0.75	1.9	36.6	0.00	1.00	36.6	86	0.92	66.38	3,280	4.61E-04	1.00E-03	0.042%	0.042%	0.084%	0.0017
188	30.59	30.76	0.2	30.68	565,940	2,388	3,681	152.7	0.42	1.54	204.1	1.44	204.1	1.44	1.00	45.8	0.75	2.0	34.4	0.00	1.00	34.4	84	0.92	65.04	3,222	4.71E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
189	30.76	30.92	0.2	30.84	480,480	2,307	3,701	128.8	0.48	1.63	172.8	1.53	172.8	1.53	1.00	40.0	0.75	3.3	30.0	0.00	1.00	30.0	79	0.92	62.14	3,087	4.95E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
190	30.92	31.09	0.2	31.00	391,480	2,371	3,720	104.2	0.61	1.77	140.4	1.66	140.4	1.66	1.01	34.1	0.75	5.4	25.5	0.01	1.00	25.6	74	0.92	58.91	2,934	5.23E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
191	31.09	31.25	0.2	31.17	332,920	2,721	3,740	88.0	0.83	1.90	119.1	1.80	119.1	1.80	1.11	30.4	0.75	8.1	22.7	0.32	1.01	23.3	71	0.92	57.11	2,852	5.41E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
192	31.25	31.41	0.2	31.33	302,460	3,161	3,760	79.4	1.06	2.00	107.9	1.90	107.9	1.90	1.19	28.7	0.74	10.4	21.3	1.01	1.02	22.8	70	0.92	56.73	2,840	5.46E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
193	31.41	31.58	0.2	31.50	307,800	3,205	3,780	80.4	1.05	2.00	109.6	1.89	109.6	1.89	1.18	29.1	0.74	10.3	21.6	0.96	1.02	23.0	71	0.92	56.91	2,857	5.46E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
194	31.58	31.74	0.2	31.66	361,100	2,623	3,799	94.0	0.73	1.85	128.2	1.74	128.2	1.74	1.07	32.3	0.74	6.9	23.9	0.11	1.01	24.2	72	0.92	57.86	2,912	5.38E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
195	31.74	31.91	0.2	31.82	407,800	2,329	3,819	105.8	0.58	1.75	144.4	1.64	144.4	1.64	1.00	35.2	0.74	5.0	26.0	0.00	1.00	26.0	74	0.92	59.23	2,989	5.27E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
196	31.91	32.07	0.2	31.99	416,920	2,482	3,839	107.6	0.60	1.75	147.2	1.64	147.2	1.64	1.00	36.0	0.74	5.1	26.5	0.00	1.00	26.6	75	0.92	59.67	3,019	5.25E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
197	32.07	32.23	0.2	32.15	403,760	2,647	3,858	103.6	0.66	1.79	142.2	1.68	142.2	1.68	1.02	35.3	0.73	5.7	26.0	0.02	1.00	26.1	75	0.91	59.30	3,007	5.24E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
198	32.23	32.40	0.2	32.32	380,000	4,778	3,878	97.0	1.27	1.99	133.5	1.89	133.5	1.89	1.18	35.8	0.73	10.1	26.2	0.90	1.02	27.7	77	0.91	60.52	3,077	5.14E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
199	32.40	32.56	0.2	32.48	358,740	5,386	3,898	91.0	1.52	2.06	125.7	1.96	125.7	1.96	1.25	34.8	0.73	11.9	25.4	1.52	1.03	27.7	77	0.91	60.51	3,084	5.16E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
200	32.56	32.73	0.2	32.64	370,120	4,492	3,917	93.5	1.23	1.99	129.4	1.89	129.4	1.89	1.18	34.9	0.73	10.1	25.4	0.89	1.02	26.9	75	0.91	59.89	3,061	5.22E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
201	32.73	32.89	0.2	32.81	298,720	3,901	3,937	74.9	1.32	2.08	104.2	1.98	104.2	1.98	1.27	29.1	0.73	12.3	21.2	1.67	1.03	23.5	71	0.91	57.32	2,937	5.47E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
202	32.89	33.05	0.2	32.97	315,760	3,726	3,957	78.8	1.19	2.04	109.8	1.93	109.8	1.93	1.22	30.2	0.73	11.1	21.9	1.26	1.03	23.8	71	0.91	57.51	2,954	5.47E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
203	33.05	33.22	0.2	33.14	312,360	2,611	3,976	77.6	0.85	1.95	108.4	1.84	108.4	1.84	1.14	28.9	0.72	8.9	20.9	0.54	1.02	21.8	68	0.91	55.87	2,877	5.64E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
204	33.22	33.38	0.2	33.30	288,860	2,382	3,996	71.3	0.84	1.98	100.0	1.86	100.0	1.86	1.15	27.0	0.72	9.5	19.5	0.70	1.02	20.5	67	0.91	54.77	2,827	5.77E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
205	33.38	33.55	0.2	33.46	267,880	2,708	4,016	65.7	1.03	2.06	92.5	1.94	92.5	1.94	1.23	25.8	0.72	11.5	18.6	1.37	1.03	20.5	67	0.91	54.71	2,831	5.79E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
206	33.55	33.71	0.2	33.63	264,480	2,802	4,035	64.5	1.08	2.08	91.1	1.96	91.1	1.96	1.25	25.6	0.72	11.9	18.4	1.53	1.03	20.5	67	0.91	54.75	2,840	5.80E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
207	33.71	33.87	0.2	33.79	264,500	3,558	4,055	64.2	1.37	2.14	90.9	2.03	90.9	2.03	1.34	26.3	0.72	13.8	18.9	2.14	1.04	21.8	68	0.91	55.84	2,903	5.70E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
208	33.87	34.04	0.2	33.96	277,980	2,737	4,075	67.2	1.00	2.05	95.3	1.93	95.3	1.93	1.21	26.6	0.71	11.0	19.0	1.22	1.03	20.7	67	0.91	54.93	2,863	5.81E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
209	34.04	34.20	0.2	34.12	290,340	2,114	4,094	69.9	0.74	1.96	99.3	1.83	99.3	1.83	1.13	26.8	0.71	8.8	19.1	0.50	1.02	19.9	65	0.90	54.22	2,833	5.83E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
210	34.20	34.37	0.2	34.28	269,740	1,676	4,114	64.6	0.63	1.95	92.0	1.82	92.0	1.82	1.12	24.8	0.71	8.5	17.6	0.43	1.01	18.3	63	0.90	52.73	2,762	6.01E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
211	34.37	34.53	0.2	34.45	215,560	1,572	4,134	51.1	0.74	2.07	73.4	1.94	73.4	1.94	1.23	20.7	0.71	11.4	14.7	1.34	1.03	16.5	60	0.90	50.88	2,671	6.25E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
212	34.53	34.69	0.2	34.61	175,880	1,546	4,154	41.3	0.90	2.19	59.7	2.06	59.7	2.06	1.39	17.7	0.71	14.7	12.5	2.40	1.05	15.5	57	0.90	49.89	2,625	6.39E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
213	34.69	34.86	0.2	34.78	153,660	1,762	4,173	35.8	1.18	2.31	52.0	2.18	52.0	2.18	1.61	16.2	0.71	18.3	11.5	3.29	1.07	15.5	57	0.90	49.89	2,631	6.40E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
214	34.86	35.02	0.2	34.94	159,280	2,062	4,193	37.0	1.33	2.33	53.8	2.20	53.8	2.20	1.66	17.0	0.70	18.9	11.9	3.42	1.07	16.2	60	0.90	50.63	2,677	6.32E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
215	35.02	35.19	0.2	35.10	204,180	2,132	4,213	47.5	1.07	2.18	68.8	2.05	68.8	2.05	1.38	20.5	0.70	14.5	14.4	2.35	1.05	17.4	61	0.89	51.83	2,747	6.12E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
216	35.19	35.35	0.2	35.27	265,480	2,033	4,232	61.7	0.78	2.01	89.3	1.88	89.3	1.88	1.17	25.0	0.70	10.0	17.5	0.86	1.02	18.7	63	0.89	53.13	2,822	5.99E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
217	35.35	35.52	0.2	35.43	337,560	1,677	4,252	78.4	0.50	1.83	113.3	1.69	113.3	1.69	1.03	29.7	0.70	5.9	20.7	0.03	1.00	20.9	67	0.89	55.06	2,931	5.79E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
218	35.52	35.68	0.2	35.60	395,420	1,397	4,272	91.6	0.36	1.69	132.4	1.55	132.4	1.55	1.00	33.2	0.70	3.6	23.2	0.00	1.00	23.2	71	0.89	57.01	3,042	5.60E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
219	35.68	35.84	0.2	35.76	394,480	1,991	4,291	90.9	0.51	1.77	131.8	1.64	131.8	1.64	1.00	34.1	0.70	5.0	23.7	0.00	1.00	23.7	71	0.89	57.48	3,075	5.57E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
220	35.84	36.01	0.2	35.93	344,880	2,467	4,311	79.0	0.72	1.91	114.9	1.78	114.9	1.78	1.09	31.2	0.69	7.6	21.7	0.22	1.01	22.1	70	0.89	56.17	3,011	5.72E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
221	36.01	36.17	0.2	36.09	297,280	2,871	4,331	67.6	0.98	2.04	98.8	1.91	98.8	1.91	1.20	28.2	0.69	10.6	19.6	1.07	1.02	21.1	68	0.88	55.29	2,971	5.75E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
222	36.17	36.34	0.2	36.25	263,480	3,089	4,350	59.6	1.19	2.13	87.4	2.00	87.4	2.00	1.31	26.0	0.69	13.1	17.9	1.91	1.04	20.5	67	0.88	54.76	2,949	5.82E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
223	36.34	36.50	0.2	36.42	258,840	3,271	4,370	58.2	1.29	2.16	85.7	2.03	85.7	2.03	1.34	25.8	0.69	13.8	17.8	2.15	1.04	20.7	67	0.88	54.89	2,963	5.82E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
224	36.50	36.66	0.2	36.58	291,220	3,362	4,390	65.3	1.17	2.10	96.2	1.97	96.2	1.97	1.26	28.3	0.69	12.1	19.5	1.59	1.03	21.7	68	0.88	55.77	3,017	5.74E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
225	36.66	36.83	0.2	36.75	338,380	3,473	4,409	75.7	1.04	2.02	111.5	1.89	111.5	1.89	1.18	31.9	0.69	10.0	21.9	0.88	1.02	23.3	71	0.88	57.09	3,095	5.62E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
226	36.83	36.99	0.2	36.91	376,340	3,810	4,429	84.0	1.02	1.98	123.7	1.85	123.7	1.85	1.14	35.0	0.69	9.2	24.0	0.60	1.02	25.0	72	0.88	58.47	3,177	5.50E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
227	36.99	37.16	0.2	37.07	423,360	3,843	4,449	94.2	0.92	1.91	138.9	1.78	138.9	1.78	1.09	38.4	0.68	7.7	26.2	0.23	1.01	26.7	75	0.88	59.81	3,257	5.39E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
228	37.16	37.32	0.2	37.24	426,640	4,301	4,469	94.5	1.02	1.93	139.7	1.81	139.7	1.81	1.11	39.1	0.68	8.3	26.6	0.36	1.01	27.4	77	0.87	60.28	3,290	5.30E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
229	37.32	37.48	0.2	37.40	406,540	4,663	4,488	89.6	1.16	1.99	132.8	1.86	132.8	1.86	1.15	38.0	0.68	9.5	25.8	0.70	1.02	27.0	77	0.87	60.03	3,283	5.33E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
230	37.48	37.65	0.2	37.57	429,500	3,945	4,508	94.3	0.93	1.91	140.0	1.78	140.0	1.78	1.09	38.9	0.68	7.7	26.4	0.23	1.01	27.0	75	0.87	59.98	3,288	5.35E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
231	37.65	37.81	0.2	37.73	437,900	3,600	4,528	95.7	0.83	1.87	142.4	1.74	142.4	1.74	1.07	39.2	0.68	6.9	26.5	0.11	1.01	26.9	75	0.87	59.91	3,291	5.37E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
232	37.81	37.98	0.2	37.89	435,960	4,181	4,547	94.9	0.97	1.92	141.5	1.79	141.5	1.79	1.10	39.6	0.68	7.9	26.8	0.27	1.01	27.4	77	0.87	60.30	3,320	5.34E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
233	37.98	38.14	0.2	38.06	407,040	3,840	4,567	88.1	0.95	1.94	131.8	1.81	131.8	1.81	1.11	37.3	0.67	8.3	25.1	0.36	1.01	25.8	74	0.87	59.13	3,263	5.46E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
234	38.14	38.30	0.2	38.22	410,640	3,473	4,587	88.5	0.86	1.91	132.7	1.77	132.7	1.77	1.09	37.1	0.67	7.5	25.0	0.21	1.01	25.5	74	0.87	58.86	3,255	5.50E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
235	38.30	38.47	0.2	38.39	393,120	3,115	4,606	84.3	0.80	1.91	126.7	1.77	126.7	1.77	1.09	35.5	0.67	7.5	23.9	0.20	1.01	24.3	72	0.87	57.94	3,211	5.60E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
236	38.47	38.63	0.2	38.55	398,020	3,007	4,626	85.0	0.76	1.89	128.1	1.75	128.1	1.75	1.07	35.8	0.67	7.2	24.0	0.14	1.01	24.3	72	0.87	57.96	3,219	5.61E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
237	38.63	38.80	0.2	38.71	449,060	3,022	4,646	95.7	0.68	1.82	144.2	1.68	144.2	1.68	1.03	39.3	0.67	5.8	26.3	0.02	1.00	26.4	75	0.87	59.59	3,316	5.47E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
238	38.80	38.96	0.2	38.88	479,660	2,780	4,665	101.8	0.59	1.76	153.7	1.62	153.7	1.62	1.00	41.2	0.67	4.7	27.5	0.00	1.00	27.5	77	0.87	60.35	3,366	5.41E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
239	38.96	39.12	0.2	39.04	448,020	2,684	4,685	94.6	0.61	1.80	143.2	1.65	143.2	1.65	1.01	38.9	0.67	5.3	25.9	0.01	1.00	26.0	74	0.87	59.22	3,310	5.52E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
240	39.12	39.29	0.2	39.21	374,100	2,704	4,705	78.5	0.73	1.91	119.3	1.77	119.3	1.77	1.08	33.8	0.66	7.4	22.4	0.18	1.01	22.9	70	0.86	56.75	3,178	5.71E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
241	39.29	39.45	0.2	39.37	337,280	2,902	4,724	70.4	0.87	1.99	107.4	1.85	107.4	1.85	1.14	31.4	0.66	9.2	20.8	0.62	1.02	21.8	68	0.86	55.86	3,135	5.81E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
242	39.45	39.62	0.2	39.53	342,920	3,342	4,744	71.3	0.99	2.02	108.9	1.88	108.9	1.88	1.17	32.2	0.66	9.9	21.3	0.83	1.02	22.6	70	0.86	56.56	3,181	5.75E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
243	39.62	39.78	0.2	39.70	366,200	3,133	4,764	75.9	0.87	1.97	116.1	1.82	116.1	1.82	1.12	33.7	0.66	8.6	22.3	0.44	1.02	23.0	71	0.86	56.91	3,207	5.73E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
244	39.78	39.94	0.2	39.86	382,460	3,696	4,783	79.0	0.98	1.98	121.0	1.84	121.0	1.84	1.14	35.5	0.66	9.0	23.4	0.56	1.02	24.3	72	0.86	57.96	3,273	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
245	39.94	40.11	0.2	40.03	358,260	3,470	4,803	73.6	0.98	2.01	113.1	1.86	113.1	1.86	1.16	33.5	0.66	9.5	22.0	0.72	1.02	23.2	71	0.86	57.03	3,227	5.74E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
246	40.11	40.27	0.2	40.19	324,000	3,067	4,823	66.2	0.96	2.04	102.1	1.89	102.1	1.89	1.18	30.6	0.66	10.2	20.1	0.94	1.02	21.5	68	0.85	55.60	3,153	5.83E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
247	40.27	40.44	0.2	40.35	343,060	2,647	4,843	69.8	0.78	1.97	107.9	1.82	107.9	1.82	1.12	31.5	0.66	8.5	20.7	0.42	1.01	21.4	68	0.85	55.52	3,155	5.85E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
248	40.44	40.60	0.2	40.52	372,760	3,471	4,862	75.7	0.94	1.99	117.0	1.84	117.0	1.84	1.14	34.6	0.65	9.0	22.6	0.57	1.02	23.6	71	0.85	57.34	3,264	5.68E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
249	40.60	40.76	0.2	40.68	386,460	2,472	4,882	78.2	0.65	1.88	121.0	1.73	121.0	1.73	1.06	34.4	0.65	6.7	22.5	0.08	1.01	22.7	70	0.85	56.64	3,231	5.76E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
250	40.76	40.93	0.2	40.85	375,840	2,865	4,902	75.7	0.77	1.94	117.5	1.79	117.5	1.79	1.10	34.1	0.65	7.8	22.2	0.26	1.01	22.8	70	0.85	56.68	3,240	5.77E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
251	40.93	41.09	0.2	41.01	350,560	3,362	4,921	70.2	0.97	2.02	109.3	1.87	109.3	1.87	1.16	32.9	0.65	9.7	21.4	0.79	1.02	22.6	70	0.85	56.54	3,239	5.79E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
252	41.09	41.26	0.2	41.17	314,780	3,643	4,941	62.7	1.18	2.11	98.0	1.96	98.0	1.96	1.25	30.5	0.65	12.0	19.8	1.54	1.03	22.0	68	0.84	56.01	3,215	5.79E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
253	41.26	41.42	0.2	41.34	303,000	3,865	4,961	60.1	1.30	2.15	94.1	2.00	94.1	2.00	1.31	29.8	0.65	13.1	19.3	1.91	1.04	21.9	68	0.84	56.00	3,220	5.80E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
254	41.42	41.58	0.2	41.50	344,160	3,543	4,980	68.1	1.04	2.05	106.7	1.90	106.7	1.90	1.19	32.6	0.65	10.4	21.1	1.01	1.02	22.6	70	0.84	56.53	3,257	5.76E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
255	41.58	41.75	0.2	41.67	473,340	4,213	5,000	93.7	0.90	1.90	146.5	1.75	146.5	1.75	1.07	42.5	0.64	7.2	27.4	0.15	1.01	27.8	77	0.84	60.62	3,500	5.38E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
256	41.75	41.91	0.2	41.83	754,460	4,560	5,020	149.3	0.61	1.64	233.0	1.49	233.0	1.49	1.00	62.1	0.64	2.7	40.0	0.00	1.00	40.0	89	0.84	68.37	3,955	4.78E-04	1.30E-03	0.046%	0.046%	0.091%	0.0018
257	41.91	42.08	0.2	41.99	995,520	5,780	5,039	196.5	0.58	1.54	306.9	1.39	306.9	1.39	1.00	79.4	0.64	1.4	51.0	0.00	1.00	51.0	95	0.84	74.16	4,299	4.42E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
258	42.08	42.24	0.2	42.16	961,040	5,375	5,059	189.0	0.56	1.54	295.7	1.39	295.7	1.39	1.00	76.6	0.64	1.4	49.1	0.00	1.00	49.1	95	0.83	73.25	4,254	4.43E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
259	42.24	42.40	0.2	42.32	807,260	5,061	5,079	157.9	0.63	1.63	247.9	1.48	247.9	1.48	1.00	66.2	0.64	2.6	42.4	0.00	1.00	42.4	92	0.83	69.73	4,057	4.66E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
260	42.40	42.57	0.2	42.49	735,020	4,517	5,098	143.2	0.62	1.66	225.2	1.51	225.2	1.51	1.00	60.8	0.64	2.9	38.8	0.00	1.00	38.8	88	0.83	67.72	3,948	4.81E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
261	42.57	42.73	0.2	42.65	639,720	3,780	5,118	124.0	0.60	1.70	195.7	1.54	195.7	1.54	1.00	53.5	0.64	3.5	34.1	0.00	1.00	34.1	84	0.83	64.86	3,789	5.03E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
262	42.73	42.90	0.2	42.81	529,440	3,495	5,138	102.0	0.67	1.80	161.6	1.64	161.6	1.64	1.00	45.7	0.64	5.0	29.1	0.00	1.00	29.1	79	0.83	61.50	3,599	5.31E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
263	42.90	43.06	0.2	42.98	401,300	3,314	5,157	76.8	0.84	1.95	122.3	1.79	122.3	1.79	1.10	36.6	0.64	8.0	23.2	0.30	1.01	23.8	71	0.83	57.54	3,374	5.69E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
264	43.06	43.23	0.2	43.14	330,920	3,212	5,177	62.9	0.99	2.07	100.6	1.90	100.6	1.90	1.19	31.4	0.63	10.5	19.9	1.04	1.02	21.4	68	0.83	55.54	3,263	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
265	43.23	43.39	0.2	43.31	292,000	3,229	5,197	55.2	1.13	2.15	88.6	1.98	88.6	1.98	1.28	28.5	0.63	12.5	18.1	1.73	1.03	20.4	67	0.83	54.65	3,217	6.01E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
266	43.39	43.55	0.2	43.47	273,280	3,376	5,217	51.4	1.26	2.20	82.8	2.04	82.8	2.04	1.35	27.3	0.63	14.0	17.2	2.20	1.04	20.2	67	0.83	54.42	3,210	6.05E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
267	43.55	43.72	0.2	43.64	273,300	3,422	5,236	51.2	1.28	2.20	82.6	2.04	82.6	2.04	1.36	27.3	0.63	14.1	17.2	2.24	1.04	20.2	67	0.83	54.47	3,218	6.06E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
268	43.72	43.88	0.2	43.80	281,700	2,373	5,256	52.6	0.86	2.10	85.0	1.92	85.0	1.92	1.21	26.9	0.63	11.0	16.9	1.21	1.03	18.6	63	0.83	52.98	3,136	6.24E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
269	43.88	44.05	0.2	43.96	283,920	2,527	5,276	52.8	0.91	2.11	85.5	1.94	85.5	1.94	1.23	27.3	0.63	11.3	17.1	1.31	1.03	18.9	63	0.83	53.28	3,160	6.21E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
270	44.05	44.21	0.2	44.13	270,760	2,634	5,295	50.1	0.99	2.15	81.4	1.98	81.4	1.98	1.27	26.4	0.63	12.4	16.5	1.67	1.03	18.8	63	0.82	53.16	3,158	6.17E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
271	44.21	44.37	0.2	44.29	273,600	2,946	5,315	50.5	1.10	2.17	82.1	2.00	82.1	2.00	1.30	26.9	0.63	13.0	16.8	1.89	1.04	19.4	65	0.82	53.71	3,197	6.11E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
272	44.37	44.54	0.2	44.46	277,820	3,175	5,335	51.1	1.17	2.18	83.2	2.01	83.2	2.01	1.32	27.5	0.62	13.3	17.2	2.00	1.04	19.8	65	0.82	54.12	3,228	6.08E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
273	44.54	44.70	0.2	44.62	272,080	3,303	5,354	49.8	1.24	2.21	81.4	2.04	81.4	2.04	1.35	27.2	0.62	14.0	16.9	2.21	1.04	19.9	65	0.82	54.16	3,236	6.09E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
274	44.70	44.87	0.2	44.78	270,700	3,390	5,374	49.4	1.28	2.22	80.8	2.05	80.8	2.05	1.37	27.1	0.62	14.3	16.9	2.30	1.04	19.9	65	0.82	54.23	3,246	6.09E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
275	44.87	45.03	0.2	44.95	270,900	3,433	5,394	49.2	1.29	2.22	80.7	2.05	80.7	2.05	1.38	27.2	0.62	14.4	16.9	2.34	1.04	20.0	65	0.82	54.28	3,255	6.09E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
276	45.03	45.19	0.2	45.11	261,720	3,618	5,413	47.3	1.41	2.26	77.8	2.09	77.8	2.09	1.44	26.7	0.62	15.5	16.5	2.64	1.05	20.0	67	0.81	54.30	3,262	6.03E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
277	45.19	45.36	0.2	45.28	257,660	3,672	5,433	46.4	1.46	2.27	76.5	2.10	76.5	2.10	1.46	26.4	0.62	16.0	16.3	2.75	1.05	20.0	65	0.81	54.26	3,266	6.04E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
278	45.36	45.52	0.2	45.44	253,080	3,680	5,453	45.4	1.49	2.29	75.0	2.12	75.0	2.12	1.49	26.1	0.62	16.3	16.1	2.85	1.06	19.8	65	0.81	54.15	3,265	6.07E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
279	45.52	45.69	0.2	45.60	245,100	3,506	5,472	43.8	1.46	2.29	72.5	2.12	72.5	2.12	1.50	25.3	0.62	16.5	15.6	2.90	1.06	19.4	65	0.81	53.74	3,246	6.12E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
280	45.69	45.85	0.2	45.77	233,400	3,177	5,492	41.5	1.39	2.30	68.9	2.13	68.9	2.13	1.51	24.1	0.62	16.6	14.9	2.92	1.06	18.6	63	0.81	53.02	3,209	6.22E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
281	45.85	46.01	0.2	45.93	210,400	2,931	5,512	37.2	1.43	2.35	62.0	2.17	62.0	2.17	1.59	22.1	0.61	18.0	13.6	3.23	1.07	17.7	61	0.81	52.15	3,161	6.33E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
282	46.01	46.18	0.2	46.10	198,560	2,631	5,531	34.9	1.36	2.36	58.4	2.18	58.4	2.18	1.61	21.0	0.61	18.2	12.8	3.28	1.07	17.0	60	0.80	51.42	3,123	6.36E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
283	46.18	46.34	0.2	46.26	202,420	2,524	5,551	35.5	1.28	2.33	59.4	2.15	59.4	2.15	1.56	21.2	0.61	17.5	13.0	3.12	1.06	16.9	60	0.80	51.32	3,122	6.38E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
284	46.34	46.51	0.2	46.42	201,240	2,334	5,571	35.1	1.19	2.32	59.0	2.14	59.0	2.14	1.53	20.9	0.61	17.0	12.8	3.00	1.06	16.5	60	0.80	50.95	3,105	6.44E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
285	46.51	46.67	0.2	46.59	189,980	2,132	5,591	33.0	1.16	2.34	55.6	2.15	55.6	2.15	1.55	19.8	0.61	17.4	12.1	3.09	1.06	15.9	57	0.80	50.34	3,073	6.53E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
286	46.67	46.83	0.2	46.75	170,660	1,972	5,610	29.4	1.19	2.39	49.9	2.20	49.9	2.20	1.66	18.2	0.61	18.9	11.1	3.41	1.07	15.3	57	0.80	49.61	3,034	6.63E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
287	46.83	47.00	0.2	46.92	164,120	2,074	5,630	28.2	1.31	2.42	47.9	2.23	47.9	2.23	1.75	17.7	0.61	20.2	10.8	3.64	1.08	15.3	57	0.80	49.64	3,041	6.64E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
288	47.00	47.16	0.2	47.08	172,840	1,824	5,650	29.6	1.09	2.36	50.3	2.17	50.3	2.17	1.60	18.2	0.61	18.0	11.0	3.23	1.07	15.0	57	0.80	49.33	3,027	6.70E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
289	47.16	47.33	0.2	47.24	166,440	2,266	5,669	28.4	1.41	2.44	48.4	2.25	48.4	2.25	1.80	18.1	0.61	20.7	11.0	3.73	1.08	15.6	57	0.79	50.00	3,074	6.53E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
290	47.33	47.49	0.2	47.41	185,760	2,440	5,689	31.7	1.35	2.39	53.9	2.20	53.9	2.20	1.67	19.8	0.60	19.1	12.0	3.45	1.07	16.3	60	0.79	50.71	3,123	6.45E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
291	47.49	47.65	0.2	47.57	186,240	2,597	5,709	31.6	1.44	2.40	53.9	2.22	53.9	2.22	1.71	20.0	0.60	19.6	12.1	3.55	1.08	16.5	60	0.79	50.96	3,144	6.43E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
292	47.65	47.82	0.2	47.74	190,460	2,629	5,728	32.2	1.42	2.39	55.1	2.21	55.1	2.21	1.69	20.4	0.60	19.3	12.3	3.48	1.07	16.7	60	0.79	51.09	3,157	6.43E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
293	47.82	47.98	0.2	47.90	199,660	4,093	5,748	33.7	2.11	2.48	57.6	2.30	57.6	2.30	1.96	22.2	0.60	22.7	13.4	4.01	1.10	18.7	63	0.79	53.09	3,286	6.20E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
294	47.98	48.15	0.2	48.06	209,900	6,288	5,768	35.4	3.08	2.57	60.5	2.40	60.5	2.40	2.32	24.4	0.60	26.5	14.7	4.43	1.13	21.0	67	0.79	55.14	3,419	5.98E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
295	48.15	48.31	0.2	48.23	258,180	3,761	5,787	43.6	1.49	2.30	74.3	2.12	74.3	2.12	1.49	26.6	0.60	16.5	16.0	2.88	1.06	19.8	65	0.78	54.06	3,358	6.03E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
296	48.31	48.47	0.2	48.39	316,160	3,722	5,807	53.4	1.20	2.17	90.8	1.99	90.8	1.99	1.29	31.0	0.60	12.8	18.6	1.81	1.04	21.0	68	0.78	55.21	3,435	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
297	48.47	48.64	0.2	48.56	438,480	4,701	5,827	74.3	1.09	2.03	125.7	1.86	125.7	1.86	1.15	40.9	0.60	9.4	24.4	0.69	1.02	25.6	74	0.78	58.94	3,673	5.55E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
298	48.64	48.80	0.2	48.72	273,500	5,240	5,846	45.8	1.96	2.36	78.3	2.18	78.3	2.18	1.63	29.0	0.60	18.5	17.3	3.33	1.07	21.8	68	0.78	55.87	3,488	5.86E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
299	48.80	48.97	0.2	48.88	303,800	4,799	5,866	50.8	1.61	2.27	86.8	2.09	86.8	2.09	1.44	31.0	0.60	15.6	18.5	2.66	1.05	22.1	70	0.78	56.10	3,508	5.85E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
300	48.97	49.13	0.2	49.05	291,280	3,300	5,886	48.5	1.16	2.20	83.1	2.01	83.1	2.01	1.32	28.8	0.59	13.3	17.1	1.98	1.04	19.8	65	0.78	54.07	3,387	6.08E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
301	49.13	49.29	0.2	49.21	276,040	2,636	5,906	45.7	0.98	2.18	78.6	1.99	78.6	1.99	1.28	27.0	0.59	12.6	16.0	1.74	1.03	18.3	63	0.77	52.72	3,308	6.17E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
302	49.29	49.46	0.2	49.38	248,080	2,151	5,925	40.9	0.89	2.20	70.5	2.00	70.5	2.00	1.30	24.4	0.59	12.9	14.5	1.86	1.04	16.8	60	0.77	51.26	3,222	6.35E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
303	49.46	49.62	0.2	49.54	220,300	1,768	5,945	36.1	0.82	2.23	62.5	2.02	62.5	2.02	1.33	21.9	0.59	13.6	12.9	2.08	1.04	15.5	57	0.77	49.89	3,141	6.54E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
304	49.62	49.79	0.2	49.70	195,140	2,785	5,965	31.7	1.47	2.41	55.3	2.22	55.3	2.22	1.71	20.9	0.59	19.5	12.4	3.53	1.08	16.8	60	0.77	51.26	3,232	6.37E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
305	49.79	49.95	0.2	49.87	211,420	2,479	5,984	34.3	1.21	2.33	59.8	2.14	59.8	2.14	1.52	21.9	0.59	16.9	12.9	2.99	1.06	16.7	60	0.77	51.12	3,229	6.40E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
306	49.95	50.11	0.2	50.03	194,520	1,723	6,004	31.4	0.91	2.30	54.9	2.09	54.9	2.09	1.45	19.9	0.59	15.7	11.7	2.68	1.05	15.0	55	0.77	49.29	3,118	6.65E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
307	50.11	50.28	0.2	50.20	206,500	1,737	6,024	33.3	0.87	2.27	58.2	2.06	58.2	2.06	1.39	20.8	0.59	14.7	12.2	2.40	1.05	15.2	57	0.76	49.52	3,138	6.54E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
308	50.28	50.44	0.2	50.36	203,300	1,600	6,043	32.6	0.81	2.26	57.2	2.05	57.2	2.05	1.37	20.4	0.59	14.4	12.0	2.32	1.04	14.8	55	0.76	49.12	3,118	6.61E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
309	50.44	50.61	0.2	50.52	205,360	1,803	6,063	32.9	0.90	2.28	57.7	2.07	57.7	2.07	1.41	20.8	0.59	15.1	12.2	2.51	1.05	15.3	57	0.76	49.63	3,155	6.55E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
310	50.61	50.77	0.2	50.69	200,180	1,957	6,083	31.9	1.01	2.32	56.2	2.11	56.2	2.11	1.48	20.6	0.58	16.2	12.0	2.81	1.05	15.5	57	0.76	49.86	3,175	6.53E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
311	50.77	50.94	0.2	50.85	195,380	1,935	6,102	31.0	1.02	2.33	54.7	2.12	54.7	2.12	1.50	20.2	0.58	16.5	11.8	2.90	1.06	15.4	57	0.76	49.71	3,171	6.56E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
312	50.94	51.10	0.2	51.02	197,020	1,889	6,122	31.2	0.99	2.32	55.1	2.11	55.1	2.11	1.48	20.3	0.58	16.2	11.8	2.82	1.06	15.3	57	0.76	49.63	3,171	6.58E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
313	51.10	51.26	0.2	51.18	213,440	1,880	6,142	33.8	0.91	2.27	59.6	2.06	59.6	2.06	1.39	21.5	0.58	14.7	12.5	2.42	1.05	15.5	57	0.76	49.90	3,193	6.56E-04	3.10E-03	0.450%	0.450%	0.899%	0.0177
314	51.26	51.43	0.2	51.35	241,020	1,998	6,161	38.1	0.85	2.21	67.2	2.01	67.2	2.01	1.31	23.8	0.58	13.1	13.8	1.92	1.04	16.2	60	0.76	50.64	3,246	6.47E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
315	51.43	51.59	0.2	51.51	272,180	2,200	6,181	43.0	0.83	2.16	75.8	1.96	75.8	1.96	1.25	26.3	0.58	11.8	15.3	1.48	1.03	17.2	61	0.76	51.64	3,315	6.36E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
316	51.59	51.76	0.2	51.67	317,440	2,342	6,201	50.2	0.75	2.08	88.2	1.88	88.2	1.88	1.17	29.8	0.58	9.9	17.3	0.83	1.02	18.5	63	0.76	52.86	3,398	6.22E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
317	51.76	51.92	0.2	51.84	384,760	2,522	6,220	60.9	0.67	1.98	106.7	1.78	106.7	1.78	1.09	34.9	0.58	7.7	20.2	0.23	1.01	20.6	67	0.76	54.86	3,533	6.00E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
318	51.92	52.08	0.2	52.00	474,400	2,783	6,240	75.0	0.59	1.88	131.4	1.68	131.4	1.68	1.02	41.5	0.58	5.7	24.0	0.02	1.00	24.1	72	0.76	57.75	3,725	5.71E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
319	52.08	52.25	0.2	52.17	488,040	3,047	6,260	77.0	0.63	1.88	135.0	1.68	135.0	1.68	1.03	42.8	0.58	5.8	24.7	0.02	1.00	24.8	72	0.76	58.32	3,768	5.66E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
320	52.25	52.41	0.2	52.33	472,560	3,365	6,280	74.3	0.72	1.93	130.5	1.73	130.5	1.73	1.06	42.1	0.58	6.7	24.2	0.09	1.01	24.5	72	0.76	58.10	3,759	5.69E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
321	52.41	52.58	0.2	52.49	401,900	3,479	6,299	62.8	0.88	2.04	110.8	1.84	110.8	1.84	1.14	37.2	0.57	9.0	21.4	0.56	1.02	22.3	70	0.76	56.31	3,649	5.88E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
322	52.58	52.74	0.2	52.66	357,760	3,437	6,319	55.6	0.98	2.11	98.5	1.91	98.5	1.91	1.20	34.0	0.57	10.6	19.5	1.08	1.02	21.1	68	0.76	55.24	3,585	6.01E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
323	52.74	52.90	0.2	52.82	334,820	3,491	6,339	51.8	1.06	2.15	92.0	1.96	92.0	1.96	1.25	32.4	0.57	11.8	18.5	1.47	1.03	20.6	67	0.76	54.81	3,563	6.06E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
324	52.90	53.07	0.2	52.99	314,620	3,384	6,358	48.5	1.10	2.18	86.3	1.99	86.3	1.99	1.28	30.8	0.57	12.6	17.6	1.74	1.03	19.9	65	0.76	54.24	3,531	6.14E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
325	53.07	53.23	0.2	53.15	292,060	2,804	6,378	44.8	0.98	2.19	80.0	1.98	80.0	1.98	1.28	28.5	0.57	12.4	16.3	1.70	1.03	18.5	63	0.76	52.93	3,451	6.30E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
326	53.23	53.40	0.2	53.31	285,960	2,152	6,398	43.7	0.77	2.14	78.2	1.93	78.2	1.93	1.21	27.3	0.57	11.0	15.6	1.22	1.03	17.2	61	0.76	51.66	3,374	6.46E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
327	53.40	53.56	0.2	53.48	292,600	1,945	6,417	44.6	0.68	2.10	79.9	1.89	79.9	1.89	1.18	27.6	0.57	10.1	15.7	0.90	1.02	17.0	60	0.76	51.38	3,361	6.51E-04	3.10E-03	0.419%	0.419%	0.837%	0.0165
328	53.56	53.72	0.2	53.64	323,080	2,236	6,437	49.2	0.71	2.07	88.1	1.86	88.1	1.86	1.16	30.2	0.57	9.5	17.2	0.71	1.02	18.2	63	0.76	52.60	3,446	6.37E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
329	53.72	53.89	0.2	53.81	368,700	2,819	6,457	56.1	0.78	2.05	100.4	1.84	100.4	1.84	1.14	34.2	0.57	9.0	19.4	0.56	1.02	20.3	67	0.76	54.55	3,579	6.15E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
330	53.89	54.05	0.2	53.97	422,540	3,224	6,476	64.2	0.77	2.00	114.9	1.79	114.9	1.79	1.10	38.5	0.57	8.0	21.8	0.30	1.01	22.4	70	0.76	56.37	3,704	5.96E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
331	54.05	54.22	0.2	54.13	468,160	3,344	6,496	71.1	0.72	1.95	127.1	1.74	127.1	1.74	1.07	41.9	0.57	6.9	23.7	0.11	1.01	24.0	71	0.76	57.69	3,796	5.83E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
332	54.22	54.38	0.2	54.30	482,160	3,288	6,516	73.0	0.69	1.92	130.7	1.72	130.7	1.72	1.05	42.8	0.57	6.5	24.2	0.06	1.01	24.4	72	0.76	58.01	3,823	5.81E-04	2.00E-03	0.168%	0.168%	0.336%	0.0066
333	54.38	54.54	0.2	54.46	471,220	3,206	6,535	71.1	0.69	1.93	127.5	1.73	127.5	1.73	1.06	41.9	0.56	6.6	23.7	0.08	1.01	23.9	71	0.76	57.62	3,803	5.86E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
334	54.54	54.71	0.2	54.63	439,400	3,330	6,555	66.0	0.77	1.99	118.8	1.78	118.8	1.78	1.09	39.9	0.56	7.7	22.4	0.24	1.01	22.9	70	0.76	56.83	3,757	5.95E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
335	54.71	54.87	0.2	54.79	428,800	3,765	6,575	64.2	0.89	2.03	115.7	1.83	115.7	1.83	1.13	39.6	0.56	8.8	22.3	0.49	1.02	23.1	71	0.76	56.97	3,772	5.94E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
336	54.87	55.04	0.2	54.95	444,520	4,203	6,594	66.4	0.96	2.04	119.8	1.84	119.8	1.84	1.14	41.2	0.56	9.0	23.1	0.55	1.02	24.1	72	0.76	57.74	3,828	5.87E-04	2.00E-03	0.168%	0.168%	0.336%	0.0066
337	55.04	55.20	0.2	55.12	478,020	4,958	6,614	71.3	1.05	2.04	128.6	1.84	128.6	1.84	1.14	44.3	0.56	9.0	24.9	0.57	1.02	25.9	74	0.70	59.14	3,927	5.29E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
338	55.20	55.36	0.2	55.28	550,160	6,034	6,634	81.9	1.11	2.01	147.8	1.81	147.8	1.81	1.12	50.5	0.56	8.4	28.3	0.40	1.01	29.1	79	0.70	61.51	4,091	5.09E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
339	55.36	55.53	0.2	55.45	664,020	6,724	6,654	98.8	1.02	1.92	178.1	1.73	178.1	1.73	1.06	59.2	0.56	6.7	33.1	0.09	1.01	33.4	83	0.70	64.43	4,291	4.87E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
340	55.53	55.69	0.2	55.61	782,480	7,714	6,673	116.3	0.99	1.86	209.6	1.67	209.6	1.67	1.02	68.4	0.56	5.6	38.2	0.01	1.00	38.3	88	0.70	67.43	4,497	4.66E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
341	55.69	55.86	0.2	55.77	887,840	8,395	6,693	131.7	0.95	1.81	237.5	1.62	237.5	1.62	1.00	76.3	0.56	4.8	42.5	0.00	1.00	42.5	92	0.70	69.81	4,663	4.51E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
342	55.86	56.02	0.2	55.94	902,100	8,711	6,713	133.4	0.97	1.81	240.9	1.63	240.9	1.63	1.00	77.6	0.56	4.8	43.2	0.00	1.00	43.2	93	0.70	70.16	4,694	4.49E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
343	56.02	56.18	0.2	56.10	848,520	8,973	6,732	125.0	1.07	1.86	226.3	1.67	226.3	1.67	1.02	74.1	0.56	5.6	41.2	0.01	1.00	41.4	91	0.70	69.17	4,634	4.56E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
344	56.18	56.35	0.2	56.27	803,140	7,785	6,752	117.9	0.98	1.85	213.9	1.66	213.9	1.66	1.01	69.9	0.56	5.4	38.8	0.01	1.00	38.9	88	0.70	67.78	4,547	4.66E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
345	56.35	56.51	0.2	56.43	803,280	8,162	6,772	117.6	1.02	1.86	213.6	1.68	213.6	1.68	1.02	70.3	0.55	5.7	39.0	0.02	1.00	39.1	89	0.70	67.89	4,562	4.66E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
346	56.51	56.68	0.2	56.59	673,440	5,638	6,791	98.2	0.85	1.87	178.8	1.67	178.8	1.67	1.02	58.8	0.55	5.6	32.6	0.01	1.00	32.7	82	0.70	63.94	4,303	4.96E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
347	56.68	56.84	0.2	56.76	579,780	4,350	6,811	84.1	0.76	1.90	153.7	1.69	153.7	1.69	1.03	51.0	0.55	5.9	28.2	0.03	1.00	28.3	78	0.70	60.96	4,108	5.21E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
348	56.84	57.00	0.2	56.92	491,520	4,327	6,831	71.0	0.89	2.00	130.1	1.79	130.1	1.79	1.10	44.8	0.55	7.9	24.7	0.28	1.01	25.3	74	0.70	58.70	3,961	5.41E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
349	57.00	57.17	0.2	57.09	454,560	4,418	6,850	65.4	0.99	2.05	120.2	1.85	120.2	1.85	1.14	42.2	0.55	9.1	23.3	0.59	1.02	24.3	72	0.70	57.90	3,913	5.50E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
350	57.17	57.33	0.2	57.25	426,100	4,711	6,870	61.0	1.12	2.11	112.5	1.90	112.5	1.90	1.19	40.4	0.55	10.5	22.2	1.04	1.02	23.8	71	0.70	57.54	3,894	5.54E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
351	57.33	57.50	0.2	57.41	423,880	5,112	6,890	60.5	1.23	2.14	111.7	1.93	111.7	1.93	1.22	40.6	0.55	11.2	22.3	1.27	1.03	24.2	72	0.70	57.86	3,921	5.52E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
352	57.50	57.66	0.2	57.58	438,560	5,561	6,909	62.5	1.29	2.14	115.4	1.94	115.4	1.94	1.23	42.1	0.55	11.3	23.1	1.31	1.03	25.1	74	0.70	58.53	3,972	5.46E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
353	57.66	57.82	0.2	57.74	460,060	6,417	6,929	65.4	1.42	2.15	120.9	1.95	120.9	1.95	1.24	44.4	0.55	11.6	24.3	1.43	1.03	26.5	75	0.70	59.62	4,052	5.37E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
354	57.82	57.99	0.2	57.91	489,100	7,249	6,949	69.4	1.50	2.15	128.4	1.95	128.4	1.95	1.24	47.2	0.55	11.7	25.8	1.43	1.03	28.0	78	0.70	60.76	4,135	5.28E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
355	57.99	58.15	0.2	58.07	512,340	7,423	6,969	72.5	1.47	2.12	134.3	1.93	134.3	1.93	1.22	49.1	0.55	11.1	26.8	1.25	1.03	28.8	78	0.70	61.30	4,178	5.24E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
356	58.15	58.32	0.2	58.23	517,900	6,775	6,988	73.1	1.33	2.09	135.6	1.90	135.6	1.90	1.18	49.0	0.55	10.3	26.7	0.96	1.02	28.3	78	0.70	60.94	4,160	5.27E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
357	58.32	58.48	0.2	58.40	477,200	5,805	7,008	67.1	1.23	2.10	124.7	1.90	124.7	1.90	1.19	45.2	0.54	10.4	24.6	1.00	1.02	26.2	75	0.70	59.40	4,060	5.42E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
358	58.48	58.65	0.2	58.56	454,680	5,317	7,028	63.7	1.19	2.11	118.7	1.90	118.7	1.90	1.19	43.1	0.54	10.5	23.5	1.03	1.02	25.1	74	0.70	58.52	4,006	5.51E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
359	58.65	58.81	0.2	58.73	494,680	5,484	7,047	69.2	1.12	2.07	128.9	1.86	128.9	1.86	1.15	46.2	0.54	9.5	25.1	0.70	1.02	26.3	75	0.70	59.46	4,075	5.43E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
360	58.81	58.97	0.2	58.89	582,280	6,157	7,067	81.4	1.07	2.00	151.6	1.80	151.6	1.80	1.10	53.1	0.54	8.0	28.8	0.30	1.01	29.5	79	0.70	61.78	4,241	5.23E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
361	58.97	59.14	0.2	59.06	624,580	6,492	7,087	87.1	1.05	1.97	162.3	1.77	162.3	1.77	1.08	56.4	0.54	7.5	30.6	0.19	1.01	31.1	81	0.70	62.88	4,322	5.15E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
362	59.14	59.30	0.2	59.22	619,380	6,628	7,106	86.2	1.08	1.98	160.8	1.78	160.8	1.78	1.09	56.2	0.54	7.7	30.4	0.24	1.01	31.0	80	0.70	62.81	4,324	5.16E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
363	59.30	59.47	0.2	59.38	588,720	7,002	7,126	81.6	1.20	2.03	152.6	1.83	152.6	1.83	1.13	54.3	0.54	8.8	29.4	0.49	1.02	30.3	80	0.70	62.36	4,298	5.21E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
364	59.47	59.63	0.2	59.55	560,880	7,967	7,146	77.5	1.44	2.10	145.2	1.90	145.2	1.90	1.19	53.1	0.54	10.4	28.7	1.00	1.02	30.3	80	0.70	62.38	4,305	5.21E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
365	59.63	59.79	0.2	59.71	530,820	8,754	7,165	73.1	1.67	2.16	137.2	1.96	137.2	1.96	1.26	51.5	0.54	12.0	27.7	1.55	1.03	30.2	80	0.70	62.27	4,304	5.23E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
																													TOTAL SETTLEMENT (INCHES):			1.88

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-8
TOTAL DRY SETTLEMENT (IN.): 0.61

MAGNITUDE CORRECTION FACTOR: 1.00

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	15.01	15.17	0.2	15.09	212,800	1,705	1,811	116.5	0.81	1.80	109.4	1.82	109.4	1.82	1.12	19.6	1.07	8.6	21.0	0.44	1.02	21.8	68	0.97	55.83	1,940	4.06E-04	1.40E-03	0.134%	0.134%	0.269%	0.0053
94	15.17	15.34	0.2	15.26	218,020	1,939	1,831	118.1	0.90	1.82	111.5	1.84	111.5	1.84	1.14	20.2	1.07	9.1	21.6	0.58	1.02	22.5	70	0.97	56.48	1,973	4.04E-04	1.40E-03	0.129%	0.129%	0.258%	0.0051
95	15.34	15.50	0.2	15.42	232,680	2,041	1,850	124.7	0.88	1.80	118.4	1.82	118.4	1.82	1.12	21.4	1.06	8.5	22.7	0.43	1.01	23.5	71	0.97	57.26	2,011	4.00E-04	1.40E-03	0.123%	0.123%	0.246%	0.0049
96	15.50	15.67	0.2	15.58	242,700	2,023	1,870	128.8	0.84	1.78	122.8	1.79	122.8	1.79	1.10	22.1	1.05	8.0	23.3	0.29	1.01	23.9	71	0.97	57.62	2,034	4.00E-04	1.40E-03	0.123%	0.123%	0.246%	0.0049
97	15.67	15.83	0.2	15.75	245,500	1,908	1,890	128.9	0.78	1.76	123.6	1.77	123.6	1.77	1.09	22.2	1.05	7.5	23.3	0.20	1.01	23.7	71	0.97	57.48	2,040	4.03E-04	1.40E-03	0.123%	0.123%	0.246%	0.0049
98	15.83	15.99	0.2	15.91	253,880	1,859	1,909	132.0	0.74	1.73	127.1	1.75	127.1	1.75	1.07	22.7	1.04	7.0	23.7	0.12	1.01	24.1	72	0.97	57.75	2,060	4.03E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
99	15.99	16.16	0.2	16.08	250,800	1,876	1,929	129.0	0.75	1.75	124.9	1.76	124.9	1.76	1.08	22.6	1.04	7.2	23.4	0.16	1.01	23.8	71	0.97	57.54	2,063	4.07E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
100	16.16	16.32	0.2	16.24	238,520	2,071	1,949	121.4	0.88	1.81	118.2	1.82	118.2	1.82	1.12	21.9	1.03	8.5	22.6	0.42	1.01	23.4	71	0.97	57.21	2,062	4.11E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
101	16.32	16.49	0.2	16.40	231,660	2,152	1,969	116.7	0.94	1.84	114.3	1.85	114.3	1.85	1.14	21.5	1.03	9.2	22.1	0.61	1.02	23.1	71	0.97	56.98	2,064	4.15E-04	1.20E-03	0.106%	0.106%	0.211%	0.0042
102	16.49	16.65	0.2	16.57	229,080	2,096	1,988	114.2	0.92	1.84	112.4	1.85	112.4	1.85	1.14	21.3	1.02	9.2	21.8	0.62	1.02	22.8	70	0.97	56.70	2,064	4.19E-04	1.20E-03	0.110%	0.110%	0.221%	0.0043
103	16.65	16.81	0.2	16.73	250,080	2,318	2,008	123.5	0.93	1.82	122.1	1.82	122.1	1.82	1.13	23.0	1.02	8.7	23.5	0.46	1.02	24.3	72	0.97	57.91	2,119	4.12E-04	1.20E-03	0.101%	0.101%	0.202%	0.0040
104	16.81	16.98	0.2	16.90	299,360	3,704	2,028	146.6	1.25	1.85	145.5	1.85	145.5	1.85	1.15	27.9	1.01	9.3	28.2	0.65	1.02	29.4	79	0.97	61.74	2,270	3.89E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
105	16.98	17.14	0.2	17.06	387,600	6,246	2,047	188.3	1.62	1.86	187.4	1.86	187.4	1.86	1.16	36.2	1.01	9.6	36.5	0.73	1.02	38.0	87	0.97	67.22	2,483	3.59E-04	8.50E-04	0.033%	0.033%	0.066%	0.0013
106	17.14	17.31	0.2	17.22	436,780	6,162	2,067	210.3	1.42	1.79	210.2	1.79	210.2	1.79	1.10	39.7	1.00	7.9	39.8	0.27	1.01	40.6	90	0.96	68.74	2,552	3.49E-04	8.50E-04	0.028%	0.028%	0.056%	0.0011
107	17.31	17.47	0.2	17.39	318,680	6,041	2,087	151.7	1.91	1.98	152.7	1.98	152.7	1.98	1.27	31.1	1.00	12.3	31.0	1.66	1.03	33.7	83	0.96	64.61	2,410	3.73E-04	1.00E-03	0.051%	0.051%	0.102%	0.0020
108	17.47	17.63	0.2	17.55	307,480	4,328	2,106	145.0	1.42	1.90	146.6	1.89	146.6	1.89	1.18	29.0	0.99	10.2	28.9	0.94	1.02	30.4	80	0.96	62.45	2,340	3.88E-04	1.20E-03	0.072%	0.072%	0.144%	0.0028
109	17.63	17.80	0.2	17.72	309,520	3,375	2,126	144.6	1.10	1.82	146.9	1.81	146.9	1.81	1.12	28.4	0.99	8.4	28.1	0.39	1.01	28.9	78	0.96	61.37	2,310	3.96E-04	1.20E-03	0.082%	0.082%	0.163%	0.0032
110	17.80	17.96	0.2	17.88	320,820	3,348	2,146	148.5	1.05	1.80	151.6	1.79	151.6	1.79	1.10	29.2	0.98	7.9	28.7	0.28	1.01	29.4	79	0.96	61.71	2,334	3.96E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
111	17.96	18.13	0.2	18.04	326,340	3,561	2,165	149.7	1.10	1.81	153.5	1.80	153.5	1.80	1.11	29.8	0.98	8.1	29.2	0.32	1.01	29.9	79	0.96	62.08	2,359	3.95E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
112	18.13	18.29	0.2	18.21	319,220	3,662	2,185	145.1	1.15	1.83	149.4	1.82	149.4	1.82	1.12	29.4	0.98	8.6	28.7	0.45	1.02	29.6	79	0.96	61.85	2,360	3.99E-04	1.20E-03	0.077%	0.077%	0.154%	0.0030
113	18.29	18.45	0.2	18.37	297,280	3,663	2,205	133.8	1.24	1.88	138.5	1.87	138.5	1.87	1.16	27.8	0.97	9.6	27.0	0.75	1.02	28.3	78	0.96	60.97	2,337	4.06E-04	1.20E-03	0.082%	0.082%	0.163%	0.0032
114	18.45	18.62	0.2	18.54	285,600	3,735	2,224	127.4	1.32	1.91	132.5	1.90	132.5	1.90	1.19	27.1	0.97	10.4	26.2	1.01	1.02	27.8	77	0.96	60.58	2,333	4.11E-04	1.20E-03	0.086%	0.086%	0.173%	0.0034
115	18.62	18.78	0.2	18.70	286,400	3,808	2,244	126.6	1.34	1.92	132.3	1.91	132.3	1.91	1.19	27.2	0.96	10.5	26.2	1.05	1.02	27.9	77	0.96	60.63	2,345	4.12E-04	1.20E-03	0.086%	0.086%	0.173%	0.0034
116	18.78	18.95	0.2	18.86	285,700	3,820	2,264	125.2	1.35	1.92	131.4	1.91	131.4	1.91	1.20	27.2	0.96	10.6	26.0	1.08	1.02	27.8	77	0.96	60.56	2,353	4.14E-04	1.00E-03	0.072%	0.072%	0.144%	0.0028
117	18.95	19.11	0.2	19.03	277,760	3,819	2,283	120.6	1.39	1.94	127.2	1.93	127.2	1.93	1.22	26.6	0.95	11.1	25.4	1.24	1.03	27.3	77	0.96	60.22	2,350	4.18E-04	1.00E-03	0.072%	0.072%	0.144%	0.0028
118	19.11	19.27	0.2	19.19	284,580	4,031	2,303	122.6	1.43	1.95	129.8	1.93	129.8	1.93	1.22	27.3	0.95	11.2	25.9	1.27	1.03	27.9	77	0.96	60.65	2,377	4.17E-04	1.00E-03	0.072%	0.072%	0.144%	0.0028
119	19.27	19.44	0.2	19.36	316,380	4,204	2,323	135.2	1.34	1.90	143.6	1.88	143.6	1.88	1.17	29.8	0.95	9.9	28.2	0.85	1.02	29.6	79	0.96	61.87	2,435	4.11E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
120	19.44	19.60	0.2	19.52	333,020	4,134	2,343	141.2	1.25	1.86	150.6	1.85	150.6	1.85	1.14	30.9	0.94	9.1	29.1	0.59	1.02	30.2	80	0.96	62.30	2,462	4.10E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
121	19.60	19.77	0.2	19.69	332,060	4,033	2,362	139.6	1.22	1.86	149.5	1.84	149.5	1.84	1.14	30.8	0.94	9.0	28.9	0.56	1.02	29.9	79	0.96	62.10	2,464	4.13E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
122	19.77	19.93	0.2	19.85	332,000	3,611	2,382	138.4	1.10	1.83	148.9	1.81	148.9	1.81	1.11	30.4	0.93	8.3	28.4	0.37	1.01	29.2	79	0.96	61.57	2,454	4.18E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
123	19.93	20.10	0.2	20.01	358,880	3,600	2,402	148.4	1.01	1.78	160.2	1.76	160.2	1.76	1.08	32.3	0.93	7.3	30.1	0.16	1.01	30.5	80	0.96	62.51	2,501	4.13E-04	1.00E-03	0.060%	0.060%	0.120%	0.0024
124	20.10	20.26	0.2	20.18	413,880	4,164	2,421	169.9	1.01	1.74	184.0	1.72	184.0	1.72	1.05	36.7	0.93	6.5	34.0	0.06	1.01	34.3	84	0.95	65.00	2,611	3.95E-04	1.00E-03	0.048%	0.048%	0.096%	0.0019
125	20.26	20.42	0.2	20.34	542,720	3,712	2,441	221.3	0.69	1.54	240.4	1.52	240.4	1.52	1.00	45.0	0.92	3.1	41.6	0.00	1.00	41.6	91	0.95	69.28	2,795	3.72E-04	9.20E-04	0.028%	0.028%	0.055%	0.0011
126	20.42	20.59	0.2	20.51	644,360	3,984	2,461	260.9	0.62	1.46	284.2	1.43	284.2	1.43	1.00	52.1	0.92	2.0	47.9	0.00	1.00	47.9	95	0.95	72.62	2,941	3.56E-04	8.00E-04	0.014%	0.014%	0.027%	0.0005
127	20.59	20.75	0.2	20.67	759,900	3,654	2,480	305.4	0.48	1.34	333.9	1.31	333.9	1.31	1.00	59.0	0.92	0.5	54.1	0.00	1.00	54.1	95	0.95	75.63	3,075	3.44E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
128	20.75	20.92	0.2	20.83	754,060	3,285	2,500	300.6	0.44	1.31	330.0	1.28	330.0	1.28	1.00	58.1	0.91	0.2	53.0	0.00	1.00	53.0	95	0.95	75.14	3,067	3.47E-04	8.00E-04	0.011%	0.011%	0.022%	0.0004
129	20.92	21.08	0.2	21.00	603,000	3,553	2,520	238.3	0.59	1.48	262.9	1.44	262.9	1.44	1.00	48.9	0.91	2.1	44.4	0.00	1.00	44.4	94	0.95	70.82	2,903	3.70E-04	9.20E-04	0.020%	0.020%	0.040%	0.0008
130	21.08	21.24	0.2	21.16	463,000	3,403	2,539	181.3	0.74	1.63	201.0	1.60	201.0	1.60	1.00	39.4	0.91	4.3	35.7	0.00	1.00	35.7	85	0.95	65.84	2,709	3.99E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
131	21.24	21.41	0.2	21.33	410,280	3,411	2,559	159.3	0.84	1.71	177.5	1.67	177.5	1.67	1.02	35.8	0.90	5.6	32.3	0.01	1.00	32.4	82	0.95	63.78	2,634	4.14E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
132	21.41	21.57	0.2	21.49	406,140	3,850	2,579	156.5	0.95	1.75	175.0	1.72	175.0	1.72	1.05	36.0	0.90	6.4	32.3	0.06	1.01	32.6	82	0.95	63.89	2,649	4.15E-04	1.00E-03	0.054%	0.054%	0.108%	0.0021
133	21.57	21.74	0.2	21.65	417,960	3,849	2,598	159.9	0.93	1.74	179.4	1.70	179.4	1.70	1.04	36.8	0.89	6.1	33.0	0.04	1.01	33.2	83	0.95	64.26	2,675	4.14E-04	1.00E-03	0.051%	0.051%	0.102%	0.0020
134	21.74	21.90	0.2	21.82	371,360	3,846	2,618	140.8	1.04	1.81	158.8	1.77	158.8	1.77	1.09	33.6	0.89	7.6	29.9	0.21	1.01	30.5	80	0.95	62.47	2,610	4.27E-04	1.45E-03	0.087%	0.087%	0.174%	0.0034
135	21.90	22.06	0.2	21.98	305,920	3,447	2,638	115.0	1.14	1.90	130.3	1.86	130.3	1.86	1.15	28.6	0.89	9.5	25.4	0.70	1.02	26.5	75	0.95	59.66	2,502	4.49E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
136	22.06	22.23	0.2	22.15	277,600	3,101	2,657	103.5	1.13	1.93	117.8	1.89	117.8	1.89	1.18	26.2	0.88	10.2	23.2	0.93	1.02	24.6	72	0.95	58.19	2,449	4.62E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
137	22.23	22.39	0.2	22.31	250,800	3,158	2,677	92.7	1.27	2.00	106.1	1.96	106.1	1.96	1.25	24.3	0.88	11.9	21.4	1.52	1.03	23.6	71	0.95	57.36	2,423	4.71E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
138	22.39	22.56	0.2	22.47	230,600	3,207	2,697	84.5	1.41	2.06	97.2	2.02	97.2	2.02	1.32	22.8	0.88	13.4	20.1	2.03	1.04	22.9	70	0.95	56.77	2,407	4.77E-04	1.80E-03	0.166%	0.166%	0.331%	0.0065
139	22.56	22.72	0.2	22.64	233,260	3,368	2,717	84.9	1.46	2.07	97.9	2.03	97.9	2.03	1.34	23.2	0.88	13.7	20.3	2.10	1.04	23.2	71	0.95	57.04	2,428	4.77E-04	1.80E-03	0.158%	0.158%	0.317%	0.0062
140	22.72	22.88	0.2	22.80	234,600	3,783	2,736	84.7	1.63	2.10	98.1	2.06	98.1	2.06	1.38	23.6	0.87	14.6	20.6	2.38	1.05	23.9	71	0.95	57.61	2,461	4.74E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
141	22.88	23.05	0.2	22.97	239,380	3,950	2,756	85.9	1.67	2.11	99.8	2.06	99.8	2.06	1.39	24.1	0.87	14.6	20.9	2.39	1.05	24.3	72	0.95	57.93	2,483	4.73E-04	1.30E-03	0.109%	0.109%	0.218%	0.0043
142	23.05	23.21	0.2	23.13	256,020	4,614	2,776	91.2	1.82	2.11	106.3	2.07	106.3	2.07	1.40	25.9	0.87	14.8	22.4	2.46	1.05	25.9	74	0.95	59.17	2,545	4.65E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
143	23.21	23.38	0.2	23.29	319,180	6,876	2,795	113.2	2.17	2.10	132.1	2.06	132.1	2.06	1.39	32.1	0.86	14.6	27.7	2.39	1.05	31.4	81	0.95	63.09	2,724	4.37E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
144	23.38	23.54	0.2	23.46	465,100	10,829	2,815	164.2	2.34	2.03	191.8	1.98	191.8	1.98	1.28	45.5	0.86	12.5	39.1	1.73	1.03	42.2	92	0.95	69.60	3,015	3.98E-04	9.20E-04	0.025%	0.025%	0.050%	0.0010
145	23.54	23.70	0.2	23.62	578,700	9,121	2,835	203.2	1.58	1.83	237.8	1.79	237.8	1.79	1.10	52.7	0.86	8.0	45.1	0.29	1.01	46.0	94	0.95	71.66	3,115	3.88E-04	9.20E-04	0.018%	0.018%	0.037%	0.0007
146	23.70	23.87	0.2	23.79	483,760	8,458	2,854	168.5	1.76	1.92	198.1	1.88	198.1	1.88	1.17	45.4	0.85	9.8	38.8	0.82	1.02	40.4	90	0.95	68.63	2,994	4.06E-04	9.20E-04	0.030%	0.030%	0.061%	0.0012
147	23.87	24.03	0.2	23.95	396,040	3,449	2,874	136.8	0.88	1.77	161.6	1.72	161.6	1.72	1.05	35.1	0.85	6.4	29.9	0.06	1.01	30.1	80	0.95	62.23	2,724	4.50E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
148	24.03	24.20	0.2	24.11	346,080	3,956	2,894	118.6	1.15	1.90	140.8	1.84	140.8	1.84	1.14	32.1	0.85	9.0	27.2	0.56	1.02	28.2	78	0.94	60.89	2,674	4.56E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
149	24.20	24.36	0.2	24.28	338,640	3,827	2,913	115.2	1.14	1.90	137.3	1.85	137.3	1.85	1.14	31.4	0.84	9.1	26.6	0.59	1.02	27.6	77	0.94	60.46	2,664	4.61E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
150	24.36	24.52	0.2	24.44	320,900	3,711	2,933	108.4	1.17	1.93	129.7	1.87	129.7	1.87	1.16	30.1	0.84	9.7	25.3	0.77	1.02	26.6	75	0.94	59.70	2,640	4.68E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
151	24.52	24.69	0.2	24.61	313,240	3,680	2,953	105.1	1.19	1.94	126.1	1.88	126.1	1.88	1.17	29.5	0.84	10.0	24.8	0.87	1.02	26.2	75	0.94	59.37	2,634	4.73E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
152	24.69	24.85	0.2	24.77	332,120	4,273	2,972	110.7	1.30	1.95	133.3	1.89	133.3	1.89	1.18	31.4	0.84	10.2	26.3	0.95	1.02	27.8	77	0.94	60.59	2,697	4.65E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
153	24.85	25.02	0.2	24.93	379,140	4,047	2,992	125.7	1.08	1.86	151.7	1.80	151.7	1.80	1.10	34.6	0.83	8.1	28.8	0.31	1.01	29.5	79	0.94	61.81	2,761	4.57E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
154	25.02	25.18	0.2	25.10	375,800	3,920	3,012	123.8	1.05	1.85	149.8	1.79	149.8	1.79	1.10	34.2	0.83	8.0	28.5	0.30	1.01	29.1	79	0.94	61.53	2,757	4.61E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
155	25.18	25.34	0.2	25.26	305,120	4,121	3,031	99.6	1.36	2.00	121.3	1.94	121.3	1.94	1.23	29.3	0.83	11.3	24.3	1.33	1.03	26.3	75	0.94	59.47	2,674	4.78E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
156	25.34	25.51	0.2	25.43	284,300	4,263	3,051	92.2	1.52	2.06	112.6	1.99	112.6	1.99	1.29	27.9	0.83	12.8	23.0	1.81	1.04	25.7	74	0.94	58.99	2,661	4.83E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
157	25.51	25.67	0.2	25.59	264,640	4,525	3,071	85.2	1.73	2.12	104.5	2.06	104.5	2.06	1.38	26.6	0.82	14.5	21.9	2.37	1.05	25.3	74	0.94	58.68	2,655	4.88E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
158	25.67	25.84	0.2	25.75	251,100	5,116	3,091	80.2	2.06	2.19	98.8	2.13	98.8	2.13	1.51	26.0	0.82	16.7	21.3	2.94	1.06	25.5	74	0.94	58.86	2,672	4.88E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
159	25.84	26.00	0.2	25.92	248,820	5,824	3,110	79.0	2.37	2.24	97.6	2.18	97.6	2.18	1.61	26.3	0.82	18.2	21.5	3.28	1.07	26.2	75	0.94	59.40	2,705	4.85E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
160	26.00	26.16	0.2	26.08	244,940	6,292	3,130	77.3	2.60	2.28	95.8	2.21	95.8	2.21	1.70	26.2	0.82	19.4	21.4	3.50	1.08	26.5	75	0.94	59.62	2,723	4.85E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
161	26.16	26.33	0.2	26.25	245,580	6,413	3,150	77.0	2.65	2.28	95.8	2.22	95.8	2.22	1.71	26.4	0.81	19.6	21.4	3.54	1.08	26.6	75	0.94	59.70	2,735	4.85E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
162	26.33	26.49	0.2	26.41	249,740	6,254	3,169	77.8	2.54	2.27	97.1	2.20	97.1	2.20	1.67	26.6	0.81	19.0	21.6	3.43	1.07	26.5	75	0.94	59.66	2,742	4.87E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
163	26.49	26.66	0.2	26.57	255,640	5,997	3,189	79.2	2.38	2.24	99.1	2.17	99.1	2.17	1.60	26.9	0.81	18.1	21.7	3.25	1.07	26.5	75	0.94	59.59	2,748	4.89E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
164	26.66	26.82	0.2	26.74	258,760	5,557	3,209	79.6	2.17	2.21	100.0	2.14	100.0	2.14	1.54	26.9	0.81	17.1	21.7	3.03	1.06	26.0	75	0.94	59.27	2,741	4.93E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
165	26.82	26.98	0.2	26.90	240,400	4,910	3,228	73.5	2.07	2.22	92.6	2.15	92.6	2.15	1.55	25.1	0.80	17.3	20.1	3.09	1.06	24.5	72	0.94	58.07	2,694	5.05E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
166	26.98	27.15	0.2	27.07	232,840	4,309	3,248	70.7	1.88	2.20	89.4	2.13	89.4	2.13	1.51	24.1	0.80	16.7	19.3	2.95	1.06	23.4	71	0.94	57.18	2,661	5.15E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
167	27.15	27.31	0.2	27.23	237,220	4,152	3,268	71.6	1.77	2.18	90.8	2.11	90.8	2.11	1.47	24.3	0.80	16.1	19.4	2.78	1.05	23.3	71	0.93	57.09	2,665	5.12E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
168	27.31	27.48	0.2	27.40	252,840	4,419	3,287	75.9	1.77	2.16	96.5	2.09	96.5	2.09	1.43	25.7	0.80	15.5	20.5	2.63	1.05	24.1	72	0.93	57.81	2,706	5.07E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
169	27.48	27.64	0.2	27.56	305,700	4,872	3,307	91.4	1.61	2.08	116.3	2.00	116.3	2.00	1.30	30.1	0.79	13.0	23.9	1.89	1.04	26.6	75	0.93	59.73	2,805	4.92E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
170	27.64	27.81	0.2	27.72	379,220	5,941	3,327	113.0	1.58	2.01	143.9	1.93	143.9	1.93	1.22	36.4	0.79	11.2	28.7	1.27	1.03	30.8	80	0.93	62.70	2,953	4.70E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
171	27.81	27.97	0.2	27.89	416,000	6,512	3,346	123.3	1.58	1.98	157.4	1.91	157.4	1.91	1.19	39.5	0.79	10.5	31.1	1.05	1.02	32.9	82	0.93	64.11	3,028	4.61E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
172	27.97	28.13	0.2	28.05	444,460	6,197	3,366	131.0	1.40	1.92	167.6	1.85	167.6	1.85	1.15	41.3	0.79	9.2	32.5	0.62	1.02	33.7	83	0.93	64.60	3,060	4.59E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	479,580	4,977	3,386	140.6	1.05	1.81	180.3	1.73	180.3	1.73	1.06	42.8	0.78	6.8	33.5	0.09	1.01	33.9	83	0.93	64.73	3,075	4.59E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
174	28.30	28.46	0.2	28.38	653,780	5,567	3,406	191.0	0.86	1.66	245.1	1.58	245.1	1.58	1.00	55.4	0.78	4.0	43.3	0.00	1.00	43.3	93	0.93	70.21	3,345	4.25E-04	9.20E-04	0.022%	0.022%	0.044%	0.0009
175	28.46	28.63	0.2	28.54	955,100	6,298	3,425	277.8	0.66	1.46	357.1	1.39	357.1	1.39	1.00	76.0	0.78	1.4	59.2	0.00	1.00	59.2	95	0.93	77.97	3,726	3.83E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
176	28.63	28.79	0.2	28.71	1,176,320	7,906	3,445	340.5	0.67	1.41	438.5	1.34	438.5	1.34	1.00	92.2	0.78	0.8	71.6	0.00	1.00	71.6	95	0.93	83.06	3,980	3.61E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
177	28.79	28.95	0.2	28.87	1,398,220	8,697	3,465	402.6	0.62	1.33	519.8	1.26	519.8	1.26	1.00	107.2	0.77	0.1	83.1	0.00	1.00	83.1	95	0.93	87.26	4,194	3.45E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
178	28.95	29.12	0.2	29.04	1,509,560	4,305	3,484	432.3	0.29	1.07	559.6	0.99	559.6	0.99	1.00	106.9	0.77	0.0	82.6	0.00	1.00	82.6	95	0.93	87.10	4,198	3.46E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
179	29.12	29.28	0.2	29.20	1,430,340	5,201	3,504	407.2	0.36	1.16	528.7	1.08	528.7	1.08	1.00	103.9	0.77	0.0	80.1	0.00	1.00	80.1	95	0.93	86.21	4,167	3.51E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
180	29.28	29.45	0.2	29.36	1,293,420	6,320	3,524	366.1	0.49	1.28	476.8	1.21	476.8	1.21	1.00	97.5	0.77	0.0	74.9	0.00	1.00	74.9	95	0.93	84.30	4,086	3.60E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
181	29.45	29.61	0.2	29.53	1,212,360	7,763	3,543	341.2	0.64	1.39	445.7	1.32	445.7	1.32	1.00	94.4	0.77	0.6	72.3	0.00	1.00	72.3	95	0.93	83.33	4,050	3.65E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
182	29.61	29.77	0.2	29.69	1,192,960	9,608	3,563	333.8	0.81	1.47	437.3	1.40	437.3	1.40	1.00	95.3	0.76	1.5	72.8	0.00	1.00	72.8	95	0.93	83.52	4,071	3.65E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
183	29.77	29.94	0.2	29.86	1,262,240	8,215	3,583	351.3	0.65	1.39	461.4	1.31	461.4	1.31	1.00	98.2	0.76	0.5	74.8	0.00	1.00	74.8	95	0.93	84.26	4,118	3.63E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
184	29.94	30.10	0.2	30.02	1,317,820	8,450	3,602	364.8	0.64	1.37	480.4	1.30	480.4	1.30	1.00	102.0	0.76	0.4	77.5	0.00	1.00	77.5	95	0.93	85.27	4,179	3.60E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
185	30.10	30.27	0.2	30.18	1,287,460	10,047	3,622	354.5	0.78	1.44	468.1	1.37	468.1	1.37	1.00	102.0	0.76	1.2	77.3	0.00	1.00	77.3	95	0.92	85.18	4,186	3.57E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
186	30.27	30.43	0.2	30.35	1,240,940	9,340	3,642	339.8	0.75	1.44	450.0	1.37	450.0	1.37	1.00	98.2	0.76	1.2	74.2	0.00	1.00	74.2	95	0.92	84.05	4,141	3.63E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
187	30.43	30.59	0.2	30.51	1,321,140	9,173	3,661	359.8	0.70	1.40	477.8	1.32	477.8	1.32	1.00	103.2	0.75	0.7	77.7	0.00	1.00	77.7	95	0.92	85.36	4,217	3.58E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
188	30.59	30.76	0.2	30.68	1,492,120	10,053	3,681	404.3	0.68	1.36	538.1	1.28	538.1	1.28	1.00	115.1	0.75	0.2	86.5	0.00	1.00	86.5	95	0.92	88.45	4,382	3.47E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
189	30.76	30.92	0.2	30.84	1,523,220	9,042	3,701	410.6	0.60	1.31	547.9	1.23	547.9	1.23	1.00	115.7	0.75	0.0	86.8	0.00	1.00	86.8	95	0.92	88.54	4,398	3.47E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
190	30.92	31.09	0.2	31.00	1,411,740	10,057	3,720	378.5	0.71	1.40	506.4	1.32	506.4	1.32	1.00	110.0	0.75	0.6	82.3	0.00	1.00	82.3	95	0.92	86.98	4,332	3.54E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
191	31.09	31.25	0.2	31.17	1,482,080	10,334	3,740	395.3	0.70	1.38	530.3	1.30	530.3	1.30	1.00	114.8	0.75	0.4	85.6	0.00	1.00	85.6	95	0.92	88.16	4,402	3.51E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
192	31.25	31.41	0.2	31.33	1,398,200	9,558	3,760	370.9	0.69	1.39	499.0	1.31	499.0	1.31	1.00	108.6	0.74	0.5	80.8	0.00	1.00	80.8	95	0.92	86.46	4,329	3.58E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
193	31.41	31.58	0.2	31.50	1,287,760	10,736	3,780	339.7	0.84	1.48	458.3	1.40	458.3	1.40	1.00	102.9	0.74	1.5	76.3	0.00	1.00	76.3	95	0.92	84.84	4,259	3.66E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
194	31.58	31.74	0.2	31.66	1,172,060	8,116	3,799	307.5	0.69	1.45	416.1	1.36	416.1	1.36	1.00	92.5	0.74	1.1	68.5	0.00	1.00	68.5	95	0.92	81.82	4,118	3.81E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
195	31.74	31.91	0.2	31.82	1,080,400	7,464	3,819	281.9	0.69	1.47	382.6	1.38	382.6	1.38	1.00	85.9	0.74	1.3	63.4	0.00	1.00	63.4	95	0.92	79.74	4,024	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
196	31.91	32.07	0.2	31.99	847,820	6,739	3,839	219.9	0.80	1.59	299.4	1.50	299.4	1.50	1.00	69.9	0.74	2.8	51.5	0.00	1.00	51.5	95	0.92	74.39	3,763	4.21E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
197	32.07	32.23	0.2	32.15	701,980	5,321	3,858	180.9	0.76	1.64	247.3	1.54	247.3	1.54	1.00	58.7	0.73	3.4	43.1	0.00	1.00	43.1	93	0.91	70.11	3,556	4.43E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
198	32.23	32.40	0.2	32.32	535,900	5,730	3,878	137.2	1.08	1.83	188.3	1.73	188.3	1.73	1.06	47.8	0.73	6.7	35.0	0.09	1.01	35.3	85	0.91	65.62	3,337	4.74E-04	1.00E-03	0.045%	0.045%	0.090%	0.0018
199	32.40	32.56	0.2	32.48	506,400	5,990	3,898	128.9	1.19	1.88	177.5	1.78	177.5	1.78	1.09	45.9	0.73	7.7	33.6	0.24	1.01	34.2	84	0.91	64.90	3,308	4.81E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
200	32.56	32.73	0.2	32.64	447,940	5,021	3,917	113.3	1.13	1.90	156.6	1.80	156.6	1.80	1.11	40.9	0.73	8.2	29.8	0.34	1.01	30.6	80	0.91	62.53	3,196	5.00E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
201	32.73	32.89	0.2	32.81	484,280	5,069	3,937	122.0	1.06	1.86	168.9	1.76	168.9	1.76	1.08	43.6	0.73	7.2	31.7	0.16	1.01	32.1	82	0.91	63.58	3,257	4.93E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
202	32.89	33.05	0.2	32.97	600,600	5,398	3,957	150.8	0.90	1.75	208.9	1.65	208.9	1.65	1.00	52.0	0.73	5.1	37.7	0.00	1.00	37.8	87	0.91	67.09	3,446	4.69E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
203	33.05	33.22	0.2	33.14	687,300	6,713	3,976	171.8	0.98	1.73	238.5	1.63	238.5	1.63	1.00	59.2	0.72	4.9	42.8	0.00	1.00	42.8	92	0.91	69.98	3,603	4.50E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
204	33.22	33.38	0.2	33.30	681,020	7,619	3,996	169.4	1.13	1.78	235.7	1.68	235.7	1.68	1.02	59.6	0.72	5.7	43.0	0.02	1.00	43.2	93	0.91	70.18	3,622	4.50E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
205	33.38	33.55	0.2	33.46	646,200	6,210	4,016	159.9	0.97	1.75	223.1	1.65	223.1	1.65	1.00	55.9	0.72	5.1	40.3	0.00	1.00	40.3	90	0.91	68.59	3,549	4.62E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
206	33.55	33.71	0.2	33.63	494,900	5,096	4,035	121.6	1.04	1.86	170.5	1.75	170.5	1.75	1.07	44.4	0.72	7.1	31.9	0.13	1.01	32.3	82	0.91	63.69	3,303	4.99E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
207	33.71	33.87	0.2	33.79	435,720	4,659	4,055	106.4	1.08	1.91	149.7	1.80	149.7	1.80	1.11	39.8	0.72	8.2	28.5	0.34	1.01	29.2	79	0.91	61.61	3,203	5.17E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
208	33.87	34.04	0.2	33.96	387,120	5,145	4,075	94.0	1.34	2.01	132.7	1.91	132.7	1.91	1.19	36.7	0.71	10.5	26.3	1.05	1.02	27.9	77	0.91	60.69	3,163	5.26E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
209	34.04	34.20	0.2	34.12	361,420	6,094	4,094	87.3	1.71	2.11	123.6	2.00	123.6	2.00	1.30	35.6	0.71	13.0	25.4	1.89	1.04	28.2	78	0.90	60.86	3,180	5.20E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
210	34.20	34.37	0.2	34.28	369,100	7,215	4,114	88.7	1.98	2.15	125.9	2.04	125.9	2.04	1.36	36.9	0.71	14.1	26.2	2.25	1.04	29.6	79	0.90	61.89	3,241	5.12E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
211	34.37	34.53	0.2	34.45	391,600	8,430	4,134	93.7	2.18	2.16	133.3	2.06	133.3	2.06	1.38	39.4	0.71	14.6	27.9	2.38	1.05	31.6	81	0.90	63.23	3,319	5.03E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
212	34.53	34.69	0.2	34.61	434,620	9,752	4,154	103.6	2.27	2.14	147.6	2.04	147.6	2.04	1.36	43.5	0.71	14.1	30.8	2.25	1.04	34.3	84	0.90	65.00	3,421	4.90E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
213	34.69	34.86	0.2	34.78	473,360	10,057	4,173	112.4	2.14	2.10	160.3	2.00	160.3	2.00	1.30	46.6	0.71	13.0	32.9	1.89	1.04	36.0	85	0.90	66.03	3,483	4.84E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
214	34.86	35.02	0.2	34.94	495,500	9,281	4,193	117.2	1.89	2.05	167.4	1.95	167.4	1.95	1.24	47.8	0.70	11.6	33.6	1.40	1.03	36.0	86	0.90	66.06	3,493	4.85E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
215	35.02	35.19	0.2	35.10	531,080	9,959	4,213	125.1	1.89	2.03	179.0	1.93	179.0	1.93	1.22	50.8	0.70	11.1	35.7	1.24	1.03	37.9	87	0.89	67.20	3,561	4.72E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
216	35.19	35.35	0.2	35.27	569,140	9,818	4,232	133.5	1.74	1.98	191.4	1.88	191.4	1.88	1.17	53.6	0.70	10.0	37.5	0.86	1.02	39.2	89	0.89	67.95	3,609	4.68E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
217	35.35	35.52	0.2	35.43	588,020	10,348	4,252	137.3	1.77	1.98	197.3	1.88	197.3	1.88	1.17	55.3	0.70	9.9	38.7	0.85	1.02	40.3	90	0.89	68.60	3,652	4.65E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
218	35.52	35.68	0.2	35.60	504,700	10,245	4,272	117.2	2.05	2.08	169.0	1.97	169.0	1.97	1.26	49.1	0.70	12.2	34.3	1.62	1.03	37.0	87	0.89	66.65	3,557	4.79E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
219	35.68	35.84	0.2	35.76	430,800	10,037	4,291	99.4	2.35	2.17	143.9	2.06	143.9	2.06	1.39	43.4	0.70	14.7	30.2	2.41	1.05	34.0	84	0.89	64.82	3,467	4.94E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
220	35.84	36.01	0.2	35.93	382,040	9,521	4,311	87.6	2.52	2.23	127.3	2.12	127.3	2.12	1.49	39.4	0.69	16.4	27.4	2.87	1.06	31.8	81	0.89	63.35	3,396	5.07E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
221	36.01	36.17	0.2	36.09	347,920	8,801	4,331	79.3	2.56	2.26	115.7	2.15	115.7	2.15	1.56	36.3	0.69	17.4	25.2	3.11	1.06	29.9	79	0.88	62.06	3,335	5.13E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
222	36.17	36.34	0.2	36.25	344,460	8,303	4,350	78.2	2.44	2.25	114.3	2.14	114.3	2.14	1.53	35.8	0.69	17.0	24.8	3.02	1.06	29.3	79	0.88	61.64	3,319	5.17E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
223	36.34	36.50	0.2	36.42	366,440	8,349	4,370	82.9	2.31	2.22	121.3	2.10	121.3	2.10	1.46	37.5	0.69	15.9	25.9	2.75	1.05	30.0	80	0.88	62.17	3,356	5.14E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
224	36.50	36.66	0.2	36.58	407,940	8,166	4,390	91.9	2.02	2.14	134.7	2.03	134.7	2.03	1.34	40.6	0.69	13.8	28.0	2.15	1.04	31.3	81	0.88	63.00	3,408	5.08E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
225	36.66	36.83	0.2	36.75	466,680	7,655	4,409	104.8	1.66	2.04	153.8	1.93	153.8	1.93	1.22	44.7	0.69	11.1	30.7	1.24	1.03	32.7	82	0.88	63.98	3,469	5.02E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
226	36.83	36.99	0.2	36.91	569,700	6,582	4,429	127.6	1.16	1.87	187.3	1.76	187.3	1.76	1.08	51.2	0.69	7.2	35.1	0.15	1.01	35.6	85	0.88	65.80	3,575	4.89E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
227	36.99	37.16	0.2	37.07	784,540	9,081	4,449	175.3	1.16	1.78	257.4	1.67	257.4	1.67	1.01	68.4	0.68	5.5	46.8	0.01	1.00	46.9	95	0.88	72.13	3,928	4.47E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
228	37.16	37.32	0.2	37.24	1,049,100	3,200	4,469	233.8	0.31	1.31	343.4	1.17	343.4	1.17	1.00	78.2	0.68	0.0	53.4	0.00	1.00	53.4	95	0.87	75.31	4,110	4.24E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
229	37.32	37.48	0.2	37.40	1,225,920	3,644	4,488	272.1	0.30	1.25	400.4	1.11	400.4	1.11	1.00	89.9	0.68	0.0	61.2	0.00	1.00	61.2	95	0.87	78.81	4,311	4.06E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
230	37.48	37.65	0.2	37.57	1,311,680	5,407	4,508	290.0	0.41	1.31	427.5	1.18	427.5	1.18	1.00	98.2	0.68	0.0	66.7	0.00	1.00	66.7	95	0.87	81.12	4,447	3.96E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
231	37.65	37.81	0.2	37.73	1,201,620	7,250	4,528	264.4	0.61	1.45	390.8	1.33	390.8	1.33	1.00	94.0	0.68	0.7	63.7	0.00	1.00	63.7	95	0.87	79.89	4,389	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
232	37.81	37.98	0.2	37.89	923,760	6,683	4,547	202.1	0.73	1.59	299.8	1.47	299.8	1.47	1.00	75.4	0.68	2.4	51.0	0.00	1.00	51.0	95	0.87	74.18	4,084	4.34E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
233	37.98	38.14	0.2	38.06	663,260	7,508	4,567	144.2	1.14	1.83	214.8	1.71	214.8	1.71	1.04	58.7	0.67	6.3	39.6	0.05	1.01	39.9	89	0.87	68.34	3,771	4.73E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
234	38.14	38.30	0.2	38.22	585,340	4,586	4,587	126.6	0.79	1.77	189.1	1.63	189.1	1.63	1.00	50.5	0.67	4.9	34.0	0.00	1.00	34.0	83	0.87	64.79	3,583	5.00E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
235	38.30	38.47	0.2	38.39	634,040	4,369	4,606	136.6	0.69	1.71	204.4	1.57	204.4	1.57	1.00	53.5	0.67	3.9	36.0	0.00	1.00	36.0	85	0.87	66.03	3,659	4.91E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
236	38.47	38.63	0.2	38.55	862,260	6,064	4,626	185.4	0.71	1.61	277.4	1.48	277.4	1.48	1.00	70.7	0.67	2.6	47.4	0.00	1.00	47.4	95	0.87	72.40	4,020	4.49E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
237	38.63	38.80	0.2	38.71	1,328,740	4,860	4,646	285.0	0.37	1.28	426.6	1.15	426.6	1.15	1.00	98.5	0.67	0.0	65.9	0.00	1.00	65.9	95	0.87	80.78	4,496	4.03E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
238	38.80	38.96	0.2	38.88	1,562,080	4,478	4,665	333.8	0.29	1.16	500.4	1.03	500.4	1.03	1.00	111.8	0.67	0.0	74.6	0.00	1.00	74.6	95	0.87	84.21	4,696	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
239	38.96	39.12	0.2	39.04	1,542,800	6,841	4,685	328.3	0.44	1.29	493.2	1.17	493.2	1.17	1.00	114.9	0.67	0.0	76.5	0.00	1.00	76.5	95	0.87	84.91	4,746	3.85E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
240	39.12	39.29	0.2	39.21	1,584,680	8,325	4,705	335.8	0.53	1.33	505.5	1.21	505.5	1.21	1.00	119.7	0.66	0.0	79.6	0.00	1.00	79.6	95	0.86	86.03	4,818	3.77E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
241	39.29	39.45	0.2	39.37	1,629,840	4,062	4,724	344.0	0.25	1.12	518.9	0.98	518.9	0.98	1.00	115.0	0.66	0.0	76.3	0.00	1.00	76.3	95	0.86	84.83	4,761	3.83E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
242	39.45	39.62	0.2	39.53	1,628,960	6,267	4,744	342.4	0.39	1.24	517.5	1.11	517.5	1.11	1.00	119.2	0.66	0.0	78.9	0.00	1.00	78.9	95	0.86	85.79	4,825	3.79E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
243	39.62	39.78	0.2	39.70	1,503,420	7,994	4,764	314.6	0.53	1.36	476.6	1.23	476.6	1.23	1.00	114.2	0.66	0.0	75.5	0.00	1.00	75.5	95	0.86	84.52	4,763	3.86E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
244	39.78	39.94	0.2	39.86	1,470,280	9,670	4,783	306.4	0.66	1.43	465.2	1.31	465.2	1.31	1.00	114.4	0.66	0.5	75.4	0.00	1.00	75.4	95	0.86	84.50	4,772	3.87E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
245	39.94	40.11	0.2	40.03	1,441,780	4,798	4,803	299.2	0.33	1.24	455.2	1.10	455.2	1.10	1.00	105.4	0.66	0.0	69.3	0.00	1.00	69.3	95	0.86	82.17	4,650	3.98E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
246	40.11	40.27	0.2	40.19	1,559,980	2,431	4,823	322.5	0.16	1.05	491.5	0.88	491.5	0.88	1.00	107.3	0.66	0.0	70.5	0.00	1.00	70.5	95	0.85	82.60	4,684	3.93E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
247	40.27	40.44	0.2	40.35	1,734,940	6,022	4,843	357.3	0.35	1.19	545.5	1.06	545.5	1.06	1.00	125.2	0.66	0.0	82.1	0.00	1.00	82.1	95	0.85	86.92	4,938	3.74E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
248	40.44	40.60	0.2	40.52	1,698,700	4,893	4,862	348.4	0.29	1.15	533.1	1.01	533.1	1.01	1.00	120.9	0.65	0.0	79.1	0.00	1.00	79.1	95	0.85	85.85	4,888	3.79E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
249	40.60	40.76	0.2	40.68	1,630,720	5,572	4,882	333.0	0.34	1.21	510.7	1.07	510.7	1.07	1.00	118.2	0.65	0.0	77.2	0.00	1.00	77.2	95	0.85	85.15	4,858	3.83E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
250	40.76	40.93	0.2	40.85	1,654,800	7,466	4,902	336.6	0.45	1.29	517.2	1.16	517.2	1.16	1.00	122.9	0.65	0.0	80.1	0.00	1.00	80.1	95	0.85	86.20	4,928	3.79E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
251	40.93	41.09	0.2	41.01	1,653,780	9,649	4,921	335.0	0.59	1.37	515.8	1.24	515.8	1.24	1.00	126.0	0.65	0.0	81.9	0.00	1.00	81.9	95	0.85	86.87	4,976	3.77E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
252	41.09	41.26	0.2	41.17	1,472,980	10,994	4,941	297.1	0.75	1.48	458.5	1.36	458.5	1.36	1.00	116.3	0.65	1.1	75.4	0.00	1.00	75.4	95	0.84	84.51	4,850	3.84E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
253	41.26	41.42	0.2	41.34	1,185,740	11,081	4,961	238.0	0.94	1.62	368.4	1.50	368.4	1.50	1.00	97.7	0.65	2.8	63.3	0.00	1.00	63.3	95	0.84	79.69	4,583	4.08E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
254	41.42	41.58	0.2	41.50	1,011,580	4,269	4,980	202.1	0.42	1.44	313.7	1.29	313.7	1.29	1.00	78.2	0.65	0.3	50.5	0.00	1.00	50.5	95	0.84	73.93	4,260	4.40E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
255	41.58	41.75	0.2	41.67	923,940	4,374	5,000	183.8	0.48	1.50	285.9	1.35	285.9	1.35	1.00	72.8	0.64	1.0	46.9	0.00	1.00	46.9	95	0.84	72.15	4,166	4.52E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
256	41.75	41.91	0.2	41.83	792,640	4,861	5,020	156.9	0.62	1.63	244.8	1.48	244.8	1.48	1.00	65.0	0.64	2.6	41.8	0.00	1.00	41.8	91	0.84	69.42	4,016	4.71E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
257	41.91	42.08	0.2	41.99	669,240	6,477	5,039	131.8	0.98	1.81	206.3	1.67	206.3	1.67	1.02	58.5	0.64	5.6	37.6	0.01	1.00	37.7	87	0.84	67.06	3,887	4.88E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
258	42.08	42.24	0.2	42.16	638,620	6,431	5,059	125.2	1.02	1.84	196.5	1.70	196.5	1.70	1.04	56.3	0.64	6.1	36.1	0.04	1.01	36.3	86	0.83	66.24	3,847	4.90E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
259	42.24	42.40	0.2	42.32	734,540	7,086	5,079	143.6	0.97	1.78	225.5	1.64	225.5	1.64	1.00	63.6	0.64	5.1	40.7	0.00	1.00	40.7	90	0.83	68.82	4,005	4.72E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
260	42.40	42.57	0.2	42.49	839,220	7,962	5,098	163.6	0.95	1.74	257.2	1.60	257.2	1.60	1.00	71.6	0.64	4.4	45.7	0.00	1.00	45.7	94	0.83	71.51	4,169	4.55E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
261	42.57	42.73	0.2	42.65	797,420	8,173	5,118	154.8	1.03	1.78	243.9	1.64	243.9	1.64	1.00	68.9	0.64	5.1	43.9	0.00	1.00	44.0	94	0.83	70.61	4,124	4.62E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
262	42.73	42.90	0.2	42.81	651,660	8,033	5,138	125.8	1.24	1.90	198.9	1.76	198.9	1.76	1.08	58.7	0.64	7.3	37.3	0.16	1.01	37.9	87	0.83	67.16	3,931	4.87E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
263	42.90	43.06	0.2	42.98	561,440	7,576	5,157	107.9	1.36	1.97	171.1	1.83	171.1	1.83	1.13	51.9	0.64	8.9	33.0	0.52	1.02	34.0	84	0.83	64.81	3,800	5.05E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
264	43.06	43.23	0.2	43.14	531,820	7,222	5,177	101.7	1.37	2.00	161.7	1.85	161.7	1.85	1.15	49.5	0.63	9.3	31.4	0.64	1.02	32.6	82	0.83	63.89	3,753	5.13E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
265	43.23	43.39	0.2	43.31	545,180	7,094	5,197	103.9	1.31	1.98	165.5	1.83	165.5	1.83	1.13	50.4	0.63	8.8	31.9	0.51	1.02	32.9	82	0.83	64.08	3,772	5.13E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
266	43.39	43.55	0.2	43.47	546,100	6,954	5,217	103.7	1.29	1.97	165.4	1.83	165.4	1.83	1.13	50.3	0.63	8.7	31.8	0.47	1.02	32.7	82	0.83	63.98	3,773	5.15E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
267	43.55	43.72	0.2	43.64	544,160	6,471	5,236	102.9	1.20	1.95	164.5	1.81	164.5	1.81	1.11	49.8	0.63	8.2	31.4	0.35	1.01	32.2	82	0.83	63.61	3,758	5.19E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
268	43.72	43.88	0.2	43.80	623,600	6,101	5,256	117.6	0.99	1.85	188.2	1.70	188.2	1.70	1.04	55.1	0.63	6.2	34.6	0.04	1.01	34.9	84	0.83	65.34	3,868	5.06E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
269	43.88	44.05	0.2	43.96	793,660	5,549	5,276	149.4	0.70	1.68	239.1	1.53	239.1	1.53	1.00	66.0	0.63	3.2	41.5	0.00	1.00	41.5	91	0.83	69.22	4,105	4.78E-04	1.30E-03	0.039%	0.039%	0.078%	0.0015
270	44.05	44.21	0.2	44.13	923,700	5,718	5,295	173.4	0.62	1.59	277.8	1.44	277.8	1.44	1.00	74.8	0.63	2.1	46.9	0.00	1.00	46.9	95	0.82	72.12	4,285	4.54E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
271	44.21	44.37	0.2	44.29	996,040	4,844	5,315	186.4	0.49	1.51	299.0	1.35	299.0	1.35	1.00	78.3	0.63	0.9	49.0	0.00	1.00	49.0	95	0.82	73.18	4,356	4.49E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
272	44.37	44.54	0.2	44.46	997,900	5,389	5,335	186.1	0.54	1.53	299.0	1.38	299.0	1.38	1.00	79.2	0.62	1.3	49.5	0.00	1.00	49.5	95	0.82	73.42	4,378	4.48E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
273	44.54	44.70	0.2	44.62	942,820	6,172	5,354	175.1	0.66	1.61	281.9	1.46	281.9	1.46	1.00	76.7	0.62	2.2	47.8	0.00	1.00	47.8	95	0.82	72.58	4,336	4.54E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
274	44.70	44.87	0.2	44.78	771,800	2,145	5,374	142.6	0.28	1.48	230.4	1.29	230.4	1.29	1.00	59.7	0.62	0.3	37.1	0.00	1.00	37.1	87	0.82	66.72	3,994	4.95E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
275	44.87	45.03	0.2	44.95	585,760	1,816	5,394	107.6	0.31	1.61	174.5	1.42	174.5	1.42	1.00	47.1	0.62	1.8	29.3	0.00	1.00	29.3	79	0.82	61.63	3,696	5.37E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
276	45.03	45.19	0.2	45.11	473,480	2,146	5,413	86.5	0.46	1.77	140.8	1.59	140.8	1.59	1.00	40.2	0.62	4.2	24.9	0.00	1.00	24.9	72	0.81	58.42	3,509	5.60E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
277	45.19	45.36	0.2	45.28	427,560	2,676	5,433	77.7	0.63	1.88	126.9	1.71	126.9	1.71	1.04	37.8	0.62	6.2	23.4	0.04	1.01	23.6	71	0.81	57.33	3,450	5.72E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
278	45.36	45.52	0.2	45.44	391,400	3,221	5,453	70.8	0.83	1.98	116.0	1.81	116.0	1.81	1.11	35.9	0.62	8.4	22.2	0.38	1.01	22.9	70	0.81	56.76	3,422	5.79E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
279	45.52	45.69	0.2	45.60	356,060	3,756	5,472	64.1	1.07	2.08	105.3	1.91	105.3	1.91	1.20	33.9	0.62	10.7	20.9	1.10	1.02	22.5	70	0.81	56.47	3,411	5.83E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
280	45.69	45.85	0.2	45.77	340,760	4,128	5,492	61.0	1.23	2.13	100.6	1.97	100.6	1.97	1.26	33.1	0.62	12.1	20.4	1.58	1.03	22.6	70	0.81	56.55	3,422	5.83E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
281	45.85	46.01	0.2	45.93	328,100	4,397	5,512	58.5	1.36	2.18	96.7	2.01	96.7	2.01	1.31	32.4	0.61	13.2	19.9	1.96	1.04	22.6	70	0.81	56.56	3,428	5.84E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
282	46.01	46.18	0.2	46.10	320,320	4,620	5,531	56.9	1.47	2.21	94.2	2.04	94.2	2.04	1.36	32.0	0.61	14.0	19.6	2.22	1.04	22.7	70	0.80	56.61	3,438	5.77E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
283	46.18	46.34	0.2	46.26	321,100	5,042	5,551	56.8	1.60	2.23	94.3	2.06	94.3	2.06	1.39	32.4	0.61	14.8	19.8	2.43	1.05	23.2	71	0.80	57.03	3,469	5.74E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
284	46.34	46.51	0.2	46.42	342,840	5,733	5,571	60.5	1.70	2.23	100.5	2.06	100.5	2.06	1.39	34.6	0.61	14.7	21.1	2.42	1.05	24.5	72	0.80	58.11	3,541	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
285	46.51	46.67	0.2	46.59	356,640	6,038	5,591	62.8	1.72	2.22	104.4	2.06	104.4	2.06	1.38	35.8	0.61	14.5	21.9	2.35	1.05	25.2	74	0.80	58.64	3,580	5.60E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
286	46.67	46.83	0.2	46.75	369,620	5,587	5,610	64.9	1.53	2.17	108.0	2.01	108.0	2.01	1.31	36.5	0.61	13.2	22.2	1.96	1.04	25.0	74	0.80	58.51	3,578	5.63E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
287	46.83	47.00	0.2	46.92	367,840	5,027	5,630	64.3	1.39	2.15	107.3	1.98	107.3	1.98	1.28	35.9	0.61	12.5	21.8	1.71	1.03	24.3	72	0.80	57.92	3,549	5.69E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
288	47.00	47.16	0.2	47.08	374,280	4,742	5,650	65.2	1.29	2.12	109.0	1.95	109.0	1.95	1.24	36.2	0.61	11.7	22.0	1.47	1.03	24.1	72	0.80	57.76	3,545	5.72E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
289	47.16	47.33	0.2	47.24	397,820	4,485	5,669	69.2	1.14	2.07	115.6	1.90	115.6	1.90	1.19	37.7	0.61	10.4	22.8	1.01	1.02	24.4	72	0.79	57.99	3,565	5.63E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
290	47.33	47.49	0.2	47.41	411,580	4,435	5,689	71.3	1.09	2.05	119.4	1.88	119.4	1.88	1.17	38.7	0.60	9.9	23.4	0.82	1.02	24.7	72	0.79	58.23	3,586	5.62E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
291	47.49	47.65	0.2	47.57	396,840	2,208	5,709	68.5	0.56	1.90	114.9	1.71	114.9	1.71	1.05	35.1	0.60	6.3	21.2	0.05	1.01	21.4	68	0.79	55.52	3,425	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
292	47.65	47.82	0.2	47.74	379,180	2,078	5,728	65.2	0.56	1.92	109.6	1.73	109.6	1.73	1.05	33.7	0.60	6.6	20.3	0.07	1.01	20.5	67	0.79	54.78	3,385	6.00E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
293	47.82	47.98	0.2	47.90	413,800	2,471	5,748	71.0	0.61	1.90	119.4	1.72	119.4	1.72	1.05	36.7	0.60	6.4	22.1	0.06	1.01	22.3	70	0.79	56.27	3,483	5.85E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
294	47.98	48.15	0.2	48.06	501,500	3,010	5,768	85.9	0.61	1.83	144.5	1.65	144.5	1.65	1.00	43.5	0.60	5.2	26.1	0.01	1.00	26.2	75	0.79	59.37	3,682	5.55E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
295	48.15	48.31	0.2	48.23	508,320	3,654	5,787	86.8	0.73	1.87	146.2	1.69	146.2	1.69	1.03	44.7	0.60	6.0	26.8	0.03	1.00	27.0	75	0.78	59.99	3,726	5.43E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
296	48.31	48.47	0.2	48.39	468,860	3,840	5,807	79.7	0.83	1.94	134.6	1.76	134.6	1.76	1.08	42.2	0.60	7.3	25.3	0.16	1.01	25.7	74	0.78	58.99	3,670	5.53E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
297	48.47	48.64	0.2	48.56	445,160	3,466	5,827	75.4	0.79	1.95	127.6	1.76	127.6	1.76	1.08	40.1	0.60	7.4	24.0	0.17	1.01	24.4	72	0.78	58.00	3,615	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
298	48.64	48.80	0.2	48.72	384,580	3,052	5,846	64.8	0.81	2.00	110.1	1.82	110.1	1.82	1.12	35.4	0.60	8.5	21.1	0.43	1.01	21.8	68	0.78	55.90	3,490	5.86E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
299	48.80	48.97	0.2	48.88	359,980	2,973	5,866	60.4	0.84	2.04	102.8	1.85	102.8	1.85	1.15	33.5	0.60	9.3	20.0	0.64	1.02	21.0	67	0.78	55.15	3,449	5.95E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
300	48.97	49.13	0.2	49.05	352,200	2,729	5,886	58.8	0.79	2.03	100.5	1.84	100.5	1.84	1.14	32.7	0.59	9.1	19.4	0.58	1.02	20.4	67	0.78	54.61	3,421	6.02E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
301	49.13	49.29	0.2	49.21	365,700	2,820	5,906	60.9	0.78	2.02	104.1	1.83	104.1	1.83	1.13	33.8	0.59	8.8	20.0	0.50	1.02	20.9	67	0.77	55.05	3,454	5.90E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
302	49.29	49.46	0.2	49.38	407,660	3,353	5,925	67.8	0.83	2.00	115.9	1.81	115.9	1.81	1.11	37.4	0.59	8.4	22.1	0.38	1.01	22.8	70	0.77	56.75	3,567	5.74E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
303	49.46	49.62	0.2	49.54	446,420	3,659	5,945	74.1	0.83	1.96	126.7	1.78	126.7	1.78	1.09	40.5	0.59	7.7	23.9	0.23	1.01	24.5	72	0.77	58.05	3,654	5.62E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
304	49.62	49.79	0.2	49.70	471,660	4,056	5,965	78.1	0.87	1.96	133.6	1.78	133.6	1.78	1.09	42.7	0.59	7.6	25.2	0.22	1.01	25.7	74	0.77	59.03	3,722	5.53E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
305	49.79	49.95	0.2	49.87	552,680	4,165	5,984	91.4	0.76	1.87	156.3	1.69	156.3	1.69	1.03	48.5	0.59	5.9	28.6	0.02	1.00	28.7	78	0.77	61.26	3,869	5.34E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
306	49.95	50.11	0.2	50.03	565,440	4,950	6,004	93.2	0.88	1.90	159.7	1.72	159.7	1.72	1.05	50.2	0.59	6.5	29.6	0.07	1.01	29.8	79	0.77	62.04	3,925	5.28E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
307	50.11	50.28	0.2	50.20	590,300	5,754	6,024	97.0	0.98	1.92	166.4	1.74	166.4	1.74	1.07	52.8	0.59	6.9	31.0	0.11	1.01	31.4	81	0.76	63.09	3,998	5.14E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
308	50.28	50.44	0.2	50.36	722,280	6,628	6,043	118.5	0.93	1.83	203.3	1.66	203.3	1.66	1.01	62.8	0.59	5.4	36.9	0.01	1.00	37.0	86	0.76	66.62	4,229	4.87E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
309	50.44	50.61	0.2	50.52	924,040	6,587	6,063	151.4	0.72	1.68	259.7	1.51	259.7	1.51	1.00	76.4	0.59	2.9	44.8	0.00	1.00	44.8	94	0.76	71.01	4,514	4.58E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
310	50.61	50.77	0.2	50.69	1,137,100	6,813	6,083	185.9	0.60	1.56	319.0	1.39	319.0	1.39	1.00	90.6	0.58	1.4	53.0	0.00	1.00	53.0	95	0.76	75.12	4,783	4.33E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
311	50.77	50.94	0.2	50.85	1,367,080	6,730	6,102	223.0	0.49	1.45	382.9	1.27	382.9	1.27	1.00	105.1	0.58	0.1	61.4	0.00	1.00	61.4	95	0.76	78.88	5,031	4.13E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
312	50.94	51.10	0.2	51.02	1,593,740	5,292	6,122	259.3	0.33	1.29	445.7	1.11	445.7	1.11	1.00	116.7	0.58	0.0	68.0	0.00	1.00	68.0	95	0.76	81.64	5,216	4.00E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
313	51.10	51.26	0.2	51.18	1,614,240	4,030	6,142	261.8	0.25	1.22	450.7	1.02	450.7	1.02	1.00	115.4	0.58	0.0	67.2	0.00	1.00	67.2	95	0.76	81.31	5,203	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
314	51.26	51.43	0.2	51.35	1,669,480	8,580	6,161	270.0	0.52	1.40	465.4	1.23	465.4	1.23	1.00	126.7	0.58	0.0	73.6	0.00	1.00	73.6	95	0.76	83.82	5,372	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
																													TOTAL SETTLEMENT (INCHES):			0.61

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
© 1993 by Marshall Lew (rev. 2005)

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-9
TOTAL DRY SETTLEMENT (IN.): 0.43

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}
93	15.01	15.17	0.2	15.09	957,440	6,224	1,811	527.7	0.65	1.28	492.3	1.29	492.3	1.29	1.00	74.1
94	15.17	15.34	0.2	15.26	1,095,780	6,213	1,831	597.6	0.57	1.20	560.4	1.21	560.4	1.21	1.00	82.7
95	15.34	15.50	0.2	15.42	1,050,340	6,494	1,850	566.6	0.62	1.24	534.3	1.25	534.3	1.25	1.00	80.3
96	15.50	15.67	0.2	15.58	965,040	6,332	1,870	515.0	0.66	1.29	488.3	1.30	488.3	1.30	1.00	74.8
97	15.67	15.83	0.2	15.75	850,580	4,910	1,890	449.1	0.58	1.28	428.1	1.29	428.1	1.29	1.00	65.7
98	15.83	15.99	0.2	15.91	731,220	4,082	1,909	381.9	0.56	1.31	366.2	1.33	366.2	1.33	1.00	57.1
99	15.99	16.16	0.2	16.08	631,940	3,892	1,929	326.6	0.62	1.39	314.8	1.40	314.8	1.40	1.00	50.5
100	16.16	16.32	0.2	16.24	525,700	3,575	1,949	268.8	0.68	1.48	260.6	1.49	260.6	1.49	1.00	43.2
101	16.32	16.49	0.2	16.40	438,660	3,409	1,969	221.8	0.78	1.58	216.3	1.59	216.3	1.59	1.00	37.3
102	16.49	16.65	0.2	16.57	440,200	2,548	1,988	220.4	0.58	1.50	216.0	1.50	216.0	1.50	1.00	36.3
103	16.65	16.81	0.2	16.73	564,480	2,328	2,008	280.1	0.41	1.32	275.6	1.33	275.6	1.33	1.00	44.1
104	16.81	16.98	0.2	16.90	709,780	3,261	2,028	349.1	0.46	1.28	344.9	1.28	344.9	1.28	1.00	54.7
105	16.98	17.14	0.2	17.06	864,020	3,595	2,047	421.0	0.42	1.19	417.8	1.19	417.8	1.19	1.00	64.9
106	17.14	17.31	0.2	17.22	1,000,340	4,680	2,067	483.0	0.47	1.19	481.5	1.19	481.5	1.19	1.00	75.0
107	17.31	17.47	0.2	17.39	1,098,640	5,656	2,087	525.5	0.52	1.20	526.3	1.20	526.3	1.20	1.00	82.5
108	17.47	17.63	0.2	17.55	1,128,580	6,794	2,106	534.8	0.60	1.25	538.1	1.24	538.1	1.24	1.00	86.0
109	17.63	17.80	0.2	17.72	1,079,320	7,346	2,126	506.7	0.68	1.30	512.2	1.30	512.2	1.30	1.00	83.6
110	17.80	17.96	0.2	17.88	1,018,640	7,271	2,146	473.7	0.72	1.34	481.2	1.33	481.2	1.33	1.00	79.7
111	17.96	18.13	0.2	18.04	948,300	5,578	2,165	436.9	0.59	1.29	445.9	1.29	445.9	1.29	1.00	73.2
112	18.13	18.29	0.2	18.21	838,800	4,052	2,185	382.9	0.48	1.27	392.7	1.26	392.7	1.26	1.00	64.2
113	18.29	18.45	0.2	18.37	685,680	4,003	2,205	310.0	0.59	1.39	319.5	1.38	319.5	1.38	1.00	54.5
114	18.45	18.62	0.2	18.54	517,200	4,330	2,224	231.5	0.84	1.59	240.0	1.58	240.0	1.58	1.00	43.8
115	18.62	18.78	0.2	18.70	400,540	4,702	2,244	177.5	1.18	1.78	185.0	1.77	185.0	1.77	1.08	36.1
116	18.78	18.95	0.2	18.86	297,140	4,254	2,264	130.3	1.44	1.93	136.7	1.92	136.7	1.92	1.21	28.3
117	18.95	19.11	0.2	19.03	246,540	3,575	2,283	107.0	1.46	2.00	112.9	1.98	112.9	1.98	1.28	24.1
118	19.11	19.27	0.2	19.19	221,100	2,898	2,303	95.0	1.32	2.01	100.8	1.99	100.8	1.99	1.28	21.6
119	19.27	19.44	0.2	19.36	210,480	2,821	2,323	89.6	1.36	2.03	95.6	2.01	95.6	2.01	1.32	20.8
120	19.44	19.60	0.2	19.52	209,080	2,833	2,343	88.3	1.37	2.04	94.5	2.02	94.5	2.02	1.32	20.7
121	19.60	19.77	0.2	19.69	217,600	2,715	2,362	91.1	1.26	2.01	98.0	1.98	98.0	1.98	1.28	21.3
122	19.77	19.93	0.2	19.85	219,880	2,661	2,382	91.3	1.22	2.00	98.6	1.97	98.6	1.97	1.27	21.4
123	19.93	20.10	0.2	20.01	219,180	2,542	2,402	90.3	1.17	1.99	97.9	1.96	97.9	1.96	1.25	21.2
124	20.10	20.26	0.2	20.18	232,060	2,402	2,421	94.8	1.05	1.94	103.2	1.91	103.2	1.91	1.20	22.1
125	20.26	20.42	0.2	20.34	255,240	2,470	2,441	103.6	0.98	1.89	113.0	1.86	113.0	1.86	1.16	23.8
126	20.42	20.59	0.2	20.51	292,600	2,260	2,461	117.9	0.78	1.79	129.1	1.76	129.1	1.76	1.08	26.3
127	20.59	20.75	0.2	20.67	286,700	2,120	2,480	114.6	0.75	1.78	126.0	1.75	126.0	1.75	1.07	25.7
128	20.75	20.92	0.2	20.83	254,840	1,898	2,500	100.9	0.75	1.83	111.5	1.80	111.5	1.80	1.10	23.2
129	20.92	21.08	0.2	21.00	237,900	1,955	2,520	93.4	0.83	1.88	103.7	1.85	103.7	1.85	1.14	22.1
130	21.08	21.24	0.2	21.16	232,500	2,016	2,539	90.6	0.88	1.91	101.0	1.87	101.0	1.87	1.16	21.8
131	21.24	21.41	0.2	21.33	240,800	2,088	2,559	93.1	0.88	1.90	104.2	1.86	104.2	1.86	1.15	22.5
132	21.41	21.57	0.2	21.49	272,900	2,155	2,579	104.8	0.80	1.83	117.6	1.79	117.6	1.79	1.10	24.9
133	21.57	21.74	0.2	21.65	322,760	2,015	2,598	123.2	0.63	1.71	138.5	1.67	138.5	1.67	1.02	28.2
134	21.74	21.90	0.2	21.82	341,180	1,975	2,618	129.3	0.58	1.68	145.9	1.64	145.9	1.64	1.00	29.4
135	21.90	22.06	0.2	21.98	342,320	1,982	2,638	128.8	0.58	1.68	145.8	1.64	145.8	1.64	1.00	29.5
136	22.06	22.23	0.2	22.15	342,440	2,054	2,657	127.9	0.60	1.69	145.4	1.65	145.4	1.65	1.00	29.7
137	22.23	22.39	0.2	22.31	304,340	1,942	2,677	112.7	0.64	1.75	128.7	1.71	128.7	1.71	1.04	26.9
138	22.39	22.56	0.2	22.47	224,320	1,587	2,697	82.2	0.72	1.89	94.5	1.84	94.5	1.84	1.14	20.8
139	22.56	22.72	0.2	22.64	171,600	1,177	2,717	62.2	0.70	1.99	72.0	1.93	72.0	1.93	1.22	16.4
140	22.72	22.88	0.2	22.80	142,560	1,434	2,736	51.1	1.03	2.15	59.6	2.09	59.6	2.09	1.44	14.5
141	22.88	23.05	0.2	22.97	128,000	1,907	2,756	45.4	1.52	2.29	53.4	2.24	53.4	2.24	1.76	13.9
142	23.05	23.21	0.2	23.13	128,000	2,199	2,776	45.1	1.76	2.33	53.2	2.28	53.2	2.28	1.88	14.1
143	23.21	23.38	0.2	23.29	135,200	2,406	2,795	47.4	1.82	2.33	56.0	2.27	56.0	2.27	1.86	14.8
144	23.38	23.54	0.2	23.46	138,940	2,431	2,815	48.4	1.79	2.31	57.3	2.26	57.3	2.26	1.82	15.2
145	23.54	23.70	0.2	23.62	137,680	2,271	2,835	47.6	1.68	2.30	56.6	2.25	56.6	2.25	1.79	15.0
146	23.70	23.87	0.2	23.79	138,380	2,070	2,854	47.5	1.53	2.28	56.7	2.22	56.7	2.22	1.71	14.9
147	23.87	24.03	0.2	23.95	139,780	1,780	2,874	47.6	1.30	2.23	57.1	2.17	57.1	2.17	1.60	14.7
148	24.03	24.20	0.2	24.11	130,540	1,478	2,894	44.1	1.16	2.23	53.1	2.17	53.1	2.17	1.59	13.7
149	24.20	24.36	0.2	24.28	123,040	1,374	2,913	41.2	1.14	2.25	49.9	2.19	49.9	2.19	1.63	13.0
150	24.36	24.52	0.2	24.44	128,240	1,307	2,933	42.7	1.04	2.22	51.8	2.15	51.8	2.15	1.55	13.4
151	24.52	24.69	0.2	24.61	135,680	1,394	2,953	45.0	1.05	2.20	54.6	2.13	54.6	2.13	1.51	14.1
152	24.69	24.85	0.2	24.77	146,460	1,369	2,972	48.3	0.95	2.15	58.8	2.08	58.8	2.08	1.42	14.9
153	24.85	25.02	0.2	24.93	163,360	1,563	2,992	53.6	0.97	2.12	65.3	2.05	65.3	2.05	1.37	16.4
154	25.02	25.18	0.2	25.10	190,080	1,778	3,012	62.1	0.95	2.06	75.8	1.99	75.8	1.99	1.29	18.6
155	25.18	25.34	0.2	25.26	237,040	2,135	3,031	77.2	0.91	1.97	94.2	1.91	94.2	1.91	1.19	22.5
156	25.34	25.51	0.2	25.43	288,260	2,405	3,051	93.5	0.84	1.89	114.2	1.82	114.2	1.82	1.12	26.5
157	25.51	25.67	0.2	25.59	314,900	1,922	3,071	101.5	0.62	1.78	124.3	1.71	124.3	1.71	1.04	27.8
158	25.67	25.84	0.2	25.75	324,580	1,931	3,091	104.0	0.60	1.76	127.8	1.69	127.8	1.69	1.03	28.5
159	25.84	26.00	0.2	25.92	377,580	2,208	3,110	120.4	0.59	1.71	148.1	1.63	148.1	1.63	1.00	32.6
160	26.00	26.16	0.2	26.08	501,280	2,985	3,130	159.2	0.60	1.61	196.1	1.54	196.1	1.54	1.00	41.9
161	26.16	26.33	0.2	26.25	592,760	4,261	3,150	187.2	0.72	1.61	231.1	1.55	231.1	1.55	1.00	49.6
162	26.33	26.49	0.2	26.41	687,480	4,697	3,169	215.9	0.69	1.55	267.2	1.48	267.2	1.48	1.00	56.4
163	26.49	26.66	0.2	26.57	724,620	4,685	3,189	226.2	0.65	1.52	280.8	1.45	280.8	1.45	1.00	58.9
164	26.66	26.82	0.2	26.74	787,800	4,858	3,209	244.5	0.62	1.48	304.3	1.41	304.3	1.41	1.00	63.2
165	26.82	26.98	0.2	26.90	858,820	5,937	3,228	265.0	0.69	1.49	330.7	1.42	330.7	1.42	1.00	69.2
166	26.98	27.15	0.2	27.07	909,280	5,506	3,248	278.9	0.61	1.43	349.1	1.37	349.1	1.37	1.00	71.9
167	27.15	27.31	0.2	27.23	921,020	6,390	3,268	280.9	0.70	1.47	352.6	1.41	352.6	1.41	1.00	73.8
168	27.31	27.48	0.2	27.40	944,660	6,919	3,287	286.4	0.74	1.49	360.5	1.42	360.5	1.42	1.00	75.9
169	27.48	27.64	0.2	27.56	958,840	6,690	3,307	288.9	0.70	1.47	364.8	1.40	364.8	1.40	1.00	76.6
170	27.64	27.81	0.2	27.72	972,960	7,303	3,327	291.5	0.75	1.49	369.1	1.42	369.1	1.42	1.00	78.3
171	27.81	27.97	0.2	27.89	953,680	7,932	3,346	284.0	0.83	1.53	360.7	1.46	360.7	1.46	1.00	77.7
172	27.97	28.13	0.2	28.05	959,340	6,391	3,366	284.0	0.67	1.46	361.8	1.39	361.8	1.39	1.00	76.3

LAYER NUMBER	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
93	1.07	0.3	79.4	0.00	1.00	79.4	95	0.97	85.95	2,986	2.64E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
94	1.07	0.0	88.2	0.00	1.00	88.2	95	0.97	89.02	3,110	2.56E-04	5.00E-04	0.007%	0.007%	0.014%	0.0003
95	1.06	0.0	85.1	0.00	1.00	85.1	95	0.97	87.98	3,090	2.61E-04	5.00E-04	0.007%	0.007%	0.014%	0.0003
96	1.05	0.4	78.8	0.00	1.00	78.8	95	0.97	85.76	3,028	2.69E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
97	1.05	0.3	69.0	0.00	1.00	69.0	95	0.97	82.02	2,911	2.82E-04	5.80E-04	0.008%	0.008%	0.016%	0.0003
98	1.04	0.7	59.6	0.00	1.00	59.6	95	0.97	78.13	2,788	2.98E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
99	1.04	1.6	52.5	0.00	1.00	52.5	95	0.97	74.88	2,685	3.13E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
100	1.03	2.7	44.7	0.00	1.00	44.7	94	0.97	70.96	2,558	3.31E-04	7.50E-04	0.017%	0.017%	0.033%	0.0006
101	1.03	4.2	38.3	0.00	1.00	38.3	88	0.97	67.42	2,442	3.51E-04	8.50E-04	0.031%	0.031%	0.063%	0.0012
102	1.02	2.9	37.2	0.00	1.00	37.2	87	0.97	66.75	2,430	3.56E-04	8.50E-04	0.033%	0.033%	0.066%	0.0013
103	1.02	0.7	44.9	0.00	1.00	44.9	94	0.97	71.08	2,601	3.36E-04	7.50E-04	0.017%	0.017%	0.033%	0.0006
104	1.01	0.2	55.4	0.00	1.00	55.4	95	0.97	76.26	2,804	3.15E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
105	1.01	0.0	65.4	0.00	1.00	65.4	95	0.97	80.58	2,977	2.99E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
106	1.00	0.0	75.2	0.00	1.00	75.2	95	0.96	84.43	3,134	2.84E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
107	1.00	0.0	82.4	0.00	1.00	82.4	95	0.96	87.03	3,246	2.77E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
108	0.99	0.0	85.5	0.00	1.00	85.5	95	0.96	88.09	3,301	2.75E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
109	0.99	0.4	82.7	0.00	1.00	82.7	95	0.96	87.14	3,281	2.79E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
110	0.98	0.7	78.5	0.00	1.00	78.5	95	0.96	85.63	3,239	2.85E-04	5.40E-04	0.008%	0.008%	0.015%	0.0003
111	0.98	0.3	71.7	0.00	1.00	71.7	95	0.96	83.10	3,157	2.95E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
112	0.98	0.0	62.7	0.00	1.00	62.7	95	0.96	79.43	3,032	3.10E-04	6.20E-04	0.009%	0.009%	0.017%	0.0003
113	0.97	1.3	52.9	0.00	1.00	52.9	95	0.96	75.08	2,879	3.30E-04	7.50E-04	0.011%	0.011%	0.021%	0.0004
114	0.97	4.0	42.4	0.00	1.00	42.4	92	0.96	69.72	2,685	3.57E-04	8.50E-04	0.023%	0.023%	0.046%	0.0009
115	0.96	7.4	34.8	0.18	1.01	35.3	85	0.96	65.62	2,538	3.81E-04	1.20E-03	0.054%	0.054%	0.108%	0.0021
116	0.96	10.9	27.2	1.16	1.03	29.0	79	0.96	61.47	2,388	4.08E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
117	0.95	12.5	23.0	1.71	1.03	25.5	74	0.96	58.85	2,296	4.28E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
118	0.95	12.6	20.6	1.76	1.03	23.1	71	0.96	56.92	2,230	4.45E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
119	0.95	13.3	19.7	1.98	1.04	22.4	70	0.96	56.39	2,219	4.51E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
120	0.94	13.5	19.5	2.03	1.04	22.3	70	0.96	56.31	2,225	4.53E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
121	0.94	12.5	20.0	1.72	1.03	22.4	70	0.96	56.34	2,236	4.55E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
122	0.93	12.2	20.0	1.62	1.03	22.3	70	0.96	56.27	2,242	4.57E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
123	0.93	12.0	19.8	1.54	1.03	21.9	68	0.96	55.98	2,240	4.62E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
124	0.93	10.7	20.5	1.10	1.02	22.1	70	0.95	56.11	2,254	4.58E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
125	0.92	9.5	22.0	0.71	1.02	23.2	71	0.95	57.01	2,300	4.52E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
126	0.92	7.2	24.2	0.15	1.01	24.6	72	0.95	58.14	2,355	4.45E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
127	0.92	7.1	23.6	0.14	1.01	23.9	71	0.95	57.63	2,344	4.51E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
128	0.91	8.0	21.2	0.31	1.01	21.8	68	0.95	55.85	2,280	4.67E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
129	0.91	9.2	20.1	0.60	1.02	21.0	68	0.95	55.21	2,263	4.74E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
130	0.91	9.7	19.7	0.77	1.02	20.9	67	0.95	55.08	2,266	4.77E-04	1.80E-03	0.180%	0.180%	0.360%	0.0071
131	0.90	9.5	20.3	0.70	1.02	21.3	68	0.95	55.48	2,292	4.76E-04	1.80E-03	0.173%	0.173%	0.346%	0.0068
132	0.90	8.0	22.3	0.30	1.01	22.9	70	0.95	56.80	2,355	4.67E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
133	0.89	5.6	25.2	0.01	1.00	25.3	74	0.95	58.74	2,445	4.53E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
134	0.89	5.0	26.2	0.00	1.00	26.2	75	0.95	59.43	2,483	4.49E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
135	0.89	5.0	26.2	0.00	1.00	26.2	75	0.95	59.43	2,492	4.51E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
136	0.88	5.2	26.2	0.00	1.00	26.3	75	0.95	59.47	2,503	4.52E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
137	0.88	6.2	23.7	0.04	1.01	23.9	71	0.95	57.59	2,433	4.69E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
138	0.88	9.0	18.3	0.56	1.02	19.1	65	0.95	53.49	2,268	5.07E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
139	0.88	11.2	14.4	1.26	1.03	16.0	60	0.95	50.45	2,147	5.39E-04	2.70E-03	0.365%	0.365%	0.729%	0.0144
140	0.87	15.6	12.7	2.67	1.05	16.0	60	0.95	50.41	2,153	5.41E-04	2.70E-03	0.365%	0.365%	0.729%	0.0144
141	0.87	20.3	12.0	3.66	1.08	16.7	60	0.95	51.09	2,190	5.36E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
142	0.87	21.7	12.2	3.88	1.09	17.2	61	0.95	51.62	2,221	5.33E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
143	0.86	21.4	12.8	3.84	1.09	17.8	61	0.95	52.21	2,254	5.28E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
144	0.86	21.0	13.0	3.77	1.09	17.9	61	0.95	52.35	2,268	5.29E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
145	0.86	20.5	12.8	3.71	1.08	17.6	61	0.95	52.00	2,261	5.34E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
146	0.85	19.6	12.7	3.54	1.08	17.2	61	0.95	51.62	2,252	5.40E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
147	0.85	18.1	12.5	3.25	1.07	16.6	60	0.95	51.02	2,233	5.48E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
148	0.85	17.9	11.6	3.21	1.07	15.6	57	0.94	49.97	2,195	5.56E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
149	0.84	18.5	11.0	3.34	1.07	15.1	57	0.94	49.45	2,179	5.64E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
150	0.84	17.3	11.3	3.08	1.06	15.0	57	0.94	49.38	2,183	5.66E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
151	0.84	16.8	11.8	2.96	1.06	15.4	57	0.94	49.81	2,210	5.63E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
152	0.84	15.2	12.4	2.57	1.05	15.6	57	0.94	50.00	2,226	5.63E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
153	0.83	14.3	13.7	2.30	1.04	16.6	60	0.94	50.98	2,277	5.54E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
154	0.83	12.7	15.5	1.79	1.04	17.8	61	0.94	52.24	2,341	5.42E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
155	0.83	10.5	18.6	1.05	1.02	20.1	67	0.94	54.41	2,446	5.23E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
156	0.83	8.5	21.9	0.43	1.01	22.6	70	0.94	56.58	2,552	5.04E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
157	0.82	6.2	22.9	0.04	1.01	23.1	71	0.94	56.94	2,576	5.03E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
158	0.82	5.9	23.4	0.03	1.00	23.5	71	0.94	57.31	2,602	5.01E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
159	0.82	4.9	26.6	0.00	1.00	26.6	75	0.94	59.72	2,719	4.82E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
160	0.82	3.5	34.2	0.00	1.00	34.2	84	0.94	64.91	2,965	4.45E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
161	0.81	3.5	40.3	0.00	1.00	40.3	90	0.94	68.58	3,143	4.23E-04	9.20E-04	0.030%	0.030%	0.061%	0.0012
162	0.81	2.6	45.7	0.00	1.00	45.7	94	0.94	71.51	3,287	4.06E-04	9.20E-04	0.018%	0.018%	0.037%	0.0007
163	0.81	2.2	47.5	0.00	1.00	47.5	95	0.94	72.46	3,341	4.02E-04	9.20E-04	0.016%	0.016%	0.031%	0.0006
164	0.81	1.7	50.9	0.00	1.00	50.9	95	0.94	74.12	3,428	3.95E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
165	0.80	1.8	55.5	0.00	1.00	55.5	95	0.94	76.30	3,540	3.85E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
166	0.80	1.1	57.5	0.00	1.00	57.5	95	0.94	77.21	3,593	3.81E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
167	0.80	1.6	58.9	0.00	1.00	58.9	95	0.93	77.80	3,631	3.75E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
168	0.80	1.8	60.4	0.00	1.00	60.4	95	0.93	78.48	3,674	3.73E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
169	0.79	1.5	60.8	0.00	1.00	60.8	95	0.93	78.63	3,692	3.74E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
170	0.79	1.8	61.9	0.00	1.00	61.9	95	0.93	79.11	3,725	3.72E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
171	0.79	2.3	61.3	0.00	1.00	61.3	95	0.93	78.84	3,724	3.75E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
172	0.79	1.4	60.0	0.00	1.00	60.0	95	0.93	78.30	3,709	3.79E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
173	28.13	28.30	0.2	28.22	991,940	5,978	3,386	292.0	0.60	1.42	373.0	1.35	373.0	1.35	1.00	77.9	0.78	0.9	61.1	0.00	1.00	61.1	95	0.93	78.77	3,742	3.77E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
174	28.30	28.46	0.2	28.38	1,034,940	6,260	3,406	302.9	0.61	1.41	388.1	1.34	388.1	1.34	1.00	81.1	0.78	0.8	63.4	0.00	1.00	63.4	95	0.93	79.73	3,799	3.74E-04	8.50E-04	0.012%	0.012%	0.024%	0.0005
175	28.46	28.63	0.2	28.54	1,008,760	7,541	3,425	293.5	0.75	1.48	377.2	1.41	377.2	1.41	1.00	81.0	0.78	1.7	63.1	0.00	1.00	63.1	95	0.93	79.62	3,805	3.76E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
176	28.63	28.79	0.2	28.71	1,019,580	6,395	3,445	295.0	0.63	1.43	380.1	1.35	380.1	1.35	1.00	80.3	0.78	1.0	62.4	0.00	1.00	62.4	95	0.93	79.33	3,801	3.78E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
177	28.79	28.95	0.2	28.87	1,001,420	7,044	3,465	288.0	0.71	1.47	372.3	1.40	372.3	1.40	1.00	79.9	0.77	1.5	61.9	0.00	1.00	61.9	95	0.93	79.13	3,803	3.80E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
178	28.95	29.12	0.2	29.04	1,011,660	8,141	3,484	289.4	0.81	1.51	375.0	1.44	375.0	1.44	1.00	81.9	0.77	2.0	63.3	0.00	1.00	63.3	95	0.93	79.69	3,841	3.78E-04	9.20E-04	0.013%	0.013%	0.026%	0.0005
179	29.12	29.28	0.2	29.20	1,055,940	8,483	3,504	300.4	0.81	1.50	390.3	1.43	390.3	1.43	1.00	85.1	0.77	1.9	65.6	0.00	1.00	65.6	95	0.93	80.66	3,898	3.75E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
180	29.28	29.45	0.2	29.36	1,151,480	9,224	3,524	325.8	0.80	1.48	424.5	1.41	424.5	1.41	1.00	92.2	0.77	1.6	70.8	0.00	1.00	70.8	95	0.93	82.75	4,010	3.66E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
181	29.45	29.61	0.2	29.53	1,230,580	10,573	3,543	346.3	0.86	1.48	452.4	1.41	452.4	1.41	1.00	98.8	0.77	1.7	75.7	0.00	1.00	75.7	95	0.93	84.59	4,111	3.59E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
182	29.61	29.77	0.2	29.69	1,300,460	12,002	3,563	364.0	0.93	1.49	476.7	1.43	476.7	1.43	1.00	104.8	0.76	1.8	80.1	0.00	1.00	80.1	95	0.93	86.20	4,201	3.54E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
183	29.77	29.94	0.2	29.86	1,357,500	11,381	3,583	377.9	0.84	1.45	496.3	1.38	496.3	1.38	1.00	107.9	0.76	1.3	82.2	0.00	1.00	82.2	95	0.93	86.96	4,250	3.52E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
184	29.94	30.10	0.2	30.02	1,448,600	11,920	3,602	401.1	0.82	1.43	528.1	1.36	528.1	1.36	1.00	114.3	0.76	1.1	86.9	0.00	1.00	86.9	95	0.93	88.58	4,341	3.46E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
185	30.10	30.27	0.2	30.18	1,504,520	12,375	3,622	414.4	0.82	1.42	547.0	1.35	547.0	1.35	1.00	118.4	0.76	1.0	89.8	0.00	1.00	89.8	95	0.92	89.55	4,400	3.40E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
186	30.27	30.43	0.2	30.35	1,537,740	13,128	3,642	421.3	0.86	1.43	557.6	1.36	557.6	1.36	1.00	121.4	0.76	1.1	91.7	0.00	1.00	91.7	95	0.92	90.20	4,445	3.38E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
187	30.43	30.59	0.2	30.51	1,522,500	13,437	3,661	414.8	0.88	1.44	550.6	1.38	550.6	1.38	1.00	120.8	0.75	1.2	91.0	0.00	1.00	91.0	95	0.92	89.97	4,445	3.40E-04	6.50E-04	0.009%	0.009%	0.018%	0.0004
188	30.59	30.76	0.2	30.68	1,206,240	10,848	3,681	326.7	0.90	1.51	435.0	1.44	435.0	1.44	1.00	97.6	0.75	2.0	73.4	0.00	1.00	73.4	95	0.92	83.73	4,148	3.66E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
189	30.76	30.92	0.2	30.84	721,480	9,243	3,701	194.0	1.29	1.78	259.5	1.70	259.5	1.70	1.04	63.6	0.75	6.1	47.7	0.03	1.00	47.9	95	0.92	72.65	3,609	4.23E-04	8.20E-04	0.014%	0.014%	0.028%	0.0005
190	30.92	31.09	0.2	31.00	542,220	7,221	3,720	144.7	1.34	1.88	194.5	1.79	194.5	1.79	1.10	49.4	0.75	7.9	36.9	0.29	1.01	37.7	87	0.92	67.04	3,339	4.60E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
191	31.09	31.25	0.2	31.17	433,720	5,689	3,740	115.0	1.32	1.95	155.2	1.85	155.2	1.85	1.15	40.4	0.75	9.3	30.1	0.65	1.02	31.3	81	0.92	63.04	3,148	4.90E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
192	31.25	31.41	0.2	31.33	366,380	5,794	3,760	96.4	1.60	2.06	130.7	1.96	130.7	1.96	1.26	35.5	0.74	12.0	26.4	1.55	1.03	28.8	78	0.92	61.33	3,070	5.05E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
193	31.41	31.58	0.2	31.50	322,220	5,441	3,780	84.3	1.71	2.12	114.7	2.02	114.7	2.02	1.33	32.0	0.74	13.6	23.7	2.09	1.04	26.8	75	0.92	59.84	3,004	5.19E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
194	31.58	31.74	0.2	31.66	308,400	4,079	3,799	80.2	1.34	2.07	109.5	1.96	109.5	1.96	1.26	29.9	0.74	12.0	22.1	1.56	1.03	24.4	72	0.92	58.01	2,920	5.37E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
195	31.74	31.91	0.2	31.82	342,220	3,619	3,819	88.6	1.07	1.97	121.2	1.87	121.2	1.87	1.16	32.0	0.74	9.6	23.6	0.74	1.02	24.8	72	0.92	58.35	2,944	5.35E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
196	31.91	32.07	0.2	31.99	410,800	3,277	3,839	106.0	0.81	1.83	145.1	1.73	145.1	1.73	1.06	36.6	0.74	6.6	26.9	0.08	1.01	27.2	77	0.92	60.13	3,042	5.21E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
197	32.07	32.23	0.2	32.15	433,520	3,429	3,858	111.4	0.80	1.81	152.7	1.71	152.7	1.71	1.04	38.3	0.73	6.2	28.1	0.04	1.01	28.3	78	0.91	60.97	3,092	5.09E-04	1.30E-03	0.088%	0.088%	0.177%	0.0035
198	32.23	32.40	0.2	32.32	415,380	3,507	3,878	106.1	0.85	1.85	146.0	1.74	146.0	1.74	1.07	37.1	0.73	6.9	27.2	0.11	1.01	27.5	77	0.91	60.39	3,071	5.15E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
199	32.40	32.56	0.2	32.48	390,660	3,771	3,898	99.2	0.98	1.91	136.9	1.80	136.9	1.80	1.11	35.7	0.73	8.1	26.1	0.33	1.01	26.7	75	0.91	59.80	3,048	5.22E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
200	32.56	32.73	0.2	32.64	386,940	3,923	3,917	97.8	1.02	1.92	135.3	1.82	135.3	1.82	1.12	35.6	0.73	8.5	25.9	0.42	1.01	26.7	75	0.91	59.80	3,056	5.23E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
201	32.73	32.89	0.2	32.81	371,620	3,763	3,937	93.4	1.02	1.94	129.6	1.83	129.6	1.83	1.13	34.3	0.73	8.8	25.0	0.50	1.02	25.9	74	0.91	59.14	3,030	5.30E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
202	32.89	33.05	0.2	32.97	394,940	3,829	3,957	98.8	0.98	1.91	137.4	1.80	137.4	1.80	1.11	36.1	0.73	8.1	26.2	0.33	1.01	26.8	75	0.91	59.87	3,075	5.25E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
203	33.05	33.22	0.2	33.14	492,280	3,738	3,976	122.8	0.77	1.77	170.8	1.66	170.8	1.66	1.01	42.8	0.72	5.4	31.0	0.01	1.00	31.0	81	0.91	62.85	3,236	5.02E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
204	33.22	33.38	0.2	33.30	538,600	3,921	3,996	133.8	0.73	1.73	186.4	1.62	186.4	1.62	1.00	46.2	0.72	4.7	33.3	0.00	1.00	33.3	83	0.91	64.36	3,322	4.91E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
205	33.38	33.55	0.2	33.46	570,340	4,131	4,016	141.0	0.73	1.71	196.9	1.60	196.9	1.60	1.00	48.6	0.72	4.3	35.0	0.00	1.00	35.0	84	0.91	65.40	3,384	4.84E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
206	33.55	33.71	0.2	33.63	674,060	4,930	4,035	166.0	0.74	1.66	232.2	1.55	232.2	1.55	1.00	56.5	0.72	3.6	40.6	0.00	1.00	40.6	90	0.91	68.72	3,564	4.62E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
207	33.71	33.87	0.2	33.79	860,160	6,069	4,055	211.1	0.71	1.57	295.6	1.46	295.6	1.46	1.00	70.2	0.72	2.3	50.2	0.00	1.00	50.2	95	0.91	73.80	3,837	4.31E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
208	33.87	34.04	0.2	33.96	1,159,380	7,621	4,075	283.5	0.66	1.45	397.4	1.36	397.4	1.36	1.00	91.4	0.71	1.0	65.3	0.00	1.00	65.3	95	0.91	80.54	4,198	3.96E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
209	34.04	34.20	0.2	34.12	1,238,920	8,778	4,094	301.6	0.71	1.46	423.7	1.36	423.7	1.36	1.00	97.9	0.71	1.1	69.8	0.00	1.00	69.8	95	0.90	82.34	4,302	3.84E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
210	34.20	34.37	0.2	34.28	1,189,280	8,690	4,114	288.1	0.73	1.48	405.7	1.39	405.7	1.39	1.00	94.6	0.71	1.4	67.3	0.00	1.00	67.3	95	0.90	81.34	4,260	3.90E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
211	34.37	34.53	0.2	34.45	1,168,620	8,187	4,134	281.7	0.70	1.48	397.7	1.38	397.7	1.38	1.00	92.7	0.71	1.2	65.8	0.00	1.00	65.8	95	0.90	80.73	4,238	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
212	34.53	34.69	0.2	34.61	1,196,440	8,594	4,154	287.1	0.72	1.48	406.2	1.38	406.2	1.38	1.00	95.0	0.71	1.3	67.2	0.00	1.00	67.2	95	0.90	81.33	4,279	3.92E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
213	34.69	34.86	0.2	34.78	1,257,760	7,929	4,173	300.4	0.63	1.42	426.0	1.32	426.0	1.32	1.00	98.1	0.71	0.6	69.3	0.00	1.00	69.3	95	0.90	82.14	4,333	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
214	34.86	35.02	0.2	34.94	1,296,860	9,747	4,193	308.3	0.75	1.47	438.2	1.37	438.2	1.37	1.00	102.8	0.70	1.2	72.4	0.00	1.00	72.4	95	0.90	83.37	4,408	3.84E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
																													TOTAL SETTLEMENT (INCHES):			0.43

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-10
TOTAL DRY SETTLEMENT (IN.): 1.27

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	15.01	15.17	0.2	15.09	11,200	440	1,811	5.2	4.69	3.34	5.2	3.34	5.2	3.34	unsusceptible		1.07	84.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
93	15.17	15.34	0.2	15.26	13,600	480	1,831	6.4	4.08	3.23	6.4	3.23	6.4	3.23	unsusceptible		1.07	75.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
94	15.34	15.50	0.2	15.42	20,400	540	1,850	10.0	2.91	2.99	10.0	2.99	10.0	2.99	unsusceptible		1.06	57.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
95	15.50	15.67	0.2	15.58	23,200	620	1,870	11.4	2.91	2.94	11.4	2.94	11.4	2.94	unsusceptible		1.05	54.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
96	15.67	15.83	0.2	15.75	24,000	760	1,890	11.7	3.44	2.98	11.7	2.98	11.7	2.98	unsusceptible		1.05	56.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
97	15.83	15.99	0.2	15.91	31,800	780	1,909	15.7	2.61	2.80	15.7	2.80	15.7	2.80	unsusceptible		1.04	46.2	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
98	15.99	16.16	0.2	16.08	27,400	820	1,929	13.2	3.22	2.92	13.2	2.92	13.2	2.92	unsusceptible		1.04	53.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
99	16.16	16.32	0.2	16.24	27,600	760	1,949	13.2	2.96	2.90	13.2	2.90	13.2	2.90	unsusceptible		1.03	51.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
100	16.32	16.49	0.2	16.40	32,800	720	1,969	15.7	2.34	2.77	15.7	2.77	15.7	2.77	unsusceptible		1.03	44.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
101	16.49	16.65	0.2	16.57	28,200	680	1,988	13.2	2.59	2.86	13.2	2.86	13.2	2.86	unsusceptible		1.02	49.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
102	16.65	16.81	0.2	16.73	21,400	660	2,008	9.7	3.40	3.04	9.7	3.04	9.7	3.04	unsusceptible		1.02	61.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
103	16.81	16.98	0.2	16.90	19,800	580	2,028	8.8	3.26	3.06	8.8	3.06	8.8	3.06	unsusceptible		1.01	63.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
104	16.98	17.14	0.2	17.06	16,800	520	2,047	7.2	3.52	3.15	7.2	3.15	7.2	3.15	unsusceptible		1.01	69.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
105	17.14	17.31	0.2	17.22	16,400	500	2,067	6.9	3.49	3.17	6.9	3.17	6.9	3.17	unsusceptible		1.00	70.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
106	17.31	17.47	0.2	17.39	17,200	520	2,087	7.2	3.44	3.15	7.2	3.15	7.2	3.15	unsusceptible		1.00	68.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
107	17.47	17.63	0.2	17.55	17,200	560	2,106	7.2	3.71	3.17	7.2	3.17	7.2	3.17	unsusceptible		0.99	70.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
108	17.63	17.80	0.2	17.72	20,000	560	2,126	8.4	3.13	3.07	8.4	3.07	8.4	3.07	unsusceptible		0.99	63.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
109	17.80	17.96	0.2	17.88	19,400	560	2,146	8.0	3.25	3.09	8.0	3.09	8.0	3.09	unsusceptible		0.98	65.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
110	17.96	18.13	0.2	18.04	27,000	520	2,165	11.5	2.09	2.86	11.5	2.86	11.5	2.86	unsusceptible		0.98	49.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
111	18.13	18.29	0.2	18.21	26,400	560	2,185	11.1	2.31	2.90	11.1	2.90	11.1	2.90	unsusceptible		0.98	51.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
112	18.29	18.45	0.2	18.37	25,400	640	2,205	10.5	2.76	2.96	10.5	2.96	10.5	2.96	unsusceptible		0.97	55.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
113	18.45	18.62	0.2	18.54	22,800	860	2,224	9.2	4.18	3.11	9.2	3.11	9.2	3.11	unsusceptible		0.97	66.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
114	18.62	18.78	0.2	18.70	39,600	820	2,244	16.6	2.20	2.74	16.6	2.74	16.6	2.74	unsusceptible		0.96	42.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
115	18.78	18.95	0.2	18.86	41,600	960	2,264	17.4	2.44	2.75	17.4	2.75	17.4	2.75	unsusceptible		0.96	43.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
116	18.95	19.11	0.2	19.03	53,000	1,100	2,283	22.2	2.17	2.63	22.2	2.63	22.2	2.63	unsusceptible		0.95	37.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
117	19.11	19.27	0.2	19.19	57,200	1,240	2,303	23.8	2.26	2.62	23.8	2.62	23.8	2.62	unsusceptible		0.95	36.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
118	19.27	19.44	0.2	19.36	66,200	1,300	2,323	27.5	2.04	2.54	30.1	2.51	30.1	2.51	2.82	8.1	0.95	31.2	7.7	4.78	1.16	13.7	53	0.96	47.86	1,884	5.31E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
119	19.44	19.60	0.2	19.52	70,200	1,260	2,343	29.0	1.86	2.50	31.7	2.47	31.7	2.47	2.61	8.4	0.94	29.3	7.9	4.66	1.15	13.8	53	0.96	47.94	1,894	5.32E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
120	19.60	19.77	0.2	19.69	72,200	1,140	2,362	29.6	1.63	2.46	32.5	2.43	32.5	2.43	2.42	8.5	0.94	27.5	8.0	4.52	1.13	13.6	53	0.96	47.69	1,893	5.37E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
121	19.77	19.93	0.2	19.85	73,200	980	2,382	29.7	1.38	2.42	32.8	2.38	32.8	2.38	2.24	8.4	0.93	25.7	7.9	4.35	1.12	13.2	53	0.96	47.25	1,883	5.45E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
122	19.93	20.10	0.2	20.01	82,400	920	2,402	33.3	1.15	2.33	36.8	2.29	36.8	2.29	1.93	9.1	0.93	22.3	8.5	3.97	1.10	13.3	53	0.96	47.37	1,896	5.45E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
123	20.10	20.26	0.2	20.18	102,000	960	2,421	41.1	0.96	2.21	45.4	2.18	45.4	2.18	1.61	10.8	0.93	18.2	10.0	3.28	1.07	13.9	53	0.95	48.13	1,934	5.34E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
124	20.26	20.42	0.2	20.34	133,600	880	2,441	53.7	0.67	2.03	59.2	1.99	59.2	1.99	1.29	13.1	0.92	12.8	12.1	1.82	1.04	14.4	55	0.95	48.61	1,961	5.30E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
125	20.42	20.59	0.2	20.51	127,000	960	2,461	50.6	0.77	2.08	56.0	2.05	56.0	2.05	1.37	12.7	0.92	14.2	11.7	2.28	1.04	14.5	55	0.95	48.76	1,975	5.31E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
126	20.59	20.75	0.2	20.67	103,400	1,100	2,480	40.7	1.09	2.25	45.4	2.21	45.4	2.21	1.68	11.0	0.92	19.2	10.1	3.47	1.07	14.3	55	0.95	48.59	1,976	5.35E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
127	20.75	20.92	0.2	20.83	81,600	1,380	2,500	31.6	1.74	2.45	35.7	2.41	35.7	2.41	2.36	9.5	0.91	26.9	8.7	4.47	1.13	14.3	55	0.95	48.53	1,981	5.38E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
128	20.92	21.08	0.2	21.00	74,600	1,480	2,520	28.6	2.05	2.53	32.5	2.49	32.5	2.49	2.70	9.0	0.91	30.1	8.2	4.71	1.15	14.2	55	0.95	48.41	1,984	5.41E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
129	21.08	21.24	0.2	21.16	79,000	1,640	2,539	30.1	2.14	2.52	34.3	2.48	34.3	2.48	2.67	9.5	0.91	29.8	8.6	4.69	1.15	14.6	55	0.95	48.92	2,013	5.38E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
130	21.24	21.41	0.2	21.33	76,400	1,700	2,559	28.9	2.30	2.56	33.0	2.51	33.0	2.51	2.83	9.4	0.90	31.2	8.4	4.78	1.16	14.6	55	0.95	48.89	2,019	5.40E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
131	21.41	21.57	0.2	21.49	73,800	1,600	2,579	27.6	2.25	2.57	31.8	2.52	31.8	2.52	2.86	9.1	0.90	31.5	8.1	4.80	1.17	14.3	55	0.95	48.54	2,013	5.46E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
132	21.57	21.74	0.2	21.65	71,400	1,520	2,598	26.5	2.21	2.58	30.6	2.53	30.6	2.53	2.90	8.8	0.89	31.9	7.9	4.82	1.17	14.0	55	0.95	48.24	2,008	5.51E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
133	21.74	21.90	0.2	21.82	75,800	1,480	2,618	28.0	2.02	2.53	32.4	2.48	32.4	2.48	2.69	9.2	0.89	29.9	8.2	4.70	1.15	14.1	55	0.95	48.34	2,020	5.52E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
134	21.90	22.06	0.2	21.98	74,200	1,400	2,638	27.1	1.96	2.54	31.6	2.48	31.6	2.48	2.68	9.0	0.89	29.9	8.0	4.70	1.15	13.9	53	0.95	48.07	2,016	5.58E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
135	22.06	22.23	0.2	22.15	74,000	1,440	2,657	26.8	2.02	2.55	31.4	2.49	31.4	2.49	2.74	9.0	0.88	30.4	7.9	4.73	1.16	13.9	53	0.95	48.13	2,026	5.59E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
136	22.23	22.39	0.2	22.31	68,800	1,440	2,677	24.7	2.18	2.60	29.1	2.54	29.1	2.54	2.98	8.5	0.88	32.5	7.5	4.86	1.18	13.7	53	0.95	47.86	2,022	5.64E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
137	22.39	22.56	0.2	22.47	70,600	1,420	2,697	25.2	2.09	2.58	29.7	2.52	29.7	2.52	2.88	8.7	0.88	31.7	7.6	4.81	1.17	13.7	53	0.95	47.88	2,030	5.66E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
138	22.56	22.72	0.2	22.64	72,600	1,680	2,717	25.7	2.40	2.61	25.7	2.61	25.7	2.61	unsusceptible		0.88	35.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.95	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
139	22.72	22.88	0.2	22.80	91,800	1,800	2,736	32.5	2.02	2.48	38.4	2.43	38.4	2.43	2.42	10.8	0.87	27.5	9.4	4.52	1.13	15.2	57	0.95	49.53	2,116	5.51E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
140	22.88	23.05	0.2	22.97	90,800	1,860	2,756	31.9	2.11	2.50	37.8	2.44	37.8	2.44	2.49	10.8	0.87	28.2	9.4	4.58	1.14	15.2	57	0.95	49.58	2,125	5.53E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
141	23.05	23.21	0.2	23.13	97,200	1,460	2,776	34.0	1.55	2.40	40.4	2.34	40.4	2.34	2.07	11.0	0.87	23.9	9.5	4.17	1.11	14.7	55	0.95	48.98	2,107	5.61E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
142	23.21	23.38	0.2	23.29	102,400	1,500	2,795	35.6	1.51	2.37	42.4	2.31	42.4	2.31	1.99	11.5	0.86	23.0	9.9	4.06	1.10	14.9	55	0.95	49.24	2,126	5.60E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
143	23.38	23.54	0.2	23.46	103,400	1,740	2,815	35.7	1.73	2.41	42.6	2.35	42.6	2.35	2.11	11.7	0.86	24.3	10.1	4.22	1.11	15.4	57	0.95	49.78	2,156	5.56E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
144	23.54	23.70	0.2	23.62	99,800	1,580	2,835	34.2	1.63	2.41	41.0	2.35	41.0	2.35	2.10	11.3	0.86	24.2	9.7	4.21	1.11	15.0	55	0.95	49.28	2,142	5.64E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
145	23.70	23.87	0.2	23.79	104,800	1,440	2,854	35.7	1.41	2.36	42.9	2.29	42.9	2.29	1.92	11.6	0.85	22.2	9.9	3.96	1.09	14.8	55	0.95	49.11	2,142	5.68E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
146	23.87	24.03	0.2	23.95	110,000	1,380	2,874	37.3	1.29	2.32	44.9	2.25	44.9	2.25	1.80	12.0	0.85	20.8	10.2	3.75	1.08	14.8	55	0.95	49.11	2,150	5.70E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
147	24.03	24.20	0.2	24.11	118,200	1,260	2,894	39.8	1.09	2.25	48.1	2.19	48.1	2.19	1.63	12.5	0.85	18.5	10.6	3.35	1.07	14.7	55	0.94	49.00	2,152	5.67E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
148	24.20	24.36	0.2	24.28	131,800	1,220	2,913	44.2	0.95	2.18	53.4	2.11	53.4	2.11	1.48	13.6	0.84	16.2	11.5	2.82	1.06	14.9	55	0.94	49.22	2,169	5.66E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
149	24.36	24.52	0.2	24.44	132,400	1,140	2,933	44.1	0.88	2.17	53.5	2.10	53.5	2.10	1.45	13.5	0.84	15.7	11.4	2.68	1.05	14.7	55	0.94	48.94	2,164	5.71E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
150	24.52	24.69	0.2	24.61	130,200	1,240	2,953	43.1	0.97	2.20	52.4	2.13	52.4	2.13	1.51	13.5	0.84	16.6	11.3	2.93	1.06	14.9	55	0.94	49.20	2,183	5.70E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
151	24.69	24.85	0.2	24.77	130,200	1,340	2,972	42.8	1.05	2.22	52.3	2.15	52.3	2.15	1.55	13.6	0.84	17.3	11.4	3.08	1.06	15.1	57	0.94	49.48	2,202	5.69E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
152	24.85	25.02	0.2	24.93	136,400	1,580	2,992	44.6	1.18	2.23	54.6	2.16	54.6	2.16	1.58	14.3	0.83	17.8	11.9	3.18	1.06	15.9	57	0.94	50.28	2,246	5.62E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
153	25.02	25.18	0.2	25.10	138,400	1,900	3,012	45.0	1.40	2.27	55.2	2.20	55.2	2.20	1.68	14.8	0.83	19.1	12.3	3.46	1.07	16.6	60	0.94	51.05	2,288	5.55E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
154	25.18	25.34	0.2	25.26	142,000	2,280	3,031	45.8	1.64	2.31	56.4	2.24	56.4	2.24	1.77	15.4	0.83	20.3	12.7	3.67	1.08	17.4	61	0.94	51.87	2,332	5.48E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
155	25.34	25.51	0.2	25.43	158,600	2,540	3,051	51.0	1.63	2.27	62.8	2.20	62.8	2.20	1.67	16.9	0.83	19.1	14.0	3.44	1.07	18.4	63	0.94	52.83	2,383	5.40E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
156	25.51	25.67	0.2	25.59	198,800	2,480	3,071	63.7	1.27	2.13	78.5	2.06	78.5	2.06	1.38	20.0	0.82	14.5	16.5	2.37	1.05	19.6	65	0.94	53.89	2,438	5.31E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
157	25.67	25.84	0.2	25.75	228,200	2,160	3,091	72.8	0.96	2.01	89.8	1.94	89.8	1.94	1.22	21.9	0.82	11.3	18.0	1.30	1.03	19.8	65	0.94	54.07	2,454	5.31E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
158	25.84	26.00	0.2	25.92	225,400	1,760	3,110	71.5	0.79	1.97	88.4	1.89	88.4	1.89	1.18	21.3	0.82	10.2	17.4	0.92	1.02	18.7	63	0.94	53.09	2,417	5.42E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
159	26.00	26.16	0.2	26.08	229,800	1,980	3,130	72.4	0.87	1.99	89.9	1.91	89.9	1.91	1.20	21.8	0.82	10.6	17.8	1.08	1.02	19.3	65	0.94	53.68	2,452	5.38E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
160	26.16	26.33	0.2	26.25	226,400	2,600	3,150	70.9	1.16	2.07	88.3	1.99	88.3	1.99	1.29	22.2	0.81	12.8	18.1	1.82	1.04	20.5	67	0.94	54.76	2,509	5.29E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
161	26.33	26.49	0.2	26.41	230,600	3,260	3,169	71.8	1.43	2.12	89.6	2.05	89.6	2.05	1.37	23.1	0.81	14.3	18.7	2.30	1.04	21.8	68	0.94	55.91	2,570	5.20E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
162	26.49	26.66	0.2	26.57	242,400	3,660	3,189	75.0	1.53	2.13	93.9	2.05	93.9	2.05	1.38	24.3	0.81	14.4	19.7	2.33	1.04	22.9	70	0.94	56.77	2,618	5.14E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
163	26.66	26.82	0.2	26.74	248,000	3,520	3,209	76.3	1.44	2.10	95.8	2.03	95.8	2.03	1.34	24.7	0.81	13.7	19.9	2.12	1.04	22.8	70	0.94	56.70	2,623	5.16E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
164	26.82	26.98	0.2	26.90	258,000	3,280	3,228	78.9	1.29	2.06	99.4	1.98	99.4	1.98	1.28	25.2	0.80	12.5	20.2	1.73	1.03	22.7	70	0.94	56.61	2,626	5.18E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
165	26.98	27.15	0.2	27.07	263,600	2,940	3,248	80.2	1.13	2.02	101.2	1.94	101.2	1.94	1.23	25.3	0.80	11.4	20.3	1.34	1.03	22.2	70	0.94	56.21	2,616	5.23E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
166	27.15	27.31	0.2	27.23	284,200	2,680	3,268	86.0	0.95	1.95	108.8	1.87	108.8	1.87	1.16	26.6	0.80	9.7	21.2	0.76	1.02	22.4	70	0.93	56.39	2,632	5.18E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
167	27.31	27.48	0.2	27.40	348,800	2,640	3,287	105.1	0.76	1.82	133.1	1.74	133.1	1.74	1.06	31.2	0.80	6.9	24.8	0.11	1.01	25.1	74	0.93	58.57	2,742	5.00E-04	1.50E-03	0.120%	0.120%	0.240%	0.0047
168	27.48	27.64	0.2	27.56	403,200	3,020	3,307	120.9	0.76	1.77	153.4	1.69	153.4	1.69	1.03	35.4	0.79	5.9	28.1	0.03	1.00	28.2	78	0.93	60.91	2,860	4.82E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
169	27.64	27.81	0.2	27.72	402,400	3,260	3,327	120.0	0.82	1.79	152.7	1.71	152.7	1.71	1.05	35.7	0.79	6.4	28.2	0.05	1.01	28.4	78	0.93	61.03	2,874	4.83E-04	1.50E-03	0.102%	0.102%	0.204%	0.0040
170	27.81	27.97	0.2	27.89	370,600	3,220	3,346	109.7	0.88	1.84	140.2	1.76	140.2	1.76	1.08	33.4	0.79	7.3	26.3	0.17	1.01	26.8	75	0.93	59.81	2,825	4.94E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
171	27.97	28.13	0.2	28.05	303,400	2,780	3,366	89.1	0.93	1.93	114.4	1.84	114.4	1.84	1.14	28.2	0.79	9.1	22.1	0.58	1.02	23.1	71	0.93	56.96	2,698	5.20E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
172	28.13	28.30	0.2	28.22	305,000	2,700	3,386	89.1	0.90	1.92	114.7	1.83	114.7	1.83	1.13	28.2	0.78	8.9	22.1	0.52	1.02	23.0	70	0.93	56.86	2,701	5.23E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
173	28.30	28.46	0.2	28.38	292,000	2,800	3,406	84.7	0.97	1.96	109.5	1.87	109.5	1.87	1.16	27.4	0.78	9.7	21.4	0.78	1.02	22.6	70	0.93	56.55	2,694	5.27E-04	2.20E-03	0.202%	0.202%	0.405%	0.0080
174	28.46	28.63	0.2	28.54	259,800	2,980	3,425	74.8	1.16	2.05	97.1	1.96	97.1	1.96	1.25	25.2	0.78	11.9	19.6	1.54	1.03	21.8	68	0.93	55.85	2,669	5.35E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
175	28.63	28.79	0.2	28.71	233,000	2,840	3,445	66.6	1.24	2.11	86.9	2.02	86.9	2.02	1.32	23.1	0.78	13.4	17.9	2.02	1.04	20.6	67	0.93	54.86	2,629	5.47E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
176	28.79	28.95	0.2	28.87	216,400	3,000	3,465	61.5	1.41	2.17	80.4	2.08	80.4	2.08	1.42	21.9	0.77	15.2	17.0	2.55	1.05	20.4	67	0.93	54.64	2,626	5.50E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
177	28.95	29.12	0.2	29.04	223,000	3,220	3,484	63.0	1.47	2.17	82.7	2.08	82.7	2.08	1.42	22.6	0.77	15.3	17.5	2.57	1.05	20.9	67	0.93	55.12	2,657	5.47E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
178	29.12	29.28	0.2	29.20	229,400	3,480	3,504	64.5	1.54	2.18	84.8	2.09	84.8	2.09	1.43	23.3	0.77	15.4	18.0	2.62	1.05	21.5	68	0.93	55.63	2,689	5.44E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
179	29.28	29.45	0.2	29.36	251,200	3,940	3,524	70.3	1.59	2.16	92.6	2.07	92.6	2.07	1.40	25.4	0.77	14.9	19.5	2.47	1.05	22.9	70	0.93	56.79	2,752	5.34E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
180	29.45	29.61	0.2	29.53	302,200	4,540	3,543	84.3	1.52	2.09	111.1	2.00	111.1	2.00	1.30	29.7	0.77	12.9	22.8	1.86	1.04	25.4	74	0.93	58.83	2,859	5.17E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
181	29.61	29.77	0.2	29.69	344,800	4,460	3,563	95.8	1.31	2.00	126.4	1.91	126.4	1.91	1.20	32.8	0.76	10.7	25.1	1.10	1.02	26.8	75	0.93	59.85	2,917	5.09E-04	1.30E-03	0.099%	0.099%	0.198%	0.0039
182	29.77	29.94	0.2	29.86	329,400	4,100	3,583	90.9	1.26	2.01	120.4	1.92	120.4	1.92	1.20	31.4	0.76	10.8	23.9	1.14	1.03	25.7	74	0.93	58.99	2,883	5.18E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
183	29.94	30.10	0.2	30.02	273,200	3,680	3,602	74.8	1.36	2.09	99.6	2.00	99.6	2.00	1.30	26.9	0.76	13.0	20.4	1.88	1.04	23.0	71	0.93	56.92	2,789	5.39E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
184	30.10	30.27	0.2	30.18	230,800	3,440	3,622	62.7	1.51	2.18	83.9	2.09	83.9	2.09	1.43	23.5	0.76	15.4	17.8	2.61	1.05	21.3	68	0.92	55.43	2,724	5.49E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
185	30.27	30.43	0.2	30.35	185,800	3,520	3,642	50.0	1.93	2.32	67.4	2.23	67.4	2.23	1.74	20.0	0.76	19.9	15.1	3.60	1.08	19.9	65	0.92	54.23	2,672	5.62E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
186	30.43	30.59	0.2	30.51	162,200	3,420	3,661	43.3	2.16	2.40	58.7	2.30	58.7	2.30	1.96	18.1	0.75	22.7	13.6	4.02	1.10	19.0	63	0.92	53.34	2,635	5.73E-04	1.60E-03	0.184%	0.184%	0.368%	0.0072
187	30.59	30.76	0.2	30.68	136,000	3,260	3,681	35.9	2.46	2.50	49.0	2.40	49.0	2.40	2.32	15.8	0.75	26.4	11.9	4.43	1.13	17.8	61	0.92	52.23	2,588	5.87E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
188	30.76	30.92	0.2	30.84	113,800	2,700	3,701	29.8	2.45	2.56	40.9	2.46	40.9	2.46	2.57	13.6	0.75	28.8	10.2	4.63	1.14	16.3	60	0.92	50.70	2,518	6.06E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
189	30.92	31.09	0.2	31.00	96,000	2,380	3,720	24.8	2.58	2.64	24.8	2.64	24.8	2.64	unsusceptible		0.75	37.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.92	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
190	31.09	31.25	0.2	31.17	80,600	2,220	3,740	20.5	2.89	2.73	20.5	2.73	20.5	2.73	unsusceptible		0.75	42.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.92	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
191	31.25	31.41	0.2	31.33	82,600	2,220	3,760	21.0	2.82	2.72	21.0	2.72	21.0	2.72	unsusceptible		0.74	41.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.92	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
192	31.41	31.58	0.2	31.50	105,200	2,400	3,780	26.8	2.37	2.59	37.4	2.48	37.4	2.48	2.66	12.7	0.74	29.7	9.4	4.69	1.15	15.5	57	0.92	49.88	2,504	6.23E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
193	31.58	31.74	0.2	31.66	183,400	2,480	3,799	47.3	1.38	2.25	65.1	2.14	65.1	2.14	1.54	19.1	0.74	17.1	14.1	3.05	1.06	18.0	63	0.92	52.45	2,639	5.94E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
194	31.74	31.91	0.2	31.82	337,600	3,140	3,819	87.4	0.94	1.94	119.5	1.83	119.5	1.83	1.13	31.2	0.74	8.9	23.0	0.52	1.02	23.9	71	0.92	57.63	2,908	5.42E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
195	31.91	32.07	0.2	31.99	595,000	4,520	3,839	154.0	0.76	1.69	210.1	1.59	210.1	1.59	1.00	50.6	0.74	4.2	37.2	0.00	1.00	37.2	87	0.92	66.79	3,378	4.69E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
196	32.07	32.23	0.2	32.15	897,400	6,840	3,858	231.6	0.77	1.56	316.1	1.47	316.1	1.47	1.00	73.3	0.73	2.4	53.8	0.00	1.00	53.8	95	0.91	75.51	3,830	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
197	32.23	32.40	0.2	32.32	1,120,800	8,860	3,878	288.0	0.79	1.51	393.8	1.42	393.8	1.42	1.00	90.1	0.73	1.8	66.0	0.00	1.00	66.0	95	0.91	80.83	4,110	3.85E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
198	32.40	32.56	0.2	32.48	1,237,400	9,080	3,898	316.5	0.74	1.46	433.7	1.37	433.7	1.37	1.00	97.9	0.73	1.2	71.6	0.00	1.00	71.6	95	0.91	83.03	4,232	3.76E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
199	32.56	32.73	0.2	32.64	1,337,800	9,880	3,917	340.5	0.74	1.44	467.7	1.35	467.7	1.35	1.00	105.3	0.73	1.0	76.7	0.00	1.00	76.7	95	0.91	84.99	4,343	3.68E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
200	32.73	32.89	0.2	32.81	1,390,400	9,880	3,937	352.2	0.71	1.42	484.9	1.33	484.9	1.33	1.00	108.7	0.73	0.7	79.0	0.00	1.00	79.0	95	0.91	85.82	4,397	3.65E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
201	32.89	33.05	0.2	32.97	1,414,400	11,040	3,957	356.5	0.78	1.44	492.0	1.36	492.0	1.36	1.00	111.6	0.73	1.0	80.9	0.00	1.00	80.9	95	0.91	86.50	4,443	3.63E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
202	33.05	33.22	0.2	33.14	1,416,200	11,820	3,976	355.2	0.84	1.47	491.4	1.38	491.4	1.38	1.00	112.6	0.72	1.3	81.4	0.00	1.00	81.4	95	0.91	86.68	4,463	3.64E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
203	33.22	33.38	0.2	33.30	1,404,800	13,040	3,996	350.5	0.93	1.51	486.3	1.42	486.3	1.42	1.00	113.1	0.72	1.8	81.6	0.00	1.00	81.6	95	0.91	86.75	4,477	3.64E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
204	33.38	33.55	0.2	33.46	1,431,000	12,940	4,016	355.3	0.91	1.49	494.1	1.41	494.1	1.41	1.00	114.7	0.72	1.6	82.6	0.00	1.00	82.6	95	0.91	87.09	4,506	3.64E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
205	33.55	33.71	0.2	33.63	1,353,600	11,620	4,035	334.4	0.86	1.49	466.3	1.41	466.3	1.41	1.00	108.4	0.72	1.6	77.8	0.00	1.00	77.8	95	0.91	85.38	4,429	3.72E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
206	33.71	33.87	0.2	33.79	1,197,600	9,040	4,055	294.3	0.76	1.49	411.5	1.39	411.5	1.39	1.00	95.5	0.72	1.4	68.4	0.00	1.00	68.4	95	0.91	81.79	4,253	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
207	33.87	34.04	0.2	33.96	1,032,600	7,340	4,075	252.4	0.71	1.51	354.0	1.41	354.0	1.41	1.00	82.9	0.71	1.7	59.2	0.00	1.00	59.2	95	0.91	77.96	4,063	4.09E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
208	34.04	34.20	0.2	34.12	805,400	6,440	4,094	195.7	0.80	1.63	275.4	1.53	275.4	1.53	1.00	67.0	0.71	3.2	47.7	0.00	1.00	47.7	95	0.90	72.56	3,791	4.36E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
209	34.20	34.37	0.2	34.28	634,400	4,220	4,114	153.2	0.67	1.66	216.4	1.54	216.4	1.54	1.00	53.1	0.71	3.5	37.7	0.00	1.00	37.7	87	0.90	67.08	3,513	4.73E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
210	34.37	34.53	0.2	34.45	482,800	3,620	4,134	115.8	0.76	1.78	164.3	1.67	164.3	1.67	1.02	42.1	0.71	5.5	29.9	0.01	1.00	30.0	79	0.90	62.12	3,261	5.12E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
211	34.53	34.69	0.2	34.61	401,000	3,680	4,154	95.5	0.93	1.90	136.1	1.79	136.1	1.79	1.10	36.5	0.71	7.9	25.8	0.27	1.01	26.4	75	0.90	59.53	3,133	5.35E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
212	34.69	34.86	0.2	34.78	350,200	3,860	4,173	82.9	1.12	2.00	118.6	1.89	118.6	1.89	1.18	33.0	0.71	10.0	23.3	0.88	1.02	24.7	72	0.90	58.23	3,072	5.48E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
213	34.86	35.02	0.2	34.94	275,000	4,120	4,193	64.6	1.52	2.17	92.9	2.05	92.9	2.05	1.38	27.6	0.70	14.5	19.5	2.35	1.05	22.7	70	0.90	56.62	2,993	5.65E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
214	35.02	35.19	0.2	35.10	237,200	4,860	4,213	55.3	2.09	2.31	80.0	2.20	80.0	2.20	1.66	25.2	0.70	18.9	17.7	3.41	1.07	22.4	70	0.89	56.40	2,989	5.63E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
215	35.19	35.35	0.2	35.27	198,600	4,660	4,232	45.9	2.40	2.41	66.8	2.29	66.8	2.29	1.93	22.0	0.70	22.3	15.4	3.97	1.10	20.9	67	0.89	55.08	2,926	5.77E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
216	35.35	35.52	0.2	35.43	185,600	4,520	4,252	42.7	2.49	2.45	62.3	2.33	62.3	2.33	2.04	20.9	0.70	23.6	14.6	4.13	1.10	20.3	67	0.89	54.53	2,903	5.85E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
217	35.52	35.68	0.2	35.60	183,800	4,460	4,272	42.0	2.48	2.45	61.5	2.33	61.5	2.33	2.05	20.7	0.70	23.7	14.5	4.14	1.11	20.1	67	0.89	54.40	2,903	5.87E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
218	35.68	35.84	0.2	35.76	186,000	4,260	4,291	42.3	2.34	2.43	62.1	2.31	62.1	2.31	1.98	20.8	0.70	22.9	14.5	4.05	1.10	20.0	65	0.89	54.25	2,902	5.90E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
219	35.84	36.01	0.2	35.93	175,200	3,760	4,311	39.6	2.20	2.44	58.4	2.31	58.4	2.31	1.99	19.6	0.69	23.0	13.6	4.05	1.10	19.0	65	0.89	53.38	2,862	6.01E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
220	36.01	36.17	0.2	36.09	158,800	3,300	4,331	35.7	2.14	2.47	52.8	2.34	52.8	2.34	2.07	17.9	0.69	23.9	12.4	4.16	1.11	17.9	61	0.88	52.33	2,812	6.08E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
221	36.17	36.34	0.2	36.25	152,000	2,980	4,350	33.9	2.02	2.47	50.4	2.33	50.4	2.33	2.06	17.2	0.69	23.8	11.9	4.16	1.11	17.3	61	0.88	51.71	2,785	6.17E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
222	36.34	36.50	0.2	36.42	143,000	2,740	4,370	31.7	1.98	2.48	47.3	2.35	47.3	2.35	2.12	16.2	0.69	24.4	11.2	4.22	1.11	16.7	60	0.88	51.09	2,758	6.25E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
223	36.50	36.66	0.2	36.58	127,800	2,680	4,390	28.1	2.17	2.55	42.2	2.41	42.2	2.41	2.37	14.9	0.69	27.0	10.3	4.48	1.13	16.1	60	0.88	50.51	2,732	6.34E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
224	36.66	36.83	0.2	36.75	125,400	2,340	4,409	27.4	1.93	2.53	41.3	2.39	41.3	2.39	2.27	14.5	0.69	26.0	10.0	4.38	1.12	15.6	57	0.88	49.93	2,707	6.43E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
225	36.83	36.99	0.2	36.91	117,600	2,040	4,429	25.6	1.80	2.54	38.7	2.39	38.7	2.39	2.28	13.6	0.69	26.1	9.3	4.40	1.12	14.9	55	0.88	49.20	2,673	6.54E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
226	36.99	37.16	0.2	37.07	113,600	1,780	4,449	24.5	1.63	2.53	37.3	2.38	37.3	2.38	2.23	13.1	0.68	25.5	8.9	4.34	1.12	14.3	55	0.88	48.60	2,647	6.63E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
227	37.16	37.32	0.2	37.24	129,600	1,960	4,469	28.0	1.57	2.47	42.4	2.32	42.4	2.32	2.02	14.6	0.68	23.4	9.9	4.11	1.10	15.1	57	0.87	49.39	2,696	6.47E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
228	37.32	37.48	0.2	37.40	187,800	2,540	4,488	40.8	1.39	2.30	61.3	2.16	61.3	2.16	1.58	19.7	0.68	17.8	13.4	3.19	1.07	17.5	61	0.87	51.92	2,840	6.17E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
229	37.48	37.65	0.2	37.57	275,800	3,140	4,508	60.2	1.16	2.12	89.9	1.99	89.9	1.99	1.28	27.0	0.68	12.6	18.3	1.75	1.03	20.7	67	0.87	54.93	3,011	5.84E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
230	37.65	37.81	0.2	37.73	320,800	3,300	4,528	69.9	1.04	2.04	104.3	1.91	104.3	1.91	1.20	30.5	0.68	10.6	20.7	1.07	1.02	22.2	70	0.87	56.24	3,090	5.72E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
231	37.81	37.98	0.2	37.89	334,400	4,480	4,547	72.5	1.36	2.10	108.5	1.97	108.5	1.97	1.26	32.5	0.68	12.2	22.0	1.62	1.03	24.3	72	0.87	57.97	3,192	5.56E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
232	37.98	38.14	0.2	38.06	358,600	5,260	4,567	77.5	1.49	2.11	116.1	1.98	116.1	1.98	1.27	35.0	0.67	12.4	23.6	1.67	1.03	26.1	75	0.87	59.30	3,272	5.45E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
233	38.14	38.30	0.2	38.22	375,600	4,840	4,587	80.9	1.30	2.06	121.4	1.92	121.4	1.92	1.21	35.9	0.67	11.0	24.2	1.21	1.03	26.0	75	0.87	59.27	3,277	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
234	38.30	38.47	0.2	38.39	370,600	5,180	4,606	79.5	1.42	2.08	119.5	1.95	119.5	1.95	1.24	35.8	0.67	11.7	24.1	1.46	1.03	26.3	75	0.87	59.45	3,294	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
235	38.47	38.63	0.2	38.55	395,400	4,980	4,626	84.5	1.27	2.03	127.2	1.90	127.2	1.90	1.19	37.5	0.67	10.5	25.1	1.02	1.02	26.8	75	0.87	59.82	3,322	5.43E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
236	38.63	38.80	0.2	38.71	505,600	5,680	4,646	107.8	1.13	1.92	162.3	1.79	162.3	1.79	1.10	46.0	0.67	8.0	30.8	0.29	1.01	31.5	81	0.87	63.15	3,514	5.16E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
237	38.80	38.96	0.2	38.88	735,600	7,060	4,665	156.7	0.97	1.75	235.7	1.63	235.7	1.63	1.00	63.3	0.67	4.9	42.3	0.00	1.00	42.3	92	0.87	69.68	3,886	4.68E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
238	38.96	39.12	0.2	39.04	795,200	8,440	4,685	168.7	1.07	1.76	254.2	1.64	254.2	1.64	1.00	68.7	0.67	5.1	45.8	0.00	1.00	45.9	94	0.87	71.59	4,001	4.57E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
239	39.12	39.29	0.2	39.21	969,400	11,100	4,705	205.0	1.15	1.73	309.3	1.61	309.3	1.61	1.00	83.0	0.66	4.6	55.2	0.00	1.00	55.2	95	0.86	76.14	4,264	4.26E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
240	39.29	39.45	0.2	39.37	1,183,000	14,800	4,724	249.4	1.26	1.70	376.6	1.59	376.6	1.59	1.00	100.6	0.66	4.3	66.8	0.00	1.00	66.8	95	0.86	81.14	4,553	4.00E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
241	39.45	39.62	0.2	39.53	1,253,400	15,820	4,744	263.2	1.27	1.69	398.2	1.58	398.2	1.58	1.00	106.2	0.66	4.1	70.4	0.00	1.00	70.4	95	0.86	82.56	4,643	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
242	39.62	39.78	0.2	39.70	1,211,600	12,820	4,764	253.3	1.06	1.64	384.1	1.53	384.1	1.53	1.00	100.9	0.66	3.3	66.7	0.00	1.00	66.7	95	0.86	81.09	4,570	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
243	39.78	39.94	0.2	39.86	1,123,200	8,560	4,783	233.8	0.77	1.56	355.4	1.44	355.4	1.44	1.00	90.8	0.66	2.0	59.9	0.00	1.00	59.9	95	0.86	78.24	4,418	4.18E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
244	39.94	40.11	0.2	40.03	914,400	6,400	4,803	189.4	0.70	1.60	288.7	1.47	288.7	1.47	1.00	74.7	0.66	2.4	49.1	0.00	1.00	49.1	95	0.86	73.26	4,146	4.47E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
245	40.11	40.27	0.2	40.19	652,800	6,420	4,823	134.4	0.99	1.81	205.7	1.68	205.7	1.68	1.02	57.1	0.66	5.7	37.5	0.02	1.00	37.7	87	0.85	67.05	3,802	4.84E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
246	40.27	40.44	0.2	40.35	460,600	6,620	4,843	94.1	1.45	2.04	144.8	1.90	144.8	1.90	1.19	43.7	0.66	10.5	28.6	1.03	1.02	30.3	80	0.85	62.38	3,545	5.21E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
247	40.44	40.60	0.2	40.52	373,200	6,700	4,862	75.8	1.82	2.17	117.1	2.04	117.1	2.04	1.35	37.3	0.65	14.0	24.4	2.21	1.04	27.6	77	0.85	60.44	3,441	5.39E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
248	40.60	40.76	0.2	40.68	346,800	7,400	4,882	70.0	2.16	2.25	108.6	2.12	108.6	2.12	1.48	35.7	0.65	16.3	23.3	2.84	1.06	27.4	77	0.85	60.32	3,441	5.41E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
249	40.76	40.93	0.2	40.85	378,400	7,280	4,902	76.2	1.95	2.19	118.3	2.06	118.3	2.06	1.38	38.1	0.65	14.5	24.8	2.37	1.05	28.3	78	0.85	60.94	3,483	5.36E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
250	40.93	41.09	0.2	41.01	430,800	7,040	4,921	86.5	1.65	2.10	134.4	1.97	134.4	1.97	1.26	41.8	0.65	12.1	27.2	1.58	1.03	29.6	79	0.85	61.90	3,546	5.29E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
251	41.09	41.26	0.2	41.17	412,400	5,720	4,941	82.5	1.40	2.07	128.4	1.93	128.4	1.93	1.22	39.5	0.65	11.1	25.6	1.25	1.03	27.6	77	0.84	60.42	3,468	5.37E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
252	41.26	41.42	0.2	41.34	411,200	5,540	4,961	81.9	1.36	2.06	127.8	1.92	127.8	1.92	1.21	39.3	0.65	10.9	25.4	1.19	1.03	27.3	77	0.84	60.21	3,462	5.40E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
253	41.42	41.58	0.2	41.50	470,600	5,280	4,980	93.5	1.13	1.97	145.9	1.82	145.9	1.82	1.13	43.4	0.65	8.7	28.0	0.46	1.02	28.9	78	0.84	61.39	3,537	5.30E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
254	41.58	41.75	0.2	41.67	495,200	6,440	5,000	98.0	1.31	1.99	153.2	1.86	153.2	1.86	1.15	46.1	0.64	9.3	29.8	0.66	1.02	31.0	80	0.84	62.81	3,626	5.19E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
255	41.75	41.91	0.2	41.83	489,200	6,180	5,020	96.5	1.28	1.99	151.1	1.85	151.1	1.85	1.15	45.5	0.64	9.2	29.3	0.63	1.02	30.4	80	0.84	62.45	3,613	5.23E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
256	41.91	42.08	0.2	41.99	375,800	6,560	5,039	73.6	1.77	2.17	115.8	2.03	115.8	2.03	1.35	37.4	0.64	13.8	24.0	2.16	1.04	27.2	77	0.84	60.15	3,487	5.45E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
257	42.08	42.24	0.2	42.16	321,600	6,940	5,059	62.6	2.19	2.29	98.9	2.15	98.9	2.15	1.55	33.5	0.64	17.3	21.5	3.08	1.06	25.9	74	0.83	59.18	3,437	5.48E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
258	42.24	42.40	0.2	42.32	266,200	6,860	5,079	51.4	2.63	2.40	81.7	2.26	81.7	2.26	1.83	29.1	0.64	21.1	18.6	3.80	1.09	24.0	72	0.83	57.73	3,359	5.63E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
259	42.40	42.57	0.2	42.49	264,800	7,180	5,098	50.9	2.76	2.42	81.1	2.28	81.1	2.28	1.89	29.2	0.64	21.8	18.6	3.89	1.09	24.2	72	0.83	57.88	3,375	5.62E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
260	42.57	42.73	0.2	42.65	369,600	8,040	5,118	71.2	2.21	2.25	113.0	2.11	113.0	2.11	1.47	38.0	0.64	16.1	24.2	2.80	1.05	28.3	78	0.83	60.96	3,561	5.35E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
261	42.73	42.90	0.2	42.81	568,200	8,900	5,138	109.6	1.58	2.01	173.5	1.88	173.5	1.88	1.17	53.4	0.64	9.9	34.0	0.83	1.02	35.5	85	0.83	65.74	3,847	4.97E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
262	42.90	43.06	0.2	42.98	624,200	8,100	5,157	120.0	1.31	1.93	190.2	1.79	190.2	1.79	1.10	56.8	0.64	7.9	36.1	0.28	1.01	36.8	86	0.83	66.52	3,901	4.92E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
263	43.06	43.23	0.2	43.14	657,400	6,460	5,177	126.0	0.99	1.83	199.9	1.69	199.9	1.69	1.03	57.7	0.63	5.9	36.6	0.02	1.00	36.8	86	0.83	66.50	3,907	4.93E-04	1.30E-03	0.055%	0.055%	0.109%	0.0021
264	43.23	43.39	0.2	43.31	614,400	5,100	5,197	117.2	0.84	1.81	186.5	1.66	186.5	1.66	1.01	53.4	0.63	5.3	33.8	0.01	1.00	33.9	83	0.83	64.70	3,808	5.08E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
265	43.39	43.55	0.2	43.47	513,200	4,760	5,217	97.4	0.94	1.90	155.5	1.75	155.5	1.75	1.07	46.0	0.63	7.0	29.1	0.13	1.01	29.4	79	0.83	61.75	3,642	5.33E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
266	43.55	43.72	0.2	43.64	402,600	4,540	5,236	75.9	1.14	2.04	121.7	1.88	121.7	1.88	1.17	37.9	0.63	10.0	23.9	0.87	1.02	25.3	74	0.83	58.70	3,468	5.62E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
267	43.72	43.88	0.2	43.80	320,600	3,680	5,256	60.0	1.17	2.13	96.8	1.96	96.8	1.96	1.26	31.1	0.63	12.0	19.6	1.56	1.03	21.7	68	0.83	55.82	3,304	5.92E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
268	43.88	44.05	0.2	43.96	271,800	3,580	5,276	50.5	1.34	2.22	81.9	2.06	81.9	2.06	1.39	27.4	0.63	14.6	17.2	2.39	1.05	20.4	67	0.83	54.61	3,238	6.06E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
269	44.05	44.21	0.2	44.13	246,600	3,660	5,295	45.6	1.52	2.29	74.2	2.13	74.2	2.13	1.50	25.5	0.63	16.6	16.0	2.92	1.06	19.8	65	0.82	54.13	3,216	6.06E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
270	44.21	44.37	0.2	44.29	227,600	4,040	5,315	41.8	1.82	2.37	68.3	2.21	68.3	2.21	1.68	24.3	0.63	19.2	15.2	3.47	1.07	19.8	65	0.82	54.10	3,221	6.07E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
271	44.37	44.54	0.2	44.46	208,400	4,280	5,335	38.1	2.11	2.44	62.4	2.28	62.4	2.28	1.88	22.9	0.62	21.7	14.3	3.88	1.09	19.5	65	0.82	53.85	3,211	6.11E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
272	44.54	44.70	0.2	44.62	209,200	4,660	5,354	38.1	2.29	2.46	62.6	2.30	62.6	2.30	1.95	23.3	0.62	22.6	14.5	4.00	1.10	19.9	65	0.82	54.21	3,239	6.08E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
273	44.70	44.87	0.2	44.78	220,600	5,100	5,374	40.0	2.37	2.46	65.8	2.30	65.8	2.30	1.94	24.5	0.62	22.4	15.2	3.98	1.10	20.7	67	0.82	54.88	3,285	6.02E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
274	44.87	45.03	0.2	44.95	248,400	5,400	5,394	45.1	2.22	2.40	74.0	2.24	74.0	2.24	1.77	26.9	0.62	20.4	16.7	3.68	1.08	21.8	68	0.82	55.83	3,348	5.92E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
275	45.03	45.19	0.2	45.11	276,400	5,660	5,413	50.1	2.09	2.35	82.2	2.19	82.2	2.19	1.64	29.3	0.62	18.6	18.2	3.36	1.07	22.8	70	0.81	56.72	3,407	5.77E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
276	45.19	45.36	0.2	45.28	305,000	6,140	5,433	55.1	2.05	2.31	90.5	2.15	90.5	2.15	1.56	31.9	0.62	17.5	19.7	3.12	1.06	24.1	72	0.81	57.75	3,476	5.68E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
277	45.36	45.52	0.2	45.44	330,000	6,460	5,453	59.5	1.99	2.28	97.8	2.12	97.8	2.12	1.49	34.0	0.62	16.4	21.0	2.88	1.06	25.1	74	0.81	58.55	3,530	5.61E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
278	45.52	45.69	0.2	45.60	348,600	6,420	5,472	62.7	1.87	2.24	103.1	2.09	103.1	2.09	1.43	35.4	0.62	15.4	21.9	2.60	1.05	25.6	74	0.81	58.91	3,558	5.59E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
279	45.69	45.85	0.2	45.77	364,400	7,020	5,492	65.3	1.96	2.24	107.6	2.09	107.6	2.09	1.43	37.1	0.62	15.4	22.8	2.61	1.05	26.6	75	0.81	59.68	3,611	5.52E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
280	45.85	46.01	0.2	45.93	368,400	7,220	5,512	65.8	1.99	2.24	108.6	2.09	108.6	2.09	1.44	37.5	0.61	15.5	23.0	2.63	1.05	26.9	75	0.81	59.89	3,630	5.52E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
281	46.01	46.18	0.2	46.10	351,400	8,200	5,531	62.5	2.37	2.31	103.4	2.16	103.4	2.16	1.57	36.8	0.61	17.7	22.6	3.16	1.06	27.2	77	0.80	60.14	3,652	5.43E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
282	46.18	46.34	0.2	46.26	335,800	8,700	5,551	59.5	2.63	2.36	98.6	2.21	98.6	2.21	1.68	35.9	0.61	19.2	22.0	3.48	1.07	27.1	77	0.80	60.05	3,653	5.45E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
283	46.34	46.51	0.2	46.42	320,400	8,900	5,571	56.5	2.83	2.40	93.9	2.24	93.9	2.24	1.78	34.8	0.61	20.5	21.2	3.70	1.08	26.7	75	0.80	59.78	3,643	5.49E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
284	46.51	46.67	0.2	46.59	303,400	8,540	5,591	53.3	2.87	2.42	88.8	2.26	88.8	2.26	1.84	33.2	0.61	21.2	20.3	3.81	1.09	25.9	74	0.80	59.15	3,611	5.56E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
285	46.67	46.83	0.2	46.75	281,200	7,440	5,610	49.1	2.70	2.43	82.1	2.27	82.1	2.27	1.85	30.8	0.61	21.4	18.8	3.83	1.09	24.3	72	0.80	57.92	3,542	5.68E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
286	46.83	47.00	0.2	46.92	309,800	6,360	5,630	54.0	2.09	2.32	90.3	2.16	90.3	2.16	1.57	32.5	0.61	17.7	19.7	3.16	1.06	24.2	72	0.80	57.82	3,543	5.70E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
287	47.00	47.08	0.1	47.04	442,000	7,240	5,645	77.3	1.66	2.14	128.7	1.98	128.7	1.98	1.28	43.2	0.61	12.4	26.2	1.70	1.03	28.8	78	0.80	61.29	3,760	5.39E-04	1.60E-03	0.109%	0.109%	0.218%	0.0021
																													TOTAL SETTLEMENT (INCHES):			1.27

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120 MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-11
TOTAL DRY SETTLEMENT (IN.): 1.76

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)
92	15.01	15.17	0.2	15.09	39,200	260	1,811	20.6	0.70	2.40	20.2
93	15.17	15.34	0.2	15.26	42,000	280	1,831	21.9	0.70	2.38	21.5
94	15.34	15.50	0.2	15.42	43,400	280	1,850	22.5	0.67	2.36	22.1
95	15.50	15.67	0.2	15.58	41,400	340	1,870	21.1	0.86	2.44	20.9
96	15.67	15.83	0.2	15.75	40,800	300	1,890	20.6	0.77	2.42	20.5
97	15.83	15.99	0.2	15.91	40,200	320	1,909	20.1	0.84	2.45	20.1
98	15.99	16.16	0.2	16.08	37,600	340	1,929	18.5	0.95	2.51	18.7
99	16.16	16.32	0.2	16.24	35,600	340	1,949	17.3	1.01	2.55	17.6
100	16.32	16.49	0.2	16.40	32,400	340	1,969	15.5	1.12	2.61	15.5
101	16.49	16.65	0.2	16.57	32,000	260	1,988	15.1	0.87	2.57	15.7
102	16.65	16.81	0.2	16.73	31,800	240	2,008	14.8	0.81	2.56	15.5
103	16.81	16.98	0.2	16.90	29,400	220	2,028	13.5	0.80	2.60	14.3
104	16.98	17.14	0.2	17.06	31,600	220	2,047	14.4	0.74	2.56	15.3
105	17.14	17.31	0.2	17.22	32,400	200	2,067	14.7	0.66	2.53	15.6
106	17.31	17.47	0.2	17.39	34,400	240	2,087	15.5	0.74	2.53	16.5
107	17.47	17.63	0.2	17.55	36,000	260	2,106	16.1	0.77	2.52	17.2
108	17.63	17.80	0.2	17.72	42,000	280	2,126	18.8	0.70	2.44	19.9
109	17.80	17.96	0.2	17.88	45,200	320	2,146	20.1	0.74	2.43	21.4
110	17.96	18.13	0.2	18.04	45,600	380	2,165	20.1	0.87	2.46	21.4
111	18.13	18.29	0.2	18.21	50,200	440	2,185	22.0	0.92	2.43	23.5
112	18.29	18.45	0.2	18.37	56,000	440	2,205	24.4	0.82	2.37	26.1
113	18.45	18.62	0.2	18.54	61,200	480	2,224	26.5	0.81	2.34	28.4
114	18.62	18.78	0.2	18.70	60,800	700	2,244	26.1	1.20	2.43	28.1
115	18.78	18.95	0.2	18.86	60,200	760	2,264	25.6	1.31	2.46	27.7
116	18.95	19.11	0.2	19.03	57,400	760	2,283	24.1	1.38	2.49	26.3
117	19.11	19.27	0.2	19.19	60,000	620	2,303	25.1	1.07	2.42	27.4
118	19.27	19.44	0.2	19.36	59,200	500	2,323	24.5	0.88	2.38	26.9
119	19.44	19.60	0.2	19.52	59,000	460	2,343	24.2	0.81	2.37	26.7
120	19.60	19.77	0.2	19.69	59,800	540	2,362	24.3	0.94	2.40	26.9
121	19.77	19.93	0.2	19.85	65,400	620	2,382	26.5	0.98	2.38	29.3
122	19.93	20.10	0.2	20.01	73,800	760	2,402	29.7	1.06	2.35	33.0
123	20.10	20.26	0.2	20.18	78,800	840	2,421	31.5	1.10	2.34	35.0
124	20.26	20.42	0.2	20.34	82,600	860	2,441	32.8	1.07	2.32	36.6
125	20.42	20.59	0.2	20.51	80,000	820	2,461	31.5	1.06	2.33	35.3
126	20.59	20.75	0.2	20.67	77,200	740	2,480	30.1	0.99	2.33	33.9
127	20.75	20.92	0.2	20.83	77,400	680	2,500	30.0	0.91	2.32	33.9
128	20.92	21.08	0.2	21.00	73,800	760	2,520	28.3	1.07	2.37	32.2
129	21.08	21.24	0.2	21.16	76,000	760	2,539	28.9	1.03	2.36	33.0
130	21.24	21.41	0.2	21.33	84,400	800	2,559	32.0	0.98	2.31	36.5
131	21.41	21.57	0.2	21.49	86,400	920	2,579	32.5	1.10	2.33	37.2
132	21.57	21.74	0.2	21.65	89,600	900	2,598	33.5	1.03	2.30	38.5
133	21.74	21.90	0.2	21.82	114,800	1,020	2,618	42.8	0.91	2.18	49.1
134	21.90	22.06	0.2	21.98	129,000	1,100	2,638	47.9	0.87	2.13	55.0
135	22.06	22.23	0.2	22.15	113,400	1,140	2,657	41.7	1.03	2.22	48.1
136	22.23	22.39	0.2	22.31	92,600	1,080	2,677	33.6	1.20	2.34	39.2
137	22.39	22.56	0.2	22.47	82,000	1,140	2,697	29.4	1.44	2.43	34.6
138	22.56	22.72	0.2	22.64	78,200	1,180	2,717	27.8	1.56	2.47	32.8
139	22.72	22.88	0.2	22.80	77,400	1,260	2,736	27.3	1.69	2.50	32.4
140	22.88	23.05	0.2	22.97	81,400	1,240	2,756	28.5	1.58	2.46	33.9
141	23.05	23.21	0.2	23.13	79,000	1,100	2,776	27.5	1.44	2.46	32.8
142	23.21	23.38	0.2	23.29	88,200	1,180	2,795	30.6	1.38	2.41	36.5
143	23.38	23.54	0.2	23.46	100,400	1,140	2,815	34.7	1.17	2.32	41.4
144	23.54	23.70	0.2	23.62	118,800	1,040	2,835	40.9	0.90	2.20	48.8
145	23.70	23.87	0.2	23.79	132,200	1,040	2,854	45.3	0.80	2.13	54.1
146	23.87	24.03	0.2	23.95	153,200	1,160	2,874	52.3	0.77	2.07	62.5
147	24.03	24.20	0.2	24.11	173,000	1,180	2,894	58.8	0.69	2.00	70.4
148	24.20	24.36	0.2	24.28	200,400	1,200	2,913	67.8	0.61	1.92	81.2
149	24.36	24.52	0.2	24.44	230,000	1,160	2,933	77.4	0.51	1.83	92.9
150	24.52	24.69	0.2	24.61	242,400	1,400	2,953	81.1	0.58	1.85	97.6
151	24.69	24.85	0.2	24.77	212,600	1,140	2,972	70.5	0.54	1.88	85.3
152	24.85	25.02	0.2	24.93	196,200	1,440	2,992	64.6	0.75	1.99	78.5
153	25.02	25.18	0.2	25.10	186,000	1,520	3,012	60.8	0.83	2.04	74.2
154	25.18	25.34	0.2	25.26	249,800	1,660	3,031	81.4	0.67	1.88	99.3
155	25.34	25.51	0.2	25.43	314,000	1,640	3,051	101.9	0.53	1.74	124.4
156	25.51	25.67	0.2	25.59	355,400	2,740	3,071	114.7	0.78	1.80	140.3
157	25.67	25.84	0.2	25.75	424,000	3,240	3,091	136.2	0.77	1.73	166.9
158	25.84	26.00	0.2	25.92	407,400	2,960	3,110	130.0	0.73	1.74	159.8
159	26.00	26.16	0.2	26.08	338,600	1,440	3,130	107.2	0.43	1.67	132.4
160	26.16	26.33	0.2	26.25	264,000	980	3,150	82.8	0.38	1.74	102.9
161	26.33	26.49	0.2	26.41	198,800	880	3,169	61.7	0.45	1.89	77.3
162	26.49	26.66	0.2	26.57	169,800	920	3,189	52.2	0.55	2.00	65.8
163	26.66	26.82	0.2	26.74	170,200	1,200	3,209	52.0	0.72	2.06	65.7
164	26.82	26.98	0.2	26.90	181,600	1,760	3,228	55.3	0.99	2.11	69.9
165	26.98	27.15	0.2	27.07	188,800	2,000	3,248	57.1	1.08	2.12	72.5
166	27.15	27.31	0.2	27.23	187,800	2,060	3,268	56.5	1.12	2.14	71.9
167	27.31	27.48	0.2	27.40	187,800	1,880	3,287	56.1	1.02	2.11	71.7
168	27.48	27.64	0.2	27.56	185,800	1,840	3,307	55.2	1.01	2.12	70.7
169	27.64	27.81	0.2	27.72	193,800	1,800	3,327	57.3	0.95	2.09	73.5
170	27.81	27.97	0.2	27.89	195,000	1,800	3,346	57.3	0.94	2.09	73.8
171	27.97	28.13	0.2	28.05	174,000	1,720	3,366	50.7	1.01	2.15	65.6

LAYER NUMBER	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$
92	2.41	20.2	2.41	2.36	4.6	1.07	26.9	4.9	4.47	1.13	10.0
93	2.39	21.5	2.39	2.26	4.9	1.07	25.9	5.2	4.38	1.12	10.2
94	2.37	22.1	2.37	2.20	5.0	1.06	25.2	5.3	4.31	1.12	10.2
95	2.44	20.9	2.44	2.48	4.9	1.05	28.0	5.2	4.57	1.14	10.4
96	2.42	20.5	2.42	2.42	4.8	1.05	27.4	5.0	4.52	1.13	10.2
97	2.45	20.1	2.45	2.52	4.8	1.04	28.4	5.0	4.60	1.14	10.3
98	2.50	18.7	2.50	2.79	4.6	1.04	30.8	4.8	4.76	1.16	10.3
99	2.54	17.6	2.54	2.97	4.4	1.03	32.4	4.6	4.85	1.17	10.2
100	2.61	15.5	2.61	unsusceptible		1.03	35.8	#VALUE!	5.00	1.20	#VALUE!
101	2.55	15.7	2.55	3.04	4.0	1.02	33.0	4.1	4.88	1.18	9.7
102	2.54	15.5	2.54	2.99	4.0	1.02	32.6	4.0	4.86	1.18	9.6
103	2.57	14.3	2.57	3.17	3.7	1.01	34.1	3.8	4.94	1.19	9.4
104	2.53	15.3	2.53	2.94	3.9	1.01	32.2	3.9	4.84	1.17	9.5
105	2.50	15.6	2.50	2.78	4.0	1.00	30.8	4.0	4.76	1.16	9.4
106	2.50	16.5	2.50	2.78	4.2	1.00	30.8	4.2	4.76	1.16	9.6
107	2.49	17.2	2.49	2.74	4.4	0.99	30.4	4.3	4.73	1.16	9.8
108	2.42	19.9	2.42	2.39	4.9	0.99	27.2	4.9	4.49	1.13	10.0
109	2.40	21.4	2.40	2.32	5.3	0.98	26.5	5.2	4.44	1.13	10.3
110	2.43	21.4	2.43	2.46	5.4	0.98	27.8	5.3	4.55	1.14	10.5
111	2.41	23.5	2.41	2.35	5.9	0.98	26.8	5.7	4.46	1.13	10.9
112	2.35	26.1	2.35	2.10	6.4	0.97	24.2	6.2	4.21	1.11	11.0
113	2.31	28.4	2.31	1.99	6.8	0.97	23.0	6.6	4.05	1.10	11.3
114	2.40	28.1	2.40	2.32	7.1	0.96	26.5	6.8	4.43	1.13	12.1
115	2.43	27.7	2.43	2.44	7.1	0.96	27.6	6.8	4.53	1.14	12.2
116	2.46	26.3	2.46	2.57	6.9	0.95	28.9	6.5	4.63	1.15	12.1
117	2.39	27.4	2.39	2.26	6.9	0.95	25.9	6.6	4.38	1.12	11.8
118	2.35	26.9	2.35	2.12	6.7	0.95	24.4	6.4	4.22	1.11	11.3
119	2.34	26.7	2.34	2.07	6.7	0.94	23.8	6.3	4.16	1.11	11.1
120	2.36	26.9	2.36	2.17	6.8	0.94	24.9	6.4	4.28	1.11	11.4
121	2.34	29.3	2.34	2.09	7.4	0.93	24.1	6.9	4.19	1.11	11.9
122	2.32	33.0	2.32	2.00	8.3	0.93	23.1	7.7	4.08	1.10	12.5
123	2.30	35.0	2.30	1.95	8.8	0.93	22.6	8.1	4.01	1.10	12.9
124	2.28	36.6	2.28	1.89	9.1	0.92	21.8	8.4	3.90	1.09	13.1
125	2.29	35.3	2.29	1.92	8.9	0.92	22.1	8.1	3.95	1.09	12.9
126	2.29	33.9	2.29	1.91	8.5	0.92	22.1	7.8	3.94	1.09	12.5
127	2.27	33.9	2.27	1.86	8.5	0.91	21.4	7.7	3.84	1.09	12.3
128	2.33	32.2	2.33	2.03	8.3	0.91	23.5	7.5	4.12	1.10	12.4
129	2.31	33.0	2.31	1.98	8.5	0.91	22.9	7.7	4.04	1.10	12.5
130	2.26	36.5	2.26	1.82	9.2	0.90	21.0	8.3	3.78	1.09	12.8
131	2.28	37.2	2.28	1.88	9.5	0.90	21.8	8.6	3.89	1.09	13.2
132	2.25	38.5	2.25	1.81	9.8	0.89	20.8	8.7	3.75	1.09	13.2
133	2.13	49.1	2.13	1.52	11.9	0.89	16.9	10.6	2.98	1.06	14.2
134	2.08	55.0	2.08	1.42	13.1	0.89	15.3	11.6	2.58	1.05	14.8
135	2.17	48.1	2.17	1.60	11.9	0.88	18.0	10.6	3.24	1.07	14.5
136	2.28	39.2	2.28	1.90	10.2	0.88	21.9	9.0	3.91	1.09	13.8
137	2.37	34.6	2.37	2.20	9.4	0.88	25.3	8.3	4.32	1.12	13.6
138	2.41	32.8	2.41	2.36	9.1	0.88	26.9	8.0	4.47	1.13	13.5
139	2.44	32.4	2.44	2.47	9.1	0.87	27.9	8.0	4.55	1.14	13.6
140	2.40	33.9	2.40	2.32	9.5	0.87	26.5	8.2	4.44	1.13	13.7
141	2.39	32.8	2.39	2.28	9.1	0.87	26.1	7.9	4.40	1.12	13.3
142	2.34	36.5	2.34	2.09	10.0	0.86	24.2	8.6	4.20	1.11	13.8
143	2.26	41.4	2.26	1.82	11.0	0.86	20.9	9.4	3.77	1.09	14.0
144	2.13	48.8	2.13	1.52	12.3	0.86	16.8	10.5	2.97	1.06	14.1
145	2.07	54.1	2.07	1.40	13.4	0.85	14.9	11.4	2.47	1.05	14.4
146	2.01	62.5	2.01	1.31	15.1	0.85	13.1	12.9	1.93	1.04	15.3
147	1.94	70.4	1.94	1.23	16.6	0.85	11.3	14.1	1.33	1.03	15.8
148	1.86	81.2	1.86	1.15	18.7	0.84	9.3	15.8	0.66	1.02	16.7
149	1.77	92.9	1.77	1.08	20.8	0.84	7.4	17.5	0.18	1.01	17.8
150	1.78	97.6	1.78	1.09	22.0	0.84	7.7	18.4	0.23	1.01	18.9
151	1.81	85.3	1.81	1.12	19.5	0.84	8.4	16.3	0.39	1.01	16.9
152	1.92	78.5	1.92	1.21	18.7	0.83	10.8	15.6	1.14	1.03	17.1
153	1.96	74.2	1.96	1.26	18.0	0.83	12.0	15.0	1.55	1.03	17.0
154	1.81	99.3	1.81	1.11	22.9	0.83	8.3	19.0	0.37	1.01	19.6
155	1.67	124.4	1.67	1.02	27.4	0.83	5.5	22.6	0.01	1.00	22.7
156	1.73	140.3	1.73	1.06	31.6	0.82	6.6	26.0	0.08	1.01	26.3
157	1.67	166.9	1.67	1.02	37.0	0.82	5.5	30.3	0.01	1.00	30.4
158	1.67	159.8	1.67	1.02	35.5	0.82	5.5	29.1	0.01	1.00	29.1
159	1.60	132.4	1.60	1.00	28.8	0.82	4.3	23.5	0.00	1.00	23.5
160	1.66	102.9	1.66	1.01	23.0	0.81	5.4	18.7	0.01	1.00	18.7
161	1.81	77.3	1.81	1.11	18.2	0.81	8.3	14.7	0.36	1.01	15.3
162	1.91	65.8	1.91	1.20	16.2	0.81	10.7	13.0	1.10	1.02	14.5
163	1.97	65.7	1.97	1.26	16.6	0.81	12.2	13.3	1.62	1.03	15.4
164	2.03	69.9	2.03	1.34	18.1	0.80	13.7	14.5	2.12	1.04	17.2
165	2.04	72.5	2.04	1.36	18.9	0.80	14.0	15.1	2.22	1.04	18.0
166	2.05	71.9	2.05	1.37	18.8	0.80	14.4	15.0	2.32	1.04	18.0
167	2.03	71.7	2.03	1.34	18.7	0.80	13.7	14.9	2.12	1.04	17.6
168	2.03	70.7	2.03	1.34	18.5	0.79	13.8	14.7	2.14	1.04	17.4
169	2.00	73.5	2.00	1.30	19.1	0.79	13.0	15.1	1.87	1.04	17.5
170	2.00	73.8	2.00	1.30	19.2	0.79	12.9	15.1	1.85	1.04	17.5
171	2.06	65.6	2.06	1.38	17.5	0.79	14.5	13.8	2.36	1.05	16.7

LAYER NUMBER	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	47	0.97	43.11	1,498	5.26E-04	4.50E-03	1.125%	1.125%	2.250%	0.0443
93	47	0.97	43.35	1,515	5.26E-04	4.50E-03	1.125%	1.125%	2.250%	0.0443
94	47	0.97	43.38	1,524	5.28E-04	4.50E-03	1.125%	1.125%	2.250%	0.0443
95	47	0.97	43.72	1,544	5.27E-04	4.50E-03	1.125%	1.125%	2.250%	0.0443
96	47	0.97	43.40	1,541	5.34E-04	4.50E-03	1.125%	1.125%	2.250%	0.0443
97	47	0.97	43.50	1,552	5.35E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
98	47	0.97	43.50	1,560	5.38E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
99	47	0.97	43.39	1,564	5.42E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
100	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
101	44	0.97	42.66	1,553	5.57E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
102	44	0.97	42.49	1,555	5.62E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
103	44	0.97	42.22	1,552	5.68E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
104	44	0.97	42.30	1,563	5.70E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
105	44	0.96	42.15	1,565	5.69E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
106	44	0.96	42.54	1,587	5.66E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
107	44	0.96	42.74	1,602	5.66E-04	3.30E-03	0.957%	0.957%	1.914%	0.0377
108	47	0.96	43.09	1,622	5.64E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
109	47	0.96	43.47	1,644	5.62E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
110	47	0.96	43.86	1,666	5.59E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
111	47	0.96	44.36	1,693	5.56E-04	3.30E-03	0.825%	0.825%	1.650%	0.0325
112	49	0.96	44.54	1,708	5.56E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
113	49	0.96	44.92	1,730	5.54E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
114	51	0.96	45.92	1,776	5.44E-04	3.30E-03	0.660%	0.660%	1.320%	0.0260
115	51	0.96	46.10	1,791	5.44E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
116	51	0.96	45.96	1,793	5.48E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
117	49	0.96	45.49	1,783	5.56E-04	2.70E-03	0.608%	0.608%	1.215%	0.0239
118	49	0.96	44.87	1,766	5.66E-04	2.70E-03	0.608%	0.608%	1.215%	0.0239
119	49	0.96	44.62	1,763	5.72E-04	2.70E-03	0.608%	0.608%	1.215%	0.0239
120	49	0.96	45.05	1,788	5.69E-04	2.70E-03	0.608%	0.608%	1.215%	0.0239
121	49	0.96	45.61	1,817	5.64E-04	2.70E-03	0.608%	0.608%	1.215%	0.0239
122	51	0.96	46.47	1,860	5.56E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
123	51	0.95	46.93	1,886	5.47E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
124	53	0.95	47.11	1,901	5.47E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
125	51	0.95	46.85	1,898	5.52E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
126	51	0.95	46.42	1,887	5.60E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
127	51	0.95	46.14	1,884	5.65E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
128	51	0.95	46.34	1,899	5.65E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
129	51	0.95	46.40	1,909	5.67E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
130	51	0.95	46.80	1,933	5.64E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
131	53	0.95	47.30	1,961	5.60E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
132	53	0.95	47.30	1,969	5.62E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
133	55	0.95	48.45	2,024	5.51E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
134	55	0.95	49.10	2,059	5.46E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
135	55	0.95	48.78	2,053	5.51E-04	2.70E-03	0.432%	0.432%	0.864%	0.0170
136	53	0.95	47.92	2,024	5.63E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
137	53	0.95	47.69	2,022	5.68E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
138	53	0.95	47.62	2,027	5.71E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
139	53	0.95	47.77	2,040	5.71E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
140	53	0.95	47.86	2,052	5.72E-04	2.20E-03	0.385%	0.385%	0.770%	0.0152
141	53	0.95	47.37	2,038	5.80E-04	2.60E-03	0.455%	0.455%	0.910%	0.0179
142	53	0.95	47.92	2,069	5.76E-04	2.60E-03	0.455%	0.455%	0.910%	0.0179
143	53	0.95	48.19	2,088	5.74E-04	2.20E-03	0.385%	0.385%	0.770%	0.0152
144	55	0.95	48.36	2,102	5.75E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
145	55	0.95	48.67	2,123	5.73E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
146	57	0.95	49.62	2,172	5.64E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
147	57	0.94	50.21	2,205	5.53E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
148	60	0.94	51.15	2,254	5.45E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
149	61	0.94	52.25	2,311	5.35E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
150	63	0.94	53.26	2,363	5.27E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
151	60	0.94	51.35	2,286	5.48E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
152	61	0.94	51.56	2,303	5.48E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
153	61	0.94	51.45	2,305	5.51E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
154	65	0.94	53.90	2,423	5.27E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
155	70	0.94	56.61	2,553	5.04E-04	1.50E-03	0.138%	0.138%	0.276%	0.0054
156	75	0.94	59.48	2,691	4.81E-04	1.50E-03	0.114%	0.114%	0.228%	0.0045
157	80	0.94	62.44	2,834	4.60E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
158	79	0.94	61.55	2,803	4.68E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
159	71	0.94	57.28	2,616	5.04E-04	1.50E-03	0.132%	0.132%	0.264%	0.0052
160	63	0.94	53.10	2,433	5.46E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
161	57	0.94	49.66	2,283	5.85E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
162	55	0.94	48.73	2,247	5.98E-04	2.60E-03	0.416%	0.416%	0.832%	0.0164
163	57	0.94	49.75	2,301	5.88E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
164	61	0.94	51.64	2,396	5.68E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
165	61	0.94	52.37	2,437	5.62E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
166	63	0.93	52.44	2,448	5.57E-04	2.20E-03	0.253%	0.253%	0.506%	0.0100
167	61	0.93	52.01	2,435	5.63E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
168	61	0.93	51.84	2,434	5.67E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
169	61	0.93	51.92	2,445	5.67E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
170	61	0.93	51.93	2,453	5.69E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
171	60	0.93	51.16	2,424	5.79E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
172	28.13	28.30	0.2	28.22	151,200	1,780	3,386	43.7	1.20	2.25	56.9	2.15	56.9	2.15	1.56	15.8	0.78	17.4	12.4	3.11	1.06	16.3	60	0.93	50.68	2,408	5.86E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
173	28.30	28.46	0.2	28.38	130,400	1,960	3,406	37.3	1.54	2.36	48.9	2.27	48.9	2.27	1.86	14.3	0.78	21.4	11.2	3.84	1.09	16.0	60	0.93	50.43	2,403	5.91E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
174	28.46	28.63	0.2	28.54	110,400	1,900	3,425	31.2	1.78	2.46	41.3	2.37	41.3	2.37	2.18	12.6	0.78	25.0	9.8	4.29	1.12	15.3	57	0.93	49.63	2,371	6.02E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
175	28.63	28.79	0.2	28.71	98,400	1,800	3,445	27.6	1.90	2.52	36.7	2.42	36.7	2.42	2.41	11.6	0.78	27.4	9.0	4.51	1.13	14.7	55	0.93	48.99	2,348	6.12E-04	2.60E-03	0.416%	0.416%	0.832%	0.0164
176	28.79	28.95	0.2	28.87	91,800	1,620	3,465	25.5	1.83	2.54	34.1	2.44	34.1	2.44	2.48	10.9	0.77	28.1	8.4	4.57	1.14	14.2	55	0.93	48.38	2,325	6.22E-04	2.60E-03	0.416%	0.416%	0.832%	0.0164
177	28.95	29.12	0.2	29.04	84,600	1,320	3,484	23.3	1.63	2.54	31.4	2.44	31.4	2.44	2.47	10.0	0.77	28.0	7.7	4.56	1.14	13.4	53	0.93	47.46	2,287	6.35E-04	2.60E-03	0.455%	0.455%	0.910%	0.0179
178	29.12	29.28	0.2	29.20	88,200	1,160	3,504	24.2	1.37	2.49	32.6	2.38	32.6	2.38	2.24	10.2	0.77	25.6	7.8	4.35	1.12	13.1	53	0.93	47.18	2,280	6.41E-04	2.00E-03	0.350%	0.350%	0.700%	0.0138
179	29.28	29.45	0.2	29.36	141,600	1,420	3,524	39.2	1.03	2.25	52.2	2.14	52.2	2.14	1.54	14.7	0.77	17.1	11.3	3.04	1.06	15.0	57	0.93	49.37	2,393	6.14E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
180	29.45	29.61	0.2	29.53	286,400	2,780	3,543	79.8	0.98	1.98	105.3	1.89	105.3	1.89	1.18	27.0	0.77	10.1	20.7	0.91	1.02	22.1	70	0.93	56.09	2,726	5.42E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
181	29.61	29.77	0.2	29.69	505,800	3,040	3,563	141.0	0.61	1.66	185.4	1.56	185.4	1.56	1.00	42.6	0.76	3.8	32.6	0.00	1.00	32.6	82	0.93	63.86	3,113	4.77E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
182	29.77	29.94	0.2	29.86	702,600	4,460	3,583	195.1	0.64	1.56	256.9	1.47	256.9	1.47	1.00	57.5	0.76	2.5	43.8	0.00	1.00	43.8	93	0.93	70.50	3,446	4.34E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
183	29.94	30.10	0.2	30.02	702,600	5,400	3,602	194.0	0.77	1.62	256.1	1.53	256.1	1.53	1.00	58.6	0.76	3.3	44.5	0.00	1.00	44.5	94	0.93	70.89	3,474	4.33E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
184	30.10	30.27	0.2	30.18	706,800	4,760	3,622	194.1	0.68	1.58	257.0	1.49	257.0	1.49	1.00	58.2	0.76	2.7	44.1	0.00	1.00	44.1	94	0.92	70.65	3,472	4.30E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
185	30.27	30.43	0.2	30.35	699,400	4,240	3,642	191.1	0.61	1.56	253.6	1.46	253.6	1.46	1.00	57.0	0.76	2.4	43.1	0.00	1.00	43.1	93	0.92	70.13	3,456	4.35E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
186	30.43	30.59	0.2	30.51	765,000	4,160	3,661	207.9	0.55	1.50	276.6	1.40	276.6	1.40	1.00	61.2	0.75	1.6	46.1	0.00	1.00	46.1	95	0.92	71.74	3,544	4.26E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
187	30.59	30.76	0.2	30.68	866,200	4,760	3,681	234.3	0.55	1.46	312.4	1.37	312.4	1.37	1.00	68.6	0.75	1.2	51.5	0.00	1.00	51.5	95	0.92	74.43	3,687	4.12E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
188	30.76	30.92	0.2	30.84	1,079,200	6,900	3,701	290.6	0.64	1.44	388.2	1.35	388.2	1.35	1.00	85.0	0.75	1.0	63.7	0.00	1.00	63.7	95	0.92	79.89	3,968	3.85E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
189	30.92	31.00	0.1	30.96	1,221,200	9,060	3,716	327.7	0.74	1.45	438.4	1.37	438.4	1.37	1.00	96.7	0.75	1.2	72.3	0.00	1.00	72.3	95	0.92	83.34	4,148	3.70E-04	7.30E-04	0.010%	0.010%	0.020%	0.0002
																													TOTAL SETTLEMENT (INCHES):			1.76

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0

CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-12
TOTAL DRY SETTLEMENT (IN.): 1.05

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
92	15.01	15.17	0.2	15.09	59,000	840	1,811	31.6	1.47	2.41	30.3	2.42	30.3	2.42	2.41	6.9	1.07	27.4	7.4	4.51	1.13	12.9	51	0.97	46.95	1,631	4.83E-04	3.10E-03	0.620%	0.620%	1.240%	0.0244
93	15.17	15.34	0.2	15.26	61,600	900	1,831	32.6	1.51	2.40	31.5	2.42	31.5	2.42	2.38	7.2	1.07	27.1	7.7	4.49	1.13	13.2	53	0.97	47.25	1,651	4.82E-04	3.10E-03	0.543%	0.543%	1.085%	0.0214
94	15.34	15.50	0.2	15.42	69,600	920	1,850	36.6	1.36	2.34	35.4	2.35	35.4	2.35	2.12	7.9	1.06	24.4	8.4	4.22	1.11	13.5	53	0.97	47.67	1,674	4.81E-04	3.10E-03	0.543%	0.543%	1.085%	0.0214
95	15.50	15.67	0.2	15.58	80,400	980	1,870	42.0	1.25	2.27	40.7	2.28	40.7	2.28	1.88	8.9	1.05	21.8	9.3	3.89	1.09	14.1	55	0.97	48.30	1,706	4.77E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
96	15.67	15.83	0.2	15.75	75,800	1,100	1,890	39.1	1.49	2.34	38.2	2.35	38.2	2.35	2.11	8.6	1.05	24.3	9.0	4.21	1.11	14.2	55	0.97	48.46	1,720	4.78E-04	3.10E-03	0.496%	0.496%	0.992%	0.0195
97	15.83	15.99	0.2	15.91	77,400	1,560	1,909	39.5	2.07	2.42	38.8	2.43	38.8	2.43	2.43	9.1	1.04	27.6	9.5	4.53	1.13	15.3	57	0.97	49.68	1,772	4.69E-04	1.60E-03	0.232%	0.232%	0.464%	0.0091
98	15.99	16.16	0.2	16.08	86,000	1,760	1,929	43.6	2.09	2.39	42.8	2.40	42.8	2.40	2.31	10.0	1.04	26.4	10.4	4.42	1.13	16.1	60	0.97	50.49	1,811	4.63E-04	1.60E-03	0.216%	0.216%	0.432%	0.0085
99	16.16	16.32	0.2	16.24	93,400	1,820	1,949	46.9	1.99	2.35	46.3	2.36	46.3	2.36	2.15	10.7	1.03	24.8	11.0	4.26	1.11	16.5	60	0.97	50.94	1,836	4.62E-04	1.60E-03	0.216%	0.216%	0.432%	0.0085
100	16.32	16.49	0.2	16.40	83,600	1,600	1,969	41.5	1.96	2.39	41.2	2.39	41.2	2.39	2.28	9.7	1.03	26.1	10.0	4.40	1.12	15.6	57	0.97	49.96	1,810	4.73E-04	1.60E-03	0.232%	0.232%	0.464%	0.0091
101	16.49	16.65	0.2	16.57	74,800	1,320	1,988	36.6	1.81	2.41	36.7	2.41	36.7	2.41	2.36	8.7	1.02	26.9	8.9	4.47	1.13	14.6	55	0.97	48.84	1,778	4.86E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
102	16.65	16.81	0.2	16.73	83,200	1,220	2,008	40.4	1.50	2.33	40.6	2.33	40.6	2.33	2.04	9.4	1.02	23.5	9.5	4.12	1.10	14.6	55	0.97	48.93	1,790	4.88E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
103	16.81	16.98	0.2	16.90	88,200	1,040	2,028	42.5	1.21	2.26	42.9	2.25	42.9	2.25	1.80	9.6	1.01	20.8	9.7	3.75	1.08	14.3	55	0.97	48.55	1,785	4.94E-04	2.30E-03	0.368%	0.368%	0.736%	0.0145
104	16.98	17.14	0.2	17.06	81,800	840	2,047	39.0	1.05	2.25	39.6	2.25	39.6	2.25	1.79	8.9	1.01	20.6	9.0	3.72	1.08	13.4	53	0.97	47.54	1,756	5.07E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
105	17.14	17.31	0.2	17.22	64,200	720	2,067	30.1	1.16	2.37	30.9	2.36	30.9	2.36	2.16	7.3	1.00	24.8	7.4	4.27	1.11	12.5	51	0.96	46.36	1,721	5.17E-04	2.30E-03	0.460%	0.460%	0.920%	0.0181
106	17.31	17.47	0.2	17.39	53,400	600	2,087	24.6	1.17	2.45	25.6	2.43	25.6	2.43	2.44	6.3	1.00	27.7	6.3	4.54	1.14	11.7	49	0.96	45.38	1,692	5.31E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
107	17.47	17.63	0.2	17.55	48,800	740	2,106	22.2	1.58	2.56	23.3	2.54	23.3	2.54	2.97	6.1	0.99	32.4	6.0	4.85	1.17	11.9	49	0.96	45.68	1,712	5.30E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
108	17.63	17.80	0.2	17.72	45,800	820	2,126	20.5	1.88	2.62	20.5	2.62	20.5	2.62	unsusceptible		0.99	36.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
109	17.80	17.96	0.2	17.88	46,000	840	2,146	20.4	1.92	2.63	20.4	2.63	20.4	2.63	unsusceptible		0.98	36.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
110	17.96	18.13	0.2	18.04	44,800	800	2,165	19.7	1.88	2.64	19.7	2.64	19.7	2.64	unsusceptible		0.98	37.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
111	18.13	18.29	0.2	18.21	45,600	820	2,185	19.9	1.89	2.64	19.9	2.64	19.9	2.64	unsusceptible		0.98	37.2	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
112	18.29	18.45	0.2	18.37	47,400	920	2,205	20.5	2.04	2.64	20.5	2.64	20.5	2.64	unsusceptible		0.97	37.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
113	18.45	18.62	0.2	18.54	49,000	1,000	2,224	21.0	2.14	2.65	21.0	2.65	21.0	2.65	unsusceptible		0.97	37.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
114	18.62	18.78	0.2	18.70	54,800	1,120	2,244	23.4	2.13	2.61	23.4	2.61	23.4	2.61	unsusceptible		0.96	35.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
115	18.78	18.95	0.2	18.86	60,600	1,060	2,264	25.8	1.82	2.54	27.9	2.51	27.9	2.51	2.81	7.4	0.96	31.0	7.1	4.77	1.16	13.0	53	0.96	47.06	1,828	5.33E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
116	18.95	19.11	0.2	19.03	66,400	1,160	2,283	28.1	1.81	2.50	30.4	2.48	30.4	2.48	2.65	8.0	0.95	29.6	7.6	4.68	1.15	13.5	53	0.96	47.58	1,857	5.30E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
117	19.11	19.27	0.2	19.19	72,400	1,240	2,303	30.4	1.77	2.47	33.0	2.44	33.0	2.44	2.49	8.6	0.95	28.1	8.2	4.57	1.14	13.9	53	0.96	48.04	1,883	5.27E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
118	19.27	19.44	0.2	19.36	76,600	1,380	2,323	32.0	1.86	2.47	34.8	2.44	34.8	2.44	2.47	9.1	0.95	27.9	8.6	4.56	1.14	14.3	55	0.96	48.55	1,910	5.23E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
119	19.44	19.60	0.2	19.52	92,400	1,360	2,343	38.4	1.51	2.35	41.8	2.32	41.8	2.32	2.01	10.4	0.94	23.2	9.8	4.09	1.10	14.8	55	0.96	49.15	1,942	5.19E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
120	19.60	19.77	0.2	19.69	127,000	1,300	2,362	52.8	1.04	2.14	57.2	2.11	57.2	2.11	1.48	13.1	0.94	16.2	12.3	2.82	1.06	15.8	57	0.96	50.14	1,990	5.11E-04	1.80E-03	0.261%	0.261%	0.522%	0.0103
121	19.77	19.93	0.2	19.85	175,600	1,720	2,382	72.7	0.99	2.02	78.7	1.99	78.7	1.99	1.29	17.2	0.93	12.7	16.1	1.78	1.04	18.4	63	0.96	52.82	2,105	4.87E-04	1.80E-03	0.207%	0.207%	0.414%	0.0081
122	19.93	20.10	0.2	20.01	213,400	1,800	2,402	87.9	0.85	1.91	95.3	1.88	95.3	1.88	1.17	20.1	0.93	10.0	18.7	0.87	1.02	20.0	65	0.96	54.26	2,171	4.76E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
123	20.10	20.26	0.2	20.18	243,000	1,820	2,421	99.4	0.76	1.84	108.1	1.81	108.1	1.81	1.11	22.3	0.93	8.3	20.6	0.37	1.01	21.3	68	0.95	55.43	2,227	4.63E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
124	20.26	20.42	0.2	20.34	273,800	1,720	2,441	111.2	0.63	1.75	121.3	1.72	121.3	1.72	1.05	24.3	0.92	6.5	22.5	0.07	1.01	22.7	70	0.95	56.61	2,284	4.55E-04	1.45E-03	0.133%	0.133%	0.267%	0.0053
125	20.42	20.59	0.2	20.51	292,000	1,920	2,461	117.7	0.66	1.74	128.8	1.71	128.8	1.71	1.05	25.9	0.92	6.4	23.8	0.05	1.01	24.0	71	0.95	57.67	2,336	4.49E-04	1.45E-03	0.128%	0.128%	0.255%	0.0050
126	20.59	20.75	0.2	20.67	345,400	2,180	2,480	138.3	0.64	1.68	151.8	1.65	151.8	1.65	1.00	29.9	0.92	5.1	27.4	0.00	1.00	27.4	77	0.95	60.32	2,453	4.31E-04	1.45E-03	0.104%	0.104%	0.209%	0.0041
127	20.75	20.92	0.2	20.83	376,600	2,520	2,500	149.6	0.67	1.67	164.8	1.63	164.8	1.63	1.00	32.5	0.91	4.9	29.6	0.00	1.00	29.6	79	0.95	61.88	2,526	4.22E-04	1.00E-03	0.064%	0.064%	0.128%	0.0025
128	20.92	21.08	0.2	21.00	336,800	2,180	2,520	132.7	0.65	1.70	146.8	1.66	146.8	1.66	1.01	29.3	0.91	5.5	26.7	0.01	1.00	26.7	75	0.95	59.80	2,451	4.38E-04	1.45E-03	0.110%	0.110%	0.220%	0.0043
129	21.08	21.24	0.2	21.16	316,400	2,280	2,539	123.6	0.73	1.75	137.4	1.72	137.4	1.72	1.05	28.1	0.91	6.4	25.4	0.06	1.01	25.6	74	0.95	58.95	2,425	4.46E-04	1.45E-03	0.116%	0.116%	0.232%	0.0046
130	21.24	21.41	0.2	21.33	294,800	2,400	2,559	114.2	0.82	1.81	127.5	1.77	127.5	1.77	1.09	26.7	0.90	7.6	24.1	0.21	1.01	24.5	72	0.95	58.11	2,400	4.54E-04	1.45E-03	0.122%	0.122%	0.244%	0.0048
131	21.41	21.57	0.2	21.49	253,600	2,140	2,579	97.3	0.85	1.88	109.3	1.84	109.3	1.84	1.13	23.5	0.90	8.9	21.1	0.53	1.02	22.0	68	0.95	56.01	2,322	4.73E-04	1.45E-03	0.139%	0.139%	0.278%	0.0055
132	21.57	21.74	0.2	21.65	210,400	1,900	2,598	80.0	0.91	1.96	90.3	1.92	90.3	1.92	1.21	20.1	0.89	10.9	18.0	1.17	1.03	19.6	65	0.95	53.93	2,244	4.93E-04	1.80E-03	0.189%	0.189%	0.378%	0.0074
133	21.74	21.90	0.2	21.82	176,600	1,760	2,618	66.5	1.01	2.05	75.5	2.01	75.5	2.01	1.31	17.4	0.89	13.2	15.5	1.95	1.04	18.1	63	0.95	52.48	2,193	5.09E-04	1.80E-03	0.207%	0.207%	0.414%	0.0081
134	21.90	22.06	0.2	21.98	138,800	1,760	2,638	51.6	1.29	2.20	59.1	2.16	59.1	2.16	1.57	14.5	0.89	17.6	12.9	3.15	1.06	16.9	60	0.95	51.31	2,152	5.22E-04	1.80E-03	0.243%	0.243%	0.486%	0.0096
135	22.06	22.23	0.2	22.15	109,800	1,720	2,657	40.3	1.61	2.35	46.6	2.30	46.6	2.30	1.94	12.2	0.88	22.4	10.8	3.98	1.10	15.8	57	0.95	50.20	2,113	5.36E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
136	22.23	22.39	0.2	22.31	96,600	1,820	2,677	35.1	1.94	2.44	40.9	2.39	40.9	2.39	2.28	11.2	0.88	26.1	9.9	4.40	1.12	15.5	57	0.95	49.85	2,106	5.42E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
137	22.39	22.56	0.2	22.47	95,400	1,700	2,697	34.4	1.83	2.44	40.2	2.38	40.2	2.38	2.25	11.0	0.88	25.7	9.7	4.36	1.12	15.2	57	0.95	49.54	2,101	5.47E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
138	22.56	22.72	0.2	22.64	97,800	1,660	2,717	35.0	1.75	2.42	41.1	2.36	41.1	2.36	2.17	11.2	0.88	24.9	9.8	4.28	1.11	15.2	57	0.95	49.53	2,108	5.49E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
139	22.72	22.88	0.2	22.80	103,000	1,760	2,736	36.6	1.76	2.40	43.1	2.35	43.1	2.35	2.11	11.7	0.87	24.3	10.2	4.22	1.11	15.5	57	0.95	49.91	2,132	5.47E-04	2.70E-03	0.392%	0.392%	0.783%	0.0154
140	22.88	23.05	0.2	22.97	105,800	1,880	2,756	37.4	1.82	2.41	44.1	2.35	44.1	2.35	2.12	12.0	0.87	24.5	10.5	4.23	1.11	15.8	57	0.95	50.23	2,153	5.45E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
141	23.05	23.21	0.2	23.13	103,800	2,120	2,776	36.4	2.10	2.45	43.1	2.40	43.1	2.40	2.30	12.0	0.87	26.3	10.4	4.42	1.12	16.1	60	0.95	50.55	2,175	5.44E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
142	23.21	23.38	0.2	23.29	104,200	2,360	2,795	36.3	2.33	2.48	43.1	2.43	43.1	2.43	2.42	12.3	0.86	27.5	10.6	4.52	1.13	16.5	60	0.95	50.93	2,199	5.42E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
143	23.38	23.54	0.2	23.46	100,800	2,380	2,815	34.8	2.43	2.51	41.6	2.45	41.6	2.45	2.53	12.0	0.86	28.5	10.3	4.60	1.14	16.4	60	0.95	50.79	2,200	5.45E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
144	23.54	23.70	0.2	23.62	106,400	2,180	2,835	36.5	2.10	2.45	43.7	2.39	43.7	2.39	2.29	12.3	0.86	26.1	10.6	4.40	1.12	16.3	60	0.95	50.68	2,203	5.48E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
145	23.70	23.87	0.2	23.79	107,400	2,260	2,854	36.6	2.16	2.46	44.0	2.40	44.0	2.40	2.31	12.5	0.85	26.4	10.7	4.42	1.13	16.4	60	0.95	50.82	2,217	5.49E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
146	23.87	24.03	0.2	23.95	101,200	2,320	2,874	34.2	2.36	2.51	41.3	2.44	41.3	2.44	2.50	12.0	0.85	28.3	10.2	4.58	1.14	16.2	60	0.95	50.63	2,216	5.53E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
147	24.03	24.20	0.2	24.11	95,600	2,320	2,894	32.0	2.50	2.55	38.9	2.48	38.9	2.48	2.67	11.5	0.85	29.8	9.8	4.69	1.15	16.0	57	0.94	50.37	2,212	5.51E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
148	24.20	24.36	0.2	24.28	91,800	2,340	2,913	30.5	2.63	2.58	37.2	2.51	37.2	2.51	2.82	11.2	0.84	31.1	9.5	4.78	1.16	15.8	57	0.94	50.20	2,213	5.55E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
149	24.36	24.52	0.2	24.44	89,000	2,340	2,933	29.3	2.72	2.60	36.0	2.53	36.0	2.53	2.92	11.0	0.84	32.0	9.3	4.83	1.17	15.7	57	0.94	50.06	2,213	5.59E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
150	24.52	24.69	0.2	24.61	91,200	2,380	2,953	29.9	2.70	2.59	36.7	2.52	36.7	2.52	2.88	11.2	0.84	31.6	9.4	4.81	1.17	15.8	57	0.94	50.19	2,227	5.59E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
151	24.69	24.85	0.2	24.77	91,400	2,460	2,972	29.7	2.78	2.60	36.7	2.53	36.7	2.53	2.92	11.3	0.84	32.0	9.4	4.83	1.17	15.9	57	0.94	50.29	2,239	5.60E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
152	24.85	25.02	0.2	24.93	93,200	2,480	2,992	30.1	2.75	2.59	37.3	2.52	37.3	2.52	2.88	11.5	0.83	31.6	9.6	4.81	1.17	16.0	57	0.94	50.37	2,250	5.61E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
153	25.02	25.18	0.2	25.10	90,400	2,420	3,012	29.0	2.77	2.61	29.0	2.61	29.0	2.61	unsusceptible		0.83	35.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
154	25.18	25.34	0.2	25.26	90,200	2,280	3,031	28.8	2.62	2.59	35.8	2.52	35.8	2.52	2.87	11.1	0.83	31.6	9.2	4.80	1.17	15.5	57	0.94	49.90	2,243	5.70E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
155	25.34	25.51	0.2	25.43	97,400	2,220	3,051	30.9	2.35	2.54	38.6	2.47	38.6	2.47	2.60	11.7	0.83	29.2	9.6	4.65	1.15	15.7	57	0.94	50.09	2,259	5.69E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
156	25.51	25.67	0.2	25.59	101,200	2,240	3,071	32.0	2.28	2.52	40.0	2.45	40.0	2.45	2.51	12.0	0.82	28.3	9.9	4.59	1.14	15.9	57	0.94	50.26	2,274	5.69E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
157	25.67	25.84	0.2	25.75	100,000	2,180	3,091	31.4	2.25	2.52	39.4	2.45	39.4	2.45	2.51	11.9	0.82	28.4	9.7	4.59	1.14	15.7	57	0.94	50.09	2,274	5.73E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
158	25.84	26.00	0.2	25.92	95,400	2,120	3,110	29.7	2.30	2.55	37.4	2.47	37.4	2.47	2.62	11.5	0.82	29.3	9.4	4.66	1.15	15.4	57	0.94	49.78	2,267	5.78E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
159	26.00	26.16	0.2	26.08	83,600	1,900	3,130	25.7	2.36	2.60	25.7	2.60	25.7	2.60	unsusceptible		0.82	35.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
160	26.16	26.33	0.2	26.25	72,200	1,680	3,150	21.9	2.43	2.67	21.9	2.67	21.9	2.67	unsusceptible		0.81	38.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
161	26.33	26.49	0.2	26.41	64,200	1,480	3,169	19.3	2.43	2.71	19.3	2.71	19.3	2.71	unsusceptible		0.81	41.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
162	26.49	26.66	0.2	26.57	61,800	1,400	3,189	18.4	2.39	2.72	18.4	2.72	18.4	2.72	unsusceptible		0.81	41.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
163	26.66	26.82	0.2	26.74	62,600	1,260	3,209	18.5	2.12	2.69	18.5	2.69	18.5	2.69	unsusceptible		0.81	40.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
164	26.82	26.98	0.2	26.90	62,400	1,200	3,228	18.3	2.03	2.68	18.3	2.68	18.3	2.68	unsusceptible		0.80	39.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
165	26.98	27.15	0.2	27.07	62,600	1,140	3,248	18.3	1.92	2.67	18.3	2.67	18.3	2.67	unsusceptible		0.80	39.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
166	27.15	27.31	0.2	27.23	67,000	1,160	3,268	19.5	1.82	2.63	19.5	2.63	19.5	2.63	unsusceptible		0.80	37.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.93	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
167	27.31	27.48	0.2	27.40	76,800	1,120	3,287	22.4	1.52	2.54	29.3	2.45	29.3	2.45	2.51	9.1	0.80	28.3	7.3	4.59	1.14	12.9	51	0.93	46.85	2,193	6.25E-04	2.60E-03	0.520%	0.520%	1.040%	0.0205
168	27.48	27.64	0.2	27.56	96,400	1,340	3,307	28.1	1.44	2.45	36.7	2.35	36.7	2.35	2.13	11.0	0.79	24.5	8.7	4.23	1.11	13.9	53	0.93	48.08	2,258	6.11E-04	2.60E-03	0.455%	0.455%	0.910%	0.0179
169	27.64	27.81	0.2	27.72	157,600	2,100	3,327	46.4	1.36	2.26	59.8	2.17	59.8	2.17	1.59	16.6	0.79	17.9	13.1	3.22	1.07	17.2	61	0.93	51.62	2,431	5.71E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
170	27.81	27.97	0.2	27.89	265,200	2,000	3,346	78.2	0.76	1.92	100.3	1.84	100.3	1.84	1.13	24.5	0.79	8.9	19.3	0.53	1.02	20.2	67	0.93	54.47	2,573	5.42E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
171	27.97	28.13	0.2	28.05	312,800	1,960	3,366	91.9	0.63	1.82	118.0	1.73	118.0	1.73	1.06	27.9	0.79	6.7	21.9	0.09	1.01	22.2	70	0.93	56.19	2,662	5.27E-04	2.20E-03	0.202%	0.202%	0.405%	0.0080

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
172	28.13	28.30	0.2	28.22	290,200	2,100	3,386	84.7	0.73	1.89	109.1	1.80	109.1	1.80	1.10	26.5	0.78	8.0	20.7	0.31	1.01	21.3	68	0.93	55.46	2,635	5.36E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
173	28.30	28.46	0.2	28.38	276,000	2,340	3,406	80.0	0.86	1.95	103.5	1.86	103.5	1.86	1.15	25.7	0.78	9.4	20.1	0.67	1.02	21.2	68	0.93	55.32	2,636	5.39E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
174	28.46	28.63	0.2	28.54	271,400	2,780	3,425	78.2	1.04	2.00	101.5	1.92	101.5	1.92	1.20	25.9	0.78	10.8	20.1	1.13	1.03	21.8	68	0.93	55.86	2,669	5.35E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
175	28.63	28.79	0.2	28.71	287,000	2,800	3,445	82.3	0.99	1.97	107.0	1.88	107.0	1.88	1.17	27.0	0.78	10.0	21.0	0.87	1.02	22.3	70	0.93	56.32	2,699	5.32E-04	2.20E-03	0.202%	0.202%	0.405%	0.0080
176	28.79	28.95	0.2	28.87	288,200	2,980	3,465	82.2	1.05	1.99	107.1	1.90	107.1	1.90	1.19	27.3	0.77	10.4	21.2	1.00	1.02	22.7	70	0.93	56.59	2,720	5.31E-04	2.20E-03	0.202%	0.202%	0.405%	0.0080
177	28.95	29.12	0.2	29.04	299,400	3,600	3,484	84.9	1.22	2.02	111.0	1.93	111.0	1.93	1.22	28.7	0.77	11.2	22.2	1.27	1.03	24.1	72	0.93	57.73	2,782	5.22E-04	1.50E-03	0.126%	0.126%	0.252%	0.0050
178	29.12	29.28	0.2	29.20	317,400	3,360	3,504	89.6	1.07	1.97	117.3	1.88	117.3	1.88	1.17	29.8	0.77	9.8	23.0	0.82	1.02	24.3	72	0.93	57.90	2,798	5.22E-04	1.30E-03	0.109%	0.109%	0.218%	0.0043
179	29.28	29.45	0.2	29.36	362,400	4,180	3,524	101.8	1.16	1.95	133.6	1.86	133.6	1.86	1.15	33.8	0.77	9.5	26.0	0.70	1.02	27.2	77	0.93	60.14	2,915	5.04E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
180	29.45	29.61	0.2	29.53	473,400	4,140	3,543	132.6	0.88	1.78	174.0	1.69	174.0	1.69	1.03	41.7	0.77	6.0	31.9	0.03	1.00	32.1	82	0.93	63.56	3,089	4.78E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
181	29.61	29.77	0.2	29.69	636,400	4,900	3,563	177.6	0.77	1.65	233.3	1.56	233.3	1.56	1.00	53.6	0.76	3.8	40.9	0.00	1.00	40.9	90	0.93	68.94	3,360	4.42E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
182	29.77	29.94	0.2	29.86	794,800	6,200	3,583	220.8	0.78	1.58	290.6	1.50	290.6	1.50	1.00	65.6	0.76	2.9	50.0	0.00	1.00	50.0	95	0.93	73.67	3,601	4.15E-04	8.20E-04	0.012%	0.012%	0.025%	0.0005
183	29.94	30.10	0.2	30.02	816,400	7,000	3,602	225.6	0.86	1.61	297.6	1.53	297.6	1.53	1.00	67.9	0.76	3.2	51.6	0.00	1.00	51.6	95	0.93	74.46	3,649	4.12E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
184	30.10	30.27	0.2	30.18	856,000	7,140	3,622	235.3	0.84	1.59	311.2	1.50	311.2	1.50	1.00	70.7	0.76	2.9	53.6	0.00	1.00	53.6	95	0.92	75.40	3,705	4.03E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
185	30.27	30.43	0.2	30.35	923,200	7,220	3,642	252.5	0.79	1.54	334.7	1.46	334.7	1.46	1.00	75.2	0.76	2.3	56.9	0.00	1.00	56.9	95	0.92	76.90	3,789	3.97E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
186	30.43	30.59	0.2	30.51	1,054,400	7,940	3,661	287.0	0.76	1.49	381.3	1.41	381.3	1.41	1.00	84.6	0.75	1.7	63.8	0.00	1.00	63.8	95	0.92	79.90	3,948	3.83E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
187	30.59	30.76	0.2	30.68	1,112,600	9,380	3,681	301.2	0.85	1.52	401.3	1.44	401.3	1.44	1.00	90.0	0.75	2.0	67.6	0.00	1.00	67.6	95	0.92	81.49	4,037	3.76E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
188	30.76	30.92	0.2	30.84	1,048,200	10,060	3,701	282.2	0.96	1.58	377.0	1.50	377.0	1.50	1.00	86.4	0.75	2.8	64.8	0.00	1.00	64.8	95	0.92	80.34	3,990	3.83E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
189	30.92	31.09	0.2	31.00	1,012,200	9,920	3,720	271.1	0.98	1.60	363.1	1.52	363.1	1.52	1.00	83.9	0.75	3.1	62.8	0.00	1.00	62.8	95	0.92	79.48	3,958	3.88E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
190	31.09	31.25	0.2	31.17	1,022,000	9,340	3,740	272.3	0.92	1.57	365.7	1.49	365.7	1.49	1.00	84.0	0.75	2.7	62.7	0.00	1.00	62.7	95	0.92	79.44	3,967	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
191	31.25	31.41	0.2	31.33	1,002,400	8,220	3,760	265.6	0.82	1.54	357.7	1.46	357.7	1.46	1.00	81.6	0.74	2.3	60.7	0.00	1.00	60.7	95	0.92	78.60	3,935	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
192	31.41	31.58	0.2	31.50	891,200	7,100	3,780	234.8	0.80	1.57	317.2	1.48	317.2	1.48	1.00	73.1	0.74	2.6	54.2	0.00	1.00	54.2	95	0.92	75.71	3,800	4.10E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
193	31.58	31.74	0.2	31.66	711,600	5,780	3,799	186.3	0.82	1.65	252.6	1.56	252.6	1.56	1.00	59.8	0.74	3.7	44.2	0.00	1.00	44.2	94	0.92	70.73	3,560	4.40E-04	1.00E-03	0.022%	0.022%	0.044%	0.0009
194	31.74	31.91	0.2	31.82	539,400	5,500	3,819	140.2	1.03	1.81	191.0	1.71	191.0	1.71	1.05	47.8	0.74	6.3	35.2	0.05	1.01	35.5	85	0.92	65.74	3,317	4.75E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
195	31.91	32.07	0.2	31.99	448,000	5,640	3,839	115.7	1.27	1.93	158.2	1.83	158.2	1.83	1.13	41.4	0.74	8.9	30.5	0.52	1.02	31.5	81	0.92	63.18	3,196	4.96E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
196	32.07	32.23	0.2	32.15	376,000	6,080	3,858	96.5	1.63	2.06	132.5	1.97	132.5	1.97	1.26	36.5	0.73	12.1	26.8	1.58	1.03	29.3	79	0.91	61.63	3,126	5.04E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
197	32.23	32.40	0.2	32.32	324,600	5,900	3,878	82.7	1.84	2.15	114.1	2.05	114.1	2.05	1.37	32.5	0.73	14.3	23.8	2.30	1.04	27.2	77	0.91	60.14	3,058	5.18E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
198	32.40	32.56	0.2	32.48	272,000	5,900	3,898	68.8	2.20	2.26	95.3	2.16	95.3	2.16	1.57	28.5	0.73	17.7	20.8	3.16	1.06	25.3	74	0.91	58.73	2,994	5.31E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
199	32.56	32.73	0.2	32.64	250,000	5,380	3,917	62.8	2.19	2.29	87.4	2.18	87.4	2.18	1.63	26.5	0.73	18.5	19.3	3.33	1.07	23.9	71	0.91	57.64	2,946	5.43E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
200	32.73	32.89	0.2	32.81	253,200	4,420	3,937	63.3	1.77	2.22	88.3	2.12	88.3	2.12	1.49	26.1	0.73	16.3	19.0	2.85	1.06	22.9	70	0.91	56.76	2,908	5.53E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
201	32.89	33.05	0.2	32.97	333,400	4,360	3,957	83.3	1.32	2.05	116.0	1.94	116.0	1.94	1.23	32.1	0.73	11.5	23.3	1.37	1.03	25.3	74	0.91	58.72	3,016	5.35E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
202	33.05	33.22	0.2	33.14	413,600	4,100	3,976	103.0	1.00	1.90	143.5	1.79	143.5	1.79	1.10	37.7	0.72	8.0	27.2	0.29	1.01	27.9	77	0.91	60.64	3,122	5.20E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
203	33.22	33.38	0.2	33.30	410,200	4,080	3,996	101.7	1.00	1.91	142.0	1.80	142.0	1.80	1.10	37.4	0.72	8.1	27.0	0.31	1.01	27.7	77	0.91	60.49	3,122	5.22E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
204	33.38	33.55	0.2	33.46	369,600	5,260	4,016	91.0	1.44	2.04	127.6	1.94	127.6	1.94	1.23	35.5	0.72	11.4	25.6	1.33	1.03	27.6	77	0.91	60.45	3,128	5.24E-04	1.30E-03	0.094%	0.094%	0.187%	0.0037
205	33.55	33.71	0.2	33.63	298,600	4,800	4,035	73.0	1.63	2.15	102.9	2.04	102.9	2.04	1.36	29.9	0.72	14.2	21.4	2.25	1.04	24.6	72	0.91	58.19	3,018	5.46E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
206	33.71	33.87	0.2	33.79	311,600	4,720	4,055	75.8	1.53	2.12	107.1	2.01	107.1	2.01	1.32	30.8	0.72	13.3	22.1	1.99	1.04	24.9	72	0.91	58.40	3,036	5.45E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
207	33.87	34.04	0.2	33.96	324,000	4,080	4,075	78.5	1.28	2.06	111.1	1.95	111.1	1.95	1.24	31.2	0.71	11.5	22.3	1.39	1.03	24.3	72	0.91	57.96	3,021	5.50E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
208	34.04	34.20	0.2	34.12	307,800	3,760	4,094	74.2	1.24	2.07	105.3	1.95	105.3	1.95	1.24	29.8	0.71	11.7	21.2	1.47	1.03	23.3	71	0.90	57.13	2,985	5.54E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
209	34.20	34.37	0.2	34.28	295,800	3,380	4,114	70.9	1.16	2.07	100.9	1.95	100.9	1.95	1.24	28.5	0.71	11.6	20.3	1.42	1.03	22.3	70	0.90	56.30	2,948	5.63E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
210	34.37	34.53	0.2	34.45	307,600	3,360	4,134	73.4	1.11	2.04	104.7	1.92	104.7	1.92	1.21	29.4	0.71	11.0	20.8	1.20	1.03	22.6	70	0.90	56.55	2,968	5.62E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
211	34.53	34.69	0.2	34.61	358,200	3,800	4,154	85.2	1.07	1.98	121.6	1.87	121.6	1.87	1.16	33.5	0.71	9.6	23.7	0.74	1.02	24.9	72	0.90	58.41	3,074	5.45E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
212	34.69	34.86	0.2	34.78	380,000	3,980	4,173	90.1	1.06	1.96	128.7	1.84	128.7	1.84	1.14	35.3	0.71	9.1	24.9	0.58	1.02	25.9	74	0.90	59.18	3,122	5.40E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
213	34.86	35.02	0.2	34.94	388,800	3,700	4,193	91.7	0.96	1.93	131.4	1.81	131.4	1.81	1.11	35.6	0.70	8.3	25.1	0.37	1.01	25.8	74	0.90	59.11	3,125	5.42E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
214	35.02	35.19	0.2	35.10	416,600	3,480	4,213	97.9	0.84	1.87	140.5	1.75	140.5	1.75	1.07	37.4	0.70	7.1	26.3	0.13	1.01	26.6	75	0.89	59.73	3,165	5.31E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
215	35.19	35.35	0.2	35.27	483,000	3,180	4,232	113.1	0.66	1.76	162.5	1.63	162.5	1.63	1.00	41.7	0.70	4.9	29.2	0.00	1.00	29.2	79	0.89	61.59	3,271	5.16E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
216	35.35	35.52	0.2	35.43	433,800	3,080	4,252	101.0	0.72	1.82	145.6	1.69	145.6	1.69	1.03	38.2	0.70	6.0	26.7	0.03	1.00	26.8	75	0.89	59.88	3,188	5.32E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
217	35.52	35.68	0.2	35.60	327,200	2,880	4,272	75.6	0.89	1.98	109.5	1.85	109.5	1.85	1.14	30.4	0.70	9.2	21.2	0.61	1.02	22.2	70	0.89	56.21	3,000	5.68E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
218	35.68	35.84	0.2	35.76	261,200	2,540	4,291	59.9	0.99	2.08	87.2	1.95	87.2	1.95	1.24	25.2	0.70	11.7	17.6	1.46	1.03	19.6	65	0.89	53.88	2,882	5.94E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
219	35.84	36.01	0.2	35.93	221,800	2,540	4,311	50.4	1.17	2.19	73.9	2.05	73.9	2.05	1.38	22.3	0.69	14.5	15.5	2.35	1.05	18.5	63	0.89	52.92	2,837	6.07E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
220	36.01	36.17	0.2	36.09	208,400	2,680	4,331	47.1	1.31	2.24	69.3	2.11	69.3	2.11	1.47	21.4	0.69	16.1	14.8	2.78	1.05	18.4	63	0.88	52.81	2,838	6.02E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
221	36.17	36.34	0.2	36.25	240,800	3,020	4,350	54.4	1.28	2.18	79.9	2.05	79.9	2.05	1.38	24.2	0.69	14.4	16.7	2.34	1.04	19.8	65	0.88	54.11	2,914	5.89E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
222	36.34	36.50	0.2	36.42	296,000	3,600	4,370	66.7	1.23	2.10	98.0	1.98	98.0	1.98	1.27	28.9	0.69	12.3	19.9	1.66	1.03	22.2	70	0.88	56.24	3,035	5.68E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
223	36.50	36.66	0.2	36.58	426,600	4,440	4,390	96.2	1.05	1.94	140.9	1.81	140.9	1.81	1.12	39.1	0.69	8.4	26.9	0.39	1.01	27.7	77	0.88	60.53	3,275	5.29E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
224	36.66	36.83	0.2	36.75	675,400	5,800	4,409	152.2	0.86	1.73	222.6	1.61	222.6	1.61	1.00	57.8	0.69	4.6	39.7	0.00	1.00	39.7	89	0.88	68.23	3,699	4.70E-04	1.00E-03	0.035%	0.035%	0.070%	0.0014
225	36.83	36.99	0.2	36.91	858,800	6,760	4,429	192.9	0.79	1.63	282.4	1.51	282.4	1.51	1.00	71.1	0.69	3.0	48.8	0.00	1.00	48.8	95	0.88	73.06	3,970	4.40E-04	1.00E-03	0.016%	0.016%	0.032%	0.0006
226	36.99	37.16	0.2	37.07	944,600	8,160	4,449	211.3	0.87	1.63	309.9	1.52	309.9	1.52	1.00	78.3	0.68	3.1	53.6	0.00	1.00	53.6	95	0.88	75.39	4,106	4.28E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
227	37.16	37.32	0.2	37.24	1,045,200	9,040	4,469	232.9	0.87	1.60	342.1	1.49	342.1	1.49	1.00	85.9	0.68	2.7	58.6	0.00	1.00	58.6	95	0.87	77.70	4,241	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
228	37.32	37.48	0.2	37.40	1,138,000	11,920	4,488	252.6	1.05	1.64	371.7	1.53	371.7	1.53	1.00	94.9	0.68	3.3	64.6	0.00	1.00	64.6	95	0.87	80.25	4,390	3.99E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
229	37.48	37.65	0.2	37.57	1,244,800	13,220	4,508	275.1	1.07	1.62	405.7	1.52	405.7	1.52	1.00	103.2	0.68	3.1	70.1	0.00	1.00	70.1	95	0.87	82.47	4,521	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
230	37.65	37.81	0.2	37.73	1,247,200	13,920	4,528	274.5	1.12	1.64	405.6	1.53	405.6	1.53	1.00	104.0	0.68	3.3	70.5	0.00	1.00	70.5	95	0.87	82.63	4,540	3.89E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
231	37.81	37.98	0.2	37.89	1,313,800	15,900	4,547	287.9	1.21	1.65	426.3	1.55	426.3	1.55	1.00	110.2	0.68	3.6	74.5	0.00	1.00	74.5	95	0.87	84.17	4,634	3.83E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
232	37.98	38.14	0.2	38.06	1,422,000	17,740	4,567	310.4	1.25	1.64	460.4	1.54	460.4	1.54	1.00	119.0	0.67	3.5	80.3	0.00	1.00	80.3	95	0.87	86.30	4,762	3.74E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
233	38.14	38.30	0.2	38.22	1,550,800	19,080	4,587	337.1	1.23	1.61	501.1	1.52	501.1	1.52	1.00	128.8	0.67	3.1	86.7	0.00	1.00	86.7	95	0.87	88.53	4,895	3.66E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
234	38.30	38.47	0.2	38.39	1,568,000	11,760	4,606	339.4	0.75	1.44	505.5	1.34	505.5	1.34	1.00	122.9	0.67	0.8	82.6	0.00	1.00	82.6	95	0.87	87.10	4,827	3.72E-04	7.30E-04	0.010%	0.010%	0.020%	0.0004
235	38.47	38.63	0.2	38.55	1,512,400	13,500	4,626	325.9	0.90	1.51	486.6	1.41	486.6	1.41	1.00	121.2	0.67	1.6	81.3	0.00	1.00	81.3	95	0.87	86.64	4,811	3.75E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
236	38.63	38.80	0.2	38.71	1,405,400	13,340	4,646	301.5	0.95	1.56	451.2	1.45	451.2	1.45	1.00	114.1	0.67	2.2	76.3	0.00	1.00	76.3	95	0.87	84.84	4,722	3.84E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
237	38.80	38.96	0.2	38.88	1,430,200	11,280	4,665	305.6	0.79	1.49	458.2	1.38	458.2	1.38	1.00	113.6	0.67	1.3	75.8	0.00	1.00	75.8	95	0.87	84.66	4,721	3.86E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
238	38.96	39.12	0.2	39.04	1,360,200	11,620	4,685	289.3	0.86	1.53	434.8	1.42	434.8	1.42	1.00	109.4	0.67	1.8	72.9	0.00	1.00	72.9	95	0.87	83.56	4,670	3.91E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
239	39.12	39.29	0.2	39.21	1,106,000	9,900	4,705	234.1	0.90	1.61	352.8	1.49	352.8	1.49	1.00	91.0	0.66	2.7	60.5	0.00	1.00	60.5	95	0.86	78.52	4,398	4.13E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
240	39.29	39.45	0.2	39.37	891,800	7,840	4,724	187.8	0.88	1.67	283.9	1.55	283.9	1.55	1.00	74.7	0.66	3.5	49.6	0.00	1.00	49.6	95	0.86	73.47	4,123	4.42E-04	1.00E-03	0.015%	0.015%	0.030%	0.0006
241	39.45	39.62	0.2	39.53	703,000	6,620	4,744	147.2	0.95	1.77	223.3	1.64	223.3	1.64	1.00	60.7	0.66	5.0	40.2	0.00	1.00	40.3	90	0.86	68.55	3,855	4.75E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
242	39.62	39.78	0.2	39.70	599,600	5,840	4,764	124.9	0.98	1.83	190.1	1.70	190.1	1.70	1.04	52.9	0.66	6.1	34.9	0.04	1.01	35.1	85	0.86	65.51	3,692	4.98E-04	1.30E-03	0.059%	0.059%	0.117%	0.0023
243	39.78	39.94	0.2	39.86	521,600	5,020	4,783	108.0	0.97	1.88	165.0	1.74	165.0	1.74	1.06	46.6	0.66	6.9	30.8	0.11	1.01	31.1	81	0.86	62.90	3,552	5.19E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
244	39.94	40.03	0.1	39.99	454,600	5,460	4,798	93.7	1.21	1.99	143.6	1.85	143.6	1.85	1.15	42.3	0.66	9.2	27.8	0.63	1.02	29.0	78	0.86	61.42	3,474	5.33E-04	1.60E-03	0.109%	0.109%	0.218%	0.0021
																													TOTAL SETTLEMENT (INCHES):			1.05

AMEC E&I, Inc.
EXCEL SPREADSHEET
DRYSETT.XLS - VERSION 2.0
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CLIENT: 4953-10-0911
JOB NO: Loma Linda Proposed Hospital Tower
BY: NH
CHECKED BY: ET
SOIL INFORMATION:

WET UNIT WEIGHT ABOVE WATER (P.C.F.): 120
MAGNITUDE CORRECTION FACTOR: 1.00
HISTORIC-HIGH GROUND-WATER LEVEL (FT): 60
EARTHQUAKE MAGNITUDE: 7.5
PEAK GROUND ACCELERATION (g): 0.69
DEPTH OF EXCAVATION (ft) 15.0
IDENTIFICATION: CPT-13
TOTAL DRY SETTLEMENT (IN.): 2.18

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
91	14.85	15.01	0.2	14.93	38,800	500	1,791	20.7	1.35	2.54	20.1	2.55	20.1	2.55	3.06	4.8	1.077563372	33.2	5.2	4.89	1.18	11.1	49	0.97	44.56	1,540	5.06E-04	3.10E-03	0.698%	0.698%	1.395%	0.0275
92	15.01	15.17	0.2	15.09	34,000	520	1,811	17.8	1.62	2.64	17.8	2.64	17.8	2.64	unsusceptible		1.071691048	37.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
93	15.17	15.34	0.2	15.26	32,400	520	1,831	16.7	1.70	2.67	16.7	2.67	16.7	2.67	unsusceptible		1.065913696	39.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
94	15.34	15.50	0.2	15.42	34,200	560	1,850	17.5	1.73	2.66	17.5	2.66	17.5	2.66	unsusceptible		1.060228782	38.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
95	15.50	15.67	0.2	15.58	36,600	540	1,870	18.6	1.55	2.61	18.6	2.61	18.6	2.61	unsusceptible		1.054633868	36.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
96	15.67	15.83	0.2	15.75	39,000	600	1,890	19.6	1.62	2.60	19.6	2.60	19.6	2.60	unsusceptible		1.049126604	35.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
97	15.83	15.99	0.2	15.91	40,400	640	1,909	20.2	1.66	2.60	20.2	2.60	20.2	2.60	unsusceptible		1.043704725	35.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.97	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
98	15.99	16.16	0.2	16.08	42,000	660	1,929	20.8	1.65	2.59	20.9	2.59	20.9	2.59	3.24	5.3	1.038366047	34.6	5.5	4.96	1.19	11.6	49	0.97	45.24	1,622	5.17E-04	2.30E-03	0.518%	0.518%	1.035%	0.0204
99	16.16	16.32	0.2	16.24	44,200	680	1,949	21.7	1.61	2.57	21.9	2.56	21.9	2.56	3.11	5.5	1.033108463	33.6	5.7	4.91	1.18	11.7	49	0.97	45.41	1,637	5.18E-04	2.30E-03	0.518%	0.518%	1.035%	0.0204
100	16.32	16.49	0.2	16.40	43,200	680	1,969	20.9	1.65	2.59	21.3	2.58	21.3	2.58	3.20	5.5	1.027929942	34.3	5.6	4.95	1.19	11.6	49	0.97	45.33	1,642	5.22E-04	2.30E-03	0.518%	0.518%	1.035%	0.0204
101	16.49	16.65	0.2	16.57	43,000	660	1,988	20.6	1.61	2.58	21.1	2.58	21.1	2.58	3.19	5.4	1.022828521	34.2	5.6	4.94	1.19	11.6	49	0.97	45.22	1,646	5.25E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
102	16.65	16.81	0.2	16.73	44,000	660	2,008	20.9	1.57	2.57	21.5	2.56	21.5	2.56	3.12	5.5	1.017802307	33.6	5.6	4.91	1.19	11.6	49	0.97	45.25	1,656	5.28E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
103	16.81	16.98	0.2	16.90	45,600	660	2,028	21.5	1.51	2.56	22.2	2.54	22.2	2.54	3.00	5.7	1.012849468	32.7	5.7	4.87	1.18	11.6	49	0.97	45.31	1,666	5.29E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
104	16.98	17.14	0.2	17.06	46,800	680	2,047	21.9	1.52	2.55	22.6	2.54	22.6	2.54	2.97	5.8	1.007968237	32.4	5.8	4.85	1.17	11.7	49	0.97	45.43	1,678	5.31E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
105	17.14	17.31	0.2	17.22	44,800	700	2,067	20.7	1.64	2.59	21.6	2.57	21.6	2.57	3.17	5.7	1.003156906	34.1	5.7	4.93	1.19	11.7	49	0.96	45.37	1,684	5.28E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
106	17.31	17.47	0.2	17.39	45,600	720	2,087	20.9	1.65	2.59	21.8	2.57	21.8	2.57	3.15	5.7	0.99841382	34.0	5.7	4.93	1.19	11.7	49	0.96	45.46	1,696	5.30E-04	3.30E-03	0.743%	0.743%	1.485%	0.0292
107	17.47	17.63	0.2	17.55	48,400	840	2,106	22.0	1.81	2.59	23.1	2.57	23.1	2.57	3.17	6.1	0.993737383	34.1	6.1	4.94	1.19	12.2	51	0.96	45.99	1,723	5.26E-04	3.30E-03	0.660%	0.660%	1.320%	0.0260
108	17.63	17.80	0.2	17.72	50,200	1,020	2,126	22.6	2.12	2.62	22.6	2.62	22.6	2.62	unsusceptible		0.989126048	36.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
109	17.80	17.96	0.2	17.88	52,000	1,140	2,146	23.2	2.29	2.63	23.2	2.63	23.2	2.63	unsusceptible		0.984578318	36.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
110	17.96	18.13	0.2	18.04	57,000	1,160	2,165	25.3	2.12	2.58	26.8	2.56	26.8	2.56	3.09	7.1	0.980092744	33.5	7.0	4.91	1.18	13.2	53	0.96	47.26	1,796	5.19E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
111	18.13	18.29	0.2	18.21	62,000	1,280	2,185	27.4	2.14	2.56	29.0	2.54	29.0	2.54	2.96	7.7	0.975667924	32.3	7.5	4.85	1.17	13.6	53	0.96	47.79	1,824	5.16E-04	2.30E-03	0.403%	0.403%	0.805%	0.0158
112	18.29	18.45	0.2	18.37	60,400	1,500	2,205	26.4	2.58	2.62	26.4	2.62	26.4	2.62	unsusceptible		0.971302497	36.3	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
113	18.45	18.62	0.2	18.54	56,000	1,920	2,224	24.2	3.57	2.74	24.2	2.74	24.2	2.74	unsusceptible		0.966995148	42.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
114	18.62	18.78	0.2	18.70	56,800	1,820	2,244	24.3	3.34	2.72	24.3	2.72	24.3	2.72	unsusceptible		0.962744599	41.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.96	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
115	18.78	18.95	0.2	18.86	66,000	1,560	2,264	28.2	2.45	2.58	30.4	2.56	30.4	2.56	3.07	8.3	0.958549614	33.3	7.9	4.90	1.18	14.3	55	0.96	48.50	1,884	5.17E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
116	18.95	19.11	0.2	19.03	78,000	1,200	2,283	33.2	1.58	2.41	35.7	2.39	35.7	2.39	2.26	9.0	0.954408991	25.8	8.6	4.37	1.12	14.0	55	0.96	48.22	1,881	5.23E-04	1.80E-03	0.288%	0.288%	0.576%	0.0113
117	19.11	19.27	0.2	19.19	80,200	940	2,303	33.8	1.21	2.34	36.6	2.31	36.6	2.31	1.98	9.0	0.950321568	22.8	8.5	4.04	1.10	13.4	53	0.96	47.49	1,861	5.33E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
118	19.27	19.44	0.2	19.36	77,600	980	2,323	32.4	1.30	2.37	35.2	2.34	35.2	2.34	2.09	8.8	0.946286214	24.1	8.3	4.19	1.11	13.4	53	0.96	47.50	1,869	5.35E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
119	19.44	19.60	0.2	19.52	71,600	1,080	2,343	29.6	1.56	2.45	32.4	2.42	32.4	2.42	2.38	8.4	0.942301833	27.1	7.9	4.49	1.13	13.4	53	0.96	47.53	1,878	5.37E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
120	19.60	19.77	0.2	19.69	64,400	1,100	2,362	26.3	1.77	2.52	29.0	2.49	29.0	2.49	2.71	7.8	0.938367362	30.1	7.3	4.71	1.16	13.2	53	0.96	47.23	1,874	5.43E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
121	19.77	19.93	0.2	19.85	59,400	1,160	2,382	23.9	2.03	2.59	26.6	2.55	26.6	2.55	3.05	7.4	0.934481766	33.1	6.9	4.89	1.18	13.1	53	0.96	47.11	1,877	5.46E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
122	19.93	20.10	0.2	20.01	58,800	1,040	2,402	23.5	1.84	2.57	26.3	2.53	26.3	2.53	2.94	7.3	0.930644042	32.2	6.8	4.84	1.17	12.8	51	0.96	46.75	1,871	5.53E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
123	20.10	20.26	0.2	20.18	59,600	1,080	2,421	23.6	1.89	2.58	26.5	2.54	26.5	2.54	2.95	7.4	0.926853215	32.3	6.8	4.84	1.17	12.9	51	0.95	46.87	1,883	5.48E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
124	20.26	20.42	0.2	20.34	61,400	1,080	2,441	24.2	1.83	2.56	27.2	2.52	27.2	2.52	2.86	7.5	0.923108339	31.5	7.0	4.80	1.17	12.9	51	0.95	46.94	1,893	5.49E-04	2.70E-03	0.540%	0.540%	1.080%	0.0213
125	20.42	20.59	0.2	20.51	67,400	1,160	2,461	26.4	1.79	2.52	29.7	2.48	29.7	2.48	2.67	8.1	0.919408491	29.8	7.5	4.69	1.15	13.3	53	0.95	47.40	1,920	5.46E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
126	20.59	20.75	0.2	20.67	69,800	1,260	2,480	27.1	1.87	2.52	30.7	2.48	30.7	2.48	2.68	8.4	0.915752777	29.9	7.7	4.70	1.15	13.6	53	0.95	47.74	1,941	5.44E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
127	20.75	20.92	0.2	20.83	75,200	1,140	2,500	29.1	1.57	2.46	32.9	2.41	32.9	2.41	2.36	8.8	0.912140325	26.9	8.0	4.47	1.13	13.5	53	0.95	47.65	1,945	5.48E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
128	20.92	21.08	0.2	21.00	68,200	1,140	2,520	26.1	1.74	2.52	29.7	2.47	29.7	2.47	2.64	8.2	0.908570291	29.5	7.5	4.67	1.15	13.2	53	0.95	47.32	1,939	5.54E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
129	21.08	21.24	0.2	21.16	82,600	1,160	2,539	31.5	1.45	2.41	35.9	2.36	35.9	2.36	2.16	9.4	0.905041849	24.9	8.5	4.27	1.11	13.8	53	0.95	47.96	1,973	5.48E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
130	21.24	21.41	0.2	21.33	85,600	1,140	2,559	32.4	1.37	2.38	37.0	2.34	37.0	2.34	2.07	9.7	0.901554199	23.9	8.7	4.17	1.11	13.8	53	0.95	47.99	1,982	5.50E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
131	21.41	21.57	0.2	21.49	84,000	1,200	2,579	31.6	1.47	2.41	36.2	2.36	36.2	2.36	2.17	9.6	0.898106561	24.9	8.6	4.28	1.11	13.9	53	0.95	48.07	1,993	5.51E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
132	21.57	21.74	0.2	21.65	79,800	1,280	2,598	29.7	1.66	2.46	34.3	2.41	34.3	2.41	2.36	9.3	0.894698174	26.9	8.3	4.47	1.13	13.9	53	0.95	48.08	2,001	5.53E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
133	21.74	21.90	0.2	21.82	75,000	1,340	2,618	27.6	1.85	2.52	32.1	2.46	32.1	2.46	2.59	9.0	0.891328301	29.1	8.0	4.64	1.15	13.8	53	0.95	48.00	2,005	5.56E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
134	21.90	22.06	0.2	21.98	71,400	1,340	2,638	26.1	1.95	2.55	30.4	2.50	30.4	2.50	2.75	8.7	0.887996221	30.5	7.7	4.74	1.16	13.7	53	0.95	47.81	2,005	5.61E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
135	22.06	22.23	0.2	22.15	69,200	1,340	2,657	25.0	2.01	2.57	29.4	2.52	29.4	2.52	2.85	8.5	0.884701233	31.4	7.5	4.79	1.17	13.6	53	0.95	47.69	2,007	5.64E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
136	22.23	22.39	0.2	22.31	71,600	1,300	2,677	25.7	1.89	2.55	30.3	2.49	30.3	2.49	2.71	8.7	0.881442654	30.2	7.6	4.72	1.16	13.6	53	0.95	47.68	2,014	5.66E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
137	22.39	22.56	0.2	22.47	69,800	1,260	2,697	24.9	1.88	2.56	29.4	2.50	29.4	2.50	2.76	8.5	0.878219818	30.6	7.5	4.74	1.16	13.4	53	0.95	47.48	2,013	5.71E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
138	22.56	22.72	0.2	22.64	67,400	1,220	2,717	23.8	1.89	2.57	28.3	2.51	28.3	2.51	2.83	8.3	0.875032077	31.2	7.2	4.78	1.16	13.2	53	0.95	47.26	2,011	5.76E-04	3.10E-03	0.543%	0.543%	1.085%	0.0214
139	22.72	22.88	0.2	22.80	73,600	1,380	2,736	25.9	1.95	2.55	30.8	2.49	30.8	2.49	2.72	8.9	0.871878798	30.3	7.8	4.72	1.16	13.7	53	0.95	47.89	2,045	5.70E-04	2.70E-03	0.473%	0.473%	0.945%	0.0186
140	22.88	23.05	0.2	22.97	92,000	1,480	2,756	32.4	1.66	2.43	38.3	2.37	38.3	2.37	2.21	10.6	0.868759364	25.3	9.2	4.32	1.12	14.6	55	0.95	48.86	2,094	5.61E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
141	23.05	23.21	0.2	23.13	102,400	1,540	2,776	35.9	1.55	2.38	42.5	2.32	42.5	2.32	2.01	11.5	0.865673176	23.2	9.9	4.09	1.10	15.0	57	0.95	49.36	2,123	5.57E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
142	23.21	23.38	0.2	23.29	93,800	1,560	2,795	32.6	1.71	2.44	38.8	2.38	38.8	2.38	2.22	10.8	0.862619645	25.5	9.3	4.34	1.12	14.8	55	0.95	49.05	2,118	5.62E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
143	23.38	23.54	0.2	23.46	75,400	1,540	2,815	25.8	2.12	2.57	31.1	2.51	31.1	2.51	2.82	9.2	0.859598201	31.1	7.9	4.78	1.16	14.0	55	0.95	48.21	2,089	5.74E-04	2.20E-03	0.352%	0.352%	0.704%	0.0139
144	23.54	23.70	0.2	23.62	61,800	1,440	2,835	20.8	2.44	2.69	20.8	2.69	20.8	2.69	unsusceptible		0.856608285	39.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.95	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
145	23.70	23.87	0.2	23.79	55,000	1,440	2,854	18.3	2.76	2.76	18.3	2.76	18.3	2.76	unsusceptible		0.853649353	43.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.95	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
146	23.87	24.03	0.2	23.95	56,000	1,460	2,874	18.5	2.75	2.76	18.5	2.76	18.5	2.76	unsusceptible		0.850720873	43.6	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.95	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
147	24.03	24.20	0.2	24.11	58,200	1,460	2,894	19.1	2.64	2.74	19.1	2.74	19.1	2.74	unsusceptible		0.847822327	42.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
148	24.20	24.36	0.2	24.28	61,400	1,400	2,913	20.1	2.39	2.69	20.1	2.69	20.1	2.69	unsusceptible		0.844953208	40.1	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
149	24.36	24.52	0.2	24.44	63,400	1,360	2,933	20.6	2.25	2.67	20.6	2.67	20.6	2.67	unsusceptible		0.842113021	38.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
150	24.52	24.69	0.2	24.61	64,400	1,360	2,953	20.8	2.21	2.66	20.8	2.66	20.8	2.66	unsusceptible		0.839301283	38.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
151	24.69	24.85	0.2	24.77	68,800	1,260	2,972	22.1	1.91	2.60	22.1	2.60	22.1	2.60	unsusceptible		0.836517523	35.5	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
152	24.85	25.02	0.2	24.93	70,000	1,360	2,992	22.4	2.03	2.61	22.4	2.61	22.4	2.61	unsusceptible		0.83376128	36.0	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
153	25.02	25.18	0.2	25.10	73,600	1,500	3,012	23.4	2.13	2.61	23.4	2.61	23.4	2.61	unsusceptible		0.831032103	35.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.94	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
154	25.18	25.34	0.2	25.26	79,600	1,460	3,031	25.3	1.91	2.55	31.6	2.48	31.6	2.48	2.65	9.6	0.828329553	29.6	7.9	4.68	1.15	13.8	53	0.94	48.00	2,158	5.92E-04	2.60E-03	0.455%	0.455%	0.910%	0.0179
155	25.34	25.51	0.2	25.43	126,200	1,560	3,051	40.4	1.27	2.29	50.0	2.21	50.0	2.21	1.69	13.5	0.825653198	19.3	11.2	3.50	1.08	15.5	57	0.94	49.85	2,248	5.72E-04	2.20E-03	0.319%	0.319%	0.638%	0.0126
156	25.51	25.67	0.2	25.59	236,000	2,160	3,071	75.9	0.93	1.98	93.2	1.91	93.2	1.91	1.20	22.5	0.823002619	10.7	18.5	1.11	1.03	20.1	67	0.94	54.35	2,459	5.26E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
157	25.67	25.84	0.2	25.75	275,600	2,120	3,091	88.2	0.78	1.89	108.5	1.81	108.5	1.81	1.12	25.3	0.820377405	8.4	20.8	0.40	1.01	21.5	68	0.94	55.58	2,523	5.16E-04	1.50E-03	0.144%	0.144%	0.288%	0.0057
158	25.84	26.00	0.2	25.92	251,200	2,300	3,110	79.8	0.93	1.97	98.6	1.89	98.6	1.89	1.18	23.7	0.817777153	10.3	19.4	0.96	1.02	20.8	67	0.94	55.02	2,505	5.23E-04	1.50E-03	0.150%	0.150%	0.300%	0.0059
159	26.00	26.16	0.2	26.08	214,400	2,220	3,130	67.5	1.05	2.06	83.9	1.98	83.9	1.98	1.28	21.0	0.815201471	12.5	17.1	1.72	1.03	19.4	65	0.94	53.73	2,454	5.38E-04	2.20E-03	0.231%	0.231%	0.462%	0.0091
160	26.16	26.33	0.2	26.25	192,600	1,780	3,150	60.2	0.94	2.07	75.1	1.99	75.1	1.99	1.29	18.9	0.812649973	12.7	15.3	1.79	1.04	17.7	61	0.94	52.10	2,387	5.56E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
161	26.33	26.49	0.2	26.41	192,400	1,620	3,169	59.7	0.86	2.05	74.8	1.97	74.8	1.97	1.26	18.7	0.810122284	12.1	15.1	1.59	1.03	17.2	61	0.94	51.66	2,374	5.63E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
162	26.49	26.66	0.2	26.57	204,800	1,300	3,189	63.2	0.64	1.96	79.4	1.88	79.4	1.88	1.17	19.2	0.807618036	9.9	15.5	0.82	1.02	16.7	60	0.94	51.11	2,357	5.71E-04	2.20E-03	0.297%	0.297%	0.594%	0.0117
163	26.66	26.82	0.2	26.74	205,200	1,200	3,209	63.0	0.59	1.94	79.3	1.86	79.3	1.86	1.15	19.1	0.805136869	9.4	15.4	0.68	1.02	16.4	60	0.94	50.80	2,350	5.76E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
164	26.82	26.98	0.2	26.90	184,000	1,240	3,228	56.0	0.69	2.02	70.9	1.93	70.9	1.93	1.22	17.6	0.80267843	11.2	14.2	1.28	1.03	15.8	57	0.94	50.23	2,330	5.84E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
165	26.98	27.15	0.2	27.07	173,800	1,280	3,248	52.5	0.75	2.06	66.7	1.98	66.7	1.98	1.27	16.9	0.800242375	12.3	13.6	1.67	1.03	15.7	57	0.94	50.06	2,329	5.88E-04	2.60E-03	0.377%	0.377%	0.754%	0.0148
166	27.15	27.31	0.2	27.23	161,400	1,580	3,268	48.4	1.00	2.16	61.8	2.08	61.8	2.08	1.41	16.3	0.797828365	15.1	13.0	2.52	1.05	16.2	60	0.93	50.60	2,362	5.77E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
167	27.31	27.48	0.2	27.40	178,200	1,860	3,287	53.2	1.06	2.14	68.0	2.06	68.0	2.06	1.38	17.9	0.795436071	14.6	14.3	2.38	1.05	17.3	61	0.93	51.71	2,421	5.66E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
168	27.48	27.64	0.2	27.56	230,000	2,480	3,307	68.5	1.09	2.06	87.5	1.98	87.5	1.98	1.27	22.4	0.793065168	12.4	17.8	1.69	1.03	20.1	67	0.93	54.37	2,553	5.40E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087
169	27.64	27.81	0.2	27.72	267,000	2,660	3,327	79.3	1.01	1.99	101.3	1.91	101.3	1.91	1.20	25.4	0.79071534	10.6	20.1	1.07	1.02	21.6	68	0.93	55.72	2,624	5.29E-04	2.20E-03	0.211%	0.211%	0.422%	0.0083
170	27.81	27.97	0.2	27.89	240,000	2,360	3,346	70.7	1.00	2.03	90.8	1.94	90.8	1.94	1.23	23.1	0.788386277	11.4	18.2	1.36	1.03	20.1	67	0.93	54.36	2,568	5.44E-04	2.20E-03	0.220%	0.220%	0.440%	0.0087

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60\text{-}cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
171	27.97	28.13	0.2	28.05	182,400	2,180	3,366	53.2	1.22	2.18	68.8	2.09	68.8	2.09	1.44	18.6	0.786077674	15.5	14.6	2.64	1.05	18.0	61	0.93	52.41	2,483	5.65E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
172	28.13	28.30	0.2	28.22	146,000	2,400	3,386	42.1	1.68	2.34	54.9	2.26	54.9	2.26	1.81	15.9	0.783789233	20.9	12.5	3.76	1.09	17.3	61	0.93	51.73	2,458	5.75E-04	2.20E-03	0.275%	0.275%	0.550%	0.0108
173	28.30	28.46	0.2	28.38	116,400	2,800	3,406	33.2	2.48	2.53	43.6	2.44	43.6	2.44	2.48	13.8	0.781520663	28.1	10.8	4.57	1.14	16.8	60	0.93	51.26	2,442	5.82E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
174	28.46	28.63	0.2	28.54	103,000	3,020	3,425	29.1	3.03	2.63	29.1	2.63	29.1	2.63	unsusceptible		0.779271678	36.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.93	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
175	28.63	28.79	0.2	28.71	102,400	3,240	3,445	28.7	3.27	2.66	28.7	2.66	28.7	2.66	unsusceptible		0.777041998	38.2	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.93	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
176	28.79	28.95	0.2	28.87	107,200	3,020	3,465	29.9	2.91	2.61	29.9	2.61	29.9	2.61	unsusceptible		0.774831348	35.8	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.93	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
177	28.95	29.12	0.2	29.04	109,000	2,660	3,484	30.3	2.52	2.57	40.4	2.47	40.4	2.47	2.62	13.1	0.772639458	29.4	10.1	4.66	1.15	16.3	60	0.93	50.69	2,443	5.95E-04	2.60E-03	0.351%	0.351%	0.702%	0.0138
178	29.12	29.28	0.2	29.20	113,400	2,380	3,504	31.4	2.17	2.51	41.9	2.42	41.9	2.42	2.38	13.3	0.770466066	27.0	10.2	4.48	1.13	16.0	60	0.93	50.44	2,438	5.99E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
179	29.28	29.45	0.2	29.36	120,800	2,500	3,524	33.3	2.13	2.49	44.5	2.39	44.5	2.39	2.28	14.0	0.768310912	26.0	10.7	4.39	1.12	16.5	60	0.93	50.87	2,466	5.96E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
180	29.45	29.61	0.2	29.53	126,600	2,640	3,543	34.7	2.15	2.48	46.5	2.38	46.5	2.38	2.22	14.6	0.766173742	25.5	11.2	4.34	1.12	16.8	60	0.93	51.26	2,491	5.93E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
181	29.61	29.77	0.2	29.69	132,400	2,560	3,563	36.2	1.99	2.44	48.5	2.34	48.5	2.34	2.09	15.0	0.764054309	24.1	11.5	4.19	1.11	16.9	60	0.93	51.32	2,501	5.94E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
182	29.77	29.94	0.2	29.86	136,800	2,460	3,583	37.2	1.85	2.41	50.0	2.31	50.0	2.31	1.99	15.3	0.761952367	23.0	11.7	4.05	1.10	16.9	60	0.93	51.30	2,507	5.96E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
183	29.94	30.10	0.2	30.02	185,000	2,720	3,602	50.4	1.50	2.25	67.4	2.15	67.4	2.15	1.56	19.3	0.759867678	17.5	14.7	3.13	1.06	18.8	63	0.93	53.14	2,604	5.77E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
184	30.10	30.27	0.2	30.18	329,000	2,440	3,622	89.8	0.75	1.87	119.6	1.77	119.6	1.77	1.09	29.7	0.757800007	7.5	22.5	0.20	1.01	23.0	70	0.92	56.86	2,794	5.35E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
185	30.27	30.43	0.2	30.35	397,200	2,220	3,642	108.1	0.56	1.73	144.0	1.63	144.0	1.63	1.00	34.2	0.755749124	4.9	25.9	0.00	1.00	25.9	74	0.92	59.15	2,914	5.16E-04	1.30E-03	0.104%	0.104%	0.208%	0.0041
186	30.43	30.59	0.2	30.51	322,000	1,940	3,661	86.9	0.61	1.83	116.4	1.73	116.4	1.73	1.06	28.7	0.753714802	6.6	21.6	0.08	1.01	21.8	68	0.92	55.89	2,761	5.47E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
187	30.59	30.76	0.2	30.68	256,800	1,900	3,681	68.8	0.75	1.97	92.6	1.86	92.6	1.86	1.15	24.0	0.751696821	9.5	18.0	0.69	1.02	19.1	65	0.92	53.42	2,646	5.74E-04	1.60E-03	0.168%	0.168%	0.336%	0.0066
188	30.76	30.92	0.2	30.84	218,600	2,040	3,701	58.1	0.95	2.08	78.6	1.98	78.6	1.98	1.27	21.3	0.749694961	12.4	16.0	1.68	1.03	18.2	63	0.92	52.60	2,613	5.84E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
189	30.92	31.09	0.2	31.00	197,400	2,120	3,720	52.1	1.09	2.16	70.8	2.05	70.8	2.05	1.37	19.8	0.747709011	14.4	14.8	2.32	1.04	17.8	61	0.92	52.21	2,600	5.90E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
190	31.09	31.25	0.2	31.17	183,200	2,360	3,740	48.0	1.32	2.23	65.5	2.13	65.5	2.13	1.51	18.9	0.74573876	16.7	14.1	2.93	1.06	17.9	61	0.92	52.30	2,611	5.91E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
191	31.25	31.41	0.2	31.33	173,400	2,360	3,760	45.1	1.39	2.27	61.9	2.16	61.9	2.16	1.58	18.2	0.743784002	17.8	13.5	3.18	1.06	17.6	61	0.92	52.01	2,604	5.96E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
192	31.41	31.58	0.2	31.50	146,600	2,280	3,780	37.8	1.60	2.37	52.2	2.26	52.2	2.26	1.82	16.0	0.741844536	21.0	11.9	3.78	1.09	16.7	60	0.92	51.09	2,565	6.08E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
193	31.58	31.74	0.2	31.66	124,200	2,120	3,799	31.7	1.76	2.45	44.1	2.34	44.1	2.34	2.09	14.1	0.739920163	24.1	10.4	4.19	1.11	15.7	57	0.92	50.10	2,521	6.22E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
194	31.74	31.91	0.2	31.82	119,800	2,100	3,819	30.4	1.81	2.48	42.4	2.36	42.4	2.36	2.16	13.7	0.738010689	24.9	10.1	4.28	1.11	15.5	57	0.92	49.90	2,518	6.26E-04	2.00E-03	0.290%	0.290%	0.580%	0.0114
195	31.91	32.07	0.2	31.99	146,800	2,300	3,839	37.2	1.61	2.38	51.8	2.26	51.8	2.26	1.83	16.1	0.736115921	21.1	11.8	3.80	1.09	16.6	60	0.92	51.07	2,583	6.13E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
196	32.07	32.23	0.2	32.15	214,600	2,420	3,858	54.6	1.15	2.15	75.6	2.04	75.6	2.04	1.36	21.5	0.734235673	14.1	15.8	2.24	1.04	18.7	63	0.91	53.06	2,691	5.85E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
197	32.23	32.40	0.2	32.32	322,400	2,500	3,878	82.1	0.78	1.91	113.3	1.80	113.3	1.80	1.11	29.5	0.73236976	8.2	21.6	0.34	1.01	22.2	70	0.91	56.21	2,858	5.54E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
198	32.40	32.56	0.2	32.48	396,600	2,180	3,898	100.8	0.56	1.76	139.0	1.64	139.0	1.64	1.00	34.3	0.730518	5.0	25.0	0.00	1.00	25.1	74	0.91	58.54	2,984	5.33E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
199	32.56	32.73	0.2	32.64	415,200	2,020	3,917	105.0	0.49	1.71	145.2	1.59	145.2	1.59	1.00	35.3	0.728680216	4.3	25.7	0.00	1.00	25.7	74	0.91	59.05	3,018	5.30E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
200	32.73	32.89	0.2	32.81	408,200	2,100	3,937	102.7	0.52	1.73	142.4	1.62	142.4	1.62	1.00	35.0	0.726856233	4.6	25.4	0.00	1.00	25.4	74	0.91	58.81	3,013	5.33E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
201	32.89	33.05	0.2	32.97	398,200	2,100	3,957	99.6	0.53	1.75	138.5	1.63	138.5	1.63	1.00	34.3	0.725045878	4.9	24.9	0.00	1.00	24.9	72	0.91	58.38	2,998	5.39E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
202	33.05	33.22	0.2	33.14	389,200	2,200	3,976	96.9	0.57	1.78	135.1	1.66	135.1	1.66	1.01	33.8	0.723248984	5.3	24.5	0.01	1.00	24.5	72	0.91	58.11	2,992	5.42E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
203	33.22	33.38	0.2	33.30	330,000	3,620	3,996	81.6	1.11	2.01	114.2	1.90	114.2	1.90	1.19	31.2	0.721465383	10.3	22.5	0.97	1.02	24.0	72	0.91	57.70	2,978	5.48E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
204	33.38	33.55	0.2	33.46	357,000	3,540	4,016	87.9	1.00	1.95	123.3	1.84	123.3	1.84	1.14	33.1	0.719694913	9.0	23.8	0.57	1.02	24.8	72	0.91	58.33	3,018	5.43E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
205	33.55	33.71	0.2	33.63	373,400	2,960	4,035	91.5	0.80	1.88	128.6	1.76	128.6	1.76	1.08	33.7	0.717937414	7.4	24.2	0.18	1.01	24.6	72	0.91	58.17	3,017	5.46E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
206	33.71	33.87	0.2	33.79	427,600	3,740	4,055	104.4	0.88	1.86	146.9	1.75	146.9	1.75	1.07	38.3	0.716192727	7.1	27.5	0.13	1.01	27.8	77	0.91	60.61	3,151	5.25E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
207	33.87	34.04	0.2	33.96	465,000	3,760	4,075	113.1	0.82	1.81	159.4	1.70	159.4	1.70	1.04	41.0	0.714460699	6.1	29.3	0.04	1.01	29.5	79	0.91	61.78	3,220	5.17E-04	1.30E-03	0.083%	0.083%	0.166%	0.0033
208	34.04	34.20	0.2	34.12	477,600	4,120	4,094	115.6	0.87	1.82	163.3	1.71	163.3	1.71	1.04	42.3	0.712741176	6.3	30.1	0.05	1.01	30.3	80	0.90	62.38	3,259	5.07E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
209	34.20	34.37	0.2	34.28	523,000	4,160	4,114	126.1	0.80	1.77	178.4	1.66	178.4	1.66	1.01	45.5	0.711034009	5.3	32.3	0.01	1.00	32.4	82	0.90	63.76	3,339	4.97E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
210	34.37	34.53	0.2	34.45	632,000	4,640	4,134	151.9	0.74	1.69	215.1	1.57	215.1	1.57	1.00	53.4	0.709339051	4.0	37.9	0.00	1.00	37.9	87	0.90	67.18	3,526	4.73E-04	1.00E-03	0.039%	0.039%	0.078%	0.0015
211	34.53	34.69	0.2	34.61	712,200	5,580	4,154	170.5	0.79	1.67	241.8	1.56	241.8	1.56	1.00	59.9	0.707656156	3.7	42.4	0.00	1.00	42.4	92	0.90	69.72	3,669	4.57E-04	1.00E-03	0.027%	0.027%	0.054%	0.0011
212	34.69	34.86	0.2	34.78	651,200	4,620	4,173	155.0	0.71	1.67	220.6	1.56	220.6	1.56	1.00	54.7	0.705985183	3.7	38.6	0.00	1.00	38.6	88	0.90	67.61	3,566	4.72E-04	1.00E-03	0.037%	0.037%	0.074%	0.0015
213	34.86	35.02	0.2	34.94	513,000	4,520	4,193	121.3	0.89	1.81	173.4	1.70	173.4	1.70	1.04	45.2	0.704325991	6.1	31.8	0.03	1.00	32.0	82	0.90	63.51	3,358	5.04E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
214	35.02	35.19	0.2	35.10	357,400	3,540	4,213	83.8	1.00	1.97	120.5	1.85	120.5	1.85	1.14	33.2	0.702678442	9.2	23.3	0.62	1.02	24.4	72	0.89	58.00	3,074	5.47E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
215	35.19	35.35	0.2	35.27	240,400	3,500	4,232	55.8	1.48	2.21	80.9	2.09	80.9	2.09	1.44	24.5	0.701042402	15.6	17.2	2.65	1.05	20.7	67	0.89	54.93	2,918	5.79E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
216	35.35	35.52	0.2	35.43	200,200	2,920	4,252	46.1	1.49	2.28	67.2	2.15	67.2	2.15	1.56	20.9	0.699417736	17.5	14.6	3.12	1.06	18.7	63	0.89	53.07	2,826	6.01E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
217	35.52	35.68	0.2	35.60	165,000	2,980	4,272	37.6	1.85	2.41	55.2	2.28	55.2	2.28	1.89	18.2	0.697804314	21.8	12.7	3.90	1.09	17.8	61	0.89	52.17	2,784	6.12E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
218	35.68	35.84	0.2	35.76	154,000	3,020	4,291	34.9	2.02	2.46	51.4	2.33	51.4	2.33	2.04	17.3	0.696202005	23.6	12.1	4.13	1.10	17.5	61	0.89	51.88	2,775	6.17E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
219	35.84	36.01	0.2	35.93	136,800	2,700	4,311	30.7	2.04	2.50	45.6	2.37	45.6	2.37	2.20	15.7	0.694610684	25.2	10.9	4.31	1.12	16.5	60	0.89	50.90	2,729	6.31E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
220	36.01	36.17	0.2	36.09	137,200	2,640	4,331	30.7	1.99	2.50	45.6	2.36	45.6	2.36	2.17	15.7	0.693030226	24.9	10.9	4.28	1.11	16.4	60	0.88	50.81	2,730	6.26E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
221	36.17	36.34	0.2	36.25	134,200	2,560	4,350	29.8	1.97	2.50	44.5	2.37	44.5	2.37	2.19	15.4	0.691460506	25.2	10.6	4.31	1.12	16.2	60	0.88	50.58	2,724	6.30E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
222	36.34	36.50	0.2	36.42	142,800	2,480	4,370	31.7	1.79	2.46	47.3	2.32	47.3	2.32	2.02	16.0	0.689901405	23.4	11.1	4.10	1.10	16.3	60	0.88	50.71	2,737	6.30E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
223	36.50	36.66	0.2	36.58	161,200	2,600	4,390	35.7	1.66	2.40	53.2	2.26	53.2	2.26	1.83	17.6	0.688352803	21.1	12.1	3.80	1.09	17.0	60	0.88	51.41	2,781	6.23E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
224	36.66	36.83	0.2	36.75	183,600	2,700	4,409	40.6	1.51	2.33	60.5	2.19	60.5	2.19	1.65	19.5	0.686814582	18.7	13.4	3.38	1.07	17.7	61	0.88	52.15	2,827	6.16E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
225	36.83	36.99	0.2	36.91	218,200	2,800	4,429	48.3	1.31	2.23	71.7	2.10	71.7	2.10	1.45	22.3	0.685286628	15.7	15.3	2.69	1.05	18.8	63	0.88	53.14	2,888	6.05E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
226	36.99	37.16	0.2	37.07	262,400	3,320	4,449	58.0	1.29	2.16	86.1	2.03	86.1	2.03	1.34	26.1	0.683768826	13.8	17.9	2.14	1.04	20.7	67	0.88	54.95	2,992	5.87E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
227	37.16	37.32	0.2	37.24	334,600	4,100	4,469	73.9	1.24	2.07	109.5	1.94	109.5	1.94	1.23	32.2	0.682261065	11.4	22.0	1.36	1.03	24.0	71	0.87	57.66	3,147	5.54E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
228	37.32	37.48	0.2	37.40	486,600	5,040	4,488	107.4	1.05	1.90	158.9	1.77	158.9	1.77	1.09	44.0	0.680763235	7.6	30.0	0.21	1.01	30.5	80	0.87	62.49	3,418	5.12E-04	1.30E-03	0.078%	0.078%	0.156%	0.0031
229	37.48	37.65	0.2	37.57	682,800	6,580	4,508	150.5	0.97	1.77	222.5	1.65	222.5	1.65	1.00	59.2	0.679275226	5.2	40.2	0.00	1.00	40.3	90	0.87	68.55	3,758	4.68E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
230	37.65	37.81	0.2	37.73	834,000	6,920	4,528	183.2	0.83	1.66	271.2	1.54	271.2	1.54	1.00	69.7	0.677796932	3.4	47.3	0.00	1.00	47.3	95	0.87	72.31	3,973	4.45E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
231	37.81	37.98	0.2	37.89	980,000	8,140	4,547	214.5	0.83	1.61	318.0	1.50	318.0	1.50	1.00	80.7	0.676328248	2.8	54.6	0.00	1.00	54.6	95	0.87	75.88	4,178	4.25E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
232	37.98	38.14	0.2	38.06	1,089,600	9,880	4,567	237.6	0.91	1.61	352.8	1.50	352.8	1.50	1.00	89.8	0.67486907	2.8	60.6	0.00	1.00	60.6	95	0.87	78.56	4,335	4.11E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
233	38.14	38.30	0.2	38.22	1,198,400	10,700	4,587	260.3	0.90	1.58	387.2	1.47	387.2	1.47	1.00	97.8	0.673419296	2.4	65.9	0.00	1.00	65.9	95	0.87	80.77	4,467	4.01E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
234	38.30	38.47	0.2	38.39	1,257,600	11,380	4,606	272.0	0.91	1.57	405.5	1.46	405.5	1.46	1.00	102.4	0.671978825	2.3	68.8	0.00	1.00	68.8	95	0.87	81.96	4,542	3.96E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
235	38.47	38.63	0.2	38.55	1,299,800	11,260	4,626	280.0	0.87	1.55	418.2	1.44	418.2	1.44	1.00	105.1	0.670547558	2.0	70.5	0.00	1.00	70.5	95	0.87	82.61	4,587	3.93E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
236	38.63	38.80	0.2	38.71	1,293,600	12,200	4,646	277.5	0.95	1.58	415.3	1.47	415.3	1.47	1.00	105.6	0.669125399	2.4	70.7	0.00	1.00	70.7	95	0.87	82.69	4,602	3.94E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
237	38.80	38.96	0.2	38.88	1,218,200	11,640	4,665	260.1	0.96	1.60	390.3	1.49	390.3	1.49	1.00	100.1	0.66771225	2.7	66.9	0.00	1.00	66.9	95	0.87	81.17	4,527	4.02E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
238	38.96	39.12	0.2	39.04	1,111,400	9,680	4,685	236.2	0.87	1.60	355.3	1.48	355.3	1.48	1.00	91.1	0.666308016	2.6	60.7	0.00	1.00	60.7	95	0.87	78.61	4,393	4.16E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
239	39.12	39.29	0.2	39.21	932,800	7,580	4,705	197.3	0.82	1.63	297.6	1.51	297.6	1.51	1.00	77.2	0.664912605	3.0	51.3	0.00	1.00	51.3	95	0.86	74.31	4,162	4.36E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
240	39.29	39.45	0.2	39.37	753,800	5,420	4,724	158.6	0.72	1.67	240.0	1.53	240.0	1.53	1.00	62.9	0.663525925	3.3	41.7	0.00	1.00	41.7	91	0.86	69.36	3,893	4.68E-04	1.00E-03	0.030%	0.030%	0.060%	0.0012
241	39.45	39.62	0.2	39.53	581,600	4,300	4,744	121.6	0.75	1.76	184.8	1.63	184.8	1.63	1.00	50.0	0.662147884	4.8	33.1	0.00	1.00	33.1	83	0.86	64.22	3,612	5.07E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
242	39.62	39.78	0.2	39.70	399,200	3,340	4,764	82.8	0.85	1.93	126.6	1.79	126.6	1.79	1.10	36.3	0.660778393	7.8	24.0	0.26	1.01	24.5	72	0.86	58.10	3,274	5.61E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
243	39.78	39.94	0.2	39.86	291,400	2,960	4,783	59.9	1.03	2.09	92.2	1.95	92.2	1.95	1.24	28.1	0.659417365	11.5	18.5	1.40	1.03	20.5	67	0.86	54.70	3,089	5.97E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
244	39.94	40.11	0.2	40.03	210,400	3,000	4,803	42.8	1.46	2.30	66.4	2.15	66.4	2.15	1.56	22.0	0.658064713	17.4	14.5	3.11	1.06	18.5	63	0.86	52.87	2,992	6.19E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
245	40.11	40.27	0.2	40.19	157,800	3,600	4,823	31.7	2.35	2.53	49.7	2.38	49.7	2.38	2.24	18.2	0.656720351	25.7	12.0	4.36	1.12	17.8	61	0.85	52.18	2,959	6.21E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
246	40.27	40.44	0.2	40.35	145,600	3,760	4,843	29.1	2.67	2.60	45.8	2.45	45.8	2.45	2.51	17.3	0.655384194	28.3	11.3	4.59	1.14	17.5	61	0.85	51.94	2,951	6.26E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
247	40.44	40.60	0.2	40.52	144,200	3,800	4,862	28.7	2.73	2.61	28.7	2.61	28.7	2.61	unsusceptible		0.65405616	35.7	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.85	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
248	40.60	40.76	0.2	40.68	163,400	3,840	4,882	32.5	2.42	2.53	51.2	2.38	51.2	2.38	2.24	18.8	0.652736166	25.7	12.3	4.36	1.12	18.1	63	0.85	52.55	2,998	6.21E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
249	40.76	40.93	0.2	40.85	164,200	3,980	4,902	32.5	2.50	2.54	51.3	2.39	51.3	2.39	2.27	19.0	0.651424132	26.0	12.4	4.39	1.12	18.3	63	0.85	52.69	3,012	6.20E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
250	40.93	41.09	0.2	41.01	169,800	3,800	4,921	33.5	2.30	2.51	53.0	2.36	53.0	2.36	2.14	19.4	0.650119979	24.7	12.6	4.25	1.11	18.3	63	0.85	52.66	3,016	6.22E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
251	41.09	41.26	0.2	41.17	173,800	3,680	4,941	34.2	2.18	2.49	54.1	2.33	54.1	2.33	2.06	19.6	0.648823626	23.8	12.7	4.15	1.11	18.2	63	0.84	52.63	3,021	6.16E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
252	41.26	41.42	0.2	41.34	172,000	3,320	4,961	33.7	1.99	2.47	53.4	2.31	53.4	2.31	1.98	19.2	0.647534998	22.9	12.4	4.05	1.10	17.7	61	0.84	52.16	2,999	6.23E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
253	41.42	41.58	0.2	41.50	162,000	3,000	4,980	31.5	1.91	2.48	50.2	2.32	50.2	2.32	2.01	18.2	0.646254018	23.3	11.7	4.09	1.10	17.0	61	0.84	51.46	2,965	6.33E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
254	41.58	41.75	0.2	41.67	162,800	2,800	5,000	31.6	1.77	2.46	50.4	2.30	50.4	2.30	1.94	18.1	0.64498061	22.5	11.7	3.99	1.10	16.8	60	0.84	51.20	2,956	6.37E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
255	41.75	41.91	0.2	41.83	168,400	2,640	5,020	32.5	1.62	2.42	52.0	2.26	52.0	2.26	1.83	18.4	0.643714699	21.1	11.9	3.80	1.09	16.7	60	0.84	51.11	2,957	6.40E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
256	41.91	42.08	0.2	41.99	176,200	2,340	5,039	34.0	1.37	2.37	54.3	2.20	54.3	2.20	1.67	18.8	0.642456214	19.1	12.1	3.45	1.07	16.4	60	0.84	50.81	2,945	6.45E-04	2.00E-03	0.270%	0.270%	0.540%	0.0106
257	42.08	42.24	0.2	42.16	191,800	2,500	5,059	36.9	1.34	2.33	59.0	2.17	59.0	2.17	1.59	20.2	0.641205081	17.9	12.9	3.22	1.07	17.0	61	0.83	51.43	2,987	6.30E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
258	42.24	42.40	0.2	42.32	225,600	2,980	5,079	43.4	1.35	2.28	69.3	2.12	69.3	2.12	1.49	23.2	0.639961229	16.3	14.9	2.85	1.06	18.5	63	0.83	52.94	3,080	6.14E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
259	42.40	42.57	0.2	42.49	279,400	3,460	5,098	53.8	1.26	2.18	85.6	2.03	85.6	2.03	1.34	27.8	0.638724588	13.7	17.7	2.11	1.04	20.6	67	0.83	54.79	3,195	5.94E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
260	42.57	42.73	0.2	42.65	311,800	3,780	5,118	59.9	1.23	2.14	95.4	1.98	95.4	1.98	1.28	30.5	0.637495088	12.5	19.4	1.74	1.03	21.8	68	0.83	55.91	3,266	5.83E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
261	42.73	42.90	0.2	42.81	384,800	4,160	5,138	73.9	1.10	2.04	117.5	1.88	117.5	1.88	1.17	36.2	0.636272661	10.0	23.0	0.87	1.02	24.4	72	0.83	58.02	3,396	5.63E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
262	42.90	43.06	0.2	42.98	564,200	5,260	5,157	108.4	0.94	1.87	171.9	1.72	171.9	1.72	1.05	50.1	0.635057239	6.4	31.8	0.06	1.01	32.0	82	0.83	63.53	3,725	5.15E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
263	43.06	43.23	0.2	43.14	821,400	6,880	5,177	157.7	0.84	1.71	249.8	1.57	249.8	1.57	1.00	69.3	0.633848756	3.9	43.9	0.00	1.00	43.9	93	0.83	70.57	4,146	4.65E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
264	43.23	43.39	0.2	43.31	1,037,200	8,780	5,197	198.6	0.85	1.64	314.8	1.51	314.8	1.51	1.00	85.7	0.632647146	2.9	54.2	0.00	1.00	54.2	95	0.83	75.70	4,456	4.34E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
265	43.39	43.55	0.2	43.47	1,149,800	9,120	5,217	219.4	0.80	1.59	348.3	1.46	348.3	1.46	1.00	93.5	0.631452344	2.2	59.0	0.00	1.00	59.0	95	0.83	77.88	4,593	4.23E-04	8.20E-04	0.011%	0.011%	0.023%	0.0005
266	43.55	43.72	0.2	43.64	1,129,800	8,880	5,236	214.8	0.79	1.59	341.6	1.46	341.6	1.46	1.00	92.0	0.630264286	2.3	58.0	0.00	1.00	58.0	95	0.83	77.40	4,573	4.26E-04	1.00E-03	0.014%	0.014%	0.028%	0.0006
267	43.72	43.88	0.2	43.80	864,800	6,900	5,256	163.5	0.80	1.69	261.0	1.54	261.0	1.54	1.00	72.3	0.629082908	3.4	45.5	0.00	1.00	45.5	94	0.83	71.39	4,226	4.63E-04	1.00E-03	0.020%	0.020%	0.040%	0.0008
268	43.88	44.05	0.2	43.96	644,000	4,300	5,276	121.1	0.67	1.74	194.0	1.58	194.0	1.58	1.00	54.5	0.627908149	4.0	34.2	0.00	1.00	34.2	84	0.83	64.94	3,852	5.10E-04	1.30E-03	0.062%	0.062%	0.125%	0.0025
269	44.05	44.21	0.2	44.13	466,400	4,260	5,295	87.1	0.92	1.94	140.2	1.78	140.2	1.78	1.09	42.2	0.626739947	7.6	26.5	0.22	1.01	27.0	75	0.82	59.99	3,565	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
270	44.21	44.37	0.2	44.29	323,600	4,520	5,315	59.9	1.42	2.18	97.1	2.02	97.1	2.02	1.33	32.1	0.625578241	13.5	20.1	2.05	1.04	22.9	70	0.82	56.81	3,381	5.78E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072

LAYER NUMBER	TOP OF LAYER (FEET)	BOTTOM OF LAYER (FEET)	LAYER THICKNESS (FEET)	CENTER OF LAYER (FEET)	TIP RESISTANCE q_c (PSF)	SIDE FRICTION f_s (PSF)	EFFECTIVE OVERBURDEN (P.S.F.)	Q	F (%)	I_c (1st trial)	q_{c1N} (1st trial)	I_c (2nd trial)	q_{c1N} (2nd trial)	I_c (3rd trial)	K_c	N_{60}	C_n CORRELATION FACTOR	FINES CONTENT (%)	$(N_1)_{60}$	α	β	$(N_1)_{60-cs}$	REVISED RELATIVE DENSITY	STRESS REDUCTION FACTOR	K2 MAX VALUE	G MAX (K.S.F.)	SHEAR STRAIN TIMES RATIO	EFFECTIVE SHEAR STRAIN	VOLUMETRIC STRAIN M=7.5	CORRECTED VOLUMETRIC STRAIN	MULTI-DIR VOLUMETRIC STRAIN	SETTLEMENT (INCHES)
271	44.37	44.54	0.2	44.46	264,600	4,500	5,335	48.6	1.74	2.30	79.3	2.14	79.3	2.14	1.54	27.6	0.624422971	17.2	17.2	3.05	1.06	21.3	68	0.82	55.45	3,307	5.93E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
272	44.54	44.70	0.2	44.62	218,400	4,300	5,354	39.8	2.02	2.41	65.3	2.25	65.3	2.25	1.80	23.8	0.623274078	20.7	14.8	3.74	1.08	19.8	65	0.82	54.11	3,233	6.09E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
273	44.70	44.87	0.2	44.78	208,000	3,940	5,374	37.7	1.94	2.42	62.1	2.26	62.1	2.26	1.81	22.7	0.622131503	20.9	14.1	3.77	1.09	19.1	65	0.82	53.45	3,200	6.18E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
274	44.87	45.03	0.2	44.95	199,000	3,600	5,394	35.9	1.86	2.43	59.3	2.26	59.3	2.26	1.82	21.7	0.620995189	21.0	13.5	3.78	1.09	18.4	63	0.82	52.83	3,168	6.26E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
275	45.03	45.19	0.2	45.11	202,200	3,060	5,413	36.4	1.55	2.37	60.1	2.20	60.1	2.20	1.67	21.6	0.619865078	19.1	13.4	3.45	1.07	17.8	61	0.81	52.22	3,137	6.27E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
276	45.19	45.36	0.2	45.28	223,800	2,820	5,433	40.2	1.29	2.29	66.4	2.12	66.4	2.12	1.49	23.1	0.618741115	16.4	14.3	2.86	1.06	17.9	61	0.81	52.34	3,150	6.27E-04	2.00E-03	0.250%	0.250%	0.500%	0.0098
277	45.36	45.52	0.2	45.44	265,200	3,300	5,453	47.6	1.27	2.23	78.6	2.06	78.6	2.06	1.38	26.7	0.617623244	14.5	16.5	2.37	1.05	19.6	65	0.81	53.92	3,251	6.09E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
278	45.52	45.69	0.2	45.60	308,200	4,120	5,472	55.3	1.36	2.19	91.2	2.03	91.2	2.03	1.34	30.6	0.61651141	13.7	18.9	2.12	1.04	21.8	68	0.81	55.86	3,374	5.89E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
279	45.69	45.85	0.2	45.77	291,400	4,360	5,492	52.1	1.52	2.25	86.0	2.08	86.0	2.08	1.42	29.6	0.615405559	15.2	18.2	2.56	1.05	21.7	68	0.81	55.74	3,373	5.92E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
280	45.85	46.01	0.2	45.93	281,000	4,320	5,512	50.0	1.57	2.27	82.8	2.10	82.8	2.10	1.46	28.7	0.614305638	15.8	17.7	2.72	1.05	21.3	68	0.81	55.45	3,361	5.96E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
281	46.01	46.18	0.2	46.10	260,800	4,640	5,531	46.1	1.82	2.33	76.7	2.17	76.7	2.17	1.59	27.4	0.613211593	17.9	16.8	3.22	1.07	21.2	68	0.80	55.31	3,359	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
282	46.18	46.34	0.2	46.26	248,400	4,760	5,551	43.7	1.96	2.37	73.0	2.21	73.0	2.21	1.68	26.5	0.612123373	19.2	16.2	3.47	1.07	20.9	67	0.80	55.12	3,353	5.94E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
283	46.34	46.51	0.2	46.42	234,800	4,980	5,571	41.1	2.17	2.42	68.8	2.26	68.8	2.26	1.81	25.6	0.611040926	20.9	15.7	3.76	1.09	20.8	67	0.80	54.96	3,350	5.97E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
284	46.51	46.67	0.2	46.59	203,400	4,660	5,591	35.4	2.36	2.50	59.5	2.33	59.5	2.33	2.03	22.9	0.609964201	23.5	14.0	4.12	1.10	19.5	65	0.80	53.85	3,287	6.10E-04	2.00E-03	0.210%	0.210%	0.420%	0.0083
285	46.67	46.83	0.2	46.75	193,000	4,120	5,610	33.4	2.20	2.50	56.4	2.32	56.4	2.32	2.02	21.7	0.608893148	23.4	13.2	4.10	1.10	18.7	63	0.80	53.05	3,244	6.20E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
286	46.83	47.00	0.2	46.92	202,600	3,940	5,630	35.0	2.00	2.45	59.1	2.28	59.1	2.28	1.89	22.3	0.607827717	21.8	13.6	3.90	1.09	18.7	63	0.80	53.10	3,253	6.21E-04	2.00E-03	0.230%	0.230%	0.460%	0.0091
287	47.00	47.16	0.2	47.08	243,200	4,160	5,650	42.0	1.75	2.36	70.8	2.18	70.8	2.18	1.63	25.7	0.60676786	18.4	15.6	3.32	1.07	20.0	67	0.80	54.30	3,333	6.08E-04	2.00E-03	0.200%	0.200%	0.400%	0.0079
288	47.16	47.33	0.2	47.24	283,000	4,620	5,669	48.9	1.67	2.29	82.2	2.12	82.2	2.12	1.49	29.2	0.605713527	16.4	17.7	2.88	1.06	21.6	68	0.79	55.66	3,422	5.87E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
289	47.33	47.49	0.2	47.41	300,400	5,140	5,689	51.8	1.74	2.28	87.1	2.12	87.1	2.12	1.48	30.9	0.604664672	16.3	18.7	2.84	1.06	22.6	70	0.79	56.53	3,481	5.79E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
290	47.49	47.65	0.2	47.57	275,600	5,560	5,709	47.3	2.06	2.36	79.8	2.19	79.8	2.19	1.65	29.3	0.603621246	18.8	17.7	3.39	1.07	22.3	70	0.79	56.32	3,474	5.82E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
291	47.65	47.82	0.2	47.74	249,800	5,400	5,728	42.6	2.21	2.42	72.2	2.25	72.2	2.25	1.79	27.1	0.602583204	20.6	16.4	3.71	1.08	21.4	68	0.79	55.55	3,433	5.91E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
292	47.82	47.98	0.2	47.90	271,200	5,060	5,748	46.2	1.91	2.35	78.3	2.18	78.3	2.18	1.61	28.6	0.601550498	18.2	17.2	3.28	1.07	21.7	68	0.79	55.74	3,451	5.90E-04	2.00E-03	0.192%	0.192%	0.384%	0.0076
293	47.98	48.15	0.2	48.06	413,800	5,140	5,768	70.7	1.26	2.09	119.2	1.92	119.2	1.92	1.21	39.5	0.600523084	10.9	23.7	1.17	1.03	25.5	74	0.79	58.86	3,650	5.60E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
294	48.15	48.31	0.2	48.23	505,200	6,040	5,787	86.3	1.21	2.01	145.3	1.85	145.3	1.85	1.14	46.9	0.599500917	9.1	28.1	0.59	1.02	29.2	79	0.78	61.59	3,826	5.29E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
295	48.31	48.47	0.2	48.39	492,600	6,900	5,807	83.8	1.42	2.07	141.4	1.90	141.4	1.90	1.19	46.7	0.598483951	10.5	28.0	1.03	1.02	29.6	79	0.78	61.90	3,852	5.27E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
296	48.47	48.64	0.2	48.56	458,200	8,160	5,827	77.6	1.80	2.16	131.3	2.00	131.3	2.00	1.30	45.1	0.597472143	13.0	26.9	1.88	1.04	29.8	79	0.78	62.02	3,865	5.27E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
297	48.64	48.80	0.2	48.72	432,600	8,080	5,846	73.0	1.89	2.20	123.8	2.03	123.8	2.03	1.35	43.1	0.596465449	13.9	25.7	2.17	1.04	29.0	78	0.78	61.42	3,835	5.33E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
298	48.80	48.97	0.2	48.88	397,200	7,260	5,866	66.7	1.86	2.22	113.5	2.05	113.5	2.05	1.38	39.9	0.595463828	14.4	23.8	2.34	1.04	27.2	77	0.78	60.12	3,760	5.46E-04	1.60E-03	0.115%	0.115%	0.230%	0.0045
299	48.97	49.13	0.2	49.05	345,600	6,420	5,886	57.7	1.89	2.27	98.6	2.10	98.6	2.10	1.46	35.4	0.594467235	15.9	21.0	2.73	1.05	24.9	72	0.78	58.39	3,658	5.63E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
300	49.13	49.29	0.2	49.21	325,800	6,160	5,906	54.2	1.93	2.30	92.8	2.13	92.8	2.13	1.50	33.7	0.593475629	16.6	20.0	2.92	1.06	24.1	72	0.77	57.74	3,623	5.63E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
301	49.29	49.46	0.2	49.38	321,800	6,080	5,925	53.3	1.92	2.30	91.5	2.13	91.5	2.13	1.51	33.3	0.592488969	16.7	19.7	2.95	1.06	23.9	71	0.77	57.57	3,618	5.66E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
302	49.46	49.62	0.2	49.54	329,600	6,240	5,945	54.4	1.93	2.30	93.5	2.12	93.5	2.12	1.50	34.0	0.591507213	16.6	20.1	2.90	1.06	24.2	72	0.77	57.85	3,642	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
303	49.62	49.79	0.2	49.70	348,600	6,580	5,965	57.4	1.92	2.28	98.8	2.11	98.8	2.11	1.47	35.8	0.590530322	16.0	21.1	2.77	1.05	25.0	74	0.77	58.50	3,689	5.58E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
304	49.79	49.95	0.2	49.87	351,000	6,920	5,984	57.7	2.01	2.29	99.3	2.12	99.3	2.12	1.49	36.2	0.589558255	16.4	21.3	2.86	1.06	25.4	74	0.77	58.78	3,713	5.57E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
305	49.95	50.11	0.2	50.03	344,400	7,000	6,004	56.4	2.07	2.31	97.3	2.13	97.3	2.13	1.52	35.7	0.588590973	16.9	21.0	2.98	1.06	25.2	74	0.77	58.67	3,712	5.59E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
306	50.11	50.28	0.2	50.20	344,800	6,980	6,024	56.2	2.06	2.30	97.2	2.13	97.2	2.13	1.52	35.7	0.587628436	16.8	21.0	2.97	1.06	25.2	74	0.76	58.65	3,716	5.52E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
307	50.28	50.44	0.2	50.36	360,800	7,020	6,043	58.7	1.98	2.28	101.6	2.11	101.6	2.11	1.47	37.0	0.586670606	16.0	21.7	2.78	1.05	25.7	74	0.76	59.00	3,745	5.50E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
308	50.44	50.61	0.2	50.52	395,800	7,440	6,063	64.3	1.91	2.24	111.2	2.07	111.2	2.07	1.40	40.0	0.585717444	14.9	23.4	2.46	1.05	27.0	75	0.76	60.00	3,814	5.42E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
309	50.61	50.77	0.2	50.69	431,800	7,660	6,083	70.0	1.80	2.19	121.1	2.02	121.1	2.02	1.33	42.9	0.584768913	13.6	25.1	2.09	1.04	28.2	78	0.76	60.85	3,875	5.35E-04	1.60E-03	0.109%	0.109%	0.218%	0.0043
310	50.77	50.94	0.2	50.85	454,800	8,240	6,102	73.5	1.84	2.18	127.4	2.02	127.4	2.02	1.32	45.0	0.583824975	13.4	26.3	2.01	1.04	29.3	79	0.76	61.67	3,934	5.29E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
311	50.94	51.10	0.2	51.02	447,800	8,440	6,122	72.1	1.91	2.20	125.2	2.03	125.2	2.03	1.35	44.6	0.582885594	13.9	26.0	2.17	1.04	29.3	79	0.76	61.63	3,938	5.30E-04	1.60E-03	0.102%	0.102%	0.205%	0.0040
312	51.10	51.26	0.2	51.18	374,800	8,120	6,142	60.0	2.20	2.30	104.6	2.13	104.6	2.13	1.52	38.8	0.581950733	16.8	22.6	2.96	1.06	26.9	75	0.76	59.92	3,834	5.46E-04	1.60E-03	0.122%	0.122%	0.243%	0.0048
313	51.26	51.43	0.2	51.35	334,800	6,680	6,161	53.3	2.03	2.32	93.3	2.14	93.3	2.14	1.53	34.8	0.581020356	17.1	20.2	3.03	1.06	24.5	72	0.76	58.08	3,722	5.64E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
314	51.43	51.59	0.2	51.51	317,200	6,320	6,181	50.3	2.03	2.34	88.3	2.16	88.3	2.16	1.57	33.2	0.580094426	17.6	19.3	3.15	1.06	23.7	71	0.76	57.41	3,685	5.72E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
315	51.59	51.76	0.2	51.67	303,400	6,120	6,201	47.9	2.06	2.36	84.3	2.18	84.3	2.18	1.61	32.0	0.57917291	18.2	18.5	3.28	1.07	23.1	71	0.76	56.94	3,661	5.77E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
316	51.76	51.92	0.2	51.84	300,200	6,940	6,220	47.3	2.36	2.40	83.3	2.22	83.3	2.22	1.72	32.3	0.578255771	19.7	18.7	3.57	1.08	23.7	71	0.76	57.44	3,699	5.73E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
317	51.92	52.08	0.2	52.00	313,600	6,980	6,240	49.3	2.27	2.38	86.9	2.20	86.9	2.20	1.66	33.4	0.577342975	18.9	19.3	3.42	1.07	24.1	72	0.76	57.75	3,725	5.71E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
318	52.08	52.25	0.2	52.17	289,000	6,560	6,260	45.2	2.32	2.41	79.9	2.23	79.9	2.23	1.74	31.2	0.576434488	20.0	18.0	3.61	1.08	23.0	71	0.76	56.89	3,675	5.81E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
319	52.25	52.41	0.2	52.33	289,800	6,160	6,280	45.1	2.17	2.39	80.0	2.21	80.0	2.21	1.69	31.0	0.575530276	19.3	17.8	3.49	1.07	22.7	70	0.76	56.60	3,662	5.85E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
320	52.41	52.58	0.2	52.49	294,000	5,860	6,299	45.7	2.04	2.37	81.1	2.19	81.1	2.19	1.63	31.1	0.574630307	18.5	17.9	3.34	1.07	22.5	70	0.76	56.44	3,657	5.87E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
321	52.58	52.74	0.2	52.66	297,200	5,880	6,319	46.0	2.02	2.36	81.8	2.18	81.8	2.18	1.62	31.4	0.573734546	18.3	18.0	3.30	1.07	22.6	70	0.76	56.51	3,668	5.87E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
322	52.74	52.90	0.2	52.82	299,800	6,180	6,339	46.3	2.11	2.37	82.4	2.19	82.4	2.19	1.64	31.8	0.572842961	18.7	18.2	3.37	1.07	22.9	70	0.76	56.78	3,691	5.85E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
323	52.90	53.07	0.2	52.99	295,800	6,240	6,358	45.5	2.16	2.39	81.2	2.20	81.2	2.20	1.67	31.5	0.57195552	19.1	18.0	3.45	1.07	22.8	70	0.76	56.72	3,693	5.87E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
324	53.07	53.23	0.2	53.15	298,600	6,020	6,378	45.8	2.06	2.37	81.8	2.19	81.8	2.19	1.63	31.6	0.57107219	18.5	18.1	3.34	1.07	22.7	70	0.76	56.60	3,691	5.89E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
325	53.23	53.40	0.2	53.31	299,600	6,300	6,398	45.8	2.15	2.38	82.0	2.20	82.0	2.20	1.66	31.9	0.570192941	18.9	18.2	3.42	1.07	22.9	70	0.76	56.82	3,710	5.88E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
326	53.40	53.56	0.2	53.48	303,000	6,360	6,417	46.2	2.14	2.38	82.8	2.19	82.8	2.19	1.65	32.2	0.56931774	18.8	18.3	3.40	1.07	23.0	71	0.76	56.92	3,723	5.88E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
327	53.56	53.72	0.2	53.64	296,400	6,420	6,437	45.0	2.21	2.40	80.8	2.21	80.8	2.21	1.70	31.7	0.568446557	19.4	18.0	3.51	1.08	22.9	70	0.76	56.80	3,721	5.90E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
328	53.72	53.89	0.2	53.81	299,400	6,720	6,457	45.4	2.29	2.41	81.5	2.22	81.5	2.22	1.72	32.2	0.567579361	19.7	18.3	3.56	1.08	23.2	71	0.76	57.06	3,744	5.88E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
329	53.89	54.05	0.2	53.97	300,400	6,680	6,476	45.4	2.27	2.40	81.7	2.22	81.7	2.22	1.71	32.2	0.566716122	19.5	18.3	3.54	1.08	23.2	71	0.76	57.04	3,748	5.89E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
330	54.05	54.22	0.2	54.13	297,400	7,060	6,496	44.8	2.43	2.43	80.7	2.24	80.7	2.24	1.77	32.2	0.56585681	20.4	18.2	3.68	1.08	23.4	71	0.76	57.21	3,765	5.88E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
331	54.22	54.38	0.2	54.30	293,600	6,780	6,516	44.1	2.36	2.42	79.6	2.24	79.6	2.24	1.76	31.8	0.565001395	20.2	17.9	3.65	1.08	23.1	71	0.76	56.92	3,752	5.92E-04	2.00E-03	0.176%	0.176%	0.352%	0.0069
332	54.38	54.54	0.2	54.46	290,200	6,280	6,535	43.4	2.21	2.41	78.5	2.22	78.5	2.22	1.72	31.2	0.564149847	19.7	17.6	3.56	1.08	22.5	70	0.76	56.47	3,728	5.98E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
333	54.54	54.71	0.2	54.63	285,200	6,840	6,555	42.5	2.45	2.45	77.1	2.26	77.1	2.26	1.82	31.1	0.563302138	21.0	17.5	3.78	1.09	22.8	70	0.76	56.74	3,751	5.96E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
334	54.71	54.87	0.2	54.79	285,600	6,860	6,575	42.4	2.46	2.45	77.1	2.26	77.1	2.26	1.82	31.2	0.56245824	21.0	17.5	3.78	1.09	22.8	70	0.76	56.74	3,757	5.97E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
335	54.87	55.04	0.2	54.95	291,400	6,780	6,594	43.2	2.38	2.43	78.5	2.24	78.5	2.24	1.78	31.6	0.561618122	20.5	17.8	3.69	1.08	22.9	70	0.76	56.80	3,766	5.97E-04	2.00E-03	0.184%	0.184%	0.368%	0.0072
336	55.04	55.20	0.2	55.12	294,200	6,620	6,614	43.5	2.30	2.42	79.2	2.23	79.2	2.23	1.74	31.7	0.560781758	20.0	17.8	3.62	1.08	22.8	70	0.70	56.74	3,768	5.51E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
337	55.20	55.36	0.2	55.28	295,600	6,500	6,634	43.6	2.25	2.41	79.4	2.22	79.4	2.22	1.72	31.8	0.55994912	19.7	17.8	3.57	1.08	22.7	70	0.70	56.67	3,769	5.53E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
338	55.36	55.53	0.2	55.45	286,600	6,240	6,654	42.1	2.23	2.42	76.9	2.23	76.9	2.23	1.74	30.9	0.559120179	20.0	17.3	3.61	1.08	22.3	70	0.70	56.27	3,747	5.57E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
339	55.53	55.69	0.2	55.61	273,600	6,460	6,673	40.0	2.42	2.46	73.3	2.27	73.3	2.27	1.85	30.0	0.558294909	21.4	16.8	3.84	1.09	22.1	70	0.70	56.11	3,743	5.60E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
340	55.69	55.86	0.2	55.77	239,200	6,980	6,693	34.7	3.00	2.57	64.0	2.38	64.0	2.38	2.22	27.5	0.557473282	25.5	15.3	4.34	1.12	21.5	68	0.70	55.61	3,715	5.66E-04	1.60E-03	0.154%	0.154%	0.307%	0.0060
341	55.86	56.02	0.2	55.94	227,600	7,980	6,713	32.9	3.61	2.64	32.9	2.64	32.9	2.64	unsusceptible		0.556655273	37.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
342	56.02	56.18	0.2	56.10	229,400	8,400	6,732	33.1	3.77	2.65	33.1	2.65	33.1	2.65	unsusceptible		0.555840854	37.9	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
343	56.18	56.35	0.2	56.27	263,400	8,000	6,752	38.0	3.12	2.55	70.1	2.36	70.1	2.36	2.16	30.1	0.555029998	24.9	16.7	4.27	1.11	22.9	70	0.70	56.77	3,809	5.57E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
344	56.35	56.51	0.2	56.43	318,600	7,140	6,772	46.0	2.29	2.40	84.7	2.21	84.7	2.21	1.69	34.1	0.554222682	19.3	18.9	3.48	1.07	23.8	71	0.70	57.50	3,863	5.50E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
345	56.51	56.68	0.2	56.59	330,600	6,240	6,791	47.7	1.93	2.34	87.8	2.14	87.8	2.14	1.54	34.4	0.553418877	17.2	19.0	3.05	1.06	23.3	71	0.70	57.09	3,841	5.55E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
346	56.68	56.84	0.2	56.76	328,800	5,980	6,811	47.3	1.86	2.33	87.2	2.13	87.2	2.13	1.52	34.1	0.552618561	16.9	18.8	2.98	1.06	22.9	70	0.70	56.83	3,830	5.58E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
347	56.84	57.00	0.2	56.92	334,000	5,980	6,831	47.9	1.83	2.32	88.4	2.13	88.4	2.13	1.50	34.5	0.551821706	16.6	19.0	2.91	1.06	23.1	71	0.70	56.92	3,841	5.58E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
348	57.00	57.17	0.2	57.09	346,600	6,600	6,850	49.6	1.94	2.33	91.6	2.13	91.6	2.13	1.52	35.9	0.551028288	16.8	19.8	2.97	1.06	23.9	71	0.70	57.64	3,895	5.52E-04	1.60E-03	0.141%	0.141%	0.282%	0.0055
349	57.17	57.33	0.2	57.25	359,600	6,680	6,870	51.3	1.89	2.31	94.9	2.11	94.9	2.11	1.48	37.0	0.550238283	16.2	20.4	2.83	1.06	24.3	72	0.70	57.94	3,921	5.50E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
350	57.33	57.50	0.2	57.41	328,600	8,060	6,890	46.7	2.51	2.42	86.6	2.23	86.6	2.23	1.74	35.4	0.549451666	20.0	19.5	3.61	1.08	24.6	72	0.70	58.19	3,944	5.48E-04	1.60E-03	0.134%	0.134%	0.269%	0.0053
351	57.50	57.66	0.2	57.58	302,000	6,640	6,909	42.7	2.25	2.42	79.5	2.22	79.5	2.22	1.72	32.5	0.548668413	19.7	17.8	3.57	1.08	22.8	70	0.70	56.68	3,847	5.64E-04	1.60E-03	0.147%	0.147%	0.294%	0.0058
352	57.66	57.82	0.2	57.74	267,800	13,140	6,929	37.6	5.04	2.70	37.6	2.70	37.6	2.70	unsusceptible		0.5478885	40.4	#VALUE!	5.00	1.20	#VALUE!	#VALUE!	0.70	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.0000
353	57.82	57.99	0.2	57.91	349,800	9,200	6,949	49.3	2.68	2.42	91.8	2.23	91.8	2.23	1.75	37.8	0.547111904	20.1	20.7	3.64	1.08	26.0	74	0.70	59.24	4,032	5.41E-04	1.60E-03	0.128%	0.128%	0.256%	0.0050
354	57.99	58.15	0.2	58.07	597,000	9,000	6,969	84.7	1.53	2.09	156.5	1.90	156.5	1.90	1.19	56.5	0.5463386	10.3	30.9	0.97	1.02	32.5	82	0.70	63.85	4,352	5.03E-04	1.30E-03	0.070%	0.070%	0.140%	0.0028
355	58.15	58.32	0.2	58.23	653,200	8,140	6,988	92.5	1.26	2.00	171.0	1.81	171.0	1.81	1.11	59.9	0.545568567	8.3	32.7	0.37	1.01	33.5	83	0.70	64.46	4,400	4.99E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
356	58.32	58.48	0.2	58.40	603,600	7,540	7,008	85.1	1.26	2.03	157.8	1.83	157.8	1.83	1.13	55.8	0.54480178	8.9	30.4	0.52	1.02	31.4	81	0.70	63.11	4,314	5.10E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
357	58.48	58.65	0.2	58.56	803,800	7,560	7,028	113.4	0.95	1.85	209.8	1.66	209.8	1.66	1.01	69.9	0.544038217	5.4	38.0	0.01	1.00	38.1	88	0.70	67.31	4,607	4.79E-04	1.30E-03	0.048%	0.048%	0.096%	0.0019
358	58.65	58.81	0.2	58.73	985,800	9,980	7,047	138.9	1.02	1.81	257.0	1.62	257.0	1.62	1.00	84.7	0.543277856	4.7	46.0	0.00	1.00	46.0	95	0.70	71.66	4,912	4.50E-04	1.00E-03	0.018%	0.018%	0.036%	0.0007
359	58.81	58.97	0.2	58.89	1,011,200	11,120	7,067	142.1	1.11	1.83	263.2	1.64	263.2	1.64	1.00	87.5	0.542520674	5.1	47.4	0.00	1.00	47.5	95	0.70	72.44	4,972	4.46E-04	1.00E-03	0.017%	0.017%	0.034%	0.0007
360	58.97	59.14	0.2	59.06	933,000	9,820	7,087	130.7	1.06	1.84	242.5	1.65	242.5	1.65	1.00	80.9	0.541766649	5.2	43.8	0.01	1.00	43.9	93	0.70	70.58	4,851	4.59E-04	1.00E-03	0.024%	0.024%	0.048%	0.0009
361	59.14	59.30	0.2	59.22	855,400	9,380	7,106	119.4	1.11	1.88	222.0	1.69	222.0	1.69	1.03	75.2	0.541015759	5.9	40.7	0.03	1.00	40.9	90	0.70	68.90	4,743	4.70E-04	1.00E-03	0.033%	0.033%	0.066%	0.0013
362	59.30	59.47	0.2	59.38	765,200	8,540	7,126	106.4	1.13	1.92	198.3	1.73	198.3	1.73	1.06	68.2	0.540267983	6.7	36.8	0.08	1.01	37.2	87	0.70	66.76	4,601	4.86E-04	1.30E-03	0.051%	0.051%	0.101%	0.0020
363	59.47	59.63	0.2	59.55	645,200	8,580	7,146	89.3	1.34	2.03	167.0	1.84	167.0	1.84	1.13	59.7	0.539523299	8.9	32.2	0.54	1.02	33.3	83	0.70	64.34	4,441	5.05E-04	1.30E-03	0.066%	0.066%	0.133%	0.0026
364	59.63	59.79	0.2	59.71	606,800	7,920	7,165	83.7	1.32	2.05	156.9	1.85	156.9	1.85	1.15	56.4	0.538781686	9.2	30.4	0.62	1.02	31.6	81	0.70	63.21	4,369	5.15E-04	1.30E-03	0.074%	0.074%	0.148%	0.0029
																													TOTAL SETTLEMENT (INCHES):			2.18