Appendix E Geotechnical Investigation

Appendix

This page intentionally left blank.

RMA GeoScience
Every Project Matters | www.rmacompanies.com

September 1, 2020 RMA Project Number 20G-0418-0

KB Home
25152 Springfield Ct., Suite 180
Valencia, CA 91355

Attention: Mr. David Lelie

Subject: Geotechnical Investigation
Solemo 13 Acres
2540 Rosemead Boulevard
South El Monte, CA

Dear Mr. Lelie:

In accordance with your request, a geotechnical investigation has been completed for the proposed development at the above referenced property. The results of the investigation are presented in the accompanying report, which includes a description of site conditions, results of our field exploration and testing, laboratory testing, conclusions, and recommendations. This report has been prepared for specific application to this project, in accordance with generally accepted geotechnical engineering practice.

We appreciate this opportunity to be of service to you. If you have any questions regarding this report, please do not hesitate to contact us at your convenience.

Respectfully submitted,

RMA GeoScience

Haiyan Liu, PE
Project Engineer
C81463

Mark Swiatek
President

Distribution: (1) Addressee

RMA GeoScience
Every Project Matters | www.rmacompanies.com

GEOTECHNICAL INVESTIGATION
SOLEMO 13 ACRES
2540 ROSEMEAD BOULEVARD
SOUTH EL MONTE, CALIFORNIA

For

KB Home
25152 Springfield Ct., Suite 180
Valencia, CA 91355

September 1, 2020

Project No. 20G-0418-0

RMA GeoScience
Every Project Matters | www.rmacompanies.com

Table of Contents

FIGURES

APPENDICES

Appendix A	Field Investigation
Appendix B	Laboratory Tests
Appendix C	General Earthwork and Grading Specifications
Appendix D	Cone Penetration Tests (CPT) Results
Appendix E	Liquefaction Analysis Results
Appendix F	References

PLATES

Plate 1	Boring and Test Pit and CPT Locations Map

1.00 INTRODUCTION

1.01 Purpose

The purpose of the investigation was to summarize geotechnical and geologic conditions at the site and to assess their potential impact on the proposed development.

1.02 Scope of the Investigation

The general scope of this geotechnical investigation included the following:

- Review of published and unpublished geologic, seismic, groundwater, and geotechnical literature
- Examination of aerial photographs and topographic maps
- Review of State of California Alquist-Priolo Earthquake Fault Zone and Seismic Hazard maps
- Contacting of Underground Service Alert (USA) to locate onsite utility lines
- Logging, sampling, and backfilling of seven (7) hollow stem auger boring (9 inches diameter) to maximum depths of 50 feet and logging of nine (9) test pits dug with a backhoe to a maximum depth of 17 feet
- Conducting CPT's at three (3) locations to a maximum depth of 67 feet.
- Laboratory testing of representative soil samples
- Geotechnical evaluation of the compiled data
- provide a preliminary or narrow range estimate of the expected infiltration rate
- Preparation of this report presenting our findings, conclusions, and recommendations

Our scope of work did not include a preliminary site assessment for the potential of hazardous materials onsite.

1.03 Site Location and Description

The KB Home site is located at Rosemead Boulevard, in El Monte, California within a residential and commercial area. The 17 acre plus property includes Assessor Parcel Numbers 8102-037-020, 8102-037-021, 8102-037-001, 8102-035-017, 8102-029-025, 8102-029-007, 8102-029-006, 8102-029-005, 8102-029-026, 8102-029-019, & 8102-029-020. The site currently serves as a swap meet and drive in theatre. The site is bounded on the south by commercial buildings, on the north by commercial and residential buildings, on the east by Chico Avenue and on the west by Rosemead Boulevard (Site Vicinity Map, Figure 1). There is approximately 12 feet of relief across the site which gently slopes from east to west towards Rosemead Boulevard. The ground surface has been modified by past grading activities. Structures on the site consist of several drive-in associated buildings including two concession stands and a maintenance building. Paved parking areas surround much of the buildings.

The site coordinates are 34.0583 North and -118.0614 West. .

1.04 Site History

Based on review of aerial photographs and other information readily available online the site appears to have been a mix of vacant land and agricultural land from as far back as 1927 up until the 1950s when the site was paved over and developed for its present day use.

1.05 Planned Development

Formal plans for this site have not been drafted but it is presumed that the site will be developed for residential use.

1.06 Investigation Methods

Our investigation consisted of office research, field exploration, laboratory testing, review and analysis of the compiled data, and preparation of this report. It has been performed in a manner consistent with generally accepted engineering and geologic principles and practices, and has incorporated applicable requirements of California Buildings Code. Definitions of technical terms and symbols used in this report include those of the ASTM International, the California Building Code, and commonly used geologic nomenclature.

Technical supporting data are presented in the attached appendices. Appendix A presents a description of the methods and equipment used in performing the field exploration and logs of our subsurface exploration. Appendix B presents a description of our laboratory testing and the test results. General Earthwork and Grading Specifications are presented in Appendix C. The CPT data collected are presented in graphical format (Appendix D). Appendix E presents our engineering analysis. References are presented in Appendix F.

2.00 FINDINGS

2.01 Geologic Setting

The site lies at the southeastern end of the San Gabriel Valley the southern boundary of which is marked by the Puente and Montebello Hills. The valley is an east-west trending structural basin that has accumulated a thick sequence of Holocene- to Pleistocene-age alluvial sediments. The site is situated on a broad alluvial fan emanating from the San Gabriel Mountains to the north. The fan in the area of the site has been dissected by the ancestral San Gabriel Wash to the east and the Rio Hondo Wash at the west.

The earth materials that underlie the site consist of interbedded silt, clay and sand and gravel. Asphalt paving covers most of the site. A full description of the earth materials encountered within each borehole is included on the boring logs, Appendix A.

2.02 Earth Materials

<u>Asphalt and Base</u>

Asphalt and base conditions varied widely across all seven borings and ten test pits. Asphalt paving of up to 2 inches thick overlying up to 2 inches thick base where encountered. In several test pits, two generations of asphalt and concrete where discovered.

Artificial Fill (af)

Artificial fill is at a maximum of 5 feet thick as observed in the boring excavations and is composed of moderate orange brown fine silty sand with clay. It is slightly micaceous, slightly moist and medium dense.

Alluvium Deposits (Q_a)

Quaternary aged alluvial deposits are underlying artificial fill material. This unit consists of light orange brown to whitish grey, interbedded silty sand, sand, clayey sand and clay with sand. The sand was micaceous and ranged from course to fine. The sandy units were in a medium dense to dense condition. The soils were slightly moist with moist conditions occurring in the sand layers at the contact with the finer grained materials. Layers of course to fine gravels were encountered in some samples generally below 17 feet.

2.03 Expansive Soils

Based on our preliminary observations and laboratory data, the soils at shallow depths are expected to have an expansion index in the very low range. Additional expansion index and plasticity index testing will be required at the completion of rough grading to verify the properties of the near surface soils.

2.04 Surface and Groundwater Conditions

Groundwater was not encountered in the boring excavated to a maximum depth of 50 feet. Groundwater was encountered in CTP-1 at a depth of approximately 53 feet below the existing ground. Surface water on the site is limited to precipitation falling directly around the buildings on the site. Depth to groundwater in a monitoring well (Well ID: 2944F) located approximately 0.3 miles to the southeast of the site as measured in May 2020 was 47.68 feet. There was no surface water encountered at the time of our investigation. Depth to historic high groundwater is approximately 5 feet below existing grade according to the Seismic Hazard Zone Report for the El Monte Quadrangle (CDMG, 1998).

2.05 Faults

The proposed site is not located within an Alquist-Priolo Earthquake Fault Zone, and there are no known active faults on or immediately adjacent to the property. However, there are faults in close enough proximity to the site to cause moderate to intense ground shaking during the lifetime of the proposed development. Additionally, the site has experienced earthquake-induced ground shaking in the past and can be expected to experience further shaking in the future. The closest zoned fault is the East Montebello fault zone, located approximately 1.35 miles to the southwest of the subject site.

2.06 Landslides

According to the California Geological Survey Seismic Hazard Zones Map of the El Monte Quadrangle (2017) the site does not lie in a landslide hazard zone. Since the site is relatively flat earthquake-induced landsliding does not appear to be a hazard to proposed development.

2.07 Liquefaction

According to the State of California Seismic Hazard Zones Map of the El Monte Quadrangle, the site lies within a "Zone of Required Investigation for Liquefaction". Therefore, a liquefaction screening evaluation has been performed in accordance with California Geological Survey Special Publication SP-117A (2008), "Guidelines for Evaluating and Mitigating Seismic Hazards in California". The findings of our liquefaction screening evaluation are presented in section 3.04 of this report.

2.08 Historic Seismicity

The region of the subject site has experienced shaking from several earthquakes recorded back to 1812. The nearest large historic earthquake is the Raymond fault that occurred in 1855, the epicenter of which is 3.6 miles from the site. Historic earthquakes with magnitudes of greater than or equal to 6.0 and have been epicentered within approximately 50 miles of the site, are summarized in the table below.

Large Historic Earthquakes

Event	LAT. NORTH	LONG. WEST	DATE	Quake Mag.	APPROX. DISTANCE mi
Raymond	34.100	118.100	7/11/1855	6.3	3.60
Northridge	34.2130	118.5370	01/17/1994	6.7	29.2
Long Beach	33.6170	117.967	3/11/1933	6.3	30.9
	34.4110	118.4010	02/09/1971	6.4	31.1
	34.3	117.6	07/30/1894	6.0	31.2
Wrightwood	34.3	117.65	12/08/1812	7.0	31.9
	34.0	117.5	12/16/1858	7.0	32.4
	34.3	118.6	04/04/1893	6.0	35.0
	34.3	117.50	07/22/1899	6.50	36.1
	33.7	117.4	05/15/1910	6.0	45.3
	34.0	117.25	07/23/1923	6.25	46.6

3.00 CONCLUSIONS AND RECOMMENDATIONS

3.01 General Conclusion

Based on the data collected thus far the project appears feasible from a geotechnical standpoint. Our preliminary recommendations provided below are based on the data collected thus far and our understanding of the project and our general experience in engineering geology and geotechnical engineering.

3.02 Soil Site Class Determination

Seismic Cone Penetration Tests (SCPT) were performed at CPT-1 location by Gregg Drilling, LLC. Refusal was encountered at a depth of 67.1 feet below existing ground. We have used the shear wave velocity at 67.1 feet for the depths from 67.1 feet to 100 feet to calculate the average shear wave velocity to a depth of 100 feet.

The test results from SCPT are presented in the following table.

Top Layer, ft.	Bottom Layer, ft.	Shear Wave Velocity, ft./sec.
4.4	9.3	563.9
9.3	14.4	649.5
14.4	19.4	851.6
19.4	24.3	824.7
24.3	29.4	922.8
29.4	34.4	812.5
34.4	39.4	826.3
39.4	44.5	846.9
44.5	49.4	793.2
49.4	54.5	753
54.5	59.4	983.8
59.4	64.6	1116.5
64.6	67.1	1405.6
67.1	100	1405.6

The calculated average shear wave velocity was 1022 feet per second (ft./sec.) by using Equation 20.1-1 of 2019 CBC. Thus, the soil site class was determined to be Site Class D (stiff soil) per Table 20.3-1 of 2019 CBC.

3.03 Seismic Design Parameters

Mapped Spectral Accelerations were obtained by using the online ATC Calculator (ASCE 7-16 Standard) and a site class D was used for the project site based on the seismic shear wave velocity profile obtained from SCPT. Since the mapped risk-targeted maximum considered earth quake (MCE_R) spectral response acceleration parameter at a period of 1 second (S_1) is greater than 0.2, a ground motion hazard analysis is required per ACSE/SEI 7-16 to be performed in accordance with Section 21.2 for structures on Site Class D. However, instead of performing the ground motion hazard analysis, a long period coefficient (F_V) of 1.7 was used for calculation of S_{M1} and S_{D1}. The parameters generated for the subject site are presented in the following table:

2019 California Building Code (CBC) Seismic Parameters

Parameter	Value
Site Location	Latitude = 34.0583 degrees Longitude = -118.0614 degrees
Site Class	Site Class = D
Mapped Spectral Accelerations	S_s (0.2- second period) = 1.902g S_1 (1-second period) = 0.685g
Site Coefficients (Site Class D)	F_a = 1.0 F_v = 1.7
Maximum Considered Earthquake Spectral Accelerations (Site Class D)	S_{MS} (0.2- second period) = 1.902g S_{M1} (1-second period) = 1.165g
Design Earthquake Spectral Accelerations (Site Class D)	S_{DS} (0.2- second period) = 1.268g S_{D1} (1-second period) = 0.776g

For Risk Category II structures with mapped spectral response acceleration parameter at 1-s period (S_1) is less than 0.75, the Seismic Design Category is D (ASCE 7-16 Section 11.6).
Peak earthquake ground acceleration adjusted for site class effects (PGAM) has been determined in accordance with ASCE 7-10 Section 11.8.3 as follows: $PGA_M = F_{PGA} \times PGA = 1.1 \times 0.82g = 0.902g$.

3.04 Liquefaction and Secondary Earthquake Hazards

Potential secondary seismic hazards that can affect land development projects include liquefaction, tsunamis, seiches, seismically induced settlement, seismically induced flooding and seismically induced landsliding.

Liquefaction

Liquefaction hazard potential for the site is discussed in Section 2.07 and Section 3.04 of this report.

Tsunamis and Seiches

Tsunamis are sea waves that are generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. Tsunamis and seiches do not pose hazards due to the inland location of the site and lack of nearby bodies of standing water.

Seismically Induced Settlement

Seismically induced settlement occurs most frequently in areas underlain by loose, granular sediments. Damage as a result of seismically induced settlement is most dramatic when differential settlement occurs in areas with large variations in the thickness of underlying sediments. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement.

A seismic settlement analysis was performed using LiquefyPro Version 5 (2015 Edition) for this project. A summary of the input data and the results of the seismic settlement analysis are provided in Appendix E.

Seismically Induced Flooding

According to Federal Emergency Management Agency (Flood Insurance Rate Map #06037C1670F and #06037C1665F, Effective date 9/26/2008), the site is located in an area of Flood Zone X, which is an area where the likelihood of flood hazards is considered minimal. In addition there are no water reservoirs in the vicinity of the site. Based on the aforementioned the potential for seismic induced flooding is unlikely.

Seismically Induced Landsliding

According to the California Geological Survey Seismic Hazard Zones Map of the El Monte Quadrangle (2017) the site does not lie in a landslide hazard zone. Since the site is relatively flat earthquake-induced landsliding does not appear to be a hazard to proposed development.

3.05 Liquefaction Screening Evaluation Results

Liquefaction describes a phenomenon where cyclic stresses, which are produced by earthquake-induced ground motions, create excess pore pressures in cohesionless soils. As a result, the soils may acquire a high degree of mobility, which can lead to lateral spreading, consolidation and settlement of loose sediments, ground oscillation, flow failure, loss of bearing strength, ground fissuring, sand boils, and other damaging deformations. This phenomenon occurs only below the water table, but after liquefaction has developed, it can propagate upward into overlying, non-saturated soil as excess pore water escapes. Descriptions of each of the phenomena associated with liquefaction are described below:

Research has shown that saturated, loose sands with a silt content less than about 25 percent are most susceptible to liquefaction, whereas other soil types are generally considered to have a low susceptibility. According to the California Geological Survey (CGS) Special Publication SP-117A (2008), "Guidelines for Evaluating and Mitigating Seismic Hazards in California," any materials with a PI > 12 and moisture content < 85% of the liquid limit were considered not subject to liquefaction. Liquefaction susceptibility is related to numerous factors, and the following conditions must exist for liquefaction to occur:

- Sediments must be relatively young in age and must not have developed large amounts of cementation
- Sediments must consist mainly of cohesionless sands and silts
- The sediment must not have a high relative density
- Free groundwater must exist in the sediment; and
- The site must be exposed to seismic events of a magnitude large enough to induce straining of soil particles

Static groundwater was not encountered in either borings drilled to a maximum depth of 50 feet. The groundwater was encountered in CPT-1 at a depth of approximately 53 feet below ground elevation. However, according to the California Division of Mines and Geology Seismic Hazard Zone Report for the El Monte Quadrangle (CDMG, 1998), the historical high groundwater table is approximately 5 feet below grade. Therefore, RMA GeoScience considered the potential for groundwater to be at this depth below existing grade in the liquefaction screening evaluation.

For the PGA corresponding to two-thirds of the PGA_M and predominant earthquake magnitude corresponding to a 10% probability of exceedance in 50 years, potential seismic-induced settlements were determined when the safety factor was less than 1.1. Liquefaction potentials were evaluated by using computer programs LiquefyPro Version 5 for Boring B-3 and B-6 and CPT-1 to CPT-3 and the results are presented in Appendix E. The seismic settlements from Boring B-3 and B-6 and CPT-1 to CPT-3 are presented in the following table.

Boring/CPT Locations	Seismic-Induced Settlements, inch
Boring No. 3	2.47
Boring No. 6	3.23
CPT-1	1.99
CPT-2	1.01
CPT-3	2.10

3.06 Total and Differential Settlement

The above seismically induced settlements should be combined with the anticipated total static settlement in order to obtain an estimate of the amount of differential settlement that may affect the site. The maximum total static settlement is not expected to exceed ½ inch under the recommended bearing pressure.

We assume the seismic differential settlement is half of the total seismic settlement and static differential settlement is half of the total static settlement. In considering all liquefaction analysis results, we recommend total settlement (static and seismic) is expected to be less than 3 inches with differential settlement (static and seismic) of less than 1½ inches in a 40 feet span.

3.07 Removals and Overexcavation

Upon demolition and removal of all existing site improvements, all vegetation, organic rich soil (soils containing more that 2 percent organics by weight), trash and debris should be cleared from the grading area and removed from the site. After the removal of deleterious materials, stripping of organic-rich soils, and removal of tree roots, the following removals and over-excavation must be done within the area of the limits of grading:

- All artificial fill soil should be removed within the limits of grading. The fill soil may be used for engineered fill provided it is free of trash and organic material. Within the building areas, removals are recommended to a minimum of seven (7) feet below existing grade or five (5) feet below the bottom of planned footings, whichever is greater.
- Within the area of planned streets and all other areas where grading is planned, all artificial fill must be completely removed and the subgrade must be over-excavated at least 12 inches below the stripped surface or the finished subgrade surface, whichever is lower.

Following the over-excavation indicated above, a designated representative for the Project Geotechnical Engineer must review the exposed ground surface and determine if any additional over-excavation is required. The over-excavated ground surface in all areas determined to be satisfactory for the support of fills must be scarified to a minimum depth of 6 inches. Scarification should continue until the soils are broken down and free from lumps or clods and until the scarified zone is uniform. The moisture content of the scarified zone shall be adjusted to within 2% of the optimum moisture content. The scarified zone must then be uniformly compacted to at least 90% relative compaction

The above recommendations are based on the assumption that soils encountered during field exploration are representative of soils throughout the site. However, there can be unforeseen and unanticipated variations in soils between points of subsurface exploration. Hence, overexcavation depths must be verified, and adjusted if necessary, at the time of grading.

3.08 General Earthwork and Grading

All grading should be performed in accordance with the General Earthwork and Grading Specifications outlined in Appendix C, unless specifically revised or amended below. Recommendations contained in Appendix C are general specifications for typical grading projects and may not be entirely applicable to this project.

It is also recommended that all earthwork and grading be performed in accordance with the requirements of the lead agency.

3.09 Earthwork Shrinkage and Subsidence

The site is not located within a zone of land subsidence according to the United States Geological Survey California Water Science Center website. It is our opinion that the potential for land subsidence due to over pumping of groundwater or oil extraction is low.

Shrinkage is the decrease in volume of soil upon removal and recompaction expressed as a percentage of the original in-place volume. Subsidence occurs as natural ground is densified to receive fill. These factors account for changes in earth volumes that will occur during grading. Our estimates are as follows:

- Shrinkage factor = 5% to 15% for soil removed and replaced as compacted fill.
- Subsidence factor = 0.1 foot.

The degree to which fill soils are compacted and variations in the in-situ density of existing soils will influence earth volume changes. Consequently, some adjustments in grades near the completion of grading could be required to balance the earthwork.

3.10 Foundation

The expansion index results of the on-site soils had very low expansion potential. However, considering the total and differential settlements from static and seismic conditions, the site may be considered suitable for the support of the anticipated structures using post-tension foundation systems. The post-tension foundations should be designed for a differential settlement of 1½ inches in a 40 feet span and we recommend an effective Plasticity Index (PI) value of 15 for design. The allowable soil bearing values and foundation parameters are summarized in the following table.

Number of Stories	Expansion Index	Footing Width, inch	Depth Below Natural Surface of Ground and Finish Grade		Allowing Soil Bearing Values (psf)
			Perimeter Footings, inch	Interior Footings, inch	
1	Very Low to Low	12	15	12	1,500
2	Very Low to Low	15	18	18	2,000
3	Very Low to Low	18	24	24	2,500

Those allowable bearing values may be increased by 20% for additional foot of width and/or depth to a maximum value of 3,000 psf. The bearing pressures represent an allowable net increase in soil pressure over existing soil pressure and may be increased by one-third for short-term wind or seismic loads.

All footing excavations should be observed by the geotechnical consultant to verify that they have been excavated into competent soils. The foundation excavations should be observed prior to the placement of forms, reinforcement steel, or concrete. These excavations should be evenly trimmed and level. Prior to concrete placement, any loose or soft soils should be removed. Excavated soils should not be placed in slab or footing areas unless properly compacted.

Footings may experience an overall loss in bearing capacity or an increased potential to settle where located in close proximity to existing or future utility trenches. Furthermore, stresses imposed by the footings on the utility lines may cause cracking, collapse and/or a loss of serviceability. To reduce this risk, footings should extend below a 1:1 plane projected upward from the closest bottom corner of the trench.

We recommend additional testing be performed near the completion of fine grading to verify the test results and recommended foundation design criteria.

3.11 Retaining Wall Foundations

Footings for retaining walls should be founded supported on 3 feet of compacted fill with a minimum depth of 12 inches and have a minimum width of 12 inches. Footings may be designed using the allowable bearing capacity of 1,500 psf and the same lateral resistance values recommended for building footings. However, when calculating passive resistance, the upper 6 inches of the footings should be ignored in areas where the footings will not be covered with concrete flatwork.

In view of the seismic setting, a nominal reinforcement consisting of at least two #4 bar placed within 3 inches of the top of footings and another two placed within 3 inches of the bottom of footings is recommended. Reinforcement of wide footings should be determined by the structural engineer who may also require heavier reinforcement.

3.12 Slab-On-Grade

Concrete floor slabs on grade with a minimum thickness of 4 inches are recommended for slabs on grade for the proposed structures for normal floor loading conditions. However, if heavy concentrated or moving loads are anticipated, slabs should be designed using a modulus of subgrade reaction (k) of 150 psi/in when soils are prepared in conformance with the grading recommendations contained within the report. Reinforcement of slabs on grading is not required to mitigate the expansive soils. Reinforcement may be specified by the structural engineer.

Concrete floor slabs on grade should be divided into squares or rectangles using weakened plane joints (contraction joints), each with maximum dimensions not exceeding 15 feet. Contraction joints should be made in accordance with American Concrete Institute (ACI) guidelines. If weakened plane joints are not used, then the slabs shall be reinforced with 6x6-10/10 welded wire fabric placed at mid-height of the slab.

Special care should be taken on floors slabs to be covered with thin-set tile or other inflexible coverings. These areas may be reinforced with 6x6-10/10 welded wire fabric placed at mid-height of the slab, to mitigate drying shrinkage cracks. Alternatively, inflexible flooring may be installed with unbonded fabric or liners to prevent reflection of slab cracks through the flooring.

A moisture vapor retarder/barrier is recommended beneath all slabs-on-grade that will be covered by moisture-sensitive flooring materials such as vinyl, linoleum, wood, carpet, rubber, rubber-backed carpet, tile, impermeable floor coatings, adhesives, or where moisture-sensitive equipment, products, or environments will exist. We recommend that design and construction of the vapor retarder or barrier conform to Section 1805 of the 2019 California Building Code (CBC) and pertinent sections of American Concrete Institute (ACI) guidance documents 302.1R-04, 302.2R-06 and 360R-10.

The moisture vapor retarder/barrier should consist of a minimum 10 mils thick polyethylene with a maximum perm rating of 0.3 in accordance with ASTM E 1745. Seams in the moisture vapor retarder/barrier should be

overlapped no less than 6 inches or in accordance with the manufacturer's recommendations. Joints and penetrations should be sealed with the manufacturer's recommended adhesives, pressure-sensitive tape, or both. The contractor must avoid damaging or puncturing the vapor retarder/barrier and repair any punctures with additional polyethylene properly lapped and sealed.

ACI guidelines allow for the placement of moisture vapor retarder/barriers either directly beneath floor slabs or below an intermediate granular soil layer.

Placing the moisture retarder/barrier directly beneath the floor slab will provide improved curing of the slab bottom and will eliminate potential problems caused by water being trapped in a granular fill layer. Concrete slabs poured directly on a vapor retarder/barrier can experience shrinkage cracking and curling due to differential rates of curing through the thickness of the slab. Therefore, for concrete placed directly on the vapor retarded, we recommend a maximum water cement ratio of 0.45 and the use of water-reducing admixtures to increase workability and decrease bleeding.

If granular soil is placed over the vapor retarder/barrier, we recommend that the layer be at least 2 inches thick in accordance with traditional practice in southern California. Granular fill should consist of clean fine graded materials with 10 to 30% passing the No. 100 sieve and free from clay or silt. The granular layer should be uniformly compacted and trimmed to provide the full design thickness of the proposed slab. The granular fill layer should not be left exposed to rain or other sources of water such as wet-grinding, power washing, pipe leaks or other processes, and should be dry at the time of concrete placement. Granular fill layers that become saturated should be removed and replaced prior to concrete placement.

An additional layer of sand may be placed beneath the vapor retarder/barrier at the developer's discretion to minimize the potential of the retarder/barrier being punctured by underlying soils.

3.13 Miscellaneous Concrete Flatwork

Miscellaneous concrete flatwork and walkways may be designed with a minimum thickness of 4 inches. Large slabs should be reinforced with a minimum of 6x6-10/10 welded wire mesh placed at mid-height in the slab. Control joints should be constructed to create squares or rectangles with a maximum spacing of 15 feet.

Walkways may be constructed without reinforcement. Walkways should be separated from foundations with a thick expansion joint filler. Control joints should be constructed into non-reinforced walkways at a maximum of 5 feet spacing.
The subgrade soils beneath all miscellaneous concrete flatwork should be compacted to a minimum of 95 percent relative compaction for a minimum depth of 12 inches. The geotechnical engineer should monitor the compaction of the subgrade soils and perform testing to verify that proper compaction has been obtained.

3.14 Footing Excavation and Slab Preparation

All footing excavations should be observed by the geotechnical consultant to verify that they have been excavated into competent soils. The foundation excavations should be observed prior to the placement of forms, reinforcement steel, or concrete. These excavations should be evenly trimmed and level. Prior to concrete placement, any loose or soft soils should be removed. Excavated soils should not be placed on slab or footing areas unless properly compacted.

Prior to the placement of the moisture barrier and sand, the subgrade soils underlying the slab should be observed by the geotechnical consultant to verify that all under-slab utility trenches have been properly backfilled and compacted, that no loose or soft soils are present, and that the slab subgrade has been properly compacted to a minimum of 95 percent relative compaction within the upper 12 inches.

Footings may experience and overall loss in bearing capacity or an increased potential to settle where located in close proximity to existing or future utility trenches. Furthermore, stresses imposed by the footings on the utility lines may cause cracking, collapse and/or a loss of serviceability. To reduce this risk, footings should extend below a 1:1 plane projected upward from the closest bottom of the trench.

Subgrade soils beneath slabs on grade and walkways moist prior to the placement of concrete. The geotechnical consultant should verify that the appropriate moisture content has been achieved a maximum of 24 hours prior to the placement of concrete or moisture barriers.

3.15 Lateral Load Resistance

Lateral loads may be resisted by soil friction and the passive resistance of the soil. The following parameters are recommended.

- Passive Earth Pressure = 280 pcf (equivalent fluid weight).

  We recommend neglecting passive soil resistance from the upper foot of soil unless protected by a concrete slab or pavement.

- Coefficient of Friction (soil to footing) = 0.27
- Retaining structures should be designed to resist the following lateral active earth pressures:

Surface Slope of Retained Materials (Horizontal:Vertical)	Equivalent Fluid Weight (pcf)
Level	37
5:1	39
4:1	40
3:1	43
2:1	54

  These active earth pressures are only applicable if the retained earth is allowed to strain sufficiently to achieve the active state. The required minimum horizontal strain to achieve the active state is approximately 0.0025H. Retaining structures should be designed to resist an at-rest lateral earth pressure if this horizontal strain cannot be achieved.

- At-rest Lateral Earth Pressure = 57 pcf (equivalent fluid weight)

The lateral earth pressure due to earthquake motions for the retaining walls are calculated by using PGA=S_{DS}/2.5=0.608g and γ=130 pcf for retaining wall dynamic load increment calculations. The point of application may vary between 0.37H to 0.40H.

- Basement (restrained) walls with level backfill:
  $P_{ae} = \frac{1}{2}\gamma H^2(0.68\ PGA/g) = 29\ H^2$

- Cantilever (unrestrained) walls with level backfill:
  $P_{ae} = \frac{1}{2}\gamma H^2(0.42\ PGA/g) = 18\ H^2$

- Cantilever (unrestrained) walls with no steeper than 2:1 slope:
  $P_{ae} = \frac{1}{2}\gamma H^2(0.70\ PGA/g) = 30\ H^2$

3.16 Cement Type and Corrosion Potential

A soluble sulfate test performed on a shallow sample of soil indicates that concrete at the subject site will have a negligible exposure to water-soluble sulfate in the soil. Our recommendations for concrete exposed to sulfate-containing soils are presented in the following table.

Recommendations for Concrete exposed to Sulfate-containing Soils

Sulfate Exposure	Water Soluble Sulfate (SO_4) in Soil (% by Weight)	Sulfate (SO_4) in Water (ppm)	Cement Type (ASTM C150)	Maximum Water-Cement Ratio (by Weight)	Minimum Compressive Strength (psi)
Negligible	0.00 - 0.10	0-150	--	--	2,500
Moderate	0.10 - 0.20	150-1,500	II	0.50	4,000
Severe	0.20 - 2.00	1,500-10,000	V	0.45	4,500
Very Severe	Over 2.00	Over 10,000	V plus pozzolan or slag	0.45	4,500

Use of alternate combinations of cementitious materials may be permitted if the combinations meet design recommendations contained in American Concrete Institute guideline ACI 318-11.

The soils were also tested for soil reactivity (pH) and electrical resistivity (ohm-cm). The test results indicate that the on-site soils have soil reactivity of 8.9 and 8.7 and electrical resistivity of 8,658 and 3,260 ohm-cm. A neutral or non-corrosive soil has a reactivity value ranging from 5.5 to 8.4. Generally, soils that could be considered moderately corrosive to ferrous metals have resistivity values of about 3,000 ohm-cm to 10,000 ohm-cm. Soils with resistivity values less than 3,000 ohm-cm can be considered corrosive and soils with resistivity values less than 1,000 ohm-cm can be considered extremely corrosive.

Based on our analysis, underlying onsite soils are corrosive to ferrous metals. Protection of buried pipes utilizing coatings on all underground pipes; clean backfills and a cathodic protection system can be effective in controlling corrosion. A qualified corrosion engineer may be consulted to further assess the corrosive properties of the soil.

3.17 Preliminary Pavement Sections

Based on the soil profiles at the subject project, a subgrade R-value of 30 has been used to develop the preliminary pavement sections given below. The structural section recommendations (AC over processed miscellaneous base materials (with a minimum R-value of 78)) given herein were developed using the procedures outlined in Chapter 630 of the California Highway Design Manual (Caltrans, 2012). This procedure uses the principle that the pavement structural section must be of adequate thickness to distribute the load from the design TI to the subgrade soils in such a manner that the stresses from the applied loads do not exceed the strength of the soil (R-value). We would recommend the following preliminary structural sections:

ASPHALT SECTIONS

TRAFFIC INDEX	ASPHALT THICKNESS, IN.	BASE THICKNESS, IN.
4.5	3.0	5.0
5.0	3.0	6.0
6.0	4.0	7.0

At a minimum, the upper 12 inches of subgrade soils should be at or no more than 2% over optimum moisture content and compacted to a minimum of 90% relative compaction prior to placement of base. All aggregate base courses should also be at or no more than 2% over optimum moisture and compacted to a minimum of 95% relative compaction.

3.18 Utility Trench Backfill

The onsite fill soils will not be suitable for use as pipe bedding for buried utilities. All pipes should be bedded in a sand, gravel or crushed aggregate imported material complying with the requirements of the Standard Specifications for Public Works Construction (Greenbook) Section 306-1.2.1. Crushed rock products that do not contain appreciable fines should not be utilized as pipe bedding and/or backfill. Bedding materials should be densified to at least 90% relative compaction (ASTM D1557). The geotechnical consultant should review and approve of proposed bedding materials prior to use.

The on-site soils are expected to be suitable as trench backfill provided they are screened of organic matter, boulders and cobbles over 6 inches in diameter. Trench backfill should be densified to at least 90% relative compaction (ASTM D1557). On-site granular soils with a sand equivalent value of 15 or greater may be water densified initially per Greenbook Specifications. Supplemental mechanical compaction methods will be required to attain the required 90% relative compaction.

All utility trench backfill within street right of way, utility easements, under or adjacent to sidewalks, driveways, or building pads should be observed and tested by the geotechnical consultant to verify proper compaction. Trenches excavated adjacent to foundations should not extend within the footing influence zone defined as the area within a line projected at a 1:1 drawn from the bottom edge of the footing. Trenches crossing perpendicular to foundations should be excavated and backfilled prior to the construction of the foundations. The excavations should be backfilled in the presence of the geotechnical engineer and tested to verify adequate compaction beneath the proposed footing.

Cal/OSHA construction safety orders should be observed during all underground work.

3.19 Temporary Excavations

Based on the recommended removal depths as described in Section 3.06, temporary excavations within the limits of grading are expected to be 5 feet. Excavations may be cut vertically to a maximum height of 4 feet. Cuts above 4 feet may be laid back at a gradient of 1:1.

3.20 Drainage

Surface drainage should be directed away from the proposed structures into suitable drainage devices. Neither excess irrigation nor rainwater should be allowed to collect or pond against building foundations or within low-lying or level areas of the lot. Surface waters should be diverted away from the tops of slopes and prevented from draining over the top of slopes and down the slope face.

3.21 Plan Review

Once formal plans are prepared for the subject property, this office should review the plans from a geotechnical viewpoint, comment on changes from the plan used during preparation of this report and revise the recommendations of this report where necessary.

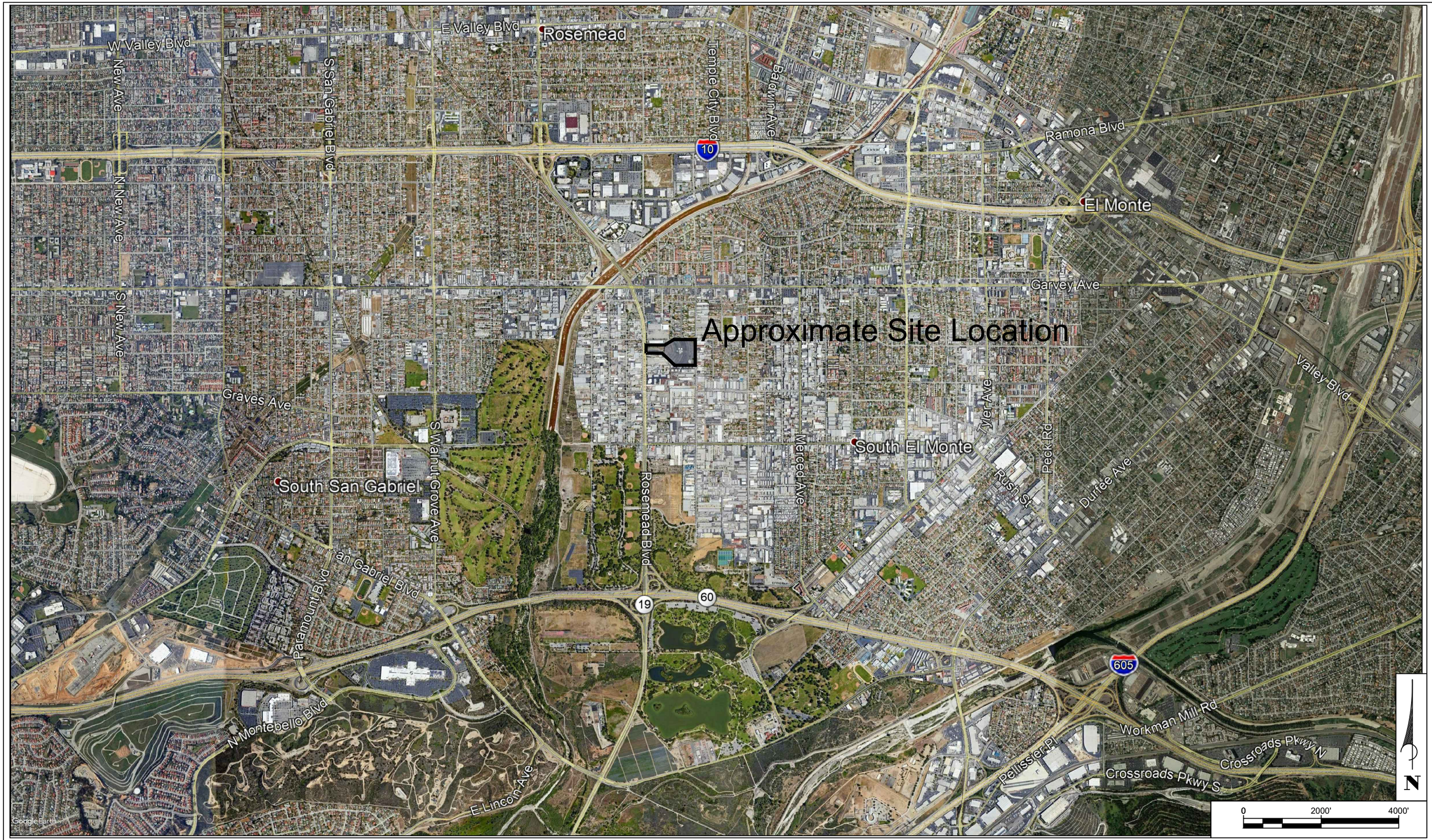
4.00 CLOSURE

This investigation was completed in accordance with generally accepted industry practice to provide recommendations for developing the property from a geotechnical perspective. Information presented in this report is based on research, field investigation, laboratory testing, and engineer judgment obtained from similar projects completed on nearby properties. This assessment is not, and should not be construed as, a warranty or guarantee concerning the geotechnical conditions which may affect the future development of the property. All discovered information has been disclosed and a good faith effort has been made to consult pertinent sources.

This study and report have been prepared on behalf and for the exclusive use of KB Home, and solely for use as a preliminary evaluation of the subject site. This report and its findings shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without prior written consent of RMA Geoscience, Inc. and KB Home. However, RMA Geoscience, Inc. acknowledges and agrees that the report may be conveyed to the design professionals for consideration in developing the property.

RMA GeoScience
Every Project Matters | www.rmacompanies.com

FIGURES



Source: Google Earth Images

Site Vicinity Map

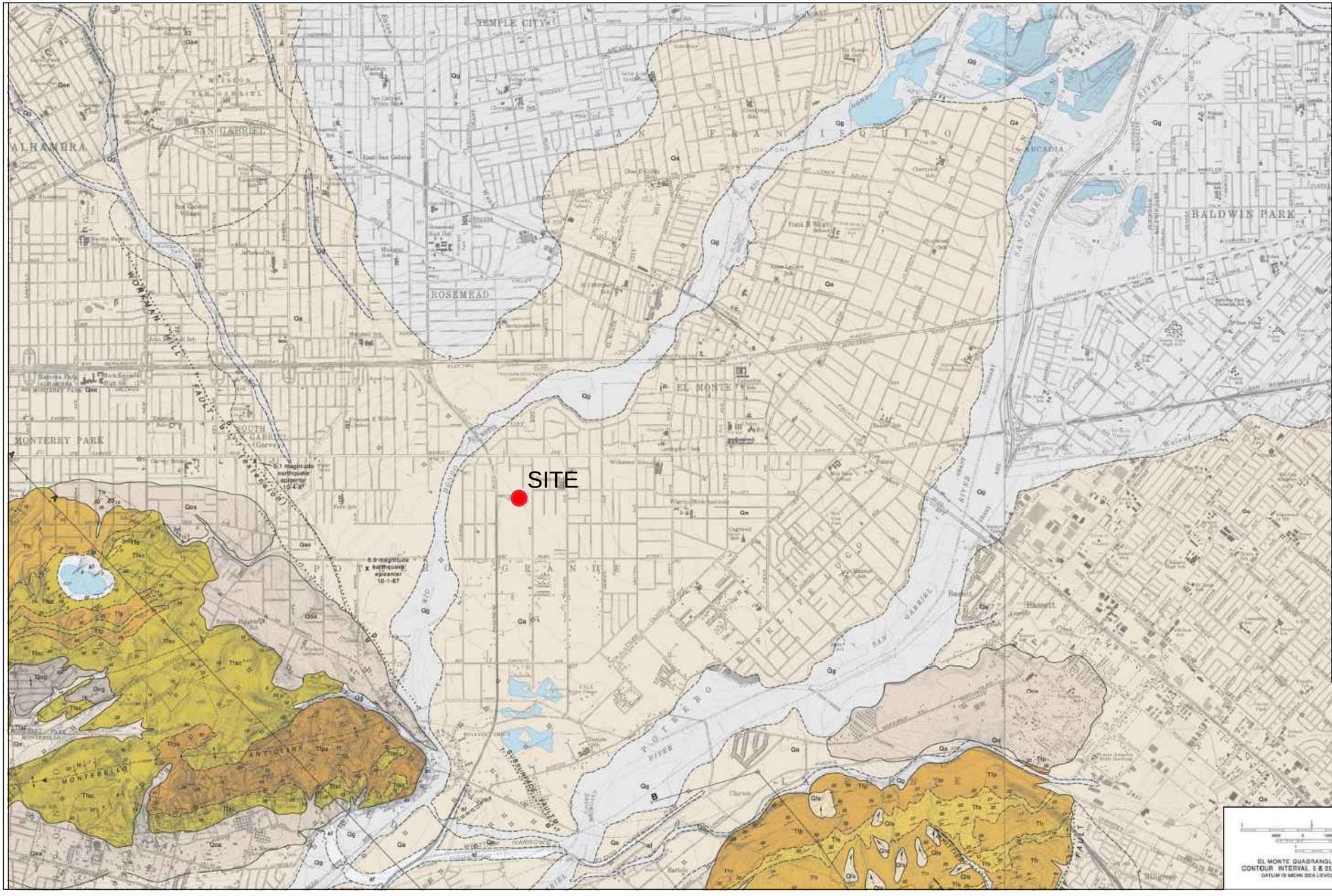
2540 Rosemead Boulevard
South El Monte, CA

E-21

Figure 1

RMA Job No:	20G-0418
Report Date:	8/2020
Prepared By:	MRM

RMA GeoScience



EL MONTE AND BALDWIN PARK MAP (DF

LEGEND

af / Qg / Qa

SURFICIAL SEDIMENTS
Undissected alluvial deposits

af *Artificial fill, and cut and fill areas*
Qg *Gravel and sand of major streams, and alluvial fan detritus from Sae Gabriel Mountains, grades southward into alluvium* **(Qa)** *as sizes of clasts decrease*
Qa *Alluvial gravel, sand and silt of valleys and floodplains*

Qls

LANDSLIDE DEBRIS

Qae / Qoa / Qog / Qof

OLDER DISSECTED SURFICIAL SEDIMENTS

Qof *Alluvial fan sediments derived from San Gabriel Mountains*
Qae *Slightly aveivated and locally dissected alluvial gravel and sand at base of hill areas; shown as* **Qa** *on adjacent Los Angeles (Dibblee, 1989) and on Mt. Wilson/Azusa (Dibblee, 1990) quadrangles*
Qoa *Uplifted remnants of alluvial sand and gravel, north of hill areas*
Qog *Uplifted remnants of alluvial gravel, south of Montebello Hills*

— *UNCONFORMITY* —

Tfsc / Tfps / Tfp / Tfs / Tfr

FERNANDO FORMATION
(Of Dartizes and Woodford, 1949; Yerkes, 1972); Marine to nonmarine clastic sediments, weakly indurated; early Pliocene to Pleistocene (?) age

Tfsc *Nonmarine sandstone and conglomerate: light gray to tan, crudely bedded; conglomerate composed of pebbles and cobbles of mostly granitic detritus in friable sandstone matrix, probably nonmarine; sandstone may be in part marine; late (?) Pliocene to Pleistocene age; unit is lithologically similar to Saugus Formation of Ventura basin*
Tfps *"Pico" silty sandstone facies: at southwest end of Montebello Hills, composed of light gray, very fine-grained silty sandstone to siltstone, vaguely bedded, contains gray lenticular calcareous concretions and fossil shell fragments; deposited in shallow regressive sea*
Tfp *"Pico" claystone: gray micaceous silty claystone or siltstone, with spheroidal fracture, vaguely bedded, includes some silty sandstone; deposited in moderately deep sea; late (?) Pliocene age; probably equivalent to upper member of Fernando Fm. (of Yerkes, 1965 et al., in Puente Hills)*
Tfs *Sandstone facies of Fernando Formation: light to medium gray, weathered brown, fine to medium-grained, arkosic, bedded, locally pebbly; deposited in moderately deep sea*
Tfs *"Repetto" claystone member, lithologically similar to* **Tfp**, *early Pliocene age (Repettian Stage), probably equivalent to lower member of Fernando Fm. (of Yerkes et al., 1965, in Puente Hills)*

Tsc / Tscs / Tsog

SYCAMORE CANYON FORMATION
Named by Dartizes and Woodford, 1949, as uppermost member of Puente Fm.; as so mapped by Durham and Yerkes, 1965, and Yerkes, 1972, in Puente Hills; equivalent to "Unnamed Shale" in Los Angeles quadrangle (Dibblee, 1989), and to Sisquoc Fm. in Ventura basin)
Marine clastic sediments: moderately indurated; late Miocene age
Tsc *Gray silty clay shale: micaceous, vaguely bedded to locally thin bedded, nodular, in places includes thin layers of fine-grained sandstone*
Tscs *Clay shale, light gray, vaguely bedded to locally thin bedded, includes thin layers of fine grained sandstone*
Tsog *Conglomerate and sandstone: gray to rusty brown conglomerate, crudely bedded, composed of cobbles and pebbles of mostly light-colored granitic rocks and others of gray quartz diorite, gneiss, a few of andesitic porphyry and quartzite, in arkosic sandstone matrix; sandstone rusty brown, lenticular, coarse to fine-grained, arkosic*

Tmy / Tmcg / Tms / Tmlv

MONTEREY FORMATION
(Major part of Puente Fm. of Olmstead, 1956; Yerkes, 1972; Durham and Yerkes, 1965)
Marine biogenic and clastic sediments, moderately lithified; middle Miocene age, Mohnian Stage
Tmy *Yorba Shale Member: interlayered thin-bedded gray shaly siltstone, fine-grained sandstone and white weathering semi-siliceous to siliceous shale; includes some thin, hard beds of yellowish-gray to gray dolomite; late Mohnian Stage (Yerkes, 1972)*
Tmcg *Conglomerate facies of cobbles & pebbles of plutonic rocks in sandstone matrix lenses in unit* **Tms**, *deposited as submarine deltas*
Tms *Soquel Sandstone Member: mostly sandstone, light gray, weathering to tan, medium to locally coarse-grained, locally pebbly, bedded, arkosic, with minor biotite; in eastern exposures in San Jose Hills includes silty shale similar to that of unit* **Tmy**
Tmlv *La Vida Shale Member: thinly bedded shale similar in that of unit* **Tmy**, *but containing somewhat more semi-siliceous shale; exposed only in San Jose Hills, base not exposed*

Pliocene / Pleistocene / Miocene

GEOLOGIC MAP OF THE
EL MONTE & BALDWIN PARK QUADRANGLES
LOS ANGELES COUNTY, CALIFORNIA

BY THOMAS W. DIBBLEE, JR., 1999
EDITED BY HELMUT T. EHRENSPECK, 1999
EDITED BY JOHN A. MINCH, 2009

Dibblee Geology Center Map #DF-69. First Printing, 1999; Second Printing, 2009
PUBLISHED BY AND AVAILABLE FROM THE
SANTA BARBARA MUSEUM OF NATURAL HISTORY
2559 PUESTA DEL SOL ROAD, SANTA BARBARA, CA 93105
HTTP://WWW.SBNATURE.ORG/

TED L. BEAR HONORARY MAP

SCALE 1:24000

EL MONTE QUADRANGLE
CONTOUR INTERVAL 5 & 25 FEET
DATUM IS MEAN SEA LEVEL

BALDWIN PARK QUADRANGLE
CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Source: Geology Map of the EL Monte and Baldwin Park Quadrangle, Thomas W. Dibblee, Jr. 1999, Dibblee Geology Center Map #DF-69:, 1:24000

Regional Geology Map

El Monte, CA
E-22

Figure 2

RMA Job No:	20G-0418
Report Date:	8/2020
Prepared By:	MRM

RMA GeoScience

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX A

FIELD INVESTIGATION

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX A

FIELD INVESTIGATION

A-1.00 FIELD EXPLORATION

A-1.01 Number of Borings and Test Pits and CPT

Our subsurface investigation consisted of seven (7) hollow stem boring auger to depths of up to 50 feet and nine (9) test pits t dug with a backhoe to a maximum depth of 17 feet. Three (3) CPT were conducted within subject site by Gregg Drilling, LLC.

A-1.02 Location of Boring and Test Pits and CPT

A Boring Location Map showing the approximate locations of the borings and test pits and CPTs are presented as Plate 1.

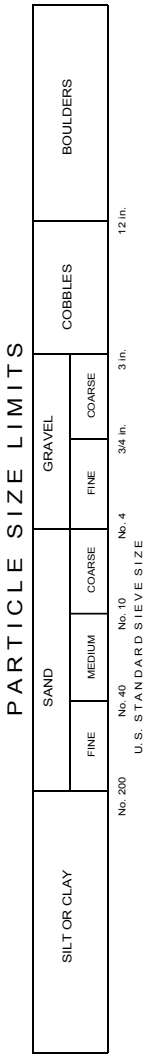
A-1.03 Boring and Test Pit Logging

Logs of the borings and test pits were prepared by one of our staff and are attached in this appendix. The logs contain factual information and interpretation of subsurface conditions between samples. The strata indicated on these logs represent the approximate boundary between earth units and the transition may be gradual. The logs show subsurface conditions at the dates and locations indicated, and may not be representative of subsurface conditions at other locations and times.

Identification of the soils encountered during the subsurface exploration was made using the field identification procedure of the Unified Soils Classification System (ASTM D2488). A legend indicating the symbols and definitions used in this classification system and a legend defining the terms used in describing the relative compaction, consistency or firmness of the soil are attached in this appendix. Bag samples of the major earth units were obtained for laboratory inspection and testing.

A-1.04 CPT Results

CPT soundings were performed in accordance with ASTM D 5778-12. During the CPT, the cone takes measures of tip resistance, sleeve resistance, and penetration pore water pressure. Measurements are taken at 5 centimeter intervals during penetration to provide a nearly continuous profile. CPT data reduction and basic interpretation is performed in real time facilitating on-site decision making. The above mentioned parameters are stored electronically for further analysis and reference. CPT results are presented in Appendix D.



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 gravel, gravel-sand mixtures. little or no fines.
			GP	Poorly graded gravel 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 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 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 diatamaceous 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.

UNIFIED SOIL CLASSIFICATION SYSTEM

I. SOIL STRENGTH/DENSITY

BASED ON STANDARD PENETRATION TESTS

Compactness of sand		Consistency of clay	
Penetration Resistance N (blows/Ft)	Compactness	Penetration Resistance N (blows/ft)	Consistency
0-4	Very Loose	<2	Very Soft
4-10	Loose	2-4	Soft
10-30	Medium Dense	4-8	Medium Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff
		>30	Hard

N = Number of blows of 140 lb. weight falling 30 in. to drive 2-in OD sampler 1 ft.

BASED ON RELATIVE COMPACTION

Compactness of sand		Consistency of clay	
% Compaction	Compactness	% Compaction	Consistency
<75	Loose	<80	Soft
75-83	Medium Dense	80-85	Medium Stiff
83-90	Dense	85-90	Stiff
>90	Very Dense	>90	Very Stiff

II. SOIL MOISTURE

Moisture of sands		Moisture of clays	
% Moisture	Description	% Moisture	Description
<5%	Dry	<12%	Dry
5-12%	Moist	12-20%	Moist
>12%	Very Moist	>20%	Very Moist, wet

RMA GeoScience

9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 1

Client: KB Home | Project Name: Solemo 13 Acres

Project Number: 20G-0418 | Project Location: 2540 Rosemead Blvd, South El Monte, CA

Date Started: 7/15/2020 | Completed: 7/15/2020 | Ground Elevation: 244 ft. * | Boring Diameter: 9"

Excavation Method: Hollow Stem Auger | Ground Water Levels: Not Encountered

Drilling Contractor: Choice Drilling (Samm and Darwin) | Notes: * Topographic map by B & E Engineers 10/23/15

Logged By: mbk | Checked By: hhl | 140 lb AutoHammer with 30 inch drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										ASPHALT: 2 inch thick **ARTIFICIAL FILL (af):** Moderate orange brown fine Silty SAND with Clay, slighlty micaceous, slightly moist, meduim dense			SM
										ALLUVIUM (Qa): Light orange gray fine Silty SAND with minor Clay, micaceous, orange iron oxide stains along minor rootlet pathways, slightly moist, intact, loose density			SM
5		5,5,5		17.4	103.2	121.1							
		3,3,4		8.2	91.3	98.8				@ 5 feet, same as above, with thin SILT layers, slightly moist, intact, very loose density			SM
		7,12,14								@ 7.5 feet, lighty orange gray Sandy SILT and Silty SAND layers, orange oxide staining along rootlet pores and organic debris clasts (1mmx5mm), micaceous, slightly moist, medium dense or stiff			ML/SM
				24.4	100.7	125.3							
10		4,4,4		9.8	109.4	120.1				@ 10 feet, very light gray fine Silty SAND, slightly micaceous, slighlty moist intact, very loose density			SM
										@ 12.5 feet, very light gray fine SAND with Silt, friable, slightly moist to dry, dense			SP
		6,10,11		9.8									
15		40,50/4"		10.5	116.9	129.1				@ 15 feet, same as above fine SAND with Gravel and Cobbles, friable, dry to slightly moist, medium dense			SP
										@ 17.5 feet, same as above fine SAND with Silt, Gravel, and Cobbles, friable, slightly moist to dry, medium dense, Cobble in sample shoe			SW
		9,10,15		2.0									
20		20,28,31		1.8	121.0	123.1				@ 20 feet, very light gray fine SAND with Silt, and minor medium to coarse grains, friable, slightly moist to dry, medium dense, three rings			SW
										@ 22.5 feet, light yellow brown gray fine to coarse Gravally SAND with Silt, friable, slightly moist, dense			SW
		11,9,11		2.3									
25		30,40,50/6"		2.3	108.6	111.1				@ 25 feet, light yellow brown gray fine Gravelly SAND with fine to coarse SAND and pockets of fine Sandy SILT lenses, slight moist, medium dense			SW
										Total Depth drilled 26.5 feet **No Groundwater** **No Caving** **Backfilled and Asphalt Capped 7/15/20**			
30													

Material Description: Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table

RMA GeoScience

9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 2

Client: KB Home | Project Name: Solemo 13 Acres

Project Number: 20G-0418 | Project Location: 2540 Rosemead Blvd, South El Monte,

Date Started: 7/15/2020 | Completed: 7/15/2020 | Ground Elevation: 244 ft. * | Boring Diameter: 9"

Excavation Method: Hollow Stem Auger | Ground Water Levels: Not Encountered

Drilling Contractor: Choice Drilling (Samm and Darwin) | Notes: * Topographic map by B & E Engineers 10/23/15

Logged By: mbk | Checked By: hhl | 140 lb AutoHammer with 30 inch drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										ASPHALT: 2 inch thick **ARTIFICIAL FILL (af):** Moderate orange fine Silty SAND with Clay, slightly moist, meduim dense			SM
										@ 6 inches change to moderate brown gray with strong petroleum			
		7,11,13		12.3	98.7	110.9				ALLUVIUM (Qa): Very light orange gray fine to medium Silty SAND slightly moist, medium dense.			SM
5		6,4,3		29.3	80.3	103.8				@ 5 feet, very light orange gray fine Silty SAND with orange iron staining along rootlet pathways, slighlty micaceous, very loose			SM
		12,13,15		34.7	89.9	121.1				@ 7.5 feet, same as above, slighlty moist, medium dense			SM
10		7,8,10		6.6						@ 10 feet, very light orange gray fine SAND with thin orange clasts stained orange (iron oxide), slightly moist, meduim dense			SP
		28,50/6"		1.6	114.8	116.6				@ 12.5 feet, same as above, slightly moist, medium dense			SP
15		11,13,14		1.3						@ 15 feet, same as above fine SAND with lenses and thin layers of brown SILT with Clay, slightly moist, medium dense			SP
		27,50/6"		3.2	102.0	105.3				@ 17.5 feet, very light yellow gray fine to medium SAND with Silt, dry to slighlty moist, medium dense			SW
20		17,22,24		3.2						@ 20 feet, very light yellow gray fine to coarse SAND with minor Silt and fine Gravel (subangular to subrounded), friable, slighlty moist to dry,			SW
		40,50/6"		4.1	124.0	129				@ 22.5 feet, same as above with minor Gravel, friable, slightly dense			SW
25		18,21,39		9.4						@ 25 feet, same as above, fine to medium SAND, friable, slightly dry, dense			SW
30										**Total Depth drilled 26.5 feet** **No Groundwater** **No Caving to 20 feet as auger pulled** **Backfilled and Asphalt Capped 7/15/20**			

Thin Wall Tube | 2.5" Ring Sample | Bulk Sample | Standard Split Spoon Sample | Static Water Table

RMA GeoScience

9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 3

Client: KB Home

Project Name: Solemo 13 Acres

Project Number: 20G-0418

Project Location: 2540 Rosemead Blvd, South El Monte, CA

Date Started: 7/15/2020 Completed: 7/15/2020

Ground Elevation: 240* Boring Diameter: 9"

Excavation Method: Hollow Stem Auger

Ground Water Levels: Not Encountered

Drilling Contractor: Choise Drilling (Samm and Darwin)

Notes: * Topographic map by B & E Engineers 10/23/15

Logged By: mbk Checked By: hhl

140 lb AutoHammer with 30 inch drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										ASPHALT: 2 inches **ARTIFICIAL FILL Qaf):** Moderate orange brown fine Silty SAND, slighlty moist, medium dense			SM
										Orange brown fine Silty SAND, slighlty moist, medium dense			
		6,8,7		12.6	112.2	126.4				**ALLUVIUM (Qa):** Olive gray with minor orange iron oxide stained fine			SM
										Silty SAND, micaceous, strong hydrocarbon odor, moist, medium dense			SM
5		6,8,11		12.8	115.0	130				@ 5 feet, same as above, hydrocarbon odor, slighlty moist medium dense			SM
		6,9,12		29.5	90.1	117				@ 7.5 feet, same as above, strong hydrocarbon odor, slighlty moist to moist, medium dense			SM
10		2,3,4								@ 10 feet, same as above, hydrocarbon odor, slightly moist to moist, medium dense	15		SM
		6,8,14		20.3	109.3	132				@ 12.5 feet, olive grey fine Sandy SILT with clay with orange iron oxide staining along rootlet pathways, minor charcoal flecks, hydrocarbon odor (PID 300), slightly moist,very stiff			ML
15		4,6,2		12.5			42	37	5	@ 15 feet, sandy SILT with clay, hydrocarbon odor, medium dense, slightly moist, very stiff	80		ML
		6,9,15		7.2	96.1	103				@ 17.5 feet, light gray brown fine SAND with Silt, slightly moist,			SP
20		4,9,15								Light gray brown SILT, micaceous, hydrocarbon odor (PID 386), slightly moist to moist, medium stiff	20		ML
										Light gray brown fine SAND with Silt, friable,slighlty moist, medium dense			SP
		28,50/6"		1.7	110.1	112				@ 22.5 feet, light gray fine to coarse Gravelly SAND with Silt, friable, no hydrocarbon odor, dry to slighlty moist, medium dense			SW
25		7,9,11		1.5						@ 25 feet, same as above, friable, dry to slightly moist, medium dense			SW
		10,11,20		12.4	95.4	107				@ 27.5 feet, same as above, with SILT and fine SAND layers, slightly moist, medium dense			SW
30		5,7,8								@ 30 feet, light gray Silty fine SAND with gravel, friable, slightly moist, dense	18		SM/SP
		17,28,30		3.3	109.6	113				@ 32.5 feet, same as above, dense			SP

Material Description

Thin Wall Tube | 2.5" Ring Sample | Bulk Sample | Standard Split Spoon Sample | Static Water Table

RMA GeoScience

9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 3

Page ___ of ___

Client: KB Home

Project Name: Solemo 13 Acre

Project Number: 20G-0418-0

Project Location: 2540 Rosemead Blvd, South El Monte

Date Started: 7/15/2020 Completed: 7/15/2020

Ground Elevation: 240* Boring Diameter: 9"

Excavation Method: Hollow Stem Auger

Ground Water Levels: Not Encountered

Drilling Contractor: Choise Drilling (Samm and Darwin)

Notes: * Topographic map by B & E Engineers 10/23/15

Logged By: mbk Checked By: hi

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table			
		9,14,15		4.3						@ 35 feet, same as above, light gray fine SAND with SILT, friable, slighty moist, dense			SP
		50/6"		2.1	108.8	111.1				@ 37.5 feet, same as above with Gravel, friable, slightly moist, dense			SP/SW
40		15,21,22								@ 40 feet, light gray fine SAND, slightly moist, dense	6.4		SP
		27,50/2"		19.7	107.6	129				@ 425 feet, Gray Gravelly SAND, sub angular to sub rounded, moist, medium dense with lenses of Silty CLAY, organic rich, moist, soft			SW
45		27,50/2"		33.4						@ 45 feet, Gray green SILT with Clay to Clayey SILT with minor Gravel, organic rich, slighlty micaceous, slighlty moist to moist, soft			ML
		10,15,21		18.9	113.4	135				@ 47.5 feet, dark gray, Silty CLAY to Clayey SILT with coarse Sand to fine Gravel, stiff			CL/ML
50		12,15,16								@ 50 feet, Silty Sand with clay, less Gravel, slightly moist, stiff	34.9		SM/SC

Total Depth drilled 51.5 feet

No Groundwater

No Caving

Backfilled and Asphalt Capped 7/15/20

RMA GeoScience

9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 4

Client: KB Home | Project Name: Solemo 13 Acres

Project Number: 20G-0418 | Project Location: 2540 Rosemead Blvd, South El Monte, CA

Date Started: 7/15/2020 Completed: 7/15/2020 | Ground Elevation: 244 ft. * Boring Diameter: 9"

Excavation Method: Hollow Stem Auger | Ground Water Levels: Not Encountered

Drilling Contractor: Choice Drilling (Samm and Darwin) | Notes: * Topographic map by B & E Engineers 10/23/15

Logged By: MRM Checked By: HL | 140 lb Auto Hammer with 30 in. drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										ASPHALT: 2 inch thick **ARTIFICIAL FILL (af):** Moderate orange brown fine Silty SAND with Clay, slighlty micaceous, slightly moist, meduim dense			
										ALLUVIUM (Qa): Light orange brown Silty fine SAND with minor Clay, micaceous, orange iron oxide stains, slightly moist, intact, loose density			
		9-9-8											SM
5		1-1-2		12.3	106.3	119				@ 3 feet, medium light brown SILT with fine Sand, micaceous, red iron odixe staining, slightly moist			ML
		4-7-12		19.4	109.9	131				@ 7.5 feet, medium light brown SILT with medium course Sand, micaceous, red iron odixe staining, slightly moist			
10		10-17-20		3.8	104.1	108				@ 10 feet, orange yellow medium to fine grained SAND, micaceous, red iron odixe staining, slightly moist, medium dense			SM
		8-13-14								@ 12.5 feet, orange yellow medium to fine grained SAND, red iron odixe staining, slightly moist, medium dense			
15		20-34-50(6")		1.4	121.4	123				@ 15 feet, greyish white course grained SAND with abundant Gravels (fine to course), slightly moist to dry, many fractured gravels in sample			SM-SP
		9-15-16								@ 17.5 feet, greyish white course grained SAND with some Gravels (fine to course), slightly moist to dry, some fractured gravels in sample			SM
20		14-21-30		1.7	113.3	115				@ 20 feet, greyish white course grained SAND with some Gravels (fine to course), slightly moist to dry, few fractured gravels in sample			
		14-28-33								@ 22.5 feet, greyish white medium to fine grained SAND with some Gravels (fine to course), slightly moist to dry, few fractured gravels in sample			
25		31-50(6")		3.6	110.0	114				@ 25 feet, greyish white medium to fine grained SAND with some Gravels (fine to course), slightly moist to dry, few fractured gravels in sample			
		2-3-4								@ 27.5 feet, Blue grey Clayey SAND with Silt, very micaceous, slightly moist, soft,			SC-SM
30										**Total Depth drilled 27.5 feet** **No Groundwater** **No Caving** **Backfilled and Asphalt Capped 7/16/20**			

Material Description: Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table

RMA GeoScience
9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 5

Client: KB Home
Project Name: Solemo 13 Acres
Project Number: 20G-0418
Project Location: 2540 Rosemead Blvd, South El Monte, CA
Date Started: 7/16/2020 Completed: 7/16/2020
Ground Elevation: 244 ft. * Boring Diameter: 9"
Excavation Method: Hollow Stem Auger
Ground Water Levels: Not Encountered
Drilling Contractor: Choice Drilling (Samm and Darwin)
Notes: * Topographic map by B & E Engineers 10/23/15
Logged By: MRM Checked By: HHL
140 lb Auto Hammer with 30 in. drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										ASPHALT: 2 inch thick **ARTIFICIAL FILL (af):** Moderate orange brown fine Silty SAND with Clay, slighlty micaceous, slightly moist, medium dense			
										ALLUVIUM (Qa): Light orange brown Silty fine SAND with minor Clay, micaceous, orange iron oxide stains, slightly moist, intact, loose density			SM
		2-4-10		22.3	101.4	124.0							
5				20.9						@ 3 feet, medium light brown Silty SAND to Sandy SILT, micaceous, red iron odixe staining, slightly moist			SM/ML
										@ 5 feet, medium light brown Silty SAND to Sandy SILT with Clay, micaceous, red iron odixe staining on rootlets, slightly moist, medium stiff			
		18-24-31		3.1	106.7	110.0				@ 7.5 feet, orange yellow medium to course SAND with Silt and some Gravels, slightly moist, fractured gravels coming up in auger			SM
10		4-8-10		3.6						@ 10 feet, orange yellow medium to course SAND with Silt and some Gravels, slightly moist, fractured gravels coming up in auger			
		16-18-8		4.9	102.2	107.2				@ 12.5 feet, whitish yellow medium to fine grained SAND, no gravels, red iron odixe staining, slightly moist, medium dense			
15		2-2-6		21.0						@ 15 feet, Redish iron staining on layer of sandy silt with clay, soft with lower half of sample containing medium brown fine to medium SAND, slightly moist			CL/ML
		12-28-50(6")		1.9	125.8	128.1				@ 17.5 feet, whitish course to medium grained SAND with Gravels (fine to course), slightly moist to dry, abundant fractured gravels in sample			SM
20		2-3-4		25.9						@ 20 feet, blue grey green SILT with Clay to Clayey SILT with little to no Sand, soft, slightly moist			ML
		12-16-17		19.3	102.0	121.8				@ 22.5 feet, blue grey green SILT with Clay to Clayey SILT with little to no Sand, medium dense, slightly moist			
25		5-7-7		11.4						@ 25 feet, blue grey green fine grained SAND with Silt, slightly moist, soft, no cobbles, minor iron oxide staining			SM
		8-10-12		18	104.0	122.7				@ 27.5 feet, brown grey SILT with Clay to CLAY with Silt, some iron oxide staining, soft, low recovery			ML/CL
30		2-4-8		34									
				15.6	115.4	133.5							

Material Description: Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table

RMA GeoScience
9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 5

Client: KB Home
Project Name: Solemo 13 Acres
Project Number: 20G-0418
Project Location: 2540 Rosemead Blvd, South El Monte, CA
Date Started: 7/16/2020 Completed: 7/16/2020
Ground Elevation: 244 ft. * Boring Diameter: 9"
Excavation Method: Hollow Stem Auger
Ground Water Levels: Not Encountered
Drilling Contractor: Choice Drilling (Samm and Darwin)
Notes: * Topographic map by B & E Engineers 10/23/15
Logged By: MRM Checked By: HHL

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
35		5-6-9		11.9						@ 35 feet, blue green grey Silty SAND with Clay, slightly moist, medium dense, micaceous			SM
		25-50(6")		11.4	123.9	138				@ 37.5 feet, blue green grey Silty SAND with Clay, slightly moist, medium dense, micaceous			
40		8-11-6		14.0						@ 40 feet, Lower sampler consists of approximately 6 inches of grey green Silty CLAY, below it there is approximately 6 inches of whitish grey course SAND and below that there is approximately 6 inches of blue green medium course SAND, slightly moist			CL/SM
		15-38-50(6"		12.6	119.7	135				@ 42.5 feet, blue green grey Silty coarse SAND with Clay, slightly moist, medium dense, micaceous			SM
45		8-12-17		11.8						@ 45 feet, blue green grey Silty coarse SAND with Clay, slightly moist, medium dense, micaceous			
		11-14-15		23.4	100.9	125				@ 47.5 feet, blue green grey Silty coarse SAND with Clay, slightly moist, medium dense, micaceous			
50		7-11-14		33.5						@ 50 feet, blue green grey Silty coarse SAND with Clay, slightly moist, medium dense, micaceous			

Thin Wall Tube | 2.5" Ring Sample | Bulk Sample | Standard Split Spoon Sample | Static Water Table

Total Depth drilled 50 feet

No Groundwater

No Caving

Backfilled and Asphalt Capped 7/16/20

RMA GeoScience

9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 6

Client: KB Home | Project Name: Solemo 13 Acres

Project Number: 20G-0418 | Project Location: 2540 Rosemead Blvd, South El Monte, CA

Date Started: 7/16/2020 | Completed: 7/16/2020 | Ground Elevation: 244 ft. * | Boring Diameter: 9"

Excavation Method: Hollow Stem Auger | Ground Water Levels: Not Encountered

Drilling Contractor: Choice Drilling (Samm and Darwin) | Notes: * Topographic map by B & E Engineers 10/23/15

Logged By: MRM | Checked By: HHL | 140 lb Auto Hammer with 30 in. drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										ASPHALT: 2 inch thick **ARTIFICIAL FILL (af):** Moderate orange brown fine Silty SAND with Clay, slighlty micaceous, slightly moist, medium dense			
		2-3-4								**ALLUVIUM (Qa):** Light orange brown Silty fine SAND with minor Clay, micaceous, orange iron oxide stains, slightly moist, loose to medium density	52		SM/ML
5		7-9-10		13.4	96.2	109.1				@ 2.5 feet, medium light brown Silty SAND to Sandy SILT, micaceous, red iron odixe staining, slightly moist			
		1-2-4		4.3						@ 5 feet, medium light brown Silty SAND to Sandy SILT with Clay, micaceous, red iron odixe staining on rootlets, slightly moist, medium stiff			
10		4-6-8		18.4	76.6	90.7				@ 7.5 feet, whitish medium to course SAND, some finer sand in upper sanmple, slightly moist,			
		1-1-1					61	54	7	@ 10 feet, medium light brown Silty SAND to Sandy SILT, micaceous, red iron odixe staining, slightly moist, low recovery			
15		4-4-5		60.5	55.2	88.6				@ 12.5 feet, Black Sandy SILT trace clay, very strong hydrocarbon smell, abundant black organics and brown degrading roots, soft, slightly moist to moist	83		ML/SM
		5-4-4		12.8						@ 15 feet, Blacksilty Sandy SILT, very strong hydrocarbon smell, abundant black organics and brown degrading roots, soft, slightly moist to moist,			
20		6-8-9		23.9	100.6	124.7				@ 17.5 feet, Upper layer is dark grey course to medium SAND, lower half of sample is black Sandy SILT, very strong hydrocarbon smell, abundant black organics and brown degrading roots, soft, slightly moist to moist,			
		3-3-3								@ 20 feet, Upper layer is dark grey course to medium SAND, lower half of sample is black Sandy SILT, very strong hydrocarbon smell, abundant black organics and brown degrading roots, soft, slightly moist to moist,			
25		8-10-14		16.9	109.3	127.8				@ 22.5 feet, dark grey green silty SAND trace clay, micaceous, no visible organics, slightly moist, soft	61		ML/SM
		6-13-15		12.6						@ 25 feet, dark grey green silty SAND trace clay, micaceous, no visible organics, slightly moist, soft, some course grey gravel and a course Sand layer approx. 3"			
30		17-50(6")		12.8	111.5	125.8				@ 27.5 feet, grey green medium to fine SAND with minor Silt, upper 3 in. of sampler are silty SAND trace clay, micaceous, no visible organics, moist,			SM
		6-12-20								@ 30 feet, grey green medium to fine SAND with minor Silt, micaceous, no visible organics, moist, medium dense to dense			
										@ 32.5 feet, grey green medium to fine SAND with minor Silt, micaceous, no visible organics, moist, medium dense to dense	11		

Material Description: Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table

RMA GeoScience
9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 6

Client: KB Home
Project Name: Solemo 13 Acres
Project Number: 20G-0418
Project Location: 2540 Rosemead Blvd, South El Monte, CA
Date Started: 7/16/2020 Completed: 7/16/2020
Ground Elevation: 244 ft. * Boring Diameter: 9"
Excavation Method: Hollow Stem Auger
Ground Water Levels: Not Encountered
Drilling Contractor: Choice Drilling (Samm and Darwin)
Notes: * Topographic map by B & E Engineers 10/23/15
Logged By: MRM Checked By:

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
35		45-50(6")		7.7	125.7	135.5				@ 32.5 feet, grey green medium to fine SAND with minor Silt, micaceous, no visible organics, moist, medium dense to dense			SM
		6-7-8								@ 37.5 feet, grey green medium coarse to coarse SAND with some Silt, micaceous, moist, medium dense			
40		13-22-35		8.3	113.4	122.8				@ 40 feet, medium brown Sandy SILT to Silty SAND with Gravel, slightly moist, medium dense,			SM/ML
		6-8-9								@ 42.5 feet, medium brown course to medium course SAND, slightly moist, medium dense, grades into finer grey green SILT with Clay	27		SM
45		11-20-23								@ 45 feet, medium brown coarse SAND interspersed with black tubes, layers of green Silty Clay in lower rings, slightly moist, dense			
		8-12-20								@ 47.5 feet, light brown Silty SAND, slightly moist, friable, medium dense to dense			
50		50(6")								@ 50 feet, light brown Silty SAND, slightly moist, friable, medium dense to dense			

Thin Wall Tube | 2.5" Ring Sample | Bulk Sample | Standard Split Spoon Sample | Static Water Table

Total Depth drilled 50 feet

No Groundwater

No Caving

Backfilled and Asphalt Capped 7/16/20

RMA GeoScience
9854 Glenoaks Blvd., Sun Valley, CA 91352

BORING NUMBER 7

Client: KB Home
Project Name: Solemo 13 Acres
Project Number: 20G-0418
Project Location: 2540 Rosemead Blvd, South El Monte, CA
Date Started: 7/16/2020 Completed: 7/16/2020
Ground Elevation: 244 ft. * Boring Diameter: 9"
Excavation Method: Hollow Stem Auger
Ground Water Levels: Not Encountered
Drilling Contractor: Choice Drilling (Samm and Darwin)
Notes: * Topographic map by B & E Engineers 10/23/15
Logged By: MRM Checked By:
140 lb Auto Hammer with 30 in. drop

Depth (ft)	Drive Sample	Blow Count (N Value)	Bulk Sample	Moisture Content (%)	Dry Unit Weight (pcf)	Wet Unit Weight (pcf)	Liquid Limit	Plastic Limit	Plasticity Index	Material Description	<#200	D_{50}	USCS Classification
										Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table			
										ASPHALT: 2 inch thick **ARTIFICIAL FILL (af):** Moderate orange brown fine Silty SAND with Clay, slighlty micaceous, slightly moist, medium dense			SM
		4-6-10								@ 3 feet, medium light brown Silty SAND to Sandy SILT, asphault pieces,medium dense, slightly moist			SM/ML
5													
		4-6-10								**ALLUVIUM (Qa):** Light orange brown Silty fine SAND with minor Clay, micaceous, orange iron oxide stains, slightly moist, loose to medium density			SM
										@ 6 feet, medium light brown Silty SAND to Sandy SILT, micaceous, slightly moist, medium stiff			SM/ML
10		9-12-18											
										@ 9 feet, medium light brown Silty SAND to Sandy SILT, micaceous, slightly moist, medium stiff, red iron oxide staining			
		7-12-13								@ 12 feet, medium light brown Silty SAND to Sandy SILT, micaceous, slightly moist, medium stiff, red iron oxide staining			
15													
		11-13-20								@ 15 feet, medium brown Silty SAND to Sandy SILT, micaceous, slightly moist, medium stiff to stiff, red iron oxide staining areas are sandier			
		13-17-18								@ 18 feet, whitish grey fine to medium SAND with minor Silt, slightly moist, medium dense			SM
20													
		8-20-30								@ 21 feet, whitish grey fine to medium SAND with minor Silt and minor well graded gravels, slightly moist, medium dense			
										@ 24 feet, whitish grey fine to medium SAND with minor Silt and minor well graded gravels, slightly moist, medium dense			
25		14-21-28											
30										**Total Depth drilled 24 feet** **No Groundwater** **No Caving** **Backfilled and Asphalt Capped 7/16/20**			

Log of Exploratory Test Pit

Test Pit Number: 1

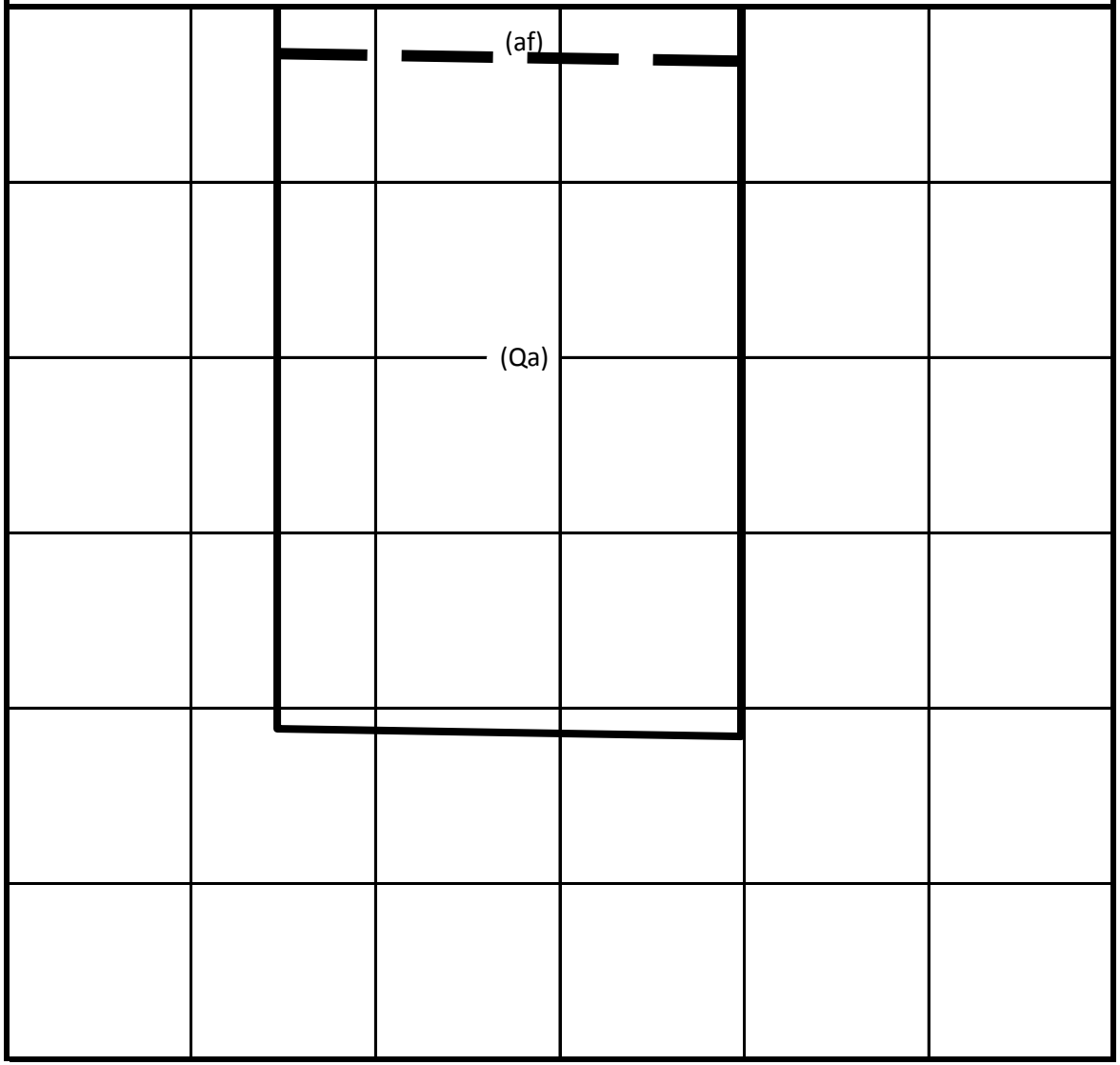
Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-1' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **1-17' Quaternary Alluvium (Qa)** 1-10': Grey green blue Silty SAND to SAND with Silt, slightly moist, no cobbles or gravels, friable, medium dense 10-17': Grey green blue Silty SAND with Clay, slightly moist, no cobbles or gravels, medium dense, strong hydrocarbon smell, breaks in chunks 17': light grey Course SAND, little to no fines, slightly moist, very friable, medium dense, some gravels, hydrocarbons absent **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**

1 inch = 4 feet



Log of Exploratory Test Pit

Test Pit Number: 2

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-2' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **Refusal at two feet due to concrete slab** **TD: 2 ft** **No Caving** **No Subsurface Water or Groundwater**

1 inch = 1 feet

(af)

Log of Exploratory Test Pit

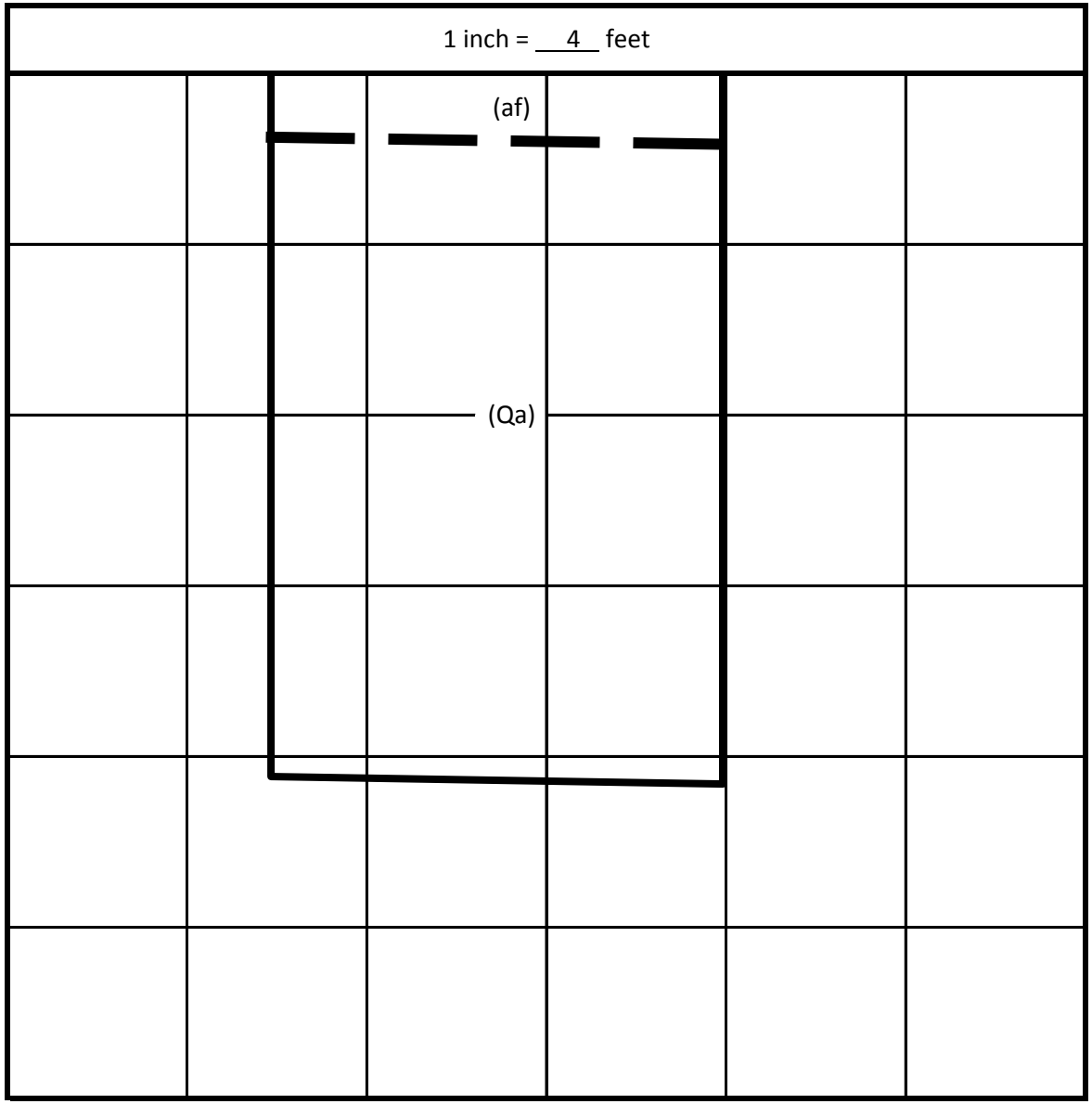
Test Pit Number: 3

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-2' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **2-17' Quaternary Alluvium (Qa)** 1-10': Grey green blue Silty SAND to SAND with Silt, slightly moist, no cobbles or gravels, friable, medium dense 10-17': Grey green blue Silty SAND with Clay, slightly moist, no cobbles or gravels, medium dense, very strong hydrocarbon smell, breaks in chunks, sparce black potential chunks of hydrocarbons 17': light grey Course SAND, little to no fines, slightly moist, very friable, medium dense, some gravels, hydrocarbons absent **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**



Log of Exploratory Test Pit

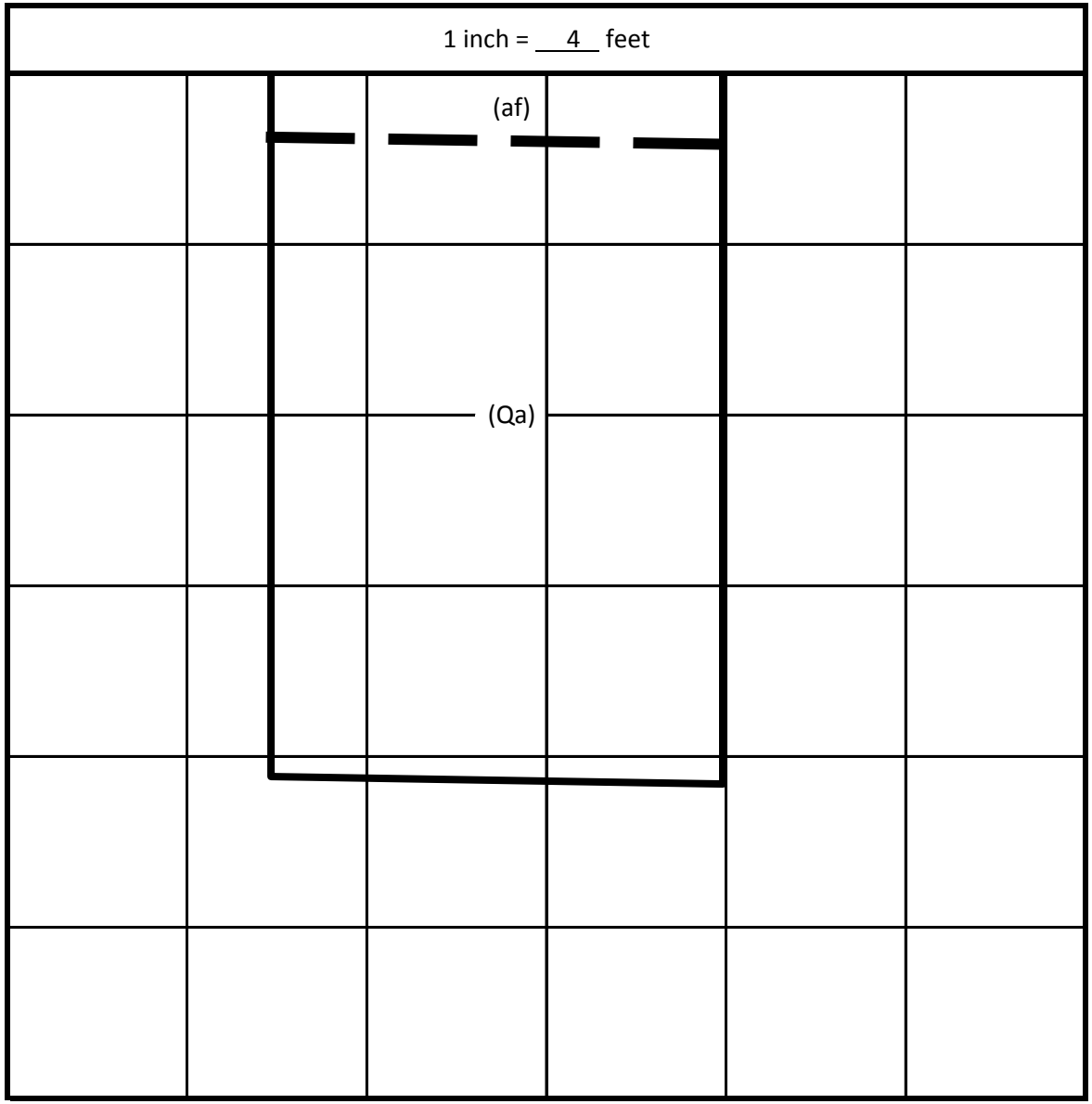
Test Pit Number: 4

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-2' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **2-17' Quaternary Alluvium (Qa)** 1-10': light grey green blue Silty SAND to Sandy SILT, dry, no cobbles or gravels, friable, medium dense, micaceous 10-17': Grey green blue Silty SAND with Clay, micaceous, slightly moist, no cobbles or gravels, medium dense, very strong hydrocarbon smell, breaks in chunks, sparce black potential chunks of hydrocarbons 17': light grey Course SAND, little to no fines, slightly moist, very friable, medium dense, some gravels, hydrocarbons absent **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**



Log of Exploratory Test Pit

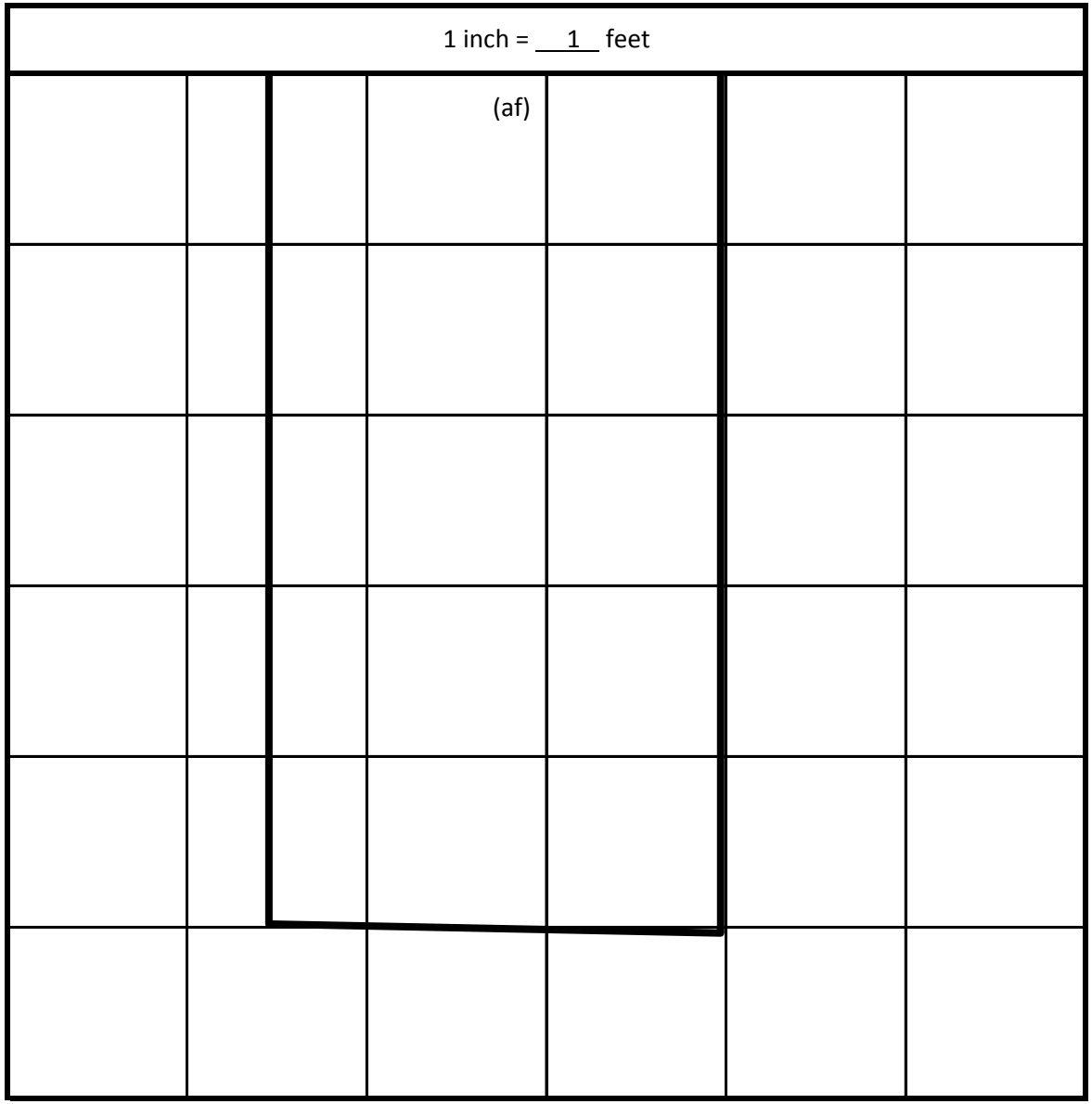
Test Pit Number: 5

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-5' Artificial Fill (af)** Light medium brown Silty coarse SAND to coarse Sandy SILT with no cobbles, asphalt chunks, dry **Refusal at five feet due to concrete slab** **TD: 5 ft** **No Caving** **No Subsurface Water or Groundwater**



Log of Exploratory Test Pit

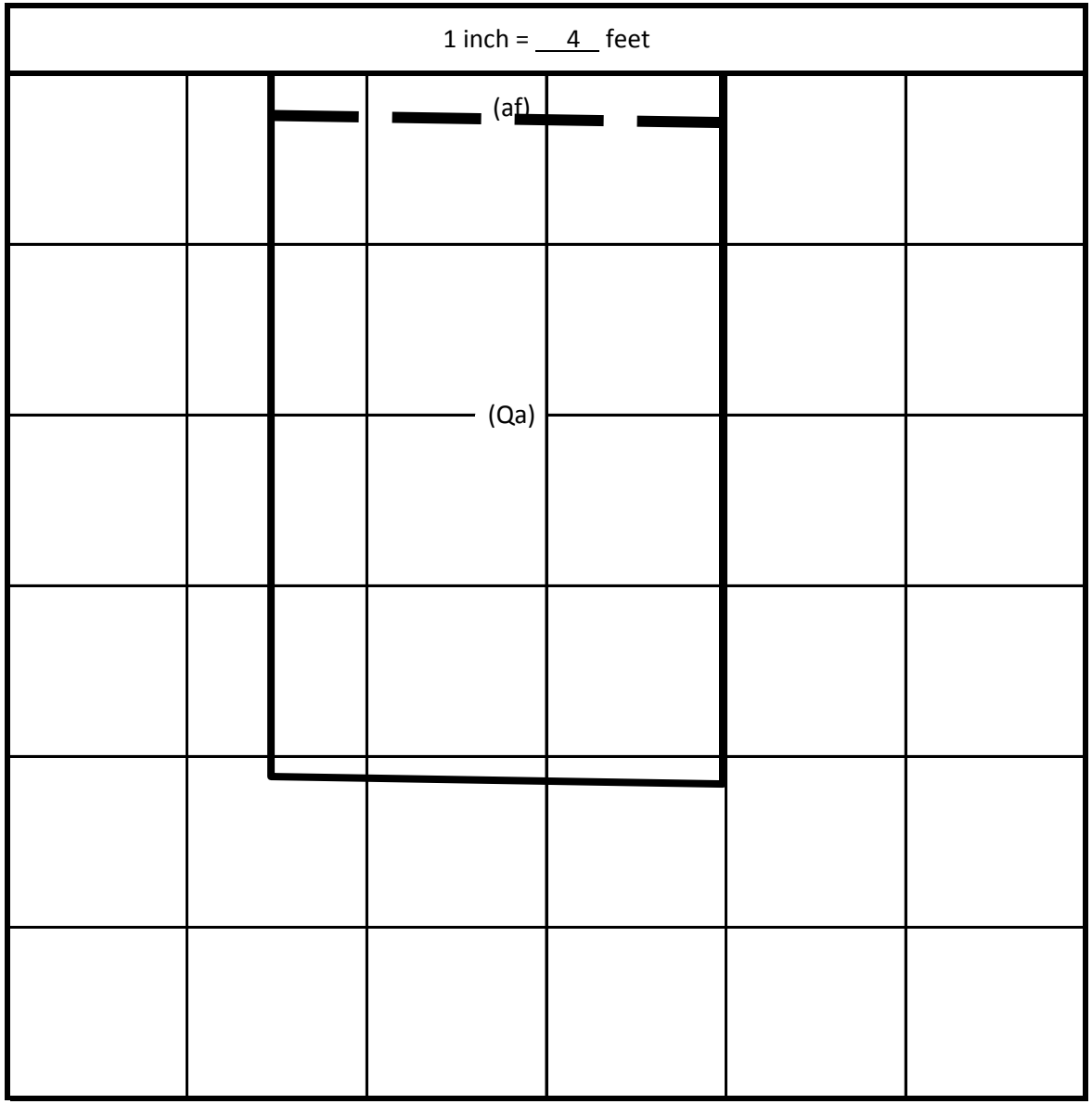
Test Pit Number: 6

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-1' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **1-17' Quaternary Alluvium (Qa)** 1-10': light grey green blue Silty fine SAND to fine Sandy SILT, dry, no cobbles or gravels, friable, medium dense, micaceous, contamination begins at 3 feet 10-17': Grey green blue Silty fine SAND with Clay, micaceous, slightly moist, no cobbles or gravels, medium dense, very strong hydrocarbon smell, breaks in chunks (somewhat sticky), black potential chunks/clumps of hydrocarbons 17': light grey Course SAND, little to no fines, slightly moist, very friable, medium dense, some gravels, hydrocarbons absent **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**



Log of Exploratory Test Pit

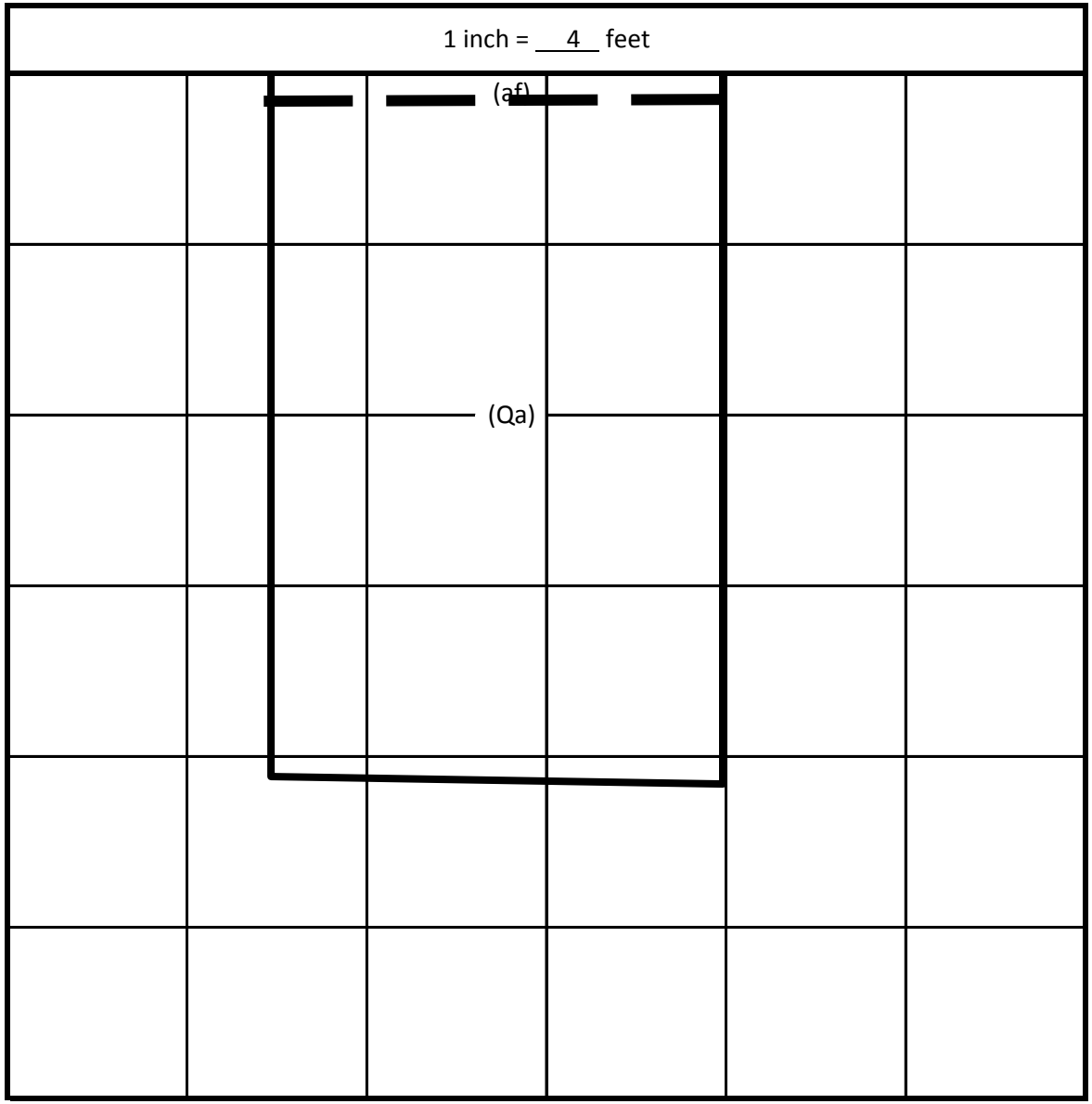
Test Pit Number: 7

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-0.5'** **Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **0.5-17'** **Quaternary Alluvium (Qa)** 1-10': light grey green blue Silty fine SAND to fine Sandy SILT, dry, friable, medium dense, micaceous, contamination begins at 1 foot 10-17': Grey green blue Silty fine SAND with Clay, micaceous, slightly moist, no cobbles or gravels, medium dense, very strong hydrocarbon smell, breaks in chunks (somewhat sticky), black potential chunks/clumps of hydrocarbons all the way to depth **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**



Log of Exploratory Test Pit

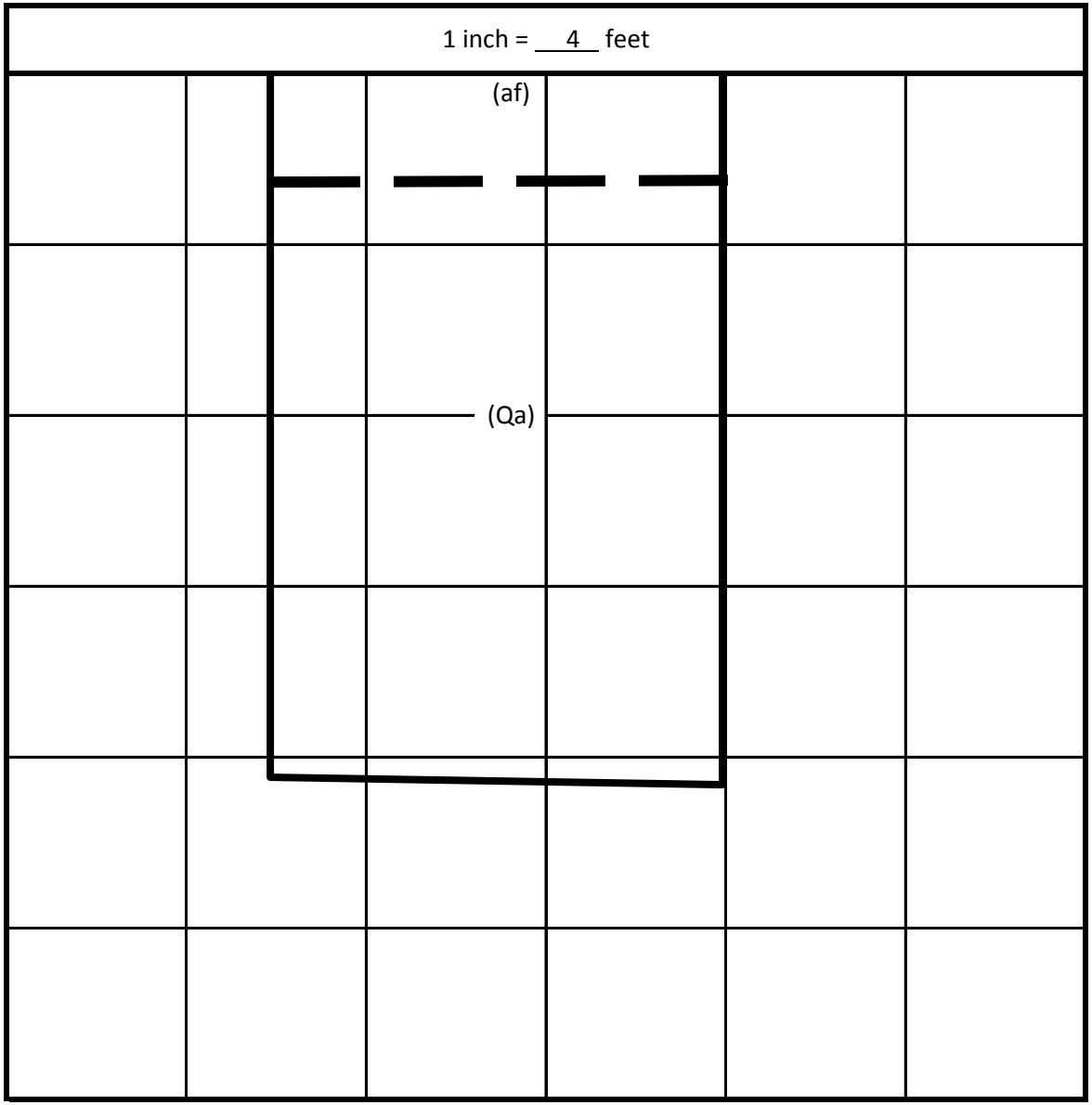
Test Pit Number: 8

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt with base **0-1.5' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **0.5-17' Quaternary Alluvium (Qa)** 1-13': brown Silty fine SAND to fine Sandy SILT, dry, friable, medium dense, micaceous, contamination begins at 1 foot 13-17': Grey green blue Silty fine SAND with Clay, micaceous, slightly moist, no cobbles or gravels, medium dense, very strong hydrocarbon smell, breaks in chunks (somewhat sticky), black potential chunks/clumps of hydrocarbons all the way to depth 17': light grey Course SAND, little to no fines, slightly moist, very friable, medium dense, some gravels, hydrocarbons absent **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**



Log of Exploratory Test Pit

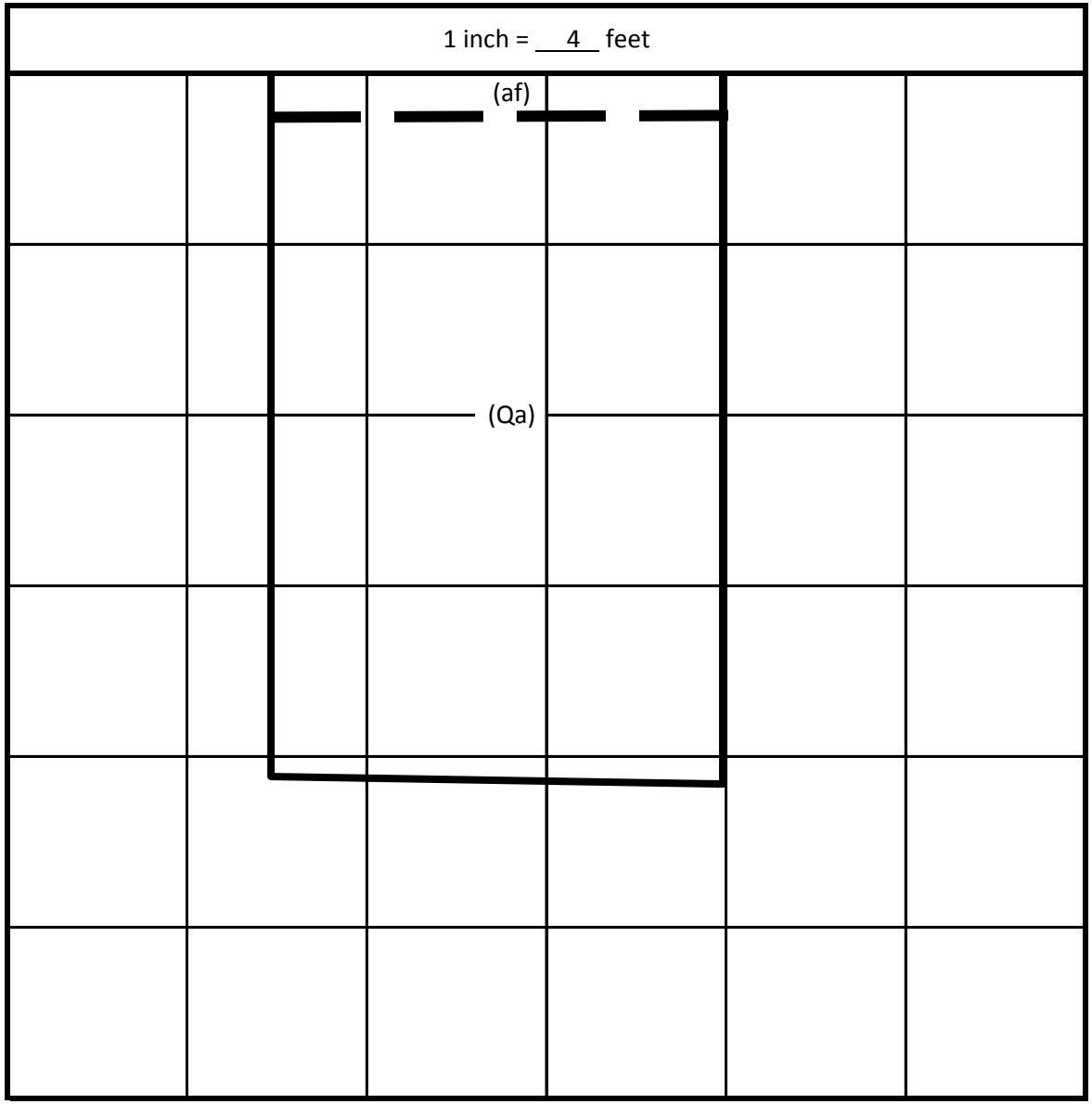
Test Pit Number: 9

Date: 7/15/2020

Project Name: Solemo 13 Acres
Project Number: 20G-0418
Equipment: Backhoe
Logged By: MRM

Location: 2540 Rosemead Blvd, South El Monte, CA
Notes: Stantec Environmental Test Pits

USCS	Material Description
	Surface: Asphalt (2") with base **0-1' Artificial Fill (af)** Light brown Silty SAND to Sandy SILT, asphalt chunks, dry **1-17' Quaternary Alluvium (Qa)** 1-17': light brown Silty SAND to Sandy SILT, slightly moist, friable, medium dense, micaceous, no detectable contamination/hydrocarbons 17': light grey Course SAND, little to no fines, slightly moist, very friable, medium dense, some gravels, hydrocarbons absent **TD: 17 ft** **No Caving** **No Subsurface Water or Groundwater**



RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX B

LABORATORY TESTS

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX B

B-1.00 LABORATORY TESTS

B-1.01 Maximum Density

Maximum density - optimum moisture relationships for the major soil types encountered during the field exploration were performed in the laboratory using the standard procedures of ASTM D1557.

B-1.02 Particle Size Analysis

Particle size analysis was performed on a representative sample of the on-site soils in accordance with the standard test methods of the ASTM D422. The test results are included in this Appendix B.

B-1.03 Materials Finer than #200

Particle size analysis was performed on representative samples of the on-site soils in accordance with the standard test methods of the ASTM D1140. The test results are presented on the boring logs in Appendix A.

B-1.04 Expansion Tests

Expansion index tests were performed on representative samples of the major soil types encountered by the test methods outlined in ASTM D4829.

B-1.05 Soluble Sulfates

A test was performed on representative sample encountered during the investigation using the California Test Method 417.

B-1.06 Soil Reactivity (pH) and Minimum Resistivity

A near-surface soil samples were tested for soil reactivity (pH) and minimum electrical resistivity using California Test Method 643. The pH measurement determines the degree of acidity or alkalinity in the soils. The minimum resistivity is used as an indicator of how corrosive the soil is relative to buried metallic items.

B-1.07 Moisture Determination

Moisture content of the soil samples was performed in accordance to standard method for determination of water content of soil by drying oven, ASTM D2216. The mass of material remaining after oven drying is used as the mass of the solid particles.

B-1.08 Density of Split-Barrel Samples

The density of ring and tube samples, which were obtained using a split-barrel sampler, were determined in accordance with ASTM D2937. The results of these tests are provided on the boring logs in Appendix A.

B-1.09 Atterberg Limits

The liquid limit, plastic limit, and the plasticity index of the major soil types encountered in the test holes were determined using the standard test methods of ASTM D4318.

B-1.10 Direct Shear

Direct shear test was performed on a representative sample of the major soil types encountered in the test holes

using the standard test method of ASTM D3080 (consolidated and drained). Test was performed on remolded samples. Remolded samples were tested at 90 percent relative compaction. The test results are included in this Appendix B.

Shear tests were performed on a direct shear machine of the strain-controlled type. To simulate possible adverse field conditions, the samples were saturated prior to shearing. Several samples were sheared at varying normal loads and the results plotted to establish the angle of the internal friction and cohesion of the tested samples.

B-1.11 Test Results

Test results for all laboratory tests performed on the subject project are presented in this appendix. For a sample-by-sample description, see the logs presented in Appendix A.

MAXIMUM DENSITY - OPTIMUM MOISTURE

(Test Method: ASTM D1557)

Sample Number	Optimum Moisture (Percent)	Maximum Density (lbs/ft^3)
B1 @ 0-5 ft	9.7	120.1
B2 @ 0-5 ft	13.0	122.0
B3 @ 0-5 ft	10.2	121.9
B5 @ 0-5 ft	12.7	116.5

EXPANSION INDEX

(Test Method: ASTM D4829)

Sample Number	Expansion Index	Classification
B-1 @ 0-5 ft	0	Very Low
B-5 @ 0-5 ft	0	Very Low

SOLUBLE SULFATES

(California Test Methods: 417 & 422)

Sample Number	Soluble Sulfate (ppm)	Chloride Content (ppm)
B-2 @ 0-5 ft	46	36
B-4 @ 0-5 ft	61	26

SOIL REACTIVITY (pH) AND MINIMUM RESISTIVITY

(California Test Method: 643)

Sample Number	pH	Minimum Resistivity (Ohm-cm)
B-2 @ 0-5 ft	8.9	8658
B-4 @ 0-5 ft	8.7	3260

ATTERBERG LIMITS

(Test Method: ASTM D4318)

Sample Number	Liquid Limit (Percent)	Plastic Limit (Percent)	Plasticity Index (Percent)	Water Content (Percent)
B-3 @ 15 ft	42	37	5	12.5
B-6 @ 12.5 ft	61	54	7	54.5

RMA GeoScience
Every Project Matters | www.rmacompanies.com

DIRECT SHEAR TEST
ASTM D3080

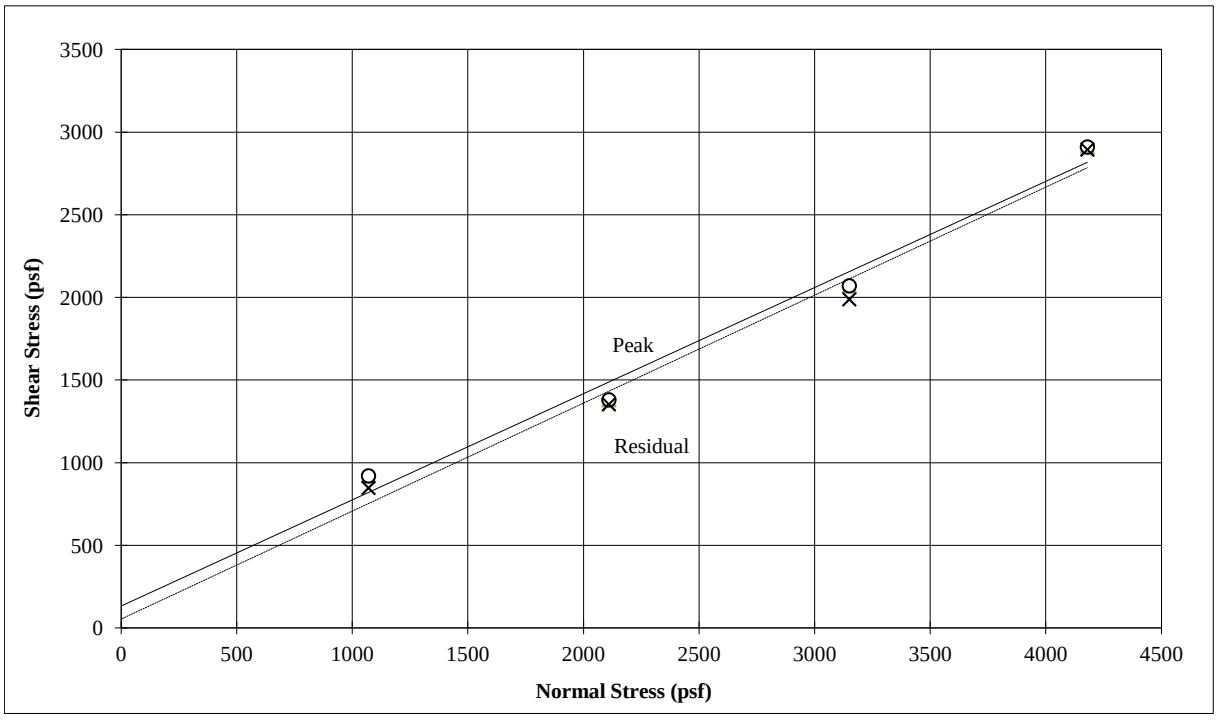
Project ID: 20G-0418-0
Location: B2
Depth: 0-5 feet
Soil Description: Silty Sand

Remolded or Undisturbed: Remolded
Maximum Dry Density (pcf) = 122.0
Optimum Moisture Content (%) = 13.0
Initial Dry Density (pcf) = 110.4
Relative Compaction (%) = 90%
Initial Moisture Content (%) = 10.7%
Final Moisture Content (%) = 24.6%

Diameter (in)	2.5
Area of sample (in^2)	4.91
Load Ring Constant (lb/in)	4010

Load Applied (g)	Normal Pressure (psf)	Peak		Residual	
		Dial Reading	Shear Resist (psf)	Dial Reading	Shear Resist (psf)
16615	1070	0.0078	920	0.0072	847
32600	2110	0.0117	1380	0.0115	1353
48674	3150	0.0176	2070	0.0169	1988
64681	4180	0.0247	2910	0.0246	2894

	Peak	Residual
Cohesion (psf) =	130	50
Friction Angle (deg) =	33	33



RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX C

GENERAL EARTHWORK
AND
GRADING SPECIFICATIONS

RMA GeoScience
Every Project Matters | www.rmacompanies.com

GENERAL EARTHWORK AND GRADING SPECIFICATIONS

C-1.00 GENERAL DESCRIPTION

C-1.01 Introduction

These specifications present our general recommendations for earthwork and grading as shown on the approved grading plans for the subject project. These specifications shall cover all clearing and grubbing, removal of existing structures, preparation of land to be filled, filling of the land, spreading, compaction and control of the fill, and all subsidiary work necessary to complete the grading of the filled areas to conform with the lines, grades and slopes as shown on the approved plans.

The recommendations contained in the geotechnical report of which these general specifications are a part of shall supersede the provisions contained hereinafter in case of conflict.

C-1.02 Laboratory Standard and Field Test Methods

The laboratory standard used to establish the maximum density and optimum moisture shall be ASTM D1557.

The insitu density of earth materials (field compaction tests) shall be determined by the sand cone method (ASTM D1556), direct transmission nuclear method (ASTM D2922) or other test methods as considered appropriate by the geotechnical consultant.

Relative compaction is defined, for purposes of these specifications, as the ratio of the in-place density to the maximum density as determined in the previously mentioned laboratory standard.

C-2.00 Clearing

C-2.01 Surface Clearing

All structures marked for removal, timber, logs, trees, brush and other rubbish shall be removed and disposed of off the site. Any trees to be removed shall be pulled in such a manner so as to remove as much of the root system as possible.

C-2.02 Subsurface Removals

A thorough search should be made for possible underground storage tanks and/or septic tanks and cesspools. If found, tanks should be removed and cesspools pumped dry.

Any concrete irrigation lines shall be crushed in place and all metal underground lines shall be removed from the site.

C-2.03 Backfill of Cavities

All cavities created or exposed during clearing and grubbing operations or by previous use of the site shall be cleared of deleterious material and backfilled with native soils or other materials approved by the soil engineer. Said backfill shall be compacted to a minimum of 90% relative compaction.

C-3.00 ORIGINAL GROUND PREPARATION

C-3.01 Stripping of Vegetation

After the site has been properly cleared, all vegetation and topsoil containing the root systems of former vegetation shall be stripped from areas to be graded. Materials removed in this stripping process may be used as fill in areas designated by the soil engineer, provided the vegetation is mixed with a sufficient amount of soil to assure that no appreciable settlement or other detriment will occur due to decaying of the organic matter. Soil materials containing more than 3% organics shall not be used as structural fill.

C-3.02 Removals of Non-Engineered Fills

Any non-engineered fills encountered during grading shall be completely removed and the underlying ground shall be prepared in accordance to the recommendations for original ground preparation contained in this section. After cleansing of any organic matter the fill material may be used for engineered fill.

C-3.03 Overexcavation of Fill Areas

The existing ground in all areas determined to be satisfactory for the support of fills shall be scarified to a minimum depth of 6 inches. Scarification shall continue until the soils are broken down and free from lumps or clods and until the scarified zone is uniform. The moisture content of the scarified zone shall be adjusted to within 2% of optimum moisture. The scarified zone shall then be uniformly compacted to 90% relative compaction.

Where fill material is to be placed on ground with slopes steeper than 5:1 (H:V) the sloping ground shall be benched. The lowermost bench shall be a minimum of 15 feet wide, shall be a minimum of 2 feet deep, and shall expose firm material as determined by the geotechnical consultant. Other benches shall be excavated to firm material as determined by the geotechnical consultant and shall have a minimum width of 4 feet.

Existing ground that is determined to be unsatisfactory for the support of fills shall be overexcavated in accordance to the recommendations contained in the geotechnical report of which these general specifications are a part.

C-4.00 FILL MATERIALS

C-4.01 General

Materials for the fill shall be free from vegetable matter and other deleterious substances, shall not contain rocks or lumps of a greater dimension than is recommended by the geotechnical consultant, and shall be approved by the geotechnical consultant. Soils of poor gradation, expansion, or strength properties shall be placed in areas designated by the geotechnical consultant or shall be mixed with other soils providing satisfactory fill material.

C-4.02 Oversize Material

Oversize material, rock, or other irreducible material with a maximum dimension greater than 12 inches shall not be placed in fills, unless the location, materials, and disposal methods are specifically approved by the geotechnical consultant. Oversize material shall be placed in such a manner that nesting of oversize material does not occur and in such a manner that the oversize material is completely surrounded by fill material compacted to a minimum of

90% relative compaction. Oversize material shall not be placed within 10 feet of finished grade without the approval of the geotechnical consultant.

C-4.03 Import

Material imported to the site shall conform to the requirements of Section 4.01 of these specifications. Potential import material shall be approved by the geotechnical consultant prior to importation to the subject site.

C-5.00 PLACING AND SPREADING OF FILL

C-5.01 Fill Lifts

The selected fill material shall be placed in nearly horizontal layers which when compacted will not exceed approximately 6 inches in thickness. Thicker lifts may be placed if testing indicates the compaction procedures are such that the required compaction is being achieved and the geotechnical consultant approves their use.
Each layer shall be spread evenly and shall be thoroughly blade mixed during the spreading to insure uniformity of material in each layer.

C-5.02 Fill Moisture

When the moisture content of the fill material is below that recommended by the soils engineer, water shall then be added until he moisture content is as specified to assure thorough bonding during the compacting process.

When the moisture content of the fill material is above that recommended by the soils engineer, the fill material shall be aerated by blading or other satisfactory methods until the moisture content is as specified.

C-5.03 Fill Compaction

After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted to not less than 90% relative compaction. Compaction shall be by sheepsfoot rollers, multiple-wheel pneumatic tired rollers, or other types approved by the soil engineer.

Rolling shall be accomplished while the fill material is at the specified moisture content. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient trips to insure that the desired density has been obtained.

C-5.04 Fill Slopes

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compacting of the slopes may be done progressively in increments of 3 to 4 feet in fill height. At the completion of grading, the slope face shall be compacted to a minimum of 90% relative compaction. This may require track rolling or rolling with a grid roller attached to a tractor mounted side-boom.

Slopes may be over filled and cut back in such a manner that the exposed slope faces are compacted to a minimum of 90% relative compaction.

The fill operation shall be continued in six inch (6") compacted layers, or as specified above, until the fill has been brought to the finished slopes and grades as shown on the accepted plans.

C-5.05 Compaction Testing

Field density tests shall be made by the geotechnical consultant of the compaction of each layer of fill. Density tests shall be made at locations selected by the geotechnical consultant.

Frequency of field density tests shall be not less than one test for each 2.0 feet of fill height and at least every one thousand cubic yards of fill. Where fill slopes exceed four feet in height their finished faces shall be tested at a frequency of one test for each 1000 square feet of slope face.

Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density reading shall be taken in the compacted material below the disturbed surface. When these readings indicate that the density of any layer of fill or portion thereof is below the required density, the particular layer or portion shall be reworked until the required density has been obtained.

C-6.00 SUBDRAINS

C-6.01 Subdrain Material

Subdrains shall be constructed of a minimum 4-inch diameter pipe encased in a suitable filter material. The subdrain pipe shall be Schedule 40 Acrylonitrile Butadiene Styrene (ABS) or Schedule 40 Polyvinyl Chloride Plastic (PVC) pipe or approved equivalent. Subdrain pipe shall be installed with perforations down. Filter material shall consist of 3/4" to 1 1/2" clean gravel wrapped in an envelope of filter fabric consisting of Mirafi 140N or approved equivalent.

C-6.02 Subdrain Installation

Subdrain systems, if required, shall be installed in approved ground to conform the approximate alignment and details shown on the plans or herein. The subdrain locations shall not be changed or modified without the approval of the geotechnical consultant. The geotechnical consultant may recommend and direct changes in the subdrain line, grade or material upon approval by the design civil engineer and the appropriate governmental agencies.

C-7.00 EXCAVATIONS

C-7.01 General

Excavations and cut slopes shall be examined by the geotechnical consultant. If determined necessary by the geotechnical consultant, further excavation or overexcavation and refilling of overexcavated areas shall be performed, and/or remedial grading of cut slopes shall be performed.

C-7.02 Fill-Over-Cut Slopes

Where fill-over-cut slopes are to be graded the cut portion of the slope shall be made and approved by the geotechnical consultant prior to placement of materials for construction of the fill portion of the slope.

C-8.00 TRENCH BACKFILL

C-8.01 General

Trench backfill within street right of ways shall be compacted to 90% relative compaction as determined by the ASTM D1557 test method. Backfill may be jetted as a means of initial compaction; however, mechanical compaction will be required to obtain the required percentage of relative compaction. If trenches are jetted, there must be a suitable delay for drainage of excess water before mechanical compaction is applied.

C-9.00 SEASONAL LIMITS

C-9.01 General

No fill material shall be placed, spread or rolled while it is frozen or thawing or during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the soils engineer indicate that the moisture content and density of the fill are as previously specified.

C-10.00 SUPERVISION

C-10.01 Prior to Grading

The site shall be observed by the geotechnical consultant upon completion of clearing and grubbing, prior to the preparation of any original ground for preparation of fill.

The supervisor of the grading contractor and the field representative of the geotechnical consultant shall have a meeting and discuss the geotechnical aspects of the earthwork prior to commencement of grading.

C-10.02 During Grading

Site preparation of all areas to receive fill shall be tested and approved by the geotechnical consultant prior to the placement of any fill.

The geotechnical consultant or his representative shall observe the fill and compaction operations so that he can provide an opinion regarding the conformance of the work to the recommendations

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX D

CPT SITE INVESTIGATION RESULTS

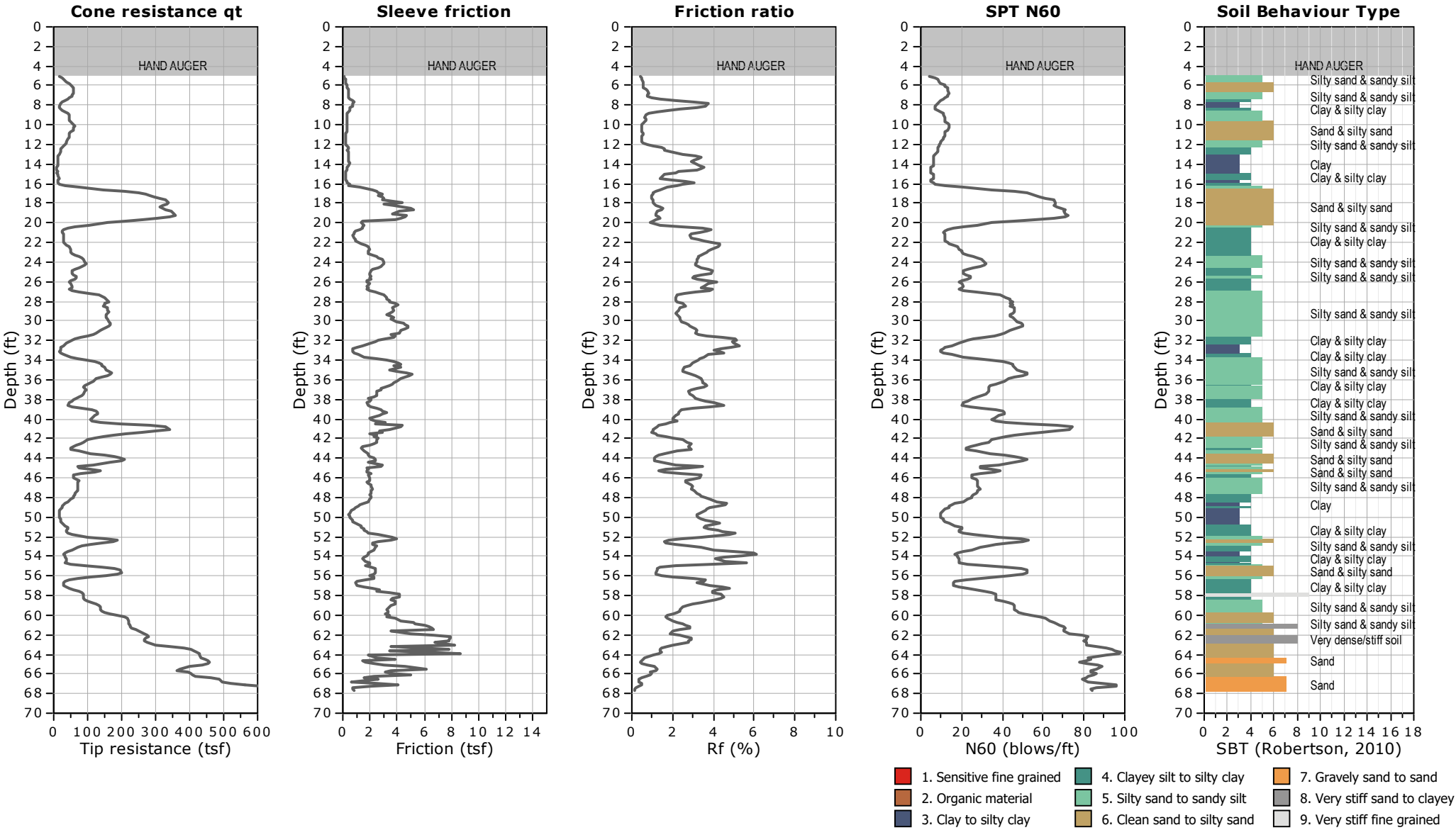
CPT-1

CLIENT: RMA GEOSCIENCE

SITE: SOLEMO, SOUTH EL MONTE, CA

FIELD REP: MARY

Total depth: 67.75 ft, Date: 8/19/2020



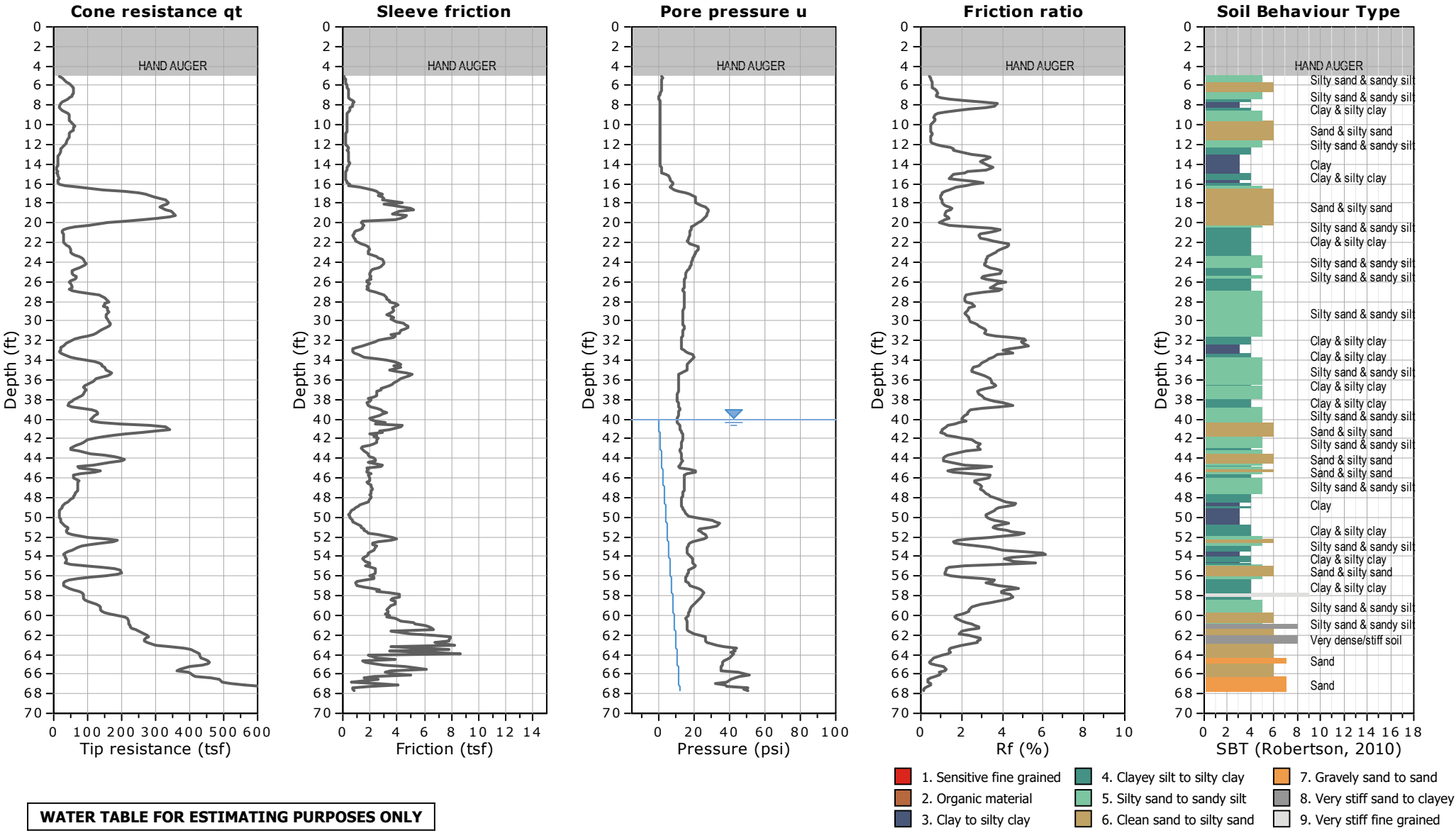
CPT-1

CLIENT: RMA GEOSCIENCE

SITE: SOLEMO, SOUTH EL MONTE, CA

FIELD REP: MARY

Total depth: 67.75 ft, Date: 8/19/2020



WATER TABLE FOR ESTIMATING PURPOSES ONLY

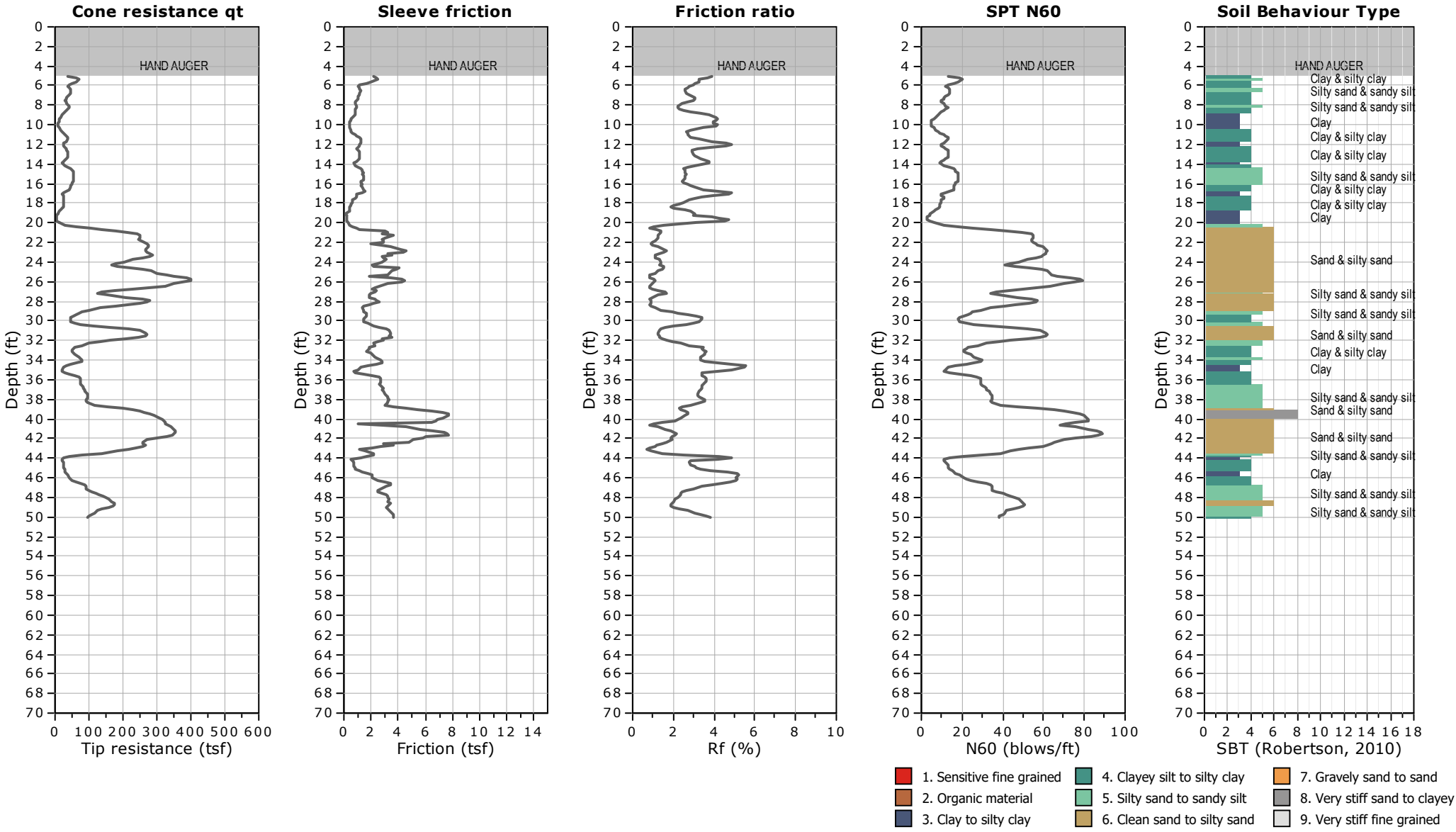
CPT: CPT-2

CLIENT: RMA GEOSCIENCE

SITE: SOLEMO, SOUTH EL MONTE, CA

FIELD REP: MARY

Total depth: 50.03 ft, Date: 8/19/2020



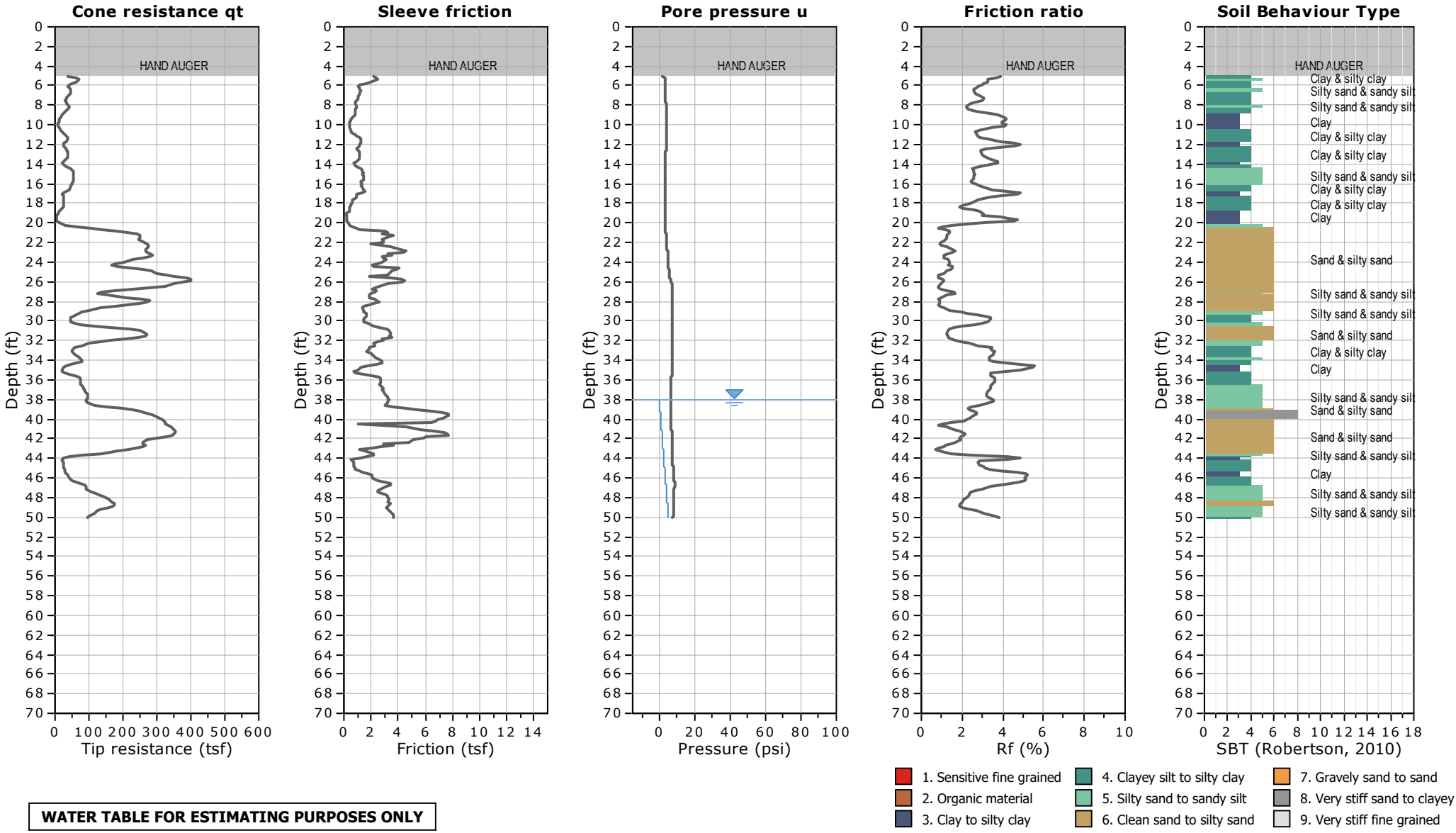
CPT: CPT-2

CLIENT: RMA GEOSCIENCE

SITE: SOLEMO, SOUTH EL MONTE, CA

FIELD REP: MARY

Total depth: 50.03 ft, Date: 8/19/2020



WATER TABLE FOR ESTIMATING PURPOSES ONLY

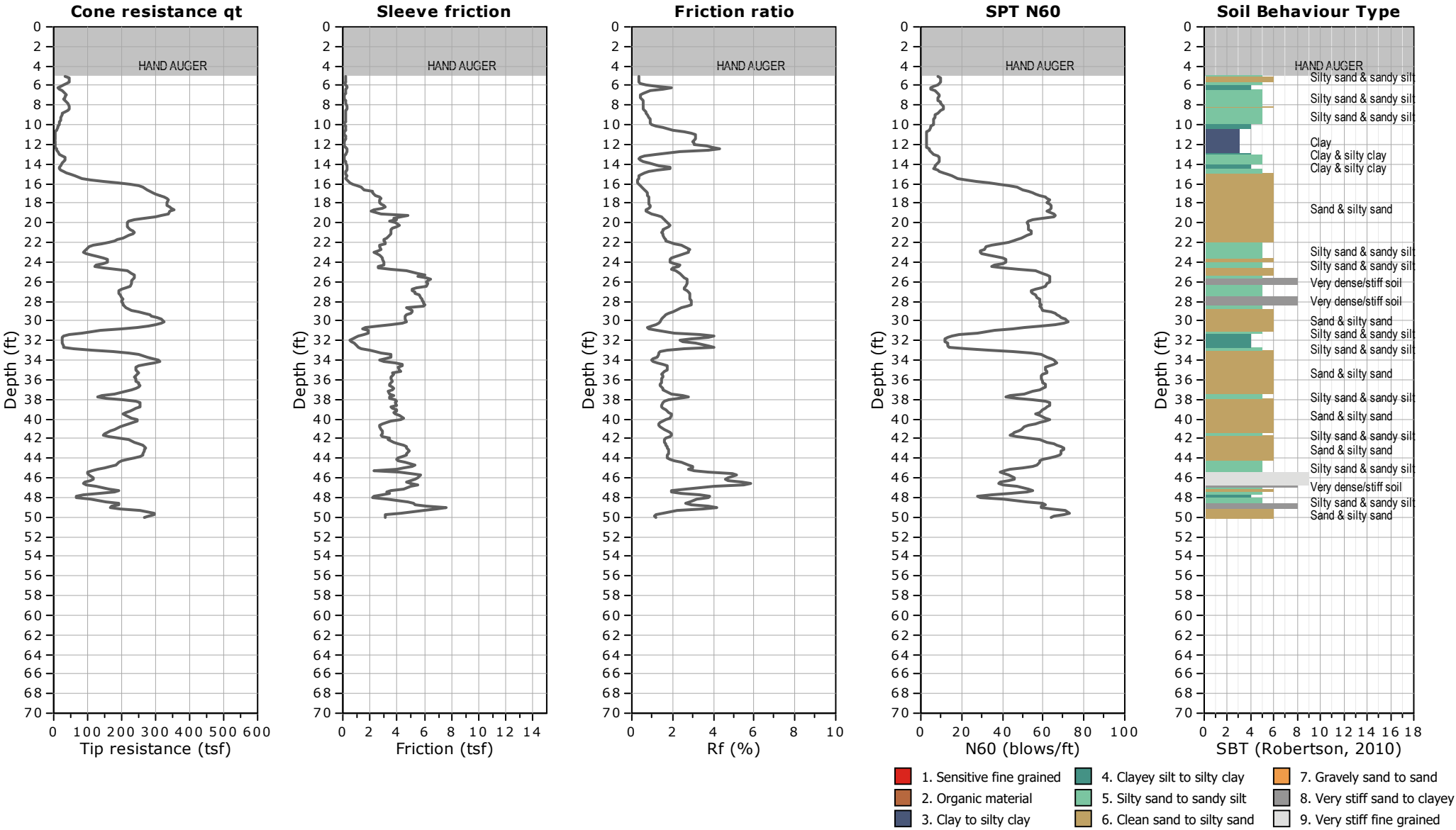
CPT: CPT-3

CLIENT: RMA GEOSCIENCE

SITE: SOLEMO, SOUTH EL MONTE, CA

FIELD REP: HARY

Total depth: 50.03 ft, Date: 8/19/2020



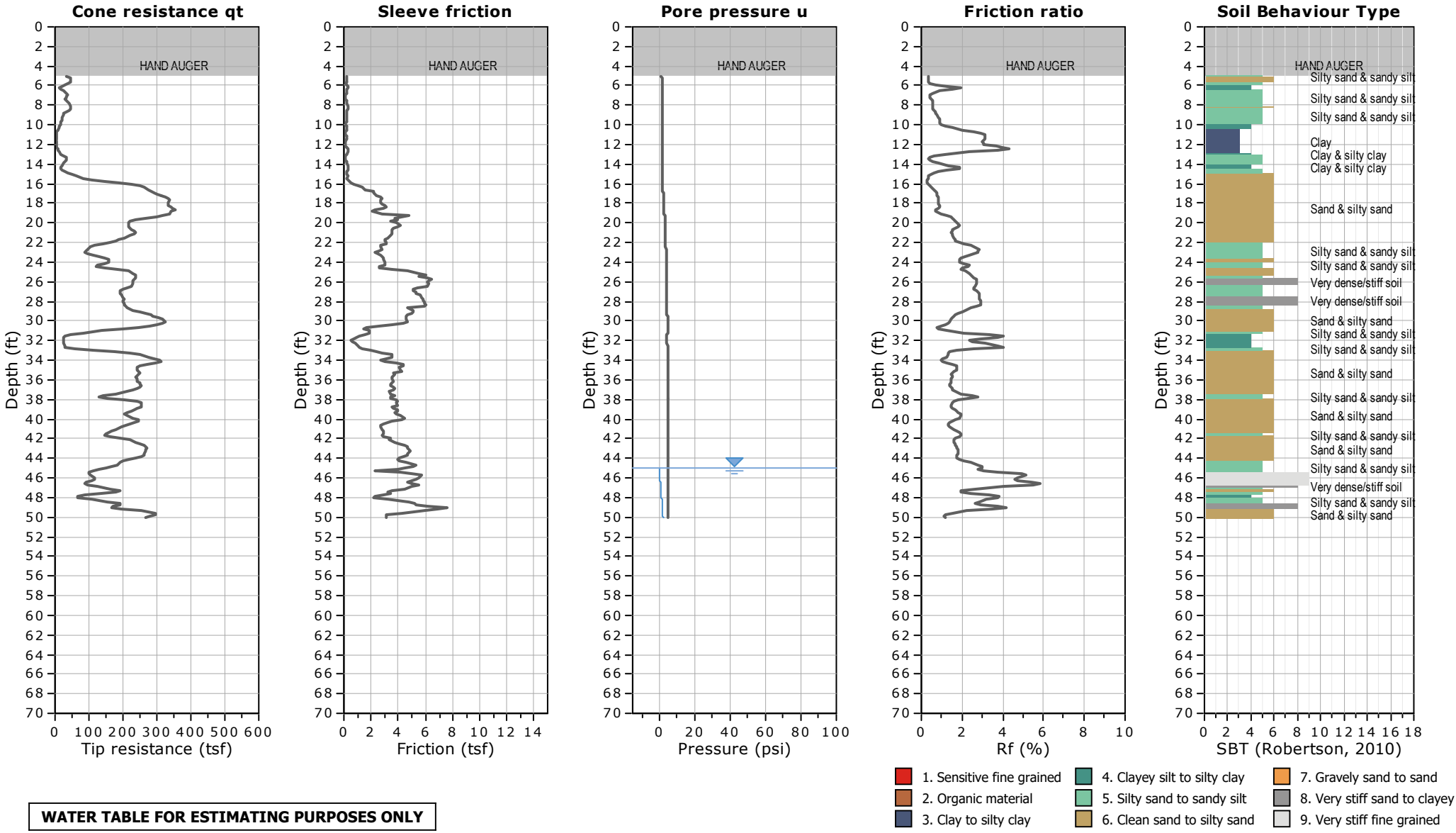
CPT: CPT-3

CLIENT: RMA GEOSCIENCE

SITE: SOLEMO, SOUTH EL MONTE, CA

FIELD REP: HARY

Total depth: 50.03 ft, Date: 8/19/2020



WATER TABLE FOR ESTIMATING PURPOSES ONLY

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX E

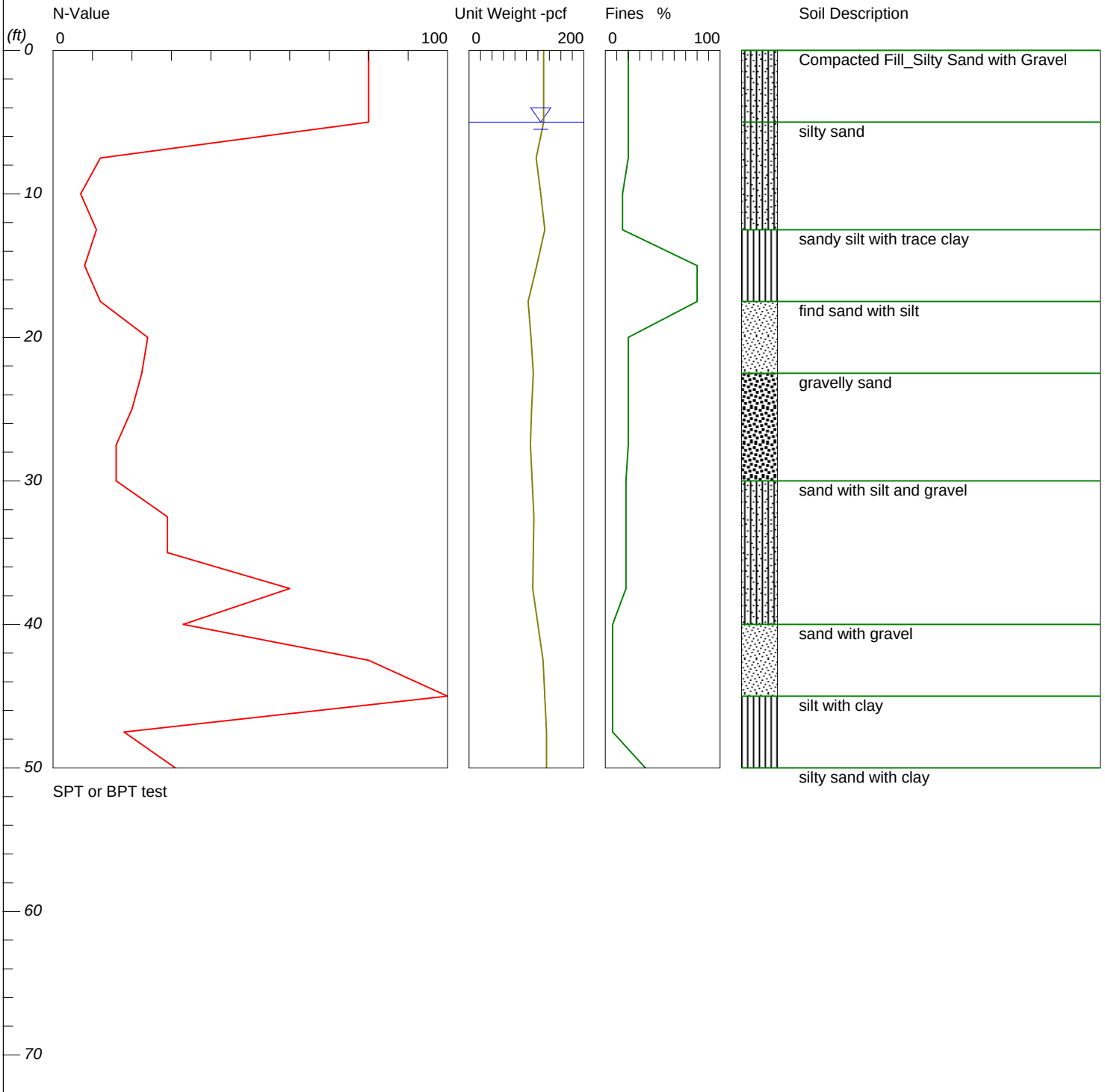
LIQUIFACTION AND SEISMIC SETTLEMENT ANALYSIS
(Figures and Analysis Summary)

LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=B-3 Water Depth=5 ft Surface Elev.=240

Magnitude=6.81
Acceleration=0.656g

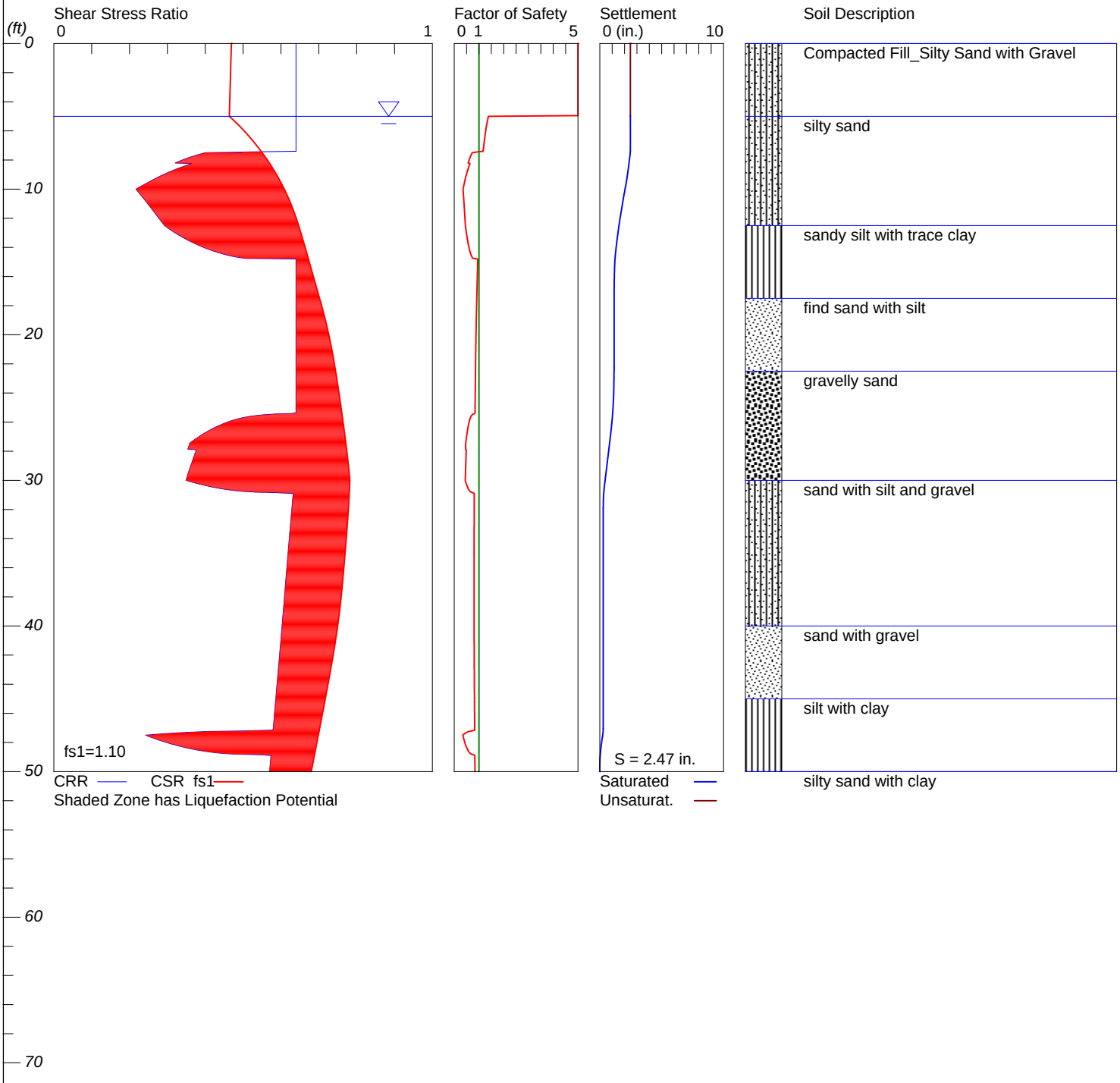


LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=B-3 Water Depth=5 ft Surface Elev.=240

Magnitude=6.81
Acceleration=0.656g



****
****

LIQUEFACTION ANALYSIS SUMMARY

****
****

Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 8/5/2020 2:54:34 PM

Input File Name: G:_Projects\2020\20G-0418\Liqefaction Analysis\20G-0418 b3.liq
Title: Solemo 13 Acres
Subtitle: 20G-0418-0

Surface Elev.=240
Hole No.=B-3
Depth of Hole= 50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.81

Input Data:
Surface Elev.=240
Hole No.=B-3
Depth of Hole=50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.81
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Modify Stark/Olson
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	80.00	130.00	20.00
2.50	80.00	130.00	20.00
5.00	80.00	130.00	20.00
7.50	12.00	117.00	20.00
10.00	7.00	125.00	15.00
12.50	11.00	132.00	15.00
15.00	8.00	118.00	80.00
17.50	12.00	103.00	80.00
20.00	24.00	108.00	20.00
22.50	22.50	112.00	20.00

25.00	20.00	109.00	20.00
27.50	16.00	107.00	20.00
30.00	16.00	110.00	18.00
32.50	29.00	113.00	18.00
35.00	29.00	112.00	18.00
37.50	60.00	111.00	18.00
40.00	33.00	120.00	6.40
42.50	80.00	129.00	6.40
45.00	100.00	132.00	6.40
47.50	18.00	135.00	6.40
50.00	31.00	135.00	34.90

Output Results:

Settlement of Saturated Sands=2.47 in.
Settlement of Unsaturated Sands=0.01 in.
Total Settlement of Saturated and Unsaturated Sands=2.47 in.
Differential Settlement=1.236 to 1.632 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.64	0.47	5.00	2.47	0.01	2.47
0.05	0.64	0.47	5.00	2.47	0.01	2.47
0.10	0.64	0.47	5.00	2.47	0.01	2.47
0.15	0.64	0.47	5.00	2.47	0.01	2.47
0.20	0.64	0.47	5.00	2.47	0.01	2.47
0.25	0.64	0.47	5.00	2.47	0.01	2.47
0.30	0.64	0.47	5.00	2.47	0.01	2.47
0.35	0.64	0.47	5.00	2.47	0.01	2.47
0.40	0.64	0.47	5.00	2.47	0.01	2.47
0.45	0.64	0.47	5.00	2.47	0.01	2.47
0.50	0.64	0.47	5.00	2.47	0.01	2.47
0.55	0.64	0.47	5.00	2.47	0.01	2.47
0.60	0.64	0.47	5.00	2.47	0.01	2.47
0.65	0.64	0.47	5.00	2.47	0.01	2.47
0.70	0.64	0.47	5.00	2.47	0.01	2.47
0.75	0.64	0.47	5.00	2.47	0.01	2.47
0.80	0.64	0.47	5.00	2.47	0.01	2.47
0.85	0.64	0.47	5.00	2.47	0.01	2.47
0.90	0.64	0.47	5.00	2.47	0.01	2.47
0.95	0.64	0.47	5.00	2.47	0.01	2.47
1.00	0.64	0.47	5.00	2.47	0.01	2.47
1.05	0.64	0.47	5.00	2.47	0.01	2.47
1.10	0.64	0.47	5.00	2.47	0.01	2.47
1.15	0.64	0.47	5.00	2.47	0.01	2.47
1.20	0.64	0.47	5.00	2.47	0.01	2.47
1.25	0.64	0.47	5.00	2.47	0.01	2.47
1.30	0.64	0.47	5.00	2.47	0.01	2.47
1.35	0.64	0.47	5.00	2.47	0.01	2.47
1.40	0.64	0.47	5.00	2.47	0.01	2.47
1.45	0.64	0.47	5.00	2.47	0.01	2.47
1.50	0.64	0.47	5.00	2.47	0.01	2.47
1.55	0.64	0.47	5.00	2.47	0.01	2.47
1.60	0.64	0.47	5.00	2.47	0.01	2.47
1.65	0.64	0.47	5.00	2.47	0.01	2.47
1.70	0.64	0.47	5.00	2.47	0.01	2.47
1.75	0.64	0.47	5.00	2.47	0.01	2.47
1.80	0.64	0.47	5.00	2.47	0.00	2.47
1.85	0.64	0.47	5.00	2.47	0.00	2.47
1.90	0.64	0.47	5.00	2.47	0.00	2.47
1.95	0.64	0.47	5.00	2.47	0.00	2.47
2.00	0.64	0.47	5.00	2.47	0.00	2.47

2.05	0.64	0.47	5.00	2.47	0.00	2.47
2.10	0.64	0.47	5.00	2.47	0.00	2.47
2.15	0.64	0.47	5.00	2.47	0.00	2.47
2.20	0.64	0.47	5.00	2.47	0.00	2.47
2.25	0.64	0.47	5.00	2.47	0.00	2.47
2.30	0.64	0.47	5.00	2.47	0.00	2.47
2.35	0.64	0.47	5.00	2.47	0.00	2.47
2.40	0.64	0.47	5.00	2.47	0.00	2.47
2.45	0.64	0.47	5.00	2.47	0.00	2.47
2.50	0.64	0.47	5.00	2.47	0.00	2.47
2.55	0.64	0.47	5.00	2.47	0.00	2.47
2.60	0.64	0.47	5.00	2.47	0.00	2.47
2.65	0.64	0.47	5.00	2.47	0.00	2.47
2.70	0.64	0.47	5.00	2.47	0.00	2.47
2.75	0.64	0.47	5.00	2.47	0.00	2.47
2.80	0.64	0.47	5.00	2.47	0.00	2.47
2.85	0.64	0.47	5.00	2.47	0.00	2.47
2.90	0.64	0.47	5.00	2.47	0.00	2.47
2.95	0.64	0.47	5.00	2.47	0.00	2.47
3.00	0.64	0.47	5.00	2.47	0.00	2.47
3.05	0.64	0.47	5.00	2.47	0.00	2.47
3.10	0.64	0.47	5.00	2.47	0.00	2.47
3.15	0.64	0.47	5.00	2.47	0.00	2.47
3.20	0.64	0.47	5.00	2.47	0.00	2.47
3.25	0.64	0.47	5.00	2.47	0.00	2.47
3.30	0.64	0.47	5.00	2.47	0.00	2.47
3.35	0.64	0.47	5.00	2.47	0.00	2.47
3.40	0.64	0.47	5.00	2.47	0.00	2.47
3.45	0.64	0.47	5.00	2.47	0.00	2.47
3.50	0.64	0.47	5.00	2.47	0.00	2.47
3.55	0.64	0.47	5.00	2.47	0.00	2.47
3.60	0.64	0.47	5.00	2.47	0.00	2.47
3.65	0.64	0.47	5.00	2.47	0.00	2.47
3.70	0.64	0.46	5.00	2.47	0.00	2.47
3.75	0.64	0.46	5.00	2.47	0.00	2.47
3.80	0.64	0.46	5.00	2.47	0.00	2.47
3.85	0.64	0.46	5.00	2.47	0.00	2.47
3.90	0.64	0.46	5.00	2.47	0.00	2.47
3.95	0.64	0.46	5.00	2.47	0.00	2.47
4.00	0.64	0.46	5.00	2.47	0.00	2.47
4.05	0.64	0.46	5.00	2.47	0.00	2.47
4.10	0.64	0.46	5.00	2.47	0.00	2.47
4.15	0.64	0.46	5.00	2.47	0.00	2.47
4.20	0.64	0.46	5.00	2.47	0.00	2.47
4.25	0.64	0.46	5.00	2.47	0.00	2.47
4.30	0.64	0.46	5.00	2.47	0.00	2.47
4.35	0.64	0.46	5.00	2.47	0.00	2.47
4.40	0.64	0.46	5.00	2.47	0.00	2.47
4.45	0.64	0.46	5.00	2.47	0.00	2.47
4.50	0.64	0.46	5.00	2.47	0.00	2.47
4.55	0.64	0.46	5.00	2.47	0.00	2.47
4.60	0.64	0.46	5.00	2.47	0.00	2.47
4.65	0.64	0.46	5.00	2.47	0.00	2.47
4.70	0.64	0.46	5.00	2.47	0.00	2.47
4.75	0.64	0.46	5.00	2.47	0.00	2.47
4.80	0.64	0.46	5.00	2.47	0.00	2.47
4.85	0.64	0.46	5.00	2.47	0.00	2.47
4.90	0.64	0.46	5.00	2.47	0.00	2.47
4.95	0.64	0.46	5.00	2.47	0.00	2.47
5.00	0.64	0.46	1.38	2.47	0.00	2.47
5.05	0.64	0.47	1.37	2.47	0.00	2.47
5.10	0.64	0.47	1.37	2.47	0.00	2.47
5.15	0.64	0.47	1.36	2.47	0.00	2.47

5.20	0.64	0.47	1.36	2.47	0.00	2.47
5.25	0.64	0.47	1.35	2.47	0.00	2.47
5.30	0.64	0.48	1.34	2.47	0.00	2.47
5.35	0.64	0.48	1.34	2.47	0.00	2.47
5.40	0.64	0.48	1.33	2.47	0.00	2.47
5.45	0.64	0.48	1.33	2.47	0.00	2.47
5.50	0.64	0.48	1.32	2.47	0.00	2.47
5.55	0.64	0.49	1.32	2.47	0.00	2.47
5.60	0.64	0.49	1.31	2.47	0.00	2.47
5.65	0.64	0.49	1.31	2.47	0.00	2.47
5.70	0.64	0.49	1.30	2.47	0.00	2.47
5.75	0.64	0.49	1.30	2.47	0.00	2.47
5.80	0.64	0.50	1.29	2.47	0.00	2.47
5.85	0.64	0.50	1.29	2.47	0.00	2.47
5.90	0.64	0.50	1.28	2.47	0.00	2.47
5.95	0.64	0.50	1.28	2.47	0.00	2.47
6.00	0.64	0.50	1.27	2.47	0.00	2.47
6.05	0.64	0.50	1.27	2.47	0.00	2.47
6.10	0.64	0.51	1.26	2.47	0.00	2.47
6.15	0.64	0.51	1.26	2.47	0.00	2.47
6.20	0.64	0.51	1.26	2.47	0.00	2.47
6.25	0.64	0.51	1.25	2.47	0.00	2.47
6.30	0.64	0.51	1.25	2.47	0.00	2.47
6.35	0.64	0.51	1.24	2.47	0.00	2.47
6.40	0.64	0.52	1.24	2.47	0.00	2.47
6.45	0.64	0.52	1.23	2.47	0.00	2.47
6.50	0.64	0.52	1.23	2.47	0.00	2.47
6.55	0.64	0.52	1.23	2.47	0.00	2.47
6.60	0.64	0.52	1.22	2.47	0.00	2.47
6.65	0.64	0.52	1.22	2.47	0.00	2.47
6.70	0.64	0.53	1.22	2.47	0.00	2.47
6.75	0.64	0.53	1.21	2.47	0.00	2.47
6.80	0.64	0.53	1.21	2.47	0.00	2.47
6.85	0.64	0.53	1.20	2.47	0.00	2.47
6.90	0.64	0.53	1.20	2.47	0.00	2.47
6.95	0.64	0.53	1.20	2.47	0.00	2.47
7.00	0.64	0.54	1.19	2.47	0.00	2.47
7.05	0.64	0.54	1.19	2.47	0.00	2.47
7.10	0.64	0.54	1.19	2.47	0.00	2.47
7.15	0.64	0.54	1.18	2.47	0.00	2.47
7.20	0.64	0.54	1.18	2.47	0.00	2.47
7.25	0.64	0.54	1.18	2.47	0.00	2.47
7.30	0.64	0.54	1.17	2.47	0.00	2.47
7.35	0.64	0.55	1.17	2.47	0.00	2.47
7.40	0.64	0.55	1.17	2.47	0.00	2.47
7.45	0.50	0.55	0.91*	2.46	0.00	2.46
7.50	0.40	0.55	0.73*	2.46	0.00	2.46
7.55	0.39	0.55	0.71*	2.45	0.00	2.45
7.60	0.39	0.55	0.70*	2.45	0.00	2.45
7.65	0.38	0.55	0.68*	2.44	0.00	2.44
7.70	0.37	0.56	0.67*	2.43	0.00	2.43
7.75	0.37	0.56	0.66*	2.43	0.00	2.43
7.80	0.36	0.56	0.65*	2.42	0.00	2.42
7.85	0.36	0.56	0.63*	2.41	0.00	2.41
7.90	0.35	0.56	0.62*	2.41	0.00	2.41
7.95	0.34	0.56	0.61*	2.40	0.00	2.40
8.00	0.34	0.56	0.60*	2.39	0.00	2.39
8.05	0.33	0.57	0.59*	2.38	0.00	2.38
8.10	0.33	0.57	0.58*	2.38	0.00	2.38
8.15	0.33	0.57	0.57*	2.37	0.00	2.37
8.20	0.32	0.57	0.56*	2.36	0.00	2.36
8.25	0.36	0.57	0.64*	2.35	0.00	2.35
8.30	0.36	0.57	0.63*	2.35	0.00	2.35

8.35	0.35	0.57	0.61*	2.34	0.00	2.34
8.40	0.35	0.57	0.60*	2.33	0.00	2.33
8.45	0.34	0.58	0.59*	2.32	0.00	2.32
8.50	0.34	0.58	0.58*	2.32	0.00	2.32
8.55	0.33	0.58	0.57*	2.31	0.00	2.31
8.60	0.33	0.58	0.56*	2.30	0.00	2.30
8.65	0.32	0.58	0.55*	2.29	0.00	2.29
8.70	0.32	0.58	0.54*	2.29	0.00	2.29
8.75	0.31	0.58	0.53*	2.28	0.00	2.28
8.80	0.31	0.58	0.53*	2.27	0.00	2.27
8.85	0.30	0.58	0.52*	2.26	0.00	2.26
8.90	0.30	0.59	0.51*	2.25	0.00	2.25
8.95	0.29	0.59	0.50*	2.24	0.00	2.24
9.00	0.29	0.59	0.49*	2.24	0.00	2.24
9.05	0.29	0.59	0.48*	2.23	0.00	2.23
9.10	0.28	0.59	0.48*	2.22	0.00	2.22
9.15	0.28	0.59	0.47*	2.21	0.00	2.21
9.20	0.27	0.59	0.46*	2.20	0.00	2.20
9.25	0.27	0.59	0.45*	2.19	0.00	2.19
9.30	0.27	0.59	0.45*	2.18	0.00	2.18
9.35	0.26	0.60	0.44*	2.17	0.00	2.17
9.40	0.26	0.60	0.43*	2.16	0.00	2.16
9.45	0.26	0.60	0.43*	2.15	0.00	2.15
9.50	0.25	0.60	0.42*	2.14	0.00	2.14
9.55	0.25	0.60	0.41*	2.13	0.00	2.13
9.60	0.24	0.60	0.41*	2.12	0.00	2.12
9.65	0.24	0.60	0.40*	2.11	0.00	2.11
9.70	0.24	0.60	0.39*	2.10	0.00	2.10
9.75	0.23	0.60	0.39*	2.09	0.00	2.09
9.80	0.23	0.60	0.38*	2.08	0.00	2.08
9.85	0.23	0.61	0.38*	2.07	0.00	2.07
9.90	0.22	0.61	0.37*	2.06	0.00	2.06
9.95	0.22	0.61	0.36*	2.05	0.00	2.05
10.00	0.22	0.61	0.36*	2.04	0.00	2.04
10.05	0.22	0.61	0.36*	2.03	0.00	2.03
10.10	0.22	0.61	0.36*	2.02	0.00	2.02
10.15	0.22	0.61	0.36*	2.01	0.00	2.01
10.20	0.22	0.61	0.36*	2.00	0.00	2.00
10.25	0.23	0.61	0.37*	1.99	0.00	1.99
10.30	0.23	0.61	0.37*	1.98	0.00	1.98
10.35	0.23	0.62	0.37*	1.96	0.00	1.96
10.40	0.23	0.62	0.37*	1.95	0.00	1.95
10.45	0.23	0.62	0.38*	1.94	0.00	1.94
10.50	0.23	0.62	0.38*	1.93	0.00	1.93
10.55	0.23	0.62	0.38*	1.92	0.00	1.92
10.60	0.24	0.62	0.38*	1.91	0.00	1.91
10.65	0.24	0.62	0.38*	1.90	0.00	1.90
10.70	0.24	0.62	0.38*	1.89	0.00	1.89
10.75	0.24	0.62	0.39*	1.88	0.00	1.88
10.80	0.24	0.62	0.39*	1.87	0.00	1.87
10.85	0.24	0.62	0.39*	1.86	0.00	1.86
10.90	0.25	0.62	0.39*	1.85	0.00	1.85
10.95	0.25	0.63	0.39*	1.84	0.00	1.84
11.00	0.25	0.63	0.40*	1.83	0.00	1.83
11.05	0.25	0.63	0.40*	1.82	0.00	1.82
11.10	0.25	0.63	0.40*	1.81	0.00	1.81
11.15	0.25	0.63	0.40*	1.80	0.00	1.80
11.20	0.25	0.63	0.40*	1.79	0.00	1.79
11.25	0.26	0.63	0.41*	1.78	0.00	1.78
11.30	0.26	0.63	0.41*	1.77	0.00	1.77
11.35	0.26	0.63	0.41*	1.76	0.00	1.76
11.40	0.26	0.63	0.41*	1.75	0.00	1.75
11.45	0.26	0.63	0.41*	1.74	0.00	1.74

11.50	0.26	0.63	0.42*	1.73	0.00	1.73
11.55	0.26	0.63	0.42*	1.72	0.00	1.72
11.60	0.27	0.63	0.42*	1.71	0.00	1.71
11.65	0.27	0.64	0.42*	1.70	0.00	1.70
11.70	0.27	0.64	0.42*	1.69	0.00	1.69
11.75	0.27	0.64	0.42*	1.68	0.00	1.68
11.80	0.27	0.64	0.43*	1.68	0.00	1.68
11.85	0.27	0.64	0.43*	1.67	0.00	1.67
11.90	0.27	0.64	0.43*	1.66	0.00	1.66
11.95	0.28	0.64	0.43*	1.65	0.00	1.65
12.00	0.28	0.64	0.43*	1.64	0.00	1.64
12.05	0.28	0.64	0.44*	1.63	0.00	1.63
12.10	0.28	0.64	0.44*	1.62	0.00	1.62
12.15	0.28	0.64	0.44*	1.61	0.00	1.61
12.20	0.28	0.64	0.44*	1.60	0.00	1.60
12.25	0.29	0.64	0.44*	1.59	0.00	1.59
12.30	0.29	0.64	0.44*	1.59	0.00	1.59
12.35	0.29	0.64	0.45*	1.58	0.00	1.58
12.40	0.29	0.65	0.45*	1.57	0.00	1.57
12.45	0.29	0.65	0.45*	1.56	0.00	1.56
12.50	0.29	0.65	0.45*	1.55	0.00	1.55
12.55	0.30	0.65	0.46*	1.54	0.00	1.54
12.60	0.30	0.65	0.46*	1.53	0.00	1.53
12.65	0.30	0.65	0.46*	1.53	0.00	1.53
12.70	0.30	0.65	0.47*	1.52	0.00	1.52
12.75	0.31	0.65	0.47*	1.51	0.00	1.51
12.80	0.31	0.65	0.47*	1.50	0.00	1.50
12.85	0.31	0.65	0.48*	1.49	0.00	1.49
12.90	0.31	0.65	0.48*	1.48	0.00	1.48
12.95	0.32	0.65	0.49*	1.48	0.00	1.48
13.00	0.32	0.65	0.49*	1.47	0.00	1.47
13.05	0.32	0.65	0.50*	1.46	0.00	1.46
13.10	0.33	0.65	0.50*	1.45	0.00	1.45
13.15	0.33	0.65	0.50*	1.44	0.00	1.44
13.20	0.33	0.65	0.51*	1.44	0.00	1.44
13.25	0.34	0.66	0.51*	1.43	0.00	1.43
13.30	0.34	0.66	0.52*	1.42	0.00	1.42
13.35	0.34	0.66	0.52*	1.41	0.00	1.41
13.40	0.35	0.66	0.53*	1.41	0.00	1.41
13.45	0.35	0.66	0.53*	1.40	0.00	1.40
13.50	0.35	0.66	0.54*	1.39	0.00	1.39
13.55	0.36	0.66	0.54*	1.38	0.00	1.38
13.60	0.36	0.66	0.55*	1.38	0.00	1.38
13.65	0.37	0.66	0.55*	1.37	0.00	1.37
13.70	0.37	0.66	0.56*	1.36	0.00	1.36
13.75	0.37	0.66	0.56*	1.36	0.00	1.36
13.80	0.38	0.66	0.57*	1.35	0.00	1.35
13.85	0.38	0.66	0.58*	1.34	0.00	1.34
13.90	0.39	0.66	0.58*	1.34	0.00	1.34
13.95	0.39	0.66	0.59*	1.33	0.00	1.33
14.00	0.40	0.66	0.60*	1.32	0.00	1.32
14.05	0.40	0.66	0.60*	1.32	0.00	1.32
14.10	0.41	0.66	0.61*	1.31	0.00	1.31
14.15	0.41	0.67	0.62*	1.30	0.00	1.30
14.20	0.42	0.67	0.62*	1.30	0.00	1.30
14.25	0.42	0.67	0.63*	1.29	0.00	1.29
14.30	0.43	0.67	0.64*	1.28	0.00	1.28
14.35	0.43	0.67	0.65*	1.28	0.00	1.28
14.40	0.44	0.67	0.66*	1.27	0.00	1.27
14.45	0.45	0.67	0.67*	1.27	0.00	1.27
14.50	0.45	0.67	0.68*	1.26	0.00	1.26
14.55	0.46	0.67	0.69*	1.25	0.00	1.25
14.60	0.47	0.67	0.70*	1.25	0.00	1.25

14.65	0.48	0.67	0.72*	1.24	0.00	1.24
14.70	0.49	0.67	0.73*	1.24	0.00	1.24
14.75	0.50	0.67	0.75*	1.23	0.00	1.23
14.80	0.64	0.67	0.95*	1.23	0.00	1.23
14.85	0.64	0.67	0.95*	1.22	0.00	1.22
14.90	0.64	0.67	0.95*	1.22	0.00	1.22
14.95	0.64	0.67	0.95*	1.22	0.00	1.22
15.00	0.64	0.67	0.95*	1.21	0.00	1.21
15.05	0.64	0.68	0.95*	1.21	0.00	1.21
15.10	0.64	0.68	0.95*	1.21	0.00	1.21
15.15	0.64	0.68	0.95*	1.20	0.00	1.20
15.20	0.64	0.68	0.95*	1.20	0.00	1.20
15.25	0.64	0.68	0.94*	1.20	0.00	1.20
15.30	0.64	0.68	0.94*	1.20	0.00	1.20
15.35	0.64	0.68	0.94*	1.19	0.00	1.19
15.40	0.64	0.68	0.94*	1.19	0.00	1.19
15.45	0.64	0.68	0.94*	1.19	0.00	1.19
15.50	0.64	0.68	0.94*	1.19	0.00	1.19
15.55	0.64	0.68	0.94*	1.19	0.00	1.19
15.60	0.64	0.68	0.94*	1.18	0.00	1.18
15.65	0.64	0.68	0.94*	1.18	0.00	1.18
15.70	0.64	0.68	0.94*	1.18	0.00	1.18
15.75	0.64	0.68	0.94*	1.18	0.00	1.18
15.80	0.64	0.68	0.94*	1.18	0.00	1.18
15.85	0.64	0.68	0.94*	1.18	0.00	1.18
15.90	0.64	0.68	0.93*	1.18	0.00	1.18
15.95	0.64	0.69	0.93*	1.18	0.00	1.18
16.00	0.64	0.69	0.93*	1.18	0.00	1.18
16.05	0.64	0.69	0.93*	1.17	0.00	1.17
16.10	0.64	0.69	0.93*	1.17	0.00	1.17
16.15	0.64	0.69	0.93*	1.17	0.00	1.17
16.20	0.64	0.69	0.93*	1.17	0.00	1.17
16.25	0.64	0.69	0.93*	1.17	0.00	1.17
16.30	0.64	0.69	0.93*	1.17	0.00	1.17
16.35	0.64	0.69	0.93*	1.17	0.00	1.17
16.40	0.64	0.69	0.93*	1.17	0.00	1.17
16.45	0.64	0.69	0.93*	1.17	0.00	1.17
16.50	0.64	0.69	0.93*	1.17	0.00	1.17
16.55	0.64	0.69	0.93*	1.16	0.00	1.16
16.60	0.64	0.69	0.92*	1.16	0.00	1.16
16.65	0.64	0.69	0.92*	1.16	0.00	1.16
16.70	0.64	0.69	0.92*	1.16	0.00	1.16
16.75	0.64	0.69	0.92*	1.16	0.00	1.16
16.80	0.64	0.69	0.92*	1.16	0.00	1.16
16.85	0.64	0.69	0.92*	1.16	0.00	1.16
16.90	0.64	0.70	0.92*	1.16	0.00	1.16
16.95	0.64	0.70	0.92*	1.16	0.00	1.16
17.00	0.64	0.70	0.92*	1.16	0.00	1.16
17.05	0.64	0.70	0.92*	1.16	0.00	1.16
17.10	0.64	0.70	0.92*	1.16	0.00	1.16
17.15	0.64	0.70	0.92*	1.16	0.00	1.16
17.20	0.64	0.70	0.92*	1.16	0.00	1.16
17.25	0.64	0.70	0.92*	1.16	0.00	1.16
17.30	0.64	0.70	0.91*	1.16	0.00	1.16
17.35	0.64	0.70	0.91*	1.16	0.00	1.16
17.40	0.64	0.70	0.91*	1.16	0.00	1.16
17.45	0.64	0.70	0.91*	1.16	0.00	1.16
17.50	0.64	0.70	0.91*	1.16	0.00	1.16
17.55	0.64	0.70	0.91*	1.16	0.00	1.16
17.60	0.64	0.70	0.91*	1.16	0.00	1.16
17.65	0.64	0.70	0.91*	1.16	0.00	1.16
17.70	0.64	0.70	0.91*	1.16	0.00	1.16
17.75	0.64	0.70	0.91*	1.16	0.00	1.16

17.80	0.64	0.71	0.91*	1.16	0.00	1.16
17.85	0.64	0.71	0.91*	1.16	0.00	1.16
17.90	0.64	0.71	0.91*	1.16	0.00	1.16
17.95	0.64	0.71	0.91*	1.16	0.00	1.16
18.00	0.64	0.71	0.90*	1.16	0.00	1.16
18.05	0.64	0.71	0.90*	1.16	0.00	1.16
18.10	0.64	0.71	0.90*	1.16	0.00	1.16
18.15	0.64	0.71	0.90*	1.16	0.00	1.16
18.20	0.64	0.71	0.90*	1.16	0.00	1.16
18.25	0.64	0.71	0.90*	1.16	0.00	1.16
18.30	0.64	0.71	0.90*	1.16	0.00	1.16
18.35	0.64	0.71	0.90*	1.16	0.00	1.16
18.40	0.64	0.71	0.90*	1.16	0.00	1.16
18.45	0.64	0.71	0.90*	1.16	0.00	1.16
18.50	0.64	0.71	0.90*	1.16	0.00	1.16
18.55	0.64	0.71	0.90*	1.16	0.00	1.16
18.60	0.64	0.71	0.90*	1.16	0.00	1.16
18.65	0.64	0.71	0.90*	1.16	0.00	1.16
18.70	0.64	0.71	0.90*	1.16	0.00	1.16
18.75	0.64	0.72	0.89*	1.16	0.00	1.16
18.80	0.64	0.72	0.89*	1.16	0.00	1.16
18.85	0.64	0.72	0.89*	1.16	0.00	1.16
18.90	0.64	0.72	0.89*	1.16	0.00	1.16
18.95	0.64	0.72	0.89*	1.16	0.00	1.16
19.00	0.64	0.72	0.89*	1.16	0.00	1.16
19.05	0.64	0.72	0.89*	1.16	0.00	1.16
19.10	0.64	0.72	0.89*	1.16	0.00	1.16
19.15	0.64	0.72	0.89*	1.16	0.00	1.16
19.20	0.64	0.72	0.89*	1.16	0.00	1.16
19.25	0.64	0.72	0.89*	1.16	0.00	1.16
19.30	0.64	0.72	0.89*	1.16	0.00	1.16
19.35	0.64	0.72	0.89*	1.16	0.00	1.16
19.40	0.64	0.72	0.89*	1.16	0.00	1.16
19.45	0.64	0.72	0.89*	1.16	0.00	1.16
19.50	0.64	0.72	0.89*	1.16	0.00	1.16
19.55	0.64	0.72	0.89*	1.16	0.00	1.16
19.60	0.64	0.72	0.89*	1.16	0.00	1.16
19.65	0.64	0.72	0.88*	1.16	0.00	1.16
19.70	0.64	0.72	0.88*	1.16	0.00	1.16
19.75	0.64	0.72	0.88*	1.16	0.00	1.16
19.80	0.64	0.72	0.88*	1.16	0.00	1.16
19.85	0.64	0.73	0.88*	1.16	0.00	1.16
19.90	0.64	0.73	0.88*	1.16	0.00	1.16
19.95	0.64	0.73	0.88*	1.16	0.00	1.16
20.00	0.64	0.73	0.88*	1.16	0.00	1.16
20.05	0.64	0.73	0.88*	1.16	0.00	1.16
20.10	0.64	0.73	0.88*	1.16	0.00	1.16
20.15	0.64	0.73	0.88*	1.16	0.00	1.16
20.20	0.64	0.73	0.88*	1.16	0.00	1.16
20.25	0.64	0.73	0.88*	1.16	0.00	1.16
20.30	0.64	0.73	0.88*	1.16	0.00	1.16
20.35	0.64	0.73	0.88*	1.16	0.00	1.16
20.40	0.64	0.73	0.88*	1.16	0.00	1.16
20.45	0.64	0.73	0.88*	1.16	0.00	1.16
20.50	0.64	0.73	0.88*	1.16	0.00	1.16
20.55	0.64	0.73	0.88*	1.16	0.00	1.16
20.60	0.64	0.73	0.88*	1.16	0.00	1.16
20.65	0.64	0.73	0.87*	1.16	0.00	1.16
20.70	0.64	0.73	0.87*	1.16	0.00	1.16
20.75	0.64	0.73	0.87*	1.16	0.00	1.16
20.80	0.64	0.73	0.87*	1.16	0.00	1.16
20.85	0.64	0.73	0.87*	1.16	0.00	1.16
20.90	0.64	0.73	0.87*	1.16	0.00	1.16

20.95	0.64	0.73	0.87*	1.16	0.00	1.16
21.00	0.64	0.73	0.87*	1.16	0.00	1.16
21.05	0.64	0.73	0.87*	1.16	0.00	1.16
21.10	0.64	0.73	0.87*	1.16	0.00	1.16
21.15	0.64	0.74	0.87*	1.16	0.00	1.16
21.20	0.64	0.74	0.87*	1.16	0.00	1.16
21.25	0.64	0.74	0.87*	1.16	0.00	1.16
21.30	0.64	0.74	0.87*	1.16	0.00	1.16
21.35	0.64	0.74	0.87*	1.16	0.00	1.16
21.40	0.64	0.74	0.87*	1.16	0.00	1.16
21.45	0.64	0.74	0.87*	1.16	0.00	1.16
21.50	0.64	0.74	0.87*	1.16	0.00	1.16
21.55	0.64	0.74	0.87*	1.16	0.00	1.16
21.60	0.64	0.74	0.87*	1.16	0.00	1.16
21.65	0.64	0.74	0.87*	1.16	0.00	1.16
21.70	0.64	0.74	0.87*	1.16	0.00	1.16
21.75	0.64	0.74	0.87*	1.16	0.00	1.16
21.80	0.64	0.74	0.86*	1.16	0.00	1.16
21.85	0.64	0.74	0.86*	1.16	0.00	1.16
21.90	0.64	0.74	0.86*	1.16	0.00	1.16
21.95	0.64	0.74	0.86*	1.16	0.00	1.16
22.00	0.64	0.74	0.86*	1.16	0.00	1.16
22.05	0.64	0.74	0.86*	1.16	0.00	1.16
22.10	0.64	0.74	0.86*	1.16	0.00	1.16
22.15	0.64	0.74	0.86*	1.16	0.00	1.16
22.20	0.64	0.74	0.86*	1.16	0.00	1.16
22.25	0.64	0.74	0.86*	1.16	0.00	1.16
22.30	0.64	0.74	0.86*	1.16	0.00	1.16
22.35	0.64	0.74	0.86*	1.15	0.00	1.15
22.40	0.64	0.74	0.86*	1.15	0.00	1.15
22.45	0.64	0.74	0.86*	1.15	0.00	1.15
22.50	0.64	0.74	0.86*	1.15	0.00	1.15
22.55	0.64	0.74	0.86*	1.15	0.00	1.15
22.60	0.64	0.74	0.86*	1.15	0.00	1.15
22.65	0.64	0.75	0.86*	1.15	0.00	1.15
22.70	0.64	0.75	0.86*	1.15	0.00	1.15
22.75	0.64	0.75	0.86*	1.15	0.00	1.15
22.80	0.64	0.75	0.86*	1.15	0.00	1.15
22.85	0.64	0.75	0.86*	1.15	0.00	1.15
22.90	0.64	0.75	0.86*	1.15	0.00	1.15
22.95	0.64	0.75	0.86*	1.15	0.00	1.15
23.00	0.64	0.75	0.86*	1.14	0.00	1.14
23.05	0.64	0.75	0.86*	1.14	0.00	1.14
23.10	0.64	0.75	0.86*	1.14	0.00	1.14
23.15	0.64	0.75	0.86*	1.14	0.00	1.14
23.20	0.64	0.75	0.85*	1.14	0.00	1.14
23.25	0.64	0.75	0.85*	1.14	0.00	1.14
23.30	0.64	0.75	0.85*	1.14	0.00	1.14
23.35	0.64	0.75	0.85*	1.14	0.00	1.14
23.40	0.64	0.75	0.85*	1.14	0.00	1.14
23.45	0.64	0.75	0.85*	1.14	0.00	1.14
23.50	0.64	0.75	0.85*	1.14	0.00	1.14
23.55	0.64	0.75	0.85*	1.13	0.00	1.13
23.60	0.64	0.75	0.85*	1.13	0.00	1.13
23.65	0.64	0.75	0.85*	1.13	0.00	1.13
23.70	0.64	0.75	0.85*	1.13	0.00	1.13
23.75	0.64	0.75	0.85*	1.13	0.00	1.13
23.80	0.64	0.75	0.85*	1.13	0.00	1.13
23.85	0.64	0.75	0.85*	1.13	0.00	1.13
23.90	0.64	0.75	0.85*	1.13	0.00	1.13
23.95	0.64	0.75	0.85*	1.12	0.00	1.12
24.00	0.64	0.75	0.85*	1.12	0.00	1.12
24.05	0.64	0.75	0.85*	1.12	0.00	1.12

24.10	0.64	0.75	0.85*	1.12	0.00	1.12
24.15	0.64	0.75	0.85*	1.12	0.00	1.12
24.20	0.64	0.75	0.85*	1.12	0.00	1.12
24.25	0.64	0.75	0.85*	1.11	0.00	1.11
24.30	0.64	0.75	0.85*	1.11	0.00	1.11
24.35	0.64	0.76	0.85*	1.11	0.00	1.11
24.40	0.64	0.76	0.85*	1.11	0.00	1.11
24.45	0.64	0.76	0.85*	1.10	0.00	1.10
24.50	0.64	0.76	0.85*	1.10	0.00	1.10
24.55	0.64	0.76	0.85*	1.10	0.00	1.10
24.60	0.64	0.76	0.85*	1.10	0.00	1.10
24.65	0.64	0.76	0.85*	1.09	0.00	1.09
24.70	0.64	0.76	0.85*	1.09	0.00	1.09
24.75	0.64	0.76	0.84*	1.09	0.00	1.09
24.80	0.64	0.76	0.84*	1.08	0.00	1.08
24.85	0.64	0.76	0.84*	1.08	0.00	1.08
24.90	0.64	0.76	0.84*	1.08	0.00	1.08
24.95	0.64	0.76	0.84*	1.07	0.00	1.07
25.00	0.64	0.76	0.84*	1.07	0.00	1.07
25.05	0.64	0.76	0.84*	1.07	0.00	1.07
25.10	0.64	0.76	0.84*	1.06	0.00	1.06
25.15	0.64	0.76	0.84*	1.06	0.00	1.06
25.20	0.64	0.76	0.84*	1.05	0.00	1.05
25.25	0.64	0.76	0.84*	1.05	0.00	1.05
25.30	0.64	0.76	0.84*	1.05	0.00	1.05
25.35	0.64	0.76	0.84*	1.04	0.00	1.04
25.40	0.63	0.76	0.83*	1.04	0.00	1.04
25.45	0.58	0.76	0.76*	1.03	0.00	1.03
25.50	0.55	0.76	0.73*	1.03	0.00	1.03
25.55	0.53	0.76	0.70*	1.02	0.00	1.02
25.60	0.52	0.76	0.68*	1.02	0.00	1.02
25.65	0.51	0.76	0.67*	1.01	0.00	1.01
25.70	0.50	0.76	0.65*	1.01	0.00	1.01
25.75	0.49	0.76	0.64*	1.00	0.00	1.00
25.80	0.48	0.76	0.63*	1.00	0.00	1.00
25.85	0.48	0.76	0.62*	0.99	0.00	0.99
25.90	0.47	0.76	0.62*	0.99	0.00	0.99
25.95	0.46	0.76	0.61*	0.98	0.00	0.98
26.00	0.46	0.76	0.60*	0.98	0.00	0.98
26.05	0.45	0.76	0.59*	0.97	0.00	0.97
26.10	0.45	0.76	0.59*	0.97	0.00	0.97
26.15	0.44	0.76	0.58*	0.96	0.00	0.96
26.20	0.44	0.77	0.57*	0.96	0.00	0.96
26.25	0.44	0.77	0.57*	0.95	0.00	0.95
26.30	0.43	0.77	0.56*	0.94	0.00	0.94
26.35	0.43	0.77	0.56*	0.94	0.00	0.94
26.40	0.42	0.77	0.55*	0.93	0.00	0.93
26.45	0.42	0.77	0.55*	0.92	0.00	0.92
26.50	0.42	0.77	0.54*	0.92	0.00	0.92
26.55	0.41	0.77	0.54*	0.91	0.00	0.91
26.60	0.41	0.77	0.53*	0.91	0.00	0.91
26.65	0.41	0.77	0.53*	0.90	0.00	0.90
26.70	0.40	0.77	0.52*	0.89	0.00	0.89
26.75	0.40	0.77	0.52*	0.89	0.00	0.89
26.80	0.40	0.77	0.51*	0.88	0.00	0.88
26.85	0.39	0.77	0.51*	0.87	0.00	0.87
26.90	0.39	0.77	0.51*	0.87	0.00	0.87
26.95	0.39	0.77	0.50*	0.86	0.00	0.86
27.00	0.38	0.77	0.50*	0.85	0.00	0.85
27.05	0.38	0.77	0.49*	0.85	0.00	0.85
27.10	0.38	0.77	0.49*	0.84	0.00	0.84
27.15	0.37	0.77	0.49*	0.83	0.00	0.83
27.20	0.37	0.77	0.48*	0.83	0.00	0.83

27.25	0.37	0.77	0.48*	0.82	0.00	0.82
27.30	0.37	0.77	0.48*	0.81	0.00	0.81
27.35	0.36	0.77	0.47*	0.80	0.00	0.80
27.40	0.36	0.77	0.47*	0.80	0.00	0.80
27.45	0.36	0.77	0.47*	0.79	0.00	0.79
27.50	0.36	0.77	0.46*	0.78	0.00	0.78
27.55	0.36	0.77	0.46*	0.78	0.00	0.78
27.60	0.36	0.77	0.46*	0.77	0.00	0.77
27.65	0.36	0.77	0.46*	0.76	0.00	0.76
27.70	0.36	0.77	0.46*	0.75	0.00	0.75
27.75	0.36	0.77	0.46*	0.75	0.00	0.75
27.80	0.35	0.77	0.46*	0.74	0.00	0.74
27.85	0.35	0.77	0.46*	0.73	0.00	0.73
27.90	0.38	0.77	0.49*	0.73	0.00	0.73
27.95	0.38	0.77	0.49*	0.72	0.00	0.72
28.00	0.38	0.77	0.48*	0.71	0.00	0.71
28.05	0.37	0.77	0.48*	0.70	0.00	0.70
28.10	0.37	0.77	0.48*	0.70	0.00	0.70
28.15	0.37	0.77	0.48*	0.69	0.00	0.69
28.20	0.37	0.77	0.48*	0.68	0.00	0.68
28.25	0.37	0.78	0.48*	0.68	0.00	0.68
28.30	0.37	0.78	0.48*	0.67	0.00	0.67
28.35	0.37	0.78	0.48*	0.66	0.00	0.66
28.40	0.37	0.78	0.48*	0.66	0.00	0.66
28.45	0.37	0.78	0.48*	0.65	0.00	0.65
28.50	0.37	0.78	0.47*	0.64	0.00	0.64
28.55	0.37	0.78	0.47*	0.63	0.00	0.63
28.60	0.37	0.78	0.47*	0.63	0.00	0.63
28.65	0.37	0.78	0.47*	0.62	0.00	0.62
28.70	0.37	0.78	0.47*	0.61	0.00	0.61
28.75	0.36	0.78	0.47*	0.61	0.00	0.61
28.80	0.36	0.78	0.47*	0.60	0.00	0.60
28.85	0.36	0.78	0.47*	0.59	0.00	0.59
28.90	0.36	0.78	0.47*	0.59	0.00	0.59
28.95	0.36	0.78	0.47*	0.58	0.00	0.58
29.00	0.36	0.78	0.46*	0.57	0.00	0.57
29.05	0.36	0.78	0.46*	0.56	0.00	0.56
29.10	0.36	0.78	0.46*	0.56	0.00	0.56
29.15	0.36	0.78	0.46*	0.55	0.00	0.55
29.20	0.36	0.78	0.46*	0.54	0.00	0.54
29.25	0.36	0.78	0.46*	0.54	0.00	0.54
29.30	0.36	0.78	0.46*	0.53	0.00	0.53
29.35	0.36	0.78	0.46*	0.52	0.00	0.52
29.40	0.36	0.78	0.46*	0.51	0.00	0.51
29.45	0.36	0.78	0.46*	0.51	0.00	0.51
29.50	0.36	0.78	0.46*	0.50	0.00	0.50
29.55	0.35	0.78	0.45*	0.49	0.00	0.49
29.60	0.35	0.78	0.45*	0.48	0.00	0.48
29.65	0.35	0.78	0.45*	0.48	0.00	0.48
29.70	0.35	0.78	0.45*	0.47	0.00	0.47
29.75	0.35	0.78	0.45*	0.46	0.00	0.46
29.80	0.35	0.78	0.45*	0.46	0.00	0.46
29.85	0.35	0.78	0.45*	0.45	0.00	0.45
29.90	0.35	0.78	0.45*	0.44	0.00	0.44
29.95	0.35	0.78	0.45*	0.43	0.00	0.43
30.00	0.35	0.78	0.45*	0.43	0.00	0.43
30.05	0.36	0.78	0.45*	0.42	0.00	0.42
30.10	0.36	0.78	0.46*	0.41	0.00	0.41
30.15	0.37	0.78	0.47*	0.41	0.00	0.41
30.20	0.38	0.78	0.48*	0.40	0.00	0.40
30.25	0.38	0.78	0.49*	0.39	0.00	0.39
30.30	0.39	0.78	0.50*	0.38	0.00	0.38
30.35	0.40	0.78	0.51*	0.38	0.00	0.38

30.40	0.41	0.78	0.52*	0.37	0.00	0.37
30.45	0.42	0.78	0.53*	0.37	0.00	0.37
30.50	0.43	0.78	0.55*	0.36	0.00	0.36
30.55	0.44	0.78	0.56*	0.35	0.00	0.35
30.60	0.45	0.78	0.58*	0.35	0.00	0.35
30.65	0.46	0.78	0.59*	0.34	0.00	0.34
30.70	0.48	0.78	0.61*	0.34	0.00	0.34
30.75	0.50	0.78	0.64*	0.33	0.00	0.33
30.80	0.53	0.78	0.68*	0.33	0.00	0.33
30.85	0.59	0.78	0.76*	0.32	0.00	0.32
30.90	0.63	0.78	0.81*	0.32	0.00	0.32
30.95	0.63	0.78	0.81*	0.31	0.00	0.31
31.00	0.63	0.78	0.81*	0.31	0.00	0.31
31.05	0.63	0.78	0.81*	0.30	0.00	0.30
31.10	0.63	0.78	0.81*	0.30	0.00	0.30
31.15	0.63	0.78	0.81*	0.30	0.00	0.30
31.20	0.63	0.78	0.81*	0.29	0.00	0.29
31.25	0.63	0.78	0.81*	0.29	0.00	0.29
31.30	0.63	0.78	0.81*	0.29	0.00	0.29
31.35	0.63	0.78	0.81*	0.29	0.00	0.29
31.40	0.63	0.78	0.81*	0.29	0.00	0.29
31.45	0.63	0.78	0.81*	0.29	0.00	0.29
31.50	0.63	0.78	0.81*	0.28	0.00	0.28
31.55	0.63	0.78	0.81*	0.28	0.00	0.28
31.60	0.63	0.78	0.81*	0.28	0.00	0.28
31.65	0.63	0.78	0.81*	0.28	0.00	0.28
31.70	0.63	0.78	0.81*	0.28	0.00	0.28
31.75	0.63	0.78	0.81*	0.28	0.00	0.28
31.80	0.63	0.78	0.81*	0.28	0.00	0.28
31.85	0.63	0.78	0.81*	0.28	0.00	0.28
31.90	0.63	0.78	0.81*	0.28	0.00	0.28
31.95	0.63	0.78	0.81*	0.28	0.00	0.28
32.00	0.63	0.78	0.81*	0.28	0.00	0.28
32.05	0.63	0.78	0.81*	0.28	0.00	0.28
32.10	0.63	0.78	0.81*	0.28	0.00	0.28
32.15	0.63	0.78	0.81*	0.28	0.00	0.28
32.20	0.63	0.78	0.81*	0.28	0.00	0.28
32.25	0.63	0.78	0.81*	0.28	0.00	0.28
32.30	0.63	0.78	0.81*	0.28	0.00	0.28
32.35	0.63	0.78	0.81*	0.28	0.00	0.28
32.40	0.63	0.78	0.81*	0.28	0.00	0.28
32.45	0.63	0.78	0.81*	0.28	0.00	0.28
32.50	0.63	0.78	0.81*	0.28	0.00	0.28
32.55	0.63	0.78	0.81*	0.28	0.00	0.28
32.60	0.63	0.78	0.81*	0.28	0.00	0.28
32.65	0.63	0.78	0.81*	0.28	0.00	0.28
32.70	0.63	0.78	0.81*	0.28	0.00	0.28
32.75	0.63	0.78	0.81*	0.28	0.00	0.28
32.80	0.63	0.78	0.81*	0.28	0.00	0.28
32.85	0.63	0.78	0.81*	0.28	0.00	0.28
32.90	0.63	0.78	0.81*	0.28	0.00	0.28
32.95	0.63	0.78	0.81*	0.28	0.00	0.28
33.00	0.63	0.78	0.81*	0.28	0.00	0.28
33.05	0.63	0.78	0.81*	0.28	0.00	0.28
33.10	0.63	0.78	0.81*	0.28	0.00	0.28
33.15	0.62	0.77	0.81*	0.28	0.00	0.28
33.20	0.62	0.77	0.81*	0.28	0.00	0.28
33.25	0.62	0.77	0.81*	0.28	0.00	0.28
33.30	0.62	0.77	0.81*	0.28	0.00	0.28
33.35	0.62	0.77	0.81*	0.28	0.00	0.28
33.40	0.62	0.77	0.81*	0.28	0.00	0.28
33.45	0.62	0.77	0.81*	0.28	0.00	0.28
33.50	0.62	0.77	0.81*	0.28	0.00	0.28

33.55	0.62	0.77	0.81*	0.28	0.00	0.28
33.60	0.62	0.77	0.81*	0.28	0.00	0.28
33.65	0.62	0.77	0.81*	0.28	0.00	0.28
33.70	0.62	0.77	0.81*	0.28	0.00	0.28
33.75	0.62	0.77	0.81*	0.28	0.00	0.28
33.80	0.62	0.77	0.81*	0.28	0.00	0.28
33.85	0.62	0.77	0.81*	0.28	0.00	0.28
33.90	0.62	0.77	0.81*	0.28	0.00	0.28
33.95	0.62	0.77	0.81*	0.28	0.00	0.28
34.00	0.62	0.77	0.81*	0.28	0.00	0.28
34.05	0.62	0.77	0.81*	0.28	0.00	0.28
34.10	0.62	0.77	0.81*	0.28	0.00	0.28
34.15	0.62	0.77	0.81*	0.28	0.00	0.28
34.20	0.62	0.77	0.81*	0.28	0.00	0.28
34.25	0.62	0.77	0.81*	0.28	0.00	0.28
34.30	0.62	0.77	0.80*	0.28	0.00	0.28
34.35	0.62	0.77	0.80*	0.28	0.00	0.28
34.40	0.62	0.77	0.80*	0.28	0.00	0.28
34.45	0.62	0.77	0.80*	0.28	0.00	0.28
34.50	0.62	0.77	0.80*	0.28	0.00	0.28
34.55	0.62	0.77	0.80*	0.28	0.00	0.28
34.60	0.62	0.77	0.80*	0.28	0.00	0.28
34.65	0.62	0.77	0.80*	0.28	0.00	0.28
34.70	0.62	0.77	0.80*	0.28	0.00	0.28
34.75	0.62	0.77	0.80*	0.28	0.00	0.28
34.80	0.62	0.77	0.80*	0.28	0.00	0.28
34.85	0.62	0.77	0.80*	0.28	0.00	0.28
34.90	0.62	0.77	0.80*	0.28	0.00	0.28
34.95	0.62	0.77	0.80*	0.28	0.00	0.28
35.00	0.62	0.77	0.80*	0.28	0.00	0.28
35.05	0.62	0.77	0.80*	0.28	0.00	0.28
35.10	0.62	0.77	0.80*	0.28	0.00	0.28
35.15	0.62	0.77	0.80*	0.28	0.00	0.28
35.20	0.62	0.77	0.80*	0.28	0.00	0.28
35.25	0.62	0.77	0.80*	0.28	0.00	0.28
35.30	0.62	0.77	0.80*	0.28	0.00	0.28
35.35	0.62	0.77	0.80*	0.28	0.00	0.28
35.40	0.62	0.77	0.80*	0.28	0.00	0.28
35.45	0.62	0.77	0.80*	0.28	0.00	0.28
35.50	0.62	0.77	0.80*	0.28	0.00	0.28
35.55	0.62	0.77	0.80*	0.28	0.00	0.28
35.60	0.62	0.77	0.80*	0.28	0.00	0.28
35.65	0.62	0.77	0.80*	0.28	0.00	0.28
35.70	0.62	0.77	0.80*	0.28	0.00	0.28
35.75	0.62	0.77	0.80*	0.28	0.00	0.28
35.80	0.62	0.77	0.80*	0.28	0.00	0.28
35.85	0.62	0.77	0.80*	0.28	0.00	0.28
35.90	0.62	0.77	0.80*	0.28	0.00	0.28
35.95	0.62	0.77	0.80*	0.28	0.00	0.28
36.00	0.62	0.77	0.80*	0.28	0.00	0.28
36.05	0.62	0.77	0.80*	0.28	0.00	0.28
36.10	0.62	0.77	0.80*	0.28	0.00	0.28
36.15	0.62	0.77	0.80*	0.28	0.00	0.28
36.20	0.61	0.77	0.80*	0.28	0.00	0.28
36.25	0.61	0.77	0.80*	0.28	0.00	0.28
36.30	0.61	0.77	0.80*	0.28	0.00	0.28
36.35	0.61	0.76	0.80*	0.28	0.00	0.28
36.40	0.61	0.76	0.80*	0.28	0.00	0.28
36.45	0.61	0.76	0.80*	0.28	0.00	0.28
36.50	0.61	0.76	0.80*	0.28	0.00	0.28
36.55	0.61	0.76	0.80*	0.28	0.00	0.28
36.60	0.61	0.76	0.80*	0.28	0.00	0.28
36.65	0.61	0.76	0.80*	0.28	0.00	0.28

36.70	0.61	0.76	0.80*	0.28	0.00	0.28
36.75	0.61	0.76	0.80*	0.28	0.00	0.28
36.80	0.61	0.76	0.80*	0.28	0.00	0.28
36.85	0.61	0.76	0.80*	0.28	0.00	0.28
36.90	0.61	0.76	0.80*	0.28	0.00	0.28
36.95	0.61	0.76	0.80*	0.28	0.00	0.28
37.00	0.61	0.76	0.80*	0.28	0.00	0.28
37.05	0.61	0.76	0.80*	0.28	0.00	0.28
37.10	0.61	0.76	0.80*	0.28	0.00	0.28
37.15	0.61	0.76	0.80*	0.28	0.00	0.28
37.20	0.61	0.76	0.80*	0.28	0.00	0.28
37.25	0.61	0.76	0.80*	0.28	0.00	0.28
37.30	0.61	0.76	0.80*	0.28	0.00	0.28
37.35	0.61	0.76	0.80*	0.28	0.00	0.28
37.40	0.61	0.76	0.80*	0.28	0.00	0.28
37.45	0.61	0.76	0.80*	0.28	0.00	0.28
37.50	0.61	0.76	0.80*	0.28	0.00	0.28
37.55	0.61	0.76	0.80*	0.28	0.00	0.28
37.60	0.61	0.76	0.80*	0.28	0.00	0.28
37.65	0.61	0.76	0.80*	0.28	0.00	0.28
37.70	0.61	0.76	0.80*	0.28	0.00	0.28
37.75	0.61	0.76	0.80*	0.28	0.00	0.28
37.80	0.61	0.76	0.80*	0.28	0.00	0.28
37.85	0.61	0.76	0.80*	0.28	0.00	0.28
37.90	0.61	0.76	0.80*	0.28	0.00	0.28
37.95	0.61	0.76	0.80*	0.28	0.00	0.28
38.00	0.61	0.76	0.80*	0.28	0.00	0.28
38.05	0.61	0.76	0.80*	0.28	0.00	0.28
38.10	0.61	0.76	0.80*	0.28	0.00	0.28
38.15	0.61	0.76	0.80*	0.28	0.00	0.28
38.20	0.61	0.76	0.80*	0.28	0.00	0.28
38.25	0.61	0.76	0.80*	0.28	0.00	0.28
38.30	0.61	0.76	0.80*	0.28	0.00	0.28
38.35	0.61	0.76	0.80*	0.28	0.00	0.28
38.40	0.61	0.76	0.80*	0.28	0.00	0.28
38.45	0.61	0.76	0.80*	0.28	0.00	0.28
38.50	0.61	0.76	0.80*	0.28	0.00	0.28
38.55	0.61	0.76	0.80*	0.28	0.00	0.28
38.60	0.61	0.76	0.80*	0.28	0.00	0.28
38.65	0.61	0.76	0.80*	0.28	0.00	0.28
38.70	0.61	0.76	0.80*	0.28	0.00	0.28
38.75	0.61	0.76	0.80*	0.28	0.00	0.28
38.80	0.61	0.76	0.80*	0.28	0.00	0.28
38.85	0.61	0.76	0.80*	0.28	0.00	0.28
38.90	0.61	0.76	0.80*	0.28	0.00	0.28
38.95	0.61	0.75	0.80*	0.28	0.00	0.28
39.00	0.61	0.75	0.80*	0.28	0.00	0.28
39.05	0.61	0.75	0.80*	0.28	0.00	0.28
39.10	0.61	0.75	0.80*	0.28	0.00	0.28
39.15	0.61	0.75	0.80*	0.28	0.00	0.28
39.20	0.61	0.75	0.80*	0.28	0.00	0.28
39.25	0.61	0.75	0.80*	0.28	0.00	0.28
39.30	0.61	0.75	0.80*	0.28	0.00	0.28
39.35	0.61	0.75	0.80*	0.28	0.00	0.28
39.40	0.60	0.75	0.80*	0.28	0.00	0.28
39.45	0.60	0.75	0.80*	0.28	0.00	0.28
39.50	0.60	0.75	0.80*	0.28	0.00	0.28
39.55	0.60	0.75	0.80*	0.28	0.00	0.28
39.60	0.60	0.75	0.80*	0.28	0.00	0.28
39.65	0.60	0.75	0.80*	0.28	0.00	0.28
39.70	0.60	0.75	0.80*	0.28	0.00	0.28
39.75	0.60	0.75	0.80*	0.28	0.00	0.28
39.80	0.60	0.75	0.80*	0.28	0.00	0.28

39.85	0.60	0.75	0.80*	0.28	0.00	0.28
39.90	0.60	0.75	0.80*	0.28	0.00	0.28
39.95	0.60	0.75	0.80*	0.28	0.00	0.28
40.00	0.60	0.75	0.80*	0.28	0.00	0.28
40.05	0.60	0.75	0.80*	0.28	0.00	0.28
40.10	0.60	0.75	0.80*	0.28	0.00	0.28
40.15	0.60	0.75	0.80*	0.28	0.00	0.28
40.20	0.60	0.75	0.80*	0.28	0.00	0.28
40.25	0.60	0.75	0.80*	0.28	0.00	0.28
40.30	0.60	0.75	0.80*	0.28	0.00	0.28
40.35	0.60	0.75	0.80*	0.28	0.00	0.28
40.40	0.60	0.75	0.80*	0.28	0.00	0.28
40.45	0.60	0.75	0.81*	0.28	0.00	0.28
40.50	0.60	0.75	0.81*	0.28	0.00	0.28
40.55	0.60	0.75	0.81*	0.28	0.00	0.28
40.60	0.60	0.75	0.81*	0.28	0.00	0.28
40.65	0.60	0.75	0.81*	0.28	0.00	0.28
40.70	0.60	0.75	0.81*	0.28	0.00	0.28
40.75	0.60	0.75	0.81*	0.28	0.00	0.28
40.80	0.60	0.75	0.81*	0.28	0.00	0.28
40.85	0.60	0.74	0.81*	0.28	0.00	0.28
40.90	0.60	0.74	0.81*	0.28	0.00	0.28
40.95	0.60	0.74	0.81*	0.28	0.00	0.28
41.00	0.60	0.74	0.81*	0.28	0.00	0.28
41.05	0.60	0.74	0.81*	0.28	0.00	0.28
41.10	0.60	0.74	0.81*	0.28	0.00	0.28
41.15	0.60	0.74	0.81*	0.28	0.00	0.28
41.20	0.60	0.74	0.81*	0.28	0.00	0.28
41.25	0.60	0.74	0.81*	0.28	0.00	0.28
41.30	0.60	0.74	0.81*	0.28	0.00	0.28
41.35	0.60	0.74	0.81*	0.28	0.00	0.28
41.40	0.60	0.74	0.81*	0.28	0.00	0.28
41.45	0.60	0.74	0.81*	0.28	0.00	0.28
41.50	0.60	0.74	0.81*	0.28	0.00	0.28
41.55	0.60	0.74	0.81*	0.28	0.00	0.28
41.60	0.60	0.74	0.81*	0.28	0.00	0.28
41.65	0.60	0.74	0.81*	0.28	0.00	0.28
41.70	0.60	0.74	0.81*	0.28	0.00	0.28
41.75	0.60	0.74	0.81*	0.28	0.00	0.28
41.80	0.60	0.74	0.81*	0.28	0.00	0.28
41.85	0.60	0.74	0.81*	0.28	0.00	0.28
41.90	0.60	0.74	0.81*	0.28	0.00	0.28
41.95	0.60	0.74	0.81*	0.28	0.00	0.28
42.00	0.60	0.74	0.81*	0.28	0.00	0.28
42.05	0.60	0.74	0.81*	0.28	0.00	0.28
42.10	0.60	0.74	0.81*	0.28	0.00	0.28
42.15	0.60	0.74	0.81*	0.28	0.00	0.28
42.20	0.60	0.74	0.81*	0.28	0.00	0.28
42.25	0.60	0.74	0.81*	0.28	0.00	0.28
42.30	0.60	0.74	0.81*	0.28	0.00	0.28
42.35	0.60	0.74	0.81*	0.28	0.00	0.28
42.40	0.60	0.74	0.81*	0.28	0.00	0.28
42.45	0.59	0.73	0.81*	0.28	0.00	0.28
42.50	0.59	0.73	0.81*	0.28	0.00	0.28
42.55	0.59	0.73	0.81*	0.28	0.00	0.28
42.60	0.59	0.73	0.81*	0.28	0.00	0.28
42.65	0.59	0.73	0.81*	0.28	0.00	0.28
42.70	0.59	0.73	0.81*	0.28	0.00	0.28
42.75	0.59	0.73	0.81*	0.28	0.00	0.28
42.80	0.59	0.73	0.81*	0.28	0.00	0.28
42.85	0.59	0.73	0.81*	0.28	0.00	0.28
42.90	0.59	0.73	0.81*	0.28	0.00	0.28
42.95	0.59	0.73	0.81*	0.28	0.00	0.28

43.00	0.59	0.73	0.81*	0.28	0.00	0.28
43.05	0.59	0.73	0.81*	0.28	0.00	0.28
43.10	0.59	0.73	0.81*	0.28	0.00	0.28
43.15	0.59	0.73	0.81*	0.28	0.00	0.28
43.20	0.59	0.73	0.81*	0.28	0.00	0.28
43.25	0.59	0.73	0.81*	0.28	0.00	0.28
43.30	0.59	0.73	0.81*	0.28	0.00	0.28
43.35	0.59	0.73	0.81*	0.28	0.00	0.28
43.40	0.59	0.73	0.81*	0.28	0.00	0.28
43.45	0.59	0.73	0.81*	0.28	0.00	0.28
43.50	0.59	0.73	0.81*	0.28	0.00	0.28
43.55	0.59	0.73	0.81*	0.28	0.00	0.28
43.60	0.59	0.73	0.81*	0.28	0.00	0.28
43.65	0.59	0.73	0.81*	0.28	0.00	0.28
43.70	0.59	0.73	0.81*	0.28	0.00	0.28
43.75	0.59	0.73	0.81*	0.28	0.00	0.28
43.80	0.59	0.73	0.81*	0.28	0.00	0.28
43.85	0.59	0.73	0.81*	0.28	0.00	0.28
43.90	0.59	0.72	0.81*	0.28	0.00	0.28
43.95	0.59	0.72	0.81*	0.28	0.00	0.28
44.00	0.59	0.72	0.81*	0.28	0.00	0.28
44.05	0.59	0.72	0.81*	0.28	0.00	0.28
44.10	0.59	0.72	0.81*	0.28	0.00	0.28
44.15	0.59	0.72	0.81*	0.28	0.00	0.28
44.20	0.59	0.72	0.81*	0.28	0.00	0.28
44.25	0.59	0.72	0.82*	0.28	0.00	0.28
44.30	0.59	0.72	0.82*	0.28	0.00	0.28
44.35	0.59	0.72	0.82*	0.28	0.00	0.28
44.40	0.59	0.72	0.82*	0.28	0.00	0.28
44.45	0.59	0.72	0.82*	0.28	0.00	0.28
44.50	0.59	0.72	0.82*	0.28	0.00	0.28
44.55	0.59	0.72	0.82*	0.28	0.00	0.28
44.60	0.59	0.72	0.82*	0.28	0.00	0.28
44.65	0.59	0.72	0.82*	0.28	0.00	0.28
44.70	0.59	0.72	0.82*	0.28	0.00	0.28
44.75	0.59	0.72	0.82*	0.28	0.00	0.28
44.80	0.59	0.72	0.82*	0.28	0.00	0.28
44.85	0.59	0.72	0.82*	0.28	0.00	0.28
44.90	0.59	0.72	0.82*	0.28	0.00	0.28
44.95	0.59	0.72	0.82*	0.28	0.00	0.28
45.00	0.59	0.72	0.82*	0.28	0.00	0.28
45.05	0.59	0.72	0.82*	0.28	0.00	0.28
45.10	0.59	0.72	0.82*	0.28	0.00	0.28
45.15	0.59	0.72	0.82*	0.28	0.00	0.28
45.20	0.59	0.72	0.82*	0.28	0.00	0.28
45.25	0.59	0.72	0.82*	0.28	0.00	0.28
45.30	0.59	0.71	0.82*	0.28	0.00	0.28
45.35	0.59	0.71	0.82*	0.28	0.00	0.28
45.40	0.59	0.71	0.82*	0.28	0.00	0.28
45.45	0.58	0.71	0.82*	0.28	0.00	0.28
45.50	0.58	0.71	0.82*	0.28	0.00	0.28
45.55	0.58	0.71	0.82*	0.28	0.00	0.28
45.60	0.58	0.71	0.82*	0.28	0.00	0.28
45.65	0.58	0.71	0.82*	0.28	0.00	0.28
45.70	0.58	0.71	0.82*	0.28	0.00	0.28
45.75	0.58	0.71	0.82*	0.28	0.00	0.28
45.80	0.58	0.71	0.82*	0.28	0.00	0.28
45.85	0.58	0.71	0.82*	0.28	0.00	0.28
45.90	0.58	0.71	0.82*	0.28	0.00	0.28
45.95	0.58	0.71	0.82*	0.28	0.00	0.28
46.00	0.58	0.71	0.82*	0.28	0.00	0.28
46.05	0.58	0.71	0.82*	0.28	0.00	0.28
46.10	0.58	0.71	0.82*	0.28	0.00	0.28

46.15	0.58	0.71	0.82*	0.28	0.00	0.28
46.20	0.58	0.71	0.82*	0.28	0.00	0.28
46.25	0.58	0.71	0.82*	0.28	0.00	0.28
46.30	0.58	0.71	0.82*	0.28	0.00	0.28
46.35	0.58	0.71	0.82*	0.28	0.00	0.28
46.40	0.58	0.71	0.82*	0.28	0.00	0.28
46.45	0.58	0.71	0.82*	0.28	0.00	0.28
46.50	0.58	0.71	0.82*	0.28	0.00	0.28
46.55	0.58	0.71	0.82*	0.28	0.00	0.28
46.60	0.58	0.71	0.82*	0.28	0.00	0.28
46.65	0.58	0.71	0.82*	0.28	0.00	0.28
46.70	0.58	0.70	0.82*	0.28	0.00	0.28
46.75	0.58	0.70	0.82*	0.28	0.00	0.28
46.80	0.58	0.70	0.82*	0.28	0.00	0.28
46.85	0.58	0.70	0.82*	0.28	0.00	0.28
46.90	0.58	0.70	0.83*	0.28	0.00	0.28
46.95	0.58	0.70	0.83*	0.28	0.00	0.28
47.00	0.58	0.70	0.83*	0.28	0.00	0.28
47.05	0.58	0.70	0.83*	0.28	0.00	0.28
47.10	0.58	0.70	0.83*	0.28	0.00	0.28
47.15	0.58	0.70	0.83*	0.28	0.00	0.28
47.20	0.51	0.70	0.73*	0.27	0.00	0.27
47.25	0.40	0.70	0.57*	0.27	0.00	0.27
47.30	0.36	0.70	0.51*	0.26	0.00	0.26
47.35	0.32	0.70	0.46*	0.25	0.00	0.25
47.40	0.29	0.70	0.42*	0.25	0.00	0.25
47.45	0.27	0.70	0.38*	0.24	0.00	0.24
47.50	0.24	0.70	0.35*	0.23	0.00	0.23
47.55	0.25	0.70	0.35*	0.22	0.00	0.22
47.60	0.25	0.70	0.36*	0.21	0.00	0.21
47.65	0.26	0.70	0.37*	0.20	0.00	0.20
47.70	0.26	0.70	0.38*	0.19	0.00	0.19
47.75	0.27	0.70	0.39*	0.19	0.00	0.19
47.80	0.27	0.70	0.39*	0.18	0.00	0.18
47.85	0.28	0.70	0.40*	0.17	0.00	0.17
47.90	0.29	0.70	0.41*	0.16	0.00	0.16
47.95	0.29	0.70	0.42*	0.15	0.00	0.15
48.00	0.30	0.69	0.43*	0.15	0.00	0.15
48.05	0.30	0.69	0.44*	0.14	0.00	0.14
48.10	0.31	0.69	0.45*	0.13	0.00	0.13
48.15	0.32	0.69	0.46*	0.12	0.00	0.12
48.20	0.32	0.69	0.47*	0.12	0.00	0.12
48.25	0.33	0.69	0.48*	0.11	0.00	0.11
48.30	0.34	0.69	0.49*	0.10	0.00	0.10
48.35	0.35	0.69	0.50*	0.09	0.00	0.09
48.40	0.36	0.69	0.52*	0.09	0.00	0.09
48.45	0.37	0.69	0.53*	0.08	0.00	0.08
48.50	0.38	0.69	0.54*	0.07	0.00	0.07
48.55	0.39	0.69	0.56*	0.07	0.00	0.07
48.60	0.40	0.69	0.58*	0.06	0.00	0.06
48.65	0.41	0.69	0.60*	0.06	0.00	0.06
48.70	0.43	0.69	0.62*	0.05	0.00	0.05
48.75	0.45	0.69	0.65*	0.05	0.00	0.05
48.80	0.48	0.69	0.69*	0.04	0.00	0.04
48.85	0.55	0.69	0.80*	0.04	0.00	0.04
48.90	0.57	0.69	0.83*	0.03	0.00	0.03
48.95	0.57	0.69	0.83*	0.03	0.00	0.03
49.00	0.57	0.69	0.83*	0.02	0.00	0.02
49.05	0.57	0.69	0.83*	0.02	0.00	0.02
49.10	0.57	0.69	0.83*	0.02	0.00	0.02
49.15	0.57	0.69	0.83*	0.01	0.00	0.01
49.20	0.57	0.69	0.83*	0.01	0.00	0.01
49.25	0.57	0.69	0.84*	0.01	0.00	0.01

49.30	0.57	0.69	0.84*	0.01	0.00	0.01
49.35	0.57	0.68	0.84*	0.01	0.00	0.01
49.40	0.57	0.68	0.84*	0.01	0.00	0.01
49.45	0.57	0.68	0.84*	0.00	0.00	0.00
49.50	0.57	0.68	0.84*	0.00	0.00	0.00
49.55	0.57	0.68	0.84*	0.00	0.00	0.00
49.60	0.57	0.68	0.84*	0.00	0.00	0.00
49.65	0.57	0.68	0.84*	0.00	0.00	0.00
49.70	0.57	0.68	0.84*	0.00	0.00	0.00
49.75	0.57	0.68	0.84*	0.00	0.00	0.00
49.80	0.57	0.68	0.84*	0.00	0.00	0.00
49.85	0.57	0.68	0.84*	0.00	0.00	0.00
49.90	0.57	0.68	0.84*	0.00	0.00	0.00
49.95	0.57	0.68	0.84*	0.00	0.00	0.00
50.00	0.57	0.68	0.84*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

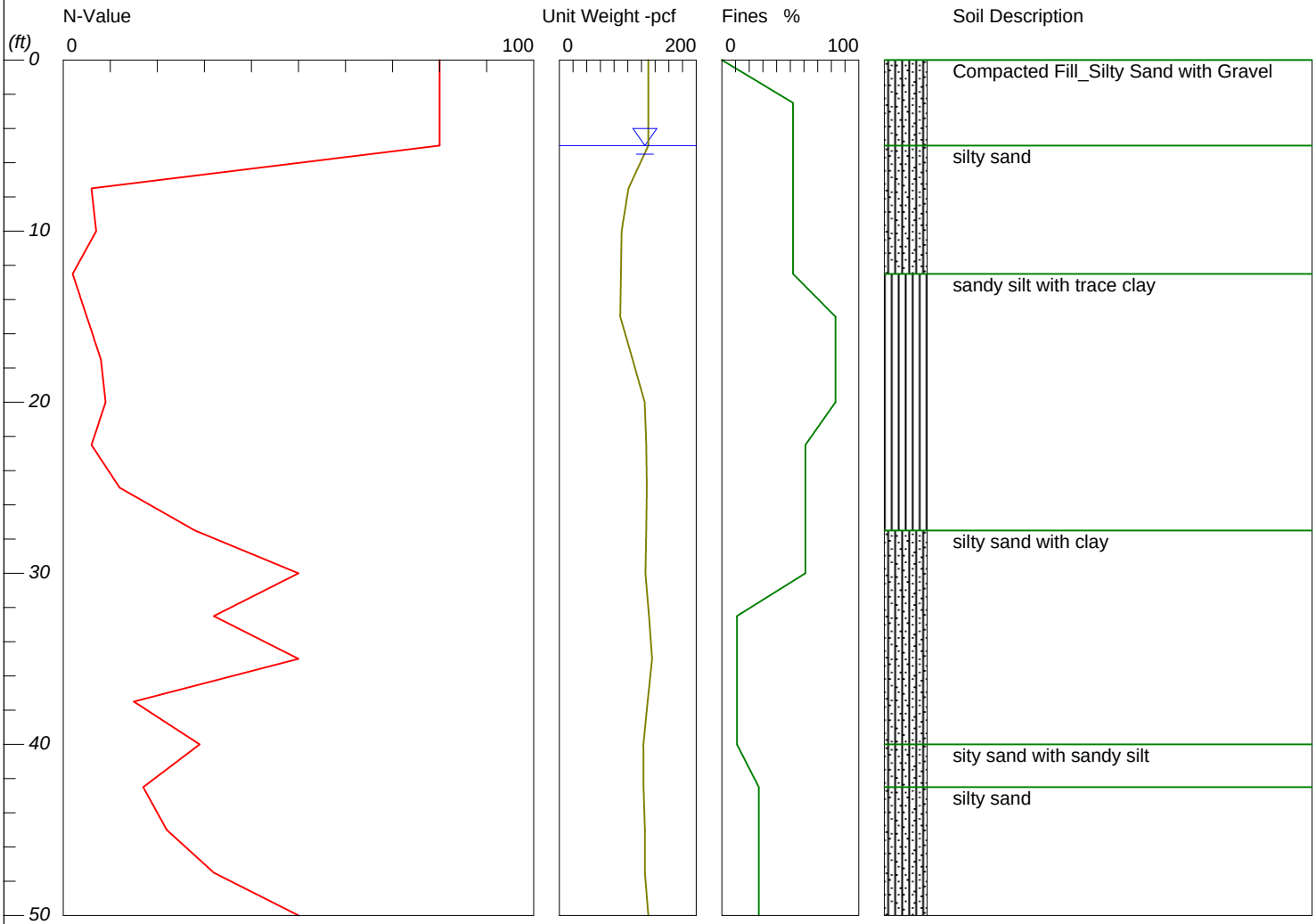
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=B-6 Water Depth=5 ft Surface Elev.=244

Magnitude=6.81
Acceleration=0.656g

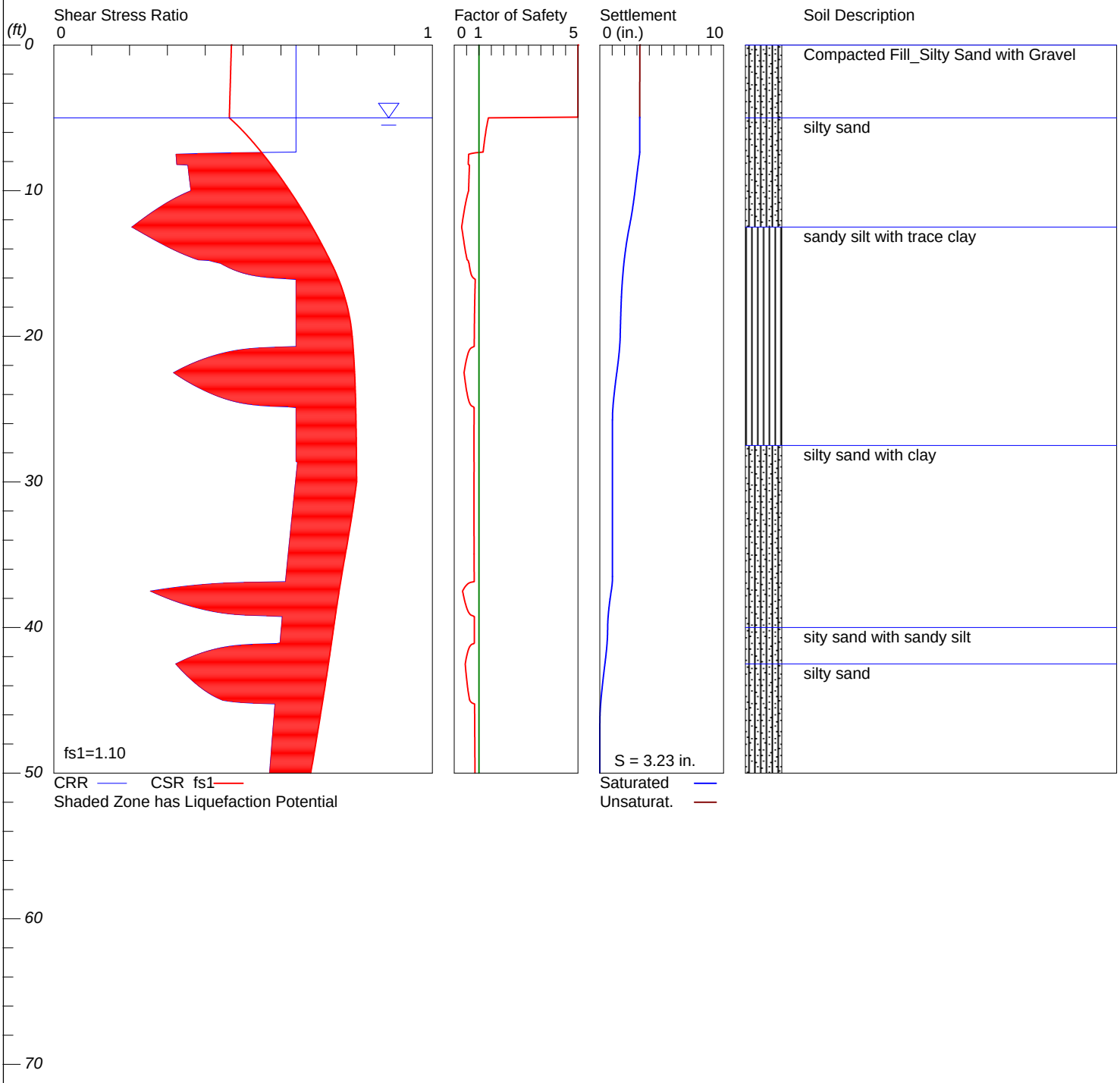


LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=B-6 Water Depth=5 ft Surface Elev.=244

Magnitude=6.81
Acceleration=0.656g



****
****

LIQUEFACTION ANALYSIS SUMMARY

****
****

Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 8/5/2020 2:53:12 PM

Input File Name: G:_Projects\2020\20G-0418\Liqefaction Analysis\20G-0418 b6.liq
Title: Solemo 13 Acres
Subtitle: 20G-0418-0

Surface Elev.=244
Hole No.=B-6
Depth of Hole= 50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.81

Input Data:
Surface Elev.=244
Hole No.=B-6
Depth of Hole=50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.81
No-Liquefiable Soils: Based on Analysis

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Modify Stark/Olson
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1.1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	80.00	130.00	0.00
2.50	80.00	130.00	52.00
5.00	80.00	130.00	52.00
7.50	6.00	101.00	52.00
10.00	7.00	91.00	52.00
12.50	2.00	90.00	52.00
15.00	5.00	89.00	83.00
17.50	8.00	107.00	83.00
20.00	9.00	124.70	83.00
22.50	6.00	127.00	61.00

25.00	12.00	127.80	61.00
27.50	28.00	127.00	61.00
30.00	50.00	125.80	61.00
32.50	32.00	131.00	11.00
35.00	50.00	135.50	11.00
37.50	15.00	129.00	11.00
40.00	29.00	122.80	11.00
42.50	17.00	123.00	27.00
45.00	22.00	125.00	27.00
47.50	32.00	125.00	27.00
50.00	50.00	130.00	27.00

Output Results:

Settlement of Saturated Sands=3.23 in.
Settlement of Unsaturated Sands=0.01 in.
Total Settlement of Saturated and Unsaturated Sands=3.23 in.
Differential Settlement=1.616 to 2.133 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.64	0.47	5.00	3.23	0.01	3.23
0.05	0.64	0.47	5.00	3.23	0.01	3.23
0.10	0.64	0.47	5.00	3.23	0.01	3.23
0.15	0.64	0.47	5.00	3.23	0.01	3.23
0.20	0.64	0.47	5.00	3.23	0.01	3.23
0.25	0.64	0.47	5.00	3.23	0.01	3.23
0.30	0.64	0.47	5.00	3.23	0.01	3.23
0.35	0.64	0.47	5.00	3.23	0.01	3.23
0.40	0.64	0.47	5.00	3.23	0.01	3.23
0.45	0.64	0.47	5.00	3.23	0.01	3.23
0.50	0.64	0.47	5.00	3.23	0.01	3.23
0.55	0.64	0.47	5.00	3.23	0.01	3.23
0.60	0.64	0.47	5.00	3.23	0.01	3.23
0.65	0.64	0.47	5.00	3.23	0.01	3.23
0.70	0.64	0.47	5.00	3.23	0.01	3.23
0.75	0.64	0.47	5.00	3.23	0.01	3.23
0.80	0.64	0.47	5.00	3.23	0.01	3.23
0.85	0.64	0.47	5.00	3.23	0.01	3.23
0.90	0.64	0.47	5.00	3.23	0.01	3.23
0.95	0.64	0.47	5.00	3.23	0.01	3.23
1.00	0.64	0.47	5.00	3.23	0.01	3.23
1.05	0.64	0.47	5.00	3.23	0.01	3.23
1.10	0.64	0.47	5.00	3.23	0.01	3.23
1.15	0.64	0.47	5.00	3.23	0.01	3.23
1.20	0.64	0.47	5.00	3.23	0.01	3.23
1.25	0.64	0.47	5.00	3.23	0.01	3.23
1.30	0.64	0.47	5.00	3.23	0.01	3.23
1.35	0.64	0.47	5.00	3.23	0.01	3.23
1.40	0.64	0.47	5.00	3.23	0.01	3.23
1.45	0.64	0.47	5.00	3.23	0.01	3.23
1.50	0.64	0.47	5.00	3.23	0.01	3.23
1.55	0.64	0.47	5.00	3.23	0.01	3.23
1.60	0.64	0.47	5.00	3.23	0.01	3.23
1.65	0.64	0.47	5.00	3.23	0.01	3.23
1.70	0.64	0.47	5.00	3.23	0.01	3.23
1.75	0.64	0.47	5.00	3.23	0.01	3.23
1.80	0.64	0.47	5.00	3.23	0.00	3.23
1.85	0.64	0.47	5.00	3.23	0.00	3.23
1.90	0.64	0.47	5.00	3.23	0.00	3.23
1.95	0.64	0.47	5.00	3.23	0.00	3.23
2.00	0.64	0.47	5.00	3.23	0.00	3.23

2.05	0.64	0.47	5.00	3.23	0.00	3.23
2.10	0.64	0.47	5.00	3.23	0.00	3.23
2.15	0.64	0.47	5.00	3.23	0.00	3.23
2.20	0.64	0.47	5.00	3.23	0.00	3.23
2.25	0.64	0.47	5.00	3.23	0.00	3.23
2.30	0.64	0.47	5.00	3.23	0.00	3.23
2.35	0.64	0.47	5.00	3.23	0.00	3.23
2.40	0.64	0.47	5.00	3.23	0.00	3.23
2.45	0.64	0.47	5.00	3.23	0.00	3.23
2.50	0.64	0.47	5.00	3.23	0.00	3.23
2.55	0.64	0.47	5.00	3.23	0.00	3.23
2.60	0.64	0.47	5.00	3.23	0.00	3.23
2.65	0.64	0.47	5.00	3.23	0.00	3.23
2.70	0.64	0.47	5.00	3.23	0.00	3.23
2.75	0.64	0.47	5.00	3.23	0.00	3.23
2.80	0.64	0.47	5.00	3.23	0.00	3.23
2.85	0.64	0.47	5.00	3.23	0.00	3.23
2.90	0.64	0.47	5.00	3.23	0.00	3.23
2.95	0.64	0.47	5.00	3.23	0.00	3.23
3.00	0.64	0.47	5.00	3.23	0.00	3.23
3.05	0.64	0.47	5.00	3.23	0.00	3.23
3.10	0.64	0.47	5.00	3.23	0.00	3.23
3.15	0.64	0.47	5.00	3.23	0.00	3.23
3.20	0.64	0.47	5.00	3.23	0.00	3.23
3.25	0.64	0.47	5.00	3.23	0.00	3.23
3.30	0.64	0.47	5.00	3.23	0.00	3.23
3.35	0.64	0.47	5.00	3.23	0.00	3.23
3.40	0.64	0.47	5.00	3.23	0.00	3.23
3.45	0.64	0.47	5.00	3.23	0.00	3.23
3.50	0.64	0.47	5.00	3.23	0.00	3.23
3.55	0.64	0.47	5.00	3.23	0.00	3.23
3.60	0.64	0.47	5.00	3.23	0.00	3.23
3.65	0.64	0.47	5.00	3.23	0.00	3.23
3.70	0.64	0.46	5.00	3.23	0.00	3.23
3.75	0.64	0.46	5.00	3.23	0.00	3.23
3.80	0.64	0.46	5.00	3.23	0.00	3.23
3.85	0.64	0.46	5.00	3.23	0.00	3.23
3.90	0.64	0.46	5.00	3.23	0.00	3.23
3.95	0.64	0.46	5.00	3.23	0.00	3.23
4.00	0.64	0.46	5.00	3.23	0.00	3.23
4.05	0.64	0.46	5.00	3.23	0.00	3.23
4.10	0.64	0.46	5.00	3.23	0.00	3.23
4.15	0.64	0.46	5.00	3.23	0.00	3.23
4.20	0.64	0.46	5.00	3.23	0.00	3.23
4.25	0.64	0.46	5.00	3.23	0.00	3.23
4.30	0.64	0.46	5.00	3.23	0.00	3.23
4.35	0.64	0.46	5.00	3.23	0.00	3.23
4.40	0.64	0.46	5.00	3.23	0.00	3.23
4.45	0.64	0.46	5.00	3.23	0.00	3.23
4.50	0.64	0.46	5.00	3.23	0.00	3.23
4.55	0.64	0.46	5.00	3.23	0.00	3.23
4.60	0.64	0.46	5.00	3.23	0.00	3.23
4.65	0.64	0.46	5.00	3.23	0.00	3.23
4.70	0.64	0.46	5.00	3.23	0.00	3.23
4.75	0.64	0.46	5.00	3.23	0.00	3.23
4.80	0.64	0.46	5.00	3.23	0.00	3.23
4.85	0.64	0.46	5.00	3.23	0.00	3.23
4.90	0.64	0.46	5.00	3.23	0.00	3.23
4.95	0.64	0.46	5.00	3.23	0.00	3.23
5.00	0.64	0.46	1.38	3.23	0.00	3.23
5.05	0.64	0.47	1.37	3.23	0.00	3.23
5.10	0.64	0.47	1.37	3.23	0.00	3.23
5.15	0.64	0.47	1.36	3.23	0.00	3.23

5.20	0.64	0.47	1.36	3.23	0.00	3.23
5.25	0.64	0.47	1.35	3.23	0.00	3.23
5.30	0.64	0.48	1.34	3.23	0.00	3.23
5.35	0.64	0.48	1.34	3.23	0.00	3.23
5.40	0.64	0.48	1.33	3.23	0.00	3.23
5.45	0.64	0.48	1.33	3.23	0.00	3.23
5.50	0.64	0.48	1.32	3.23	0.00	3.23
5.55	0.64	0.49	1.32	3.23	0.00	3.23
5.60	0.64	0.49	1.31	3.23	0.00	3.23
5.65	0.64	0.49	1.31	3.23	0.00	3.23
5.70	0.64	0.49	1.30	3.23	0.00	3.23
5.75	0.64	0.49	1.30	3.23	0.00	3.23
5.80	0.64	0.50	1.29	3.23	0.00	3.23
5.85	0.64	0.50	1.29	3.23	0.00	3.23
5.90	0.64	0.50	1.28	3.23	0.00	3.23
5.95	0.64	0.50	1.28	3.23	0.00	3.23
6.00	0.64	0.50	1.27	3.23	0.00	3.23
6.05	0.64	0.50	1.27	3.23	0.00	3.23
6.10	0.64	0.51	1.26	3.23	0.00	3.23
6.15	0.64	0.51	1.26	3.23	0.00	3.23
6.20	0.64	0.51	1.25	3.23	0.00	3.23
6.25	0.64	0.51	1.25	3.23	0.00	3.23
6.30	0.64	0.51	1.25	3.23	0.00	3.23
6.35	0.64	0.52	1.24	3.23	0.00	3.23
6.40	0.64	0.52	1.24	3.23	0.00	3.23
6.45	0.64	0.52	1.23	3.23	0.00	3.23
6.50	0.64	0.52	1.23	3.23	0.00	3.23
6.55	0.64	0.52	1.23	3.23	0.00	3.23
6.60	0.64	0.52	1.22	3.23	0.00	3.23
6.65	0.64	0.53	1.22	3.23	0.00	3.23
6.70	0.64	0.53	1.21	3.23	0.00	3.23
6.75	0.64	0.53	1.21	3.23	0.00	3.23
6.80	0.64	0.53	1.21	3.23	0.00	3.23
6.85	0.64	0.53	1.20	3.23	0.00	3.23
6.90	0.64	0.53	1.20	3.23	0.00	3.23
6.95	0.64	0.54	1.20	3.23	0.00	3.23
7.00	0.64	0.54	1.19	3.23	0.00	3.23
7.05	0.64	0.54	1.19	3.23	0.00	3.23
7.10	0.64	0.54	1.18	3.23	0.00	3.23
7.15	0.64	0.54	1.18	3.23	0.00	3.23
7.20	0.64	0.54	1.18	3.23	0.00	3.23
7.25	0.64	0.54	1.17	3.23	0.00	3.23
7.30	0.64	0.55	1.17	3.23	0.00	3.23
7.35	0.64	0.55	1.17	3.23	0.00	3.23
7.40	0.47	0.55	0.85*	3.22	0.00	3.22
7.45	0.38	0.55	0.69*	3.22	0.00	3.22
7.50	0.32	0.55	0.58*	3.21	0.00	3.21
7.55	0.32	0.55	0.58*	3.20	0.00	3.20
7.60	0.32	0.56	0.58*	3.20	0.00	3.20
7.65	0.32	0.56	0.58*	3.19	0.00	3.19
7.70	0.32	0.56	0.58*	3.18	0.00	3.18
7.75	0.32	0.56	0.58*	3.17	0.00	3.17
7.80	0.32	0.56	0.58*	3.17	0.00	3.17
7.85	0.32	0.56	0.57*	3.16	0.00	3.16
7.90	0.32	0.56	0.57*	3.15	0.00	3.15
7.95	0.32	0.57	0.57*	3.14	0.00	3.14
8.00	0.32	0.57	0.57*	3.13	0.00	3.13
8.05	0.32	0.57	0.57*	3.13	0.00	3.13
8.10	0.32	0.57	0.57*	3.12	0.00	3.12
8.15	0.32	0.57	0.57*	3.11	0.00	3.11
8.20	0.32	0.57	0.57*	3.10	0.00	3.10
8.25	0.35	0.57	0.62*	3.10	0.00	3.10
8.30	0.35	0.58	0.61*	3.09	0.00	3.09

8.35	0.35	0.58	0.61*	3.08	0.00	3.08
8.40	0.35	0.58	0.61*	3.07	0.00	3.07
8.45	0.35	0.58	0.61*	3.07	0.00	3.07
8.50	0.36	0.58	0.61*	3.06	0.00	3.06
8.55	0.36	0.58	0.61*	3.05	0.00	3.05
8.60	0.36	0.58	0.61*	3.05	0.00	3.05
8.65	0.36	0.59	0.61*	3.04	0.00	3.04
8.70	0.36	0.59	0.61*	3.03	0.00	3.03
8.75	0.36	0.59	0.60*	3.02	0.00	3.02
8.80	0.36	0.59	0.60*	3.02	0.00	3.02
8.85	0.36	0.59	0.60*	3.01	0.00	3.01
8.90	0.36	0.59	0.60*	3.00	0.00	3.00
8.95	0.36	0.59	0.60*	3.00	0.00	3.00
9.00	0.36	0.60	0.60*	2.99	0.00	2.99
9.05	0.36	0.60	0.60*	2.98	0.00	2.98
9.10	0.36	0.60	0.60*	2.97	0.00	2.97
9.15	0.36	0.60	0.60*	2.97	0.00	2.97
9.20	0.36	0.60	0.60*	2.96	0.00	2.96
9.25	0.36	0.60	0.59*	2.95	0.00	2.95
9.30	0.36	0.60	0.59*	2.95	0.00	2.95
9.35	0.36	0.61	0.59*	2.94	0.00	2.94
9.40	0.36	0.61	0.59*	2.93	0.00	2.93
9.45	0.36	0.61	0.59*	2.92	0.00	2.92
9.50	0.36	0.61	0.59*	2.92	0.00	2.92
9.55	0.36	0.61	0.59*	2.91	0.00	2.91
9.60	0.36	0.61	0.59*	2.90	0.00	2.90
9.65	0.36	0.61	0.59*	2.90	0.00	2.90
9.70	0.36	0.61	0.59*	2.89	0.00	2.89
9.75	0.36	0.62	0.59*	2.88	0.00	2.88
9.80	0.36	0.62	0.58*	2.87	0.00	2.87
9.85	0.36	0.62	0.58*	2.87	0.00	2.87
9.90	0.36	0.62	0.58*	2.86	0.00	2.86
9.95	0.36	0.62	0.58*	2.85	0.00	2.85
10.00	0.36	0.62	0.58*	2.85	0.00	2.85
10.05	0.36	0.62	0.57*	2.84	0.00	2.84
10.10	0.35	0.63	0.56*	2.83	0.00	2.83
10.15	0.35	0.63	0.56*	2.82	0.00	2.82
10.20	0.34	0.63	0.55*	2.82	0.00	2.82
10.25	0.34	0.63	0.54*	2.81	0.00	2.81
10.30	0.34	0.63	0.53*	2.80	0.00	2.80
10.35	0.33	0.63	0.53*	2.79	0.00	2.79
10.40	0.33	0.63	0.52*	2.79	0.00	2.79
10.45	0.32	0.63	0.51*	2.78	0.00	2.78
10.50	0.32	0.64	0.51*	2.77	0.00	2.77
10.55	0.32	0.64	0.50*	2.76	0.00	2.76
10.60	0.31	0.64	0.49*	2.75	0.00	2.75
10.65	0.31	0.64	0.49*	2.75	0.00	2.75
10.70	0.31	0.64	0.48*	2.74	0.00	2.74
10.75	0.30	0.64	0.47*	2.73	0.00	2.73
10.80	0.30	0.64	0.47*	2.72	0.00	2.72
10.85	0.30	0.64	0.46*	2.71	0.00	2.71
10.90	0.29	0.65	0.46*	2.70	0.00	2.70
10.95	0.29	0.65	0.45*	2.70	0.00	2.70
11.00	0.29	0.65	0.44*	2.69	0.00	2.69
11.05	0.28	0.65	0.44*	2.68	0.00	2.68
11.10	0.28	0.65	0.43*	2.67	0.00	2.67
11.15	0.28	0.65	0.43*	2.66	0.00	2.66
11.20	0.28	0.65	0.42*	2.65	0.00	2.65
11.25	0.27	0.65	0.42*	2.64	0.00	2.64
11.30	0.27	0.66	0.41*	2.63	0.00	2.63
11.35	0.27	0.66	0.41*	2.62	0.00	2.62
11.40	0.26	0.66	0.40*	2.62	0.00	2.62
11.45	0.26	0.66	0.40*	2.61	0.00	2.61

11.50	0.26	0.66	0.39*	2.60	0.00	2.60
11.55	0.26	0.66	0.39*	2.59	0.00	2.59
11.60	0.25	0.66	0.38*	2.58	0.00	2.58
11.65	0.25	0.66	0.38*	2.57	0.00	2.57
11.70	0.25	0.66	0.37*	2.56	0.00	2.56
11.75	0.24	0.67	0.37*	2.55	0.00	2.55
11.80	0.24	0.67	0.36*	2.54	0.00	2.54
11.85	0.24	0.67	0.36*	2.53	0.00	2.53
11.90	0.24	0.67	0.35*	2.52	0.00	2.52
11.95	0.23	0.67	0.35*	2.51	0.00	2.51
12.00	0.23	0.67	0.34*	2.50	0.00	2.50
12.05	0.23	0.67	0.34*	2.48	0.00	2.48
12.10	0.23	0.67	0.34*	2.47	0.00	2.47
12.15	0.22	0.67	0.33*	2.46	0.00	2.46
12.20	0.22	0.68	0.33*	2.45	0.00	2.45
12.25	0.22	0.68	0.32*	2.44	0.00	2.44
12.30	0.22	0.68	0.32*	2.43	0.00	2.43
12.35	0.21	0.68	0.31*	2.42	0.00	2.42
12.40	0.21	0.68	0.31*	2.41	0.00	2.41
12.45	0.21	0.68	0.31*	2.40	0.00	2.40
12.50	0.21	0.68	0.30*	2.38	0.00	2.38
12.55	0.21	0.68	0.31*	2.37	0.00	2.37
12.60	0.21	0.68	0.31*	2.36	0.00	2.36
12.65	0.22	0.69	0.32*	2.35	0.00	2.35
12.70	0.22	0.69	0.32*	2.34	0.00	2.34
12.75	0.22	0.69	0.32*	2.33	0.00	2.33
12.80	0.23	0.69	0.33*	2.32	0.00	2.32
12.85	0.23	0.69	0.33*	2.31	0.00	2.31
12.90	0.23	0.69	0.34*	2.30	0.00	2.30
12.95	0.24	0.69	0.34*	2.28	0.00	2.28
13.00	0.24	0.69	0.35*	2.27	0.00	2.27
13.05	0.24	0.69	0.35*	2.26	0.00	2.26
13.10	0.25	0.70	0.35*	2.25	0.00	2.25
13.15	0.25	0.70	0.36*	2.24	0.00	2.24
13.20	0.25	0.70	0.36*	2.23	0.00	2.23
13.25	0.26	0.70	0.37*	2.22	0.00	2.22
13.30	0.26	0.70	0.37*	2.21	0.00	2.21
13.35	0.26	0.70	0.38*	2.20	0.00	2.20
13.40	0.27	0.70	0.38*	2.20	0.00	2.20
13.45	0.27	0.70	0.39*	2.19	0.00	2.19
13.50	0.27	0.70	0.39*	2.18	0.00	2.18
13.55	0.28	0.70	0.39*	2.17	0.00	2.17
13.60	0.28	0.71	0.40*	2.16	0.00	2.16
13.65	0.29	0.71	0.40*	2.15	0.00	2.15
13.70	0.29	0.71	0.41*	2.14	0.00	2.14
13.75	0.29	0.71	0.41*	2.13	0.00	2.13
13.80	0.30	0.71	0.42*	2.12	0.00	2.12
13.85	0.30	0.71	0.42*	2.11	0.00	2.11
13.90	0.30	0.71	0.43*	2.11	0.00	2.11
13.95	0.31	0.71	0.43*	2.10	0.00	2.10
14.00	0.31	0.71	0.44*	2.09	0.00	2.09
14.05	0.32	0.72	0.44*	2.08	0.00	2.08
14.10	0.32	0.72	0.45*	2.07	0.00	2.07
14.15	0.32	0.72	0.45*	2.07	0.00	2.07
14.20	0.33	0.72	0.46*	2.06	0.00	2.06
14.25	0.33	0.72	0.46*	2.05	0.00	2.05
14.30	0.34	0.72	0.47*	2.04	0.00	2.04
14.35	0.34	0.72	0.47*	2.03	0.00	2.03
14.40	0.35	0.72	0.48*	2.03	0.00	2.03
14.45	0.35	0.72	0.48*	2.02	0.00	2.02
14.50	0.36	0.72	0.49*	2.01	0.00	2.01
14.55	0.36	0.72	0.50*	2.01	0.00	2.01
14.60	0.37	0.73	0.50*	2.00	0.00	2.00

14.65	0.37	0.73	0.51*	1.99	0.00	1.99
14.70	0.38	0.73	0.52*	1.98	0.00	1.98
14.75	0.38	0.73	0.52*	1.98	0.00	1.98
14.80	0.41	0.73	0.56*	1.97	0.00	1.97
14.85	0.42	0.73	0.57*	1.96	0.00	1.96
14.90	0.42	0.73	0.58*	1.96	0.00	1.96
14.95	0.43	0.73	0.59*	1.95	0.00	1.95
15.00	0.44	0.73	0.60*	1.95	0.00	1.95
15.05	0.44	0.73	0.61*	1.94	0.00	1.94
15.10	0.45	0.74	0.61*	1.93	0.00	1.93
15.15	0.45	0.74	0.61*	1.93	0.00	1.93
15.20	0.46	0.74	0.62*	1.92	0.00	1.92
15.25	0.46	0.74	0.62*	1.92	0.00	1.92
15.30	0.46	0.74	0.63*	1.91	0.00	1.91
15.35	0.47	0.74	0.63*	1.91	0.00	1.91
15.40	0.47	0.74	0.64*	1.90	0.00	1.90
15.45	0.48	0.74	0.64*	1.89	0.00	1.89
15.50	0.48	0.74	0.65*	1.89	0.00	1.89
15.55	0.49	0.74	0.65*	1.88	0.00	1.88
15.60	0.49	0.74	0.66*	1.88	0.00	1.88
15.65	0.50	0.75	0.67*	1.87	0.00	1.87
15.70	0.51	0.75	0.68*	1.87	0.00	1.87
15.75	0.51	0.75	0.69*	1.86	0.00	1.86
15.80	0.52	0.75	0.70*	1.86	0.00	1.86
15.85	0.53	0.75	0.71*	1.85	0.00	1.85
15.90	0.54	0.75	0.73*	1.85	0.00	1.85
15.95	0.56	0.75	0.75*	1.84	0.00	1.84
16.00	0.58	0.75	0.78*	1.84	0.00	1.84
16.05	0.61	0.75	0.82*	1.84	0.00	1.84
16.10	0.64	0.75	0.85*	1.83	0.00	1.83
16.15	0.64	0.75	0.85*	1.83	0.00	1.83
16.20	0.64	0.75	0.85*	1.82	0.00	1.82
16.25	0.64	0.75	0.85*	1.82	0.00	1.82
16.30	0.64	0.76	0.85*	1.81	0.00	1.81
16.35	0.64	0.76	0.85*	1.81	0.00	1.81
16.40	0.64	0.76	0.85*	1.81	0.00	1.81
16.45	0.64	0.76	0.84*	1.80	0.00	1.80
16.50	0.64	0.76	0.84*	1.80	0.00	1.80
16.55	0.64	0.76	0.84*	1.79	0.00	1.79
16.60	0.64	0.76	0.84*	1.79	0.00	1.79
16.65	0.64	0.76	0.84*	1.79	0.00	1.79
16.70	0.64	0.76	0.84*	1.78	0.00	1.78
16.75	0.64	0.76	0.84*	1.78	0.00	1.78
16.80	0.64	0.76	0.84*	1.78	0.00	1.78
16.85	0.64	0.76	0.84*	1.77	0.00	1.77
16.90	0.64	0.76	0.84*	1.77	0.00	1.77
16.95	0.64	0.76	0.84*	1.77	0.00	1.77
17.00	0.64	0.76	0.84*	1.76	0.00	1.76
17.05	0.64	0.77	0.84*	1.76	0.00	1.76
17.10	0.64	0.77	0.84*	1.76	0.00	1.76
17.15	0.64	0.77	0.83*	1.75	0.00	1.75
17.20	0.64	0.77	0.83*	1.75	0.00	1.75
17.25	0.64	0.77	0.83*	1.75	0.00	1.75
17.30	0.64	0.77	0.83*	1.75	0.00	1.75
17.35	0.64	0.77	0.83*	1.74	0.00	1.74
17.40	0.64	0.77	0.83*	1.74	0.00	1.74
17.45	0.64	0.77	0.83*	1.74	0.00	1.74
17.50	0.64	0.77	0.83*	1.74	0.00	1.74
17.55	0.64	0.77	0.83*	1.73	0.00	1.73
17.60	0.64	0.77	0.83*	1.73	0.00	1.73
17.65	0.64	0.77	0.83*	1.73	0.00	1.73
17.70	0.64	0.77	0.83*	1.73	0.00	1.73
17.75	0.64	0.77	0.83*	1.72	0.00	1.72

17.80	0.64	0.77	0.83*	1.72	0.00	1.72
17.85	0.64	0.77	0.83*	1.72	0.00	1.72
17.90	0.64	0.77	0.83*	1.72	0.00	1.72
17.95	0.64	0.78	0.83*	1.72	0.00	1.72
18.00	0.64	0.78	0.83*	1.71	0.00	1.71
18.05	0.64	0.78	0.82*	1.71	0.00	1.71
18.10	0.64	0.78	0.82*	1.71	0.00	1.71
18.15	0.64	0.78	0.82*	1.71	0.00	1.71
18.20	0.64	0.78	0.82*	1.71	0.00	1.71
18.25	0.64	0.78	0.82*	1.70	0.00	1.70
18.30	0.64	0.78	0.82*	1.70	0.00	1.70
18.35	0.64	0.78	0.82*	1.70	0.00	1.70
18.40	0.64	0.78	0.82*	1.70	0.00	1.70
18.45	0.64	0.78	0.82*	1.70	0.00	1.70
18.50	0.64	0.78	0.82*	1.69	0.00	1.69
18.55	0.64	0.78	0.82*	1.69	0.00	1.69
18.60	0.64	0.78	0.82*	1.69	0.00	1.69
18.65	0.64	0.78	0.82*	1.69	0.00	1.69
18.70	0.64	0.78	0.82*	1.69	0.00	1.69
18.75	0.64	0.78	0.82*	1.69	0.00	1.69
18.80	0.64	0.78	0.82*	1.68	0.00	1.68
18.85	0.64	0.78	0.82*	1.68	0.00	1.68
18.90	0.64	0.78	0.82*	1.68	0.00	1.68
18.95	0.64	0.78	0.82*	1.68	0.00	1.68
19.00	0.64	0.78	0.82*	1.68	0.00	1.68
19.05	0.64	0.78	0.82*	1.68	0.00	1.68
19.10	0.64	0.78	0.82*	1.67	0.00	1.67
19.15	0.64	0.78	0.82*	1.67	0.00	1.67
19.20	0.64	0.78	0.82*	1.67	0.00	1.67
19.25	0.64	0.78	0.82*	1.67	0.00	1.67
19.30	0.64	0.79	0.82*	1.67	0.00	1.67
19.35	0.64	0.79	0.81*	1.67	0.00	1.67
19.40	0.64	0.79	0.81*	1.66	0.00	1.66
19.45	0.64	0.79	0.81*	1.66	0.00	1.66
19.50	0.64	0.79	0.81*	1.66	0.00	1.66
19.55	0.64	0.79	0.81*	1.66	0.00	1.66
19.60	0.64	0.79	0.81*	1.66	0.00	1.66
19.65	0.64	0.79	0.81*	1.66	0.00	1.66
19.70	0.64	0.79	0.81*	1.65	0.00	1.65
19.75	0.64	0.79	0.81*	1.65	0.00	1.65
19.80	0.64	0.79	0.81*	1.65	0.00	1.65
19.85	0.64	0.79	0.81*	1.65	0.00	1.65
19.90	0.64	0.79	0.81*	1.65	0.00	1.65
19.95	0.64	0.79	0.81*	1.65	0.00	1.65
20.00	0.64	0.79	0.81*	1.65	0.00	1.65
20.05	0.64	0.79	0.81*	1.64	0.00	1.64
20.10	0.64	0.79	0.81*	1.64	0.00	1.64
20.15	0.64	0.79	0.81*	1.64	0.00	1.64
20.20	0.64	0.79	0.81*	1.64	0.00	1.64
20.25	0.64	0.79	0.81*	1.64	0.00	1.64
20.30	0.64	0.79	0.81*	1.63	0.00	1.63
20.35	0.64	0.79	0.81*	1.63	0.00	1.63
20.40	0.64	0.79	0.81*	1.63	0.00	1.63
20.45	0.64	0.79	0.81*	1.62	0.00	1.62
20.50	0.64	0.79	0.81*	1.62	0.00	1.62
20.55	0.64	0.79	0.81*	1.62	0.00	1.62
20.60	0.64	0.79	0.81*	1.61	0.00	1.61
20.65	0.64	0.79	0.81*	1.61	0.00	1.61
20.70	0.64	0.79	0.81*	1.60	0.00	1.60
20.75	0.58	0.79	0.74*	1.60	0.00	1.60
20.80	0.54	0.79	0.68*	1.60	0.00	1.60
20.85	0.52	0.79	0.65*	1.59	0.00	1.59
20.90	0.50	0.79	0.63*	1.59	0.00	1.59

20.95	0.49	0.79	0.61*	1.58	0.00	1.58
21.00	0.47	0.79	0.60*	1.58	0.00	1.58
21.05	0.46	0.79	0.59*	1.57	0.00	1.57
21.10	0.46	0.79	0.58*	1.57	0.00	1.57
21.15	0.45	0.79	0.57*	1.56	0.00	1.56
21.20	0.44	0.79	0.56*	1.55	0.00	1.55
21.25	0.43	0.79	0.55*	1.55	0.00	1.55
21.30	0.43	0.79	0.54*	1.54	0.00	1.54
21.35	0.42	0.79	0.53*	1.54	0.00	1.54
21.40	0.41	0.79	0.52*	1.53	0.00	1.53
21.45	0.41	0.79	0.51*	1.52	0.00	1.52
21.50	0.40	0.79	0.51*	1.52	0.00	1.52
21.55	0.40	0.79	0.50*	1.51	0.00	1.51
21.60	0.39	0.79	0.49*	1.50	0.00	1.50
21.65	0.39	0.79	0.49*	1.50	0.00	1.50
21.70	0.38	0.79	0.48*	1.49	0.00	1.49
21.75	0.38	0.79	0.47*	1.48	0.00	1.48
21.80	0.37	0.79	0.47*	1.48	0.00	1.48
21.85	0.37	0.79	0.46*	1.47	0.00	1.47
21.90	0.36	0.79	0.46*	1.46	0.00	1.46
21.95	0.36	0.79	0.45*	1.46	0.00	1.46
22.00	0.35	0.79	0.45*	1.45	0.00	1.45
22.05	0.35	0.79	0.44*	1.44	0.00	1.44
22.10	0.35	0.79	0.44*	1.43	0.00	1.43
22.15	0.34	0.79	0.43*	1.43	0.00	1.43
22.20	0.34	0.79	0.43*	1.42	0.00	1.42
22.25	0.33	0.79	0.42*	1.41	0.00	1.41
22.30	0.33	0.79	0.42*	1.40	0.00	1.40
22.35	0.33	0.79	0.41*	1.40	0.00	1.40
22.40	0.32	0.79	0.41*	1.39	0.00	1.39
22.45	0.32	0.79	0.40*	1.38	0.00	1.38
22.50	0.32	0.79	0.40*	1.37	0.00	1.37
22.55	0.32	0.79	0.40*	1.36	0.00	1.36
22.60	0.32	0.79	0.40*	1.36	0.00	1.36
22.65	0.32	0.79	0.41*	1.35	0.00	1.35
22.70	0.33	0.79	0.41*	1.34	0.00	1.34
22.75	0.33	0.79	0.42*	1.33	0.00	1.33
22.80	0.33	0.80	0.42*	1.32	0.00	1.32
22.85	0.34	0.80	0.42*	1.32	0.00	1.32
22.90	0.34	0.80	0.43*	1.31	0.00	1.31
22.95	0.34	0.80	0.43*	1.30	0.00	1.30
23.00	0.35	0.80	0.43*	1.29	0.00	1.29
23.05	0.35	0.80	0.44*	1.29	0.00	1.29
23.10	0.35	0.80	0.44*	1.28	0.00	1.28
23.15	0.36	0.80	0.45*	1.27	0.00	1.27
23.20	0.36	0.80	0.45*	1.26	0.00	1.26
23.25	0.36	0.80	0.46*	1.26	0.00	1.26
23.30	0.37	0.80	0.46*	1.25	0.00	1.25
23.35	0.37	0.80	0.46*	1.24	0.00	1.24
23.40	0.37	0.80	0.47*	1.24	0.00	1.24
23.45	0.38	0.80	0.47*	1.23	0.00	1.23
23.50	0.38	0.80	0.48*	1.22	0.00	1.22
23.55	0.38	0.80	0.48*	1.22	0.00	1.22
23.60	0.39	0.80	0.49*	1.21	0.00	1.21
23.65	0.39	0.80	0.49*	1.20	0.00	1.20
23.70	0.40	0.80	0.50*	1.20	0.00	1.20
23.75	0.40	0.80	0.50*	1.19	0.00	1.19
23.80	0.40	0.80	0.51*	1.18	0.00	1.18
23.85	0.41	0.80	0.51*	1.18	0.00	1.18
23.90	0.41	0.80	0.52*	1.17	0.00	1.17
23.95	0.42	0.80	0.52*	1.16	0.00	1.16
24.00	0.42	0.80	0.53*	1.16	0.00	1.16
24.05	0.43	0.80	0.54*	1.15	0.00	1.15

24.10	0.43	0.80	0.54*	1.14	0.00	1.14
24.15	0.44	0.80	0.55*	1.14	0.00	1.14
24.20	0.44	0.80	0.55*	1.13	0.00	1.13
24.25	0.45	0.80	0.56*	1.13	0.00	1.13
24.30	0.45	0.80	0.57*	1.12	0.00	1.12
24.35	0.46	0.80	0.58*	1.11	0.00	1.11
24.40	0.47	0.80	0.58*	1.11	0.00	1.11
24.45	0.47	0.80	0.59*	1.10	0.00	1.10
24.50	0.48	0.80	0.60*	1.10	0.00	1.10
24.55	0.49	0.80	0.61*	1.09	0.00	1.09
24.60	0.50	0.80	0.63*	1.09	0.00	1.09
24.65	0.51	0.80	0.64*	1.08	0.00	1.08
24.70	0.52	0.80	0.66*	1.08	0.00	1.08
24.75	0.54	0.80	0.68*	1.07	0.00	1.07
24.80	0.57	0.80	0.72*	1.07	0.00	1.07
24.85	0.62	0.80	0.78*	1.06	0.00	1.06
24.90	0.64	0.80	0.80*	1.06	0.00	1.06
24.95	0.64	0.80	0.80*	1.06	0.00	1.06
25.00	0.64	0.80	0.80*	1.05	0.00	1.05
25.05	0.64	0.80	0.80*	1.05	0.00	1.05
25.10	0.64	0.80	0.80*	1.04	0.00	1.04
25.15	0.64	0.80	0.80*	1.04	0.00	1.04
25.20	0.64	0.80	0.80*	1.04	0.00	1.04
25.25	0.64	0.80	0.80*	1.03	0.00	1.03
25.30	0.64	0.80	0.80*	1.03	0.00	1.03
25.35	0.64	0.80	0.80*	1.03	0.00	1.03
25.40	0.64	0.80	0.80*	1.03	0.00	1.03
25.45	0.64	0.80	0.80*	1.03	0.00	1.03
25.50	0.64	0.80	0.80*	1.03	0.00	1.03
25.55	0.64	0.80	0.80*	1.03	0.00	1.03
25.60	0.64	0.80	0.80*	1.03	0.00	1.03
25.65	0.64	0.80	0.80*	1.02	0.00	1.02
25.70	0.64	0.80	0.80*	1.02	0.00	1.02
25.75	0.64	0.80	0.80*	1.02	0.00	1.02
25.80	0.64	0.80	0.80*	1.02	0.00	1.02
25.85	0.64	0.80	0.80*	1.02	0.00	1.02
25.90	0.64	0.80	0.80*	1.02	0.00	1.02
25.95	0.64	0.80	0.80*	1.02	0.00	1.02
26.00	0.64	0.80	0.80*	1.02	0.00	1.02
26.05	0.64	0.80	0.80*	1.02	0.00	1.02
26.10	0.64	0.80	0.80*	1.02	0.00	1.02
26.15	0.64	0.80	0.80*	1.02	0.00	1.02
26.20	0.64	0.80	0.80*	1.02	0.00	1.02
26.25	0.64	0.80	0.80*	1.02	0.00	1.02
26.30	0.64	0.80	0.80*	1.02	0.00	1.02
26.35	0.64	0.80	0.80*	1.02	0.00	1.02
26.40	0.64	0.80	0.80*	1.02	0.00	1.02
26.45	0.64	0.80	0.80*	1.02	0.00	1.02
26.50	0.64	0.80	0.80*	1.02	0.00	1.02
26.55	0.64	0.80	0.80*	1.02	0.00	1.02
26.60	0.64	0.80	0.80*	1.02	0.00	1.02
26.65	0.64	0.80	0.80*	1.02	0.00	1.02
26.70	0.64	0.80	0.80*	1.02	0.00	1.02
26.75	0.64	0.80	0.80*	1.02	0.00	1.02
26.80	0.64	0.80	0.80*	1.02	0.00	1.02
26.85	0.64	0.80	0.80*	1.02	0.00	1.02
26.90	0.64	0.80	0.80*	1.02	0.00	1.02
26.95	0.64	0.80	0.80*	1.02	0.00	1.02
27.00	0.64	0.80	0.80*	1.02	0.00	1.02
27.05	0.64	0.80	0.80*	1.02	0.00	1.02
27.10	0.64	0.80	0.80*	1.02	0.00	1.02
27.15	0.64	0.80	0.80*	1.02	0.00	1.02
27.20	0.64	0.80	0.80*	1.02	0.00	1.02

27.25	0.64	0.80	0.80*	1.02	0.00	1.02
27.30	0.64	0.80	0.80*	1.02	0.00	1.02
27.35	0.64	0.80	0.80*	1.02	0.00	1.02
27.40	0.64	0.80	0.80*	1.02	0.00	1.02
27.45	0.64	0.80	0.80*	1.02	0.00	1.02
27.50	0.64	0.80	0.80*	1.02	0.00	1.02
27.55	0.64	0.80	0.80*	1.02	0.00	1.02
27.60	0.64	0.80	0.80*	1.02	0.00	1.02
27.65	0.64	0.80	0.80*	1.02	0.00	1.02
27.70	0.64	0.80	0.80*	1.02	0.00	1.02
27.75	0.64	0.80	0.80*	1.02	0.00	1.02
27.80	0.64	0.80	0.80*	1.02	0.00	1.02
27.85	0.64	0.80	0.80*	1.02	0.00	1.02
27.90	0.64	0.80	0.80*	1.02	0.00	1.02
27.95	0.64	0.80	0.80*	1.02	0.00	1.02
28.00	0.64	0.80	0.80*	1.02	0.00	1.02
28.05	0.64	0.80	0.80*	1.02	0.00	1.02
28.10	0.64	0.80	0.80*	1.02	0.00	1.02
28.15	0.64	0.80	0.80*	1.02	0.00	1.02
28.20	0.64	0.80	0.80*	1.02	0.00	1.02
28.25	0.64	0.80	0.80*	1.02	0.00	1.02
28.30	0.64	0.80	0.80*	1.02	0.00	1.02
28.35	0.64	0.80	0.80*	1.02	0.00	1.02
28.40	0.64	0.80	0.80*	1.02	0.00	1.02
28.45	0.64	0.80	0.80*	1.02	0.00	1.02
28.50	0.64	0.80	0.80*	1.02	0.00	1.02
28.55	0.64	0.80	0.80*	1.02	0.00	1.02
28.60	0.64	0.80	0.80*	1.02	0.00	1.02
28.65	0.64	0.80	0.81*	1.02	0.00	1.02
28.70	0.64	0.80	0.80*	1.02	0.00	1.02
28.75	0.64	0.80	0.80*	1.02	0.00	1.02
28.80	0.64	0.80	0.80*	1.02	0.00	1.02
28.85	0.64	0.80	0.80*	1.02	0.00	1.02
28.90	0.64	0.80	0.80*	1.02	0.00	1.02
28.95	0.64	0.80	0.80*	1.02	0.00	1.02
29.00	0.64	0.80	0.80*	1.02	0.00	1.02
29.05	0.64	0.80	0.80*	1.02	0.00	1.02
29.10	0.64	0.80	0.80*	1.02	0.00	1.02
29.15	0.64	0.80	0.80*	1.02	0.00	1.02
29.20	0.64	0.80	0.80*	1.02	0.00	1.02
29.25	0.64	0.80	0.80*	1.02	0.00	1.02
29.30	0.64	0.80	0.80*	1.02	0.00	1.02
29.35	0.64	0.80	0.80*	1.02	0.00	1.02
29.40	0.64	0.80	0.80*	1.02	0.00	1.02
29.45	0.64	0.80	0.80*	1.02	0.00	1.02
29.50	0.64	0.80	0.80*	1.02	0.00	1.02
29.55	0.64	0.80	0.80*	1.02	0.00	1.02
29.60	0.64	0.80	0.80*	1.02	0.00	1.02
29.65	0.64	0.80	0.80*	1.02	0.00	1.02
29.70	0.64	0.80	0.80*	1.02	0.00	1.02
29.75	0.64	0.80	0.80*	1.02	0.00	1.02
29.80	0.64	0.80	0.80*	1.02	0.00	1.02
29.85	0.64	0.80	0.80*	1.02	0.00	1.02
29.90	0.64	0.80	0.80*	1.02	0.00	1.02
29.95	0.64	0.80	0.80*	1.02	0.00	1.02
30.00	0.64	0.80	0.80*	1.02	0.00	1.02
30.05	0.64	0.80	0.80*	1.02	0.00	1.02
30.10	0.64	0.80	0.80*	1.02	0.00	1.02
30.15	0.64	0.80	0.80*	1.02	0.00	1.02
30.20	0.64	0.80	0.80*	1.02	0.00	1.02
30.25	0.64	0.80	0.80*	1.02	0.00	1.02
30.30	0.64	0.80	0.80*	1.02	0.00	1.02
30.35	0.64	0.80	0.80*	1.02	0.00	1.02

30.40	0.64	0.80	0.80*	1.02	0.00	1.02
30.45	0.64	0.80	0.80*	1.02	0.00	1.02
30.50	0.64	0.80	0.80*	1.02	0.00	1.02
30.55	0.64	0.80	0.80*	1.02	0.00	1.02
30.60	0.64	0.80	0.80*	1.02	0.00	1.02
30.65	0.64	0.80	0.80*	1.02	0.00	1.02
30.70	0.64	0.80	0.80*	1.02	0.00	1.02
30.75	0.64	0.80	0.80*	1.02	0.00	1.02
30.80	0.64	0.80	0.80*	1.02	0.00	1.02
30.85	0.64	0.80	0.80*	1.02	0.00	1.02
30.90	0.63	0.80	0.80*	1.02	0.00	1.02
30.95	0.63	0.79	0.80*	1.02	0.00	1.02
31.00	0.63	0.79	0.80*	1.02	0.00	1.02
31.05	0.63	0.79	0.80*	1.02	0.00	1.02
31.10	0.63	0.79	0.80*	1.02	0.00	1.02
31.15	0.63	0.79	0.80*	1.02	0.00	1.02
31.20	0.63	0.79	0.80*	1.02	0.00	1.02
31.25	0.63	0.79	0.80*	1.02	0.00	1.02
31.30	0.63	0.79	0.80*	1.02	0.00	1.02
31.35	0.63	0.79	0.80*	1.02	0.00	1.02
31.40	0.63	0.79	0.80*	1.02	0.00	1.02
31.45	0.63	0.79	0.80*	1.02	0.00	1.02
31.50	0.63	0.79	0.80*	1.02	0.00	1.02
31.55	0.63	0.79	0.80*	1.02	0.00	1.02
31.60	0.63	0.79	0.80*	1.02	0.00	1.02
31.65	0.63	0.79	0.80*	1.02	0.00	1.02
31.70	0.63	0.79	0.80*	1.02	0.00	1.02
31.75	0.63	0.79	0.80*	1.02	0.00	1.02
31.80	0.63	0.79	0.80*	1.02	0.00	1.02
31.85	0.63	0.79	0.80*	1.02	0.00	1.02
31.90	0.63	0.79	0.80*	1.02	0.00	1.02
31.95	0.63	0.79	0.80*	1.02	0.00	1.02
32.00	0.63	0.79	0.80*	1.02	0.00	1.02
32.05	0.63	0.79	0.80*	1.02	0.00	1.02
32.10	0.63	0.79	0.80*	1.02	0.00	1.02
32.15	0.63	0.79	0.80*	1.02	0.00	1.02
32.20	0.63	0.79	0.80*	1.02	0.00	1.02
32.25	0.63	0.79	0.80*	1.02	0.00	1.02
32.30	0.63	0.79	0.80*	1.02	0.00	1.02
32.35	0.63	0.79	0.80*	1.02	0.00	1.02
32.40	0.63	0.79	0.80*	1.02	0.00	1.02
32.45	0.63	0.79	0.80*	1.02	0.00	1.02
32.50	0.63	0.79	0.80*	1.02	0.00	1.02
32.55	0.63	0.79	0.80*	1.02	0.00	1.02
32.60	0.63	0.79	0.80*	1.02	0.00	1.02
32.65	0.63	0.79	0.80*	1.02	0.00	1.02
32.70	0.63	0.78	0.80*	1.02	0.00	1.02
32.75	0.63	0.78	0.80*	1.02	0.00	1.02
32.80	0.63	0.78	0.80*	1.02	0.00	1.02
32.85	0.63	0.78	0.80*	1.02	0.00	1.02
32.90	0.63	0.78	0.80*	1.02	0.00	1.02
32.95	0.63	0.78	0.80*	1.02	0.00	1.02
33.00	0.63	0.78	0.80*	1.02	0.00	1.02
33.05	0.63	0.78	0.80*	1.02	0.00	1.02
33.10	0.63	0.78	0.80*	1.02	0.00	1.02
33.15	0.63	0.78	0.80*	1.02	0.00	1.02
33.20	0.63	0.78	0.80*	1.02	0.00	1.02
33.25	0.63	0.78	0.80*	1.02	0.00	1.02
33.30	0.63	0.78	0.80*	1.02	0.00	1.02
33.35	0.63	0.78	0.80*	1.02	0.00	1.02
33.40	0.63	0.78	0.80*	1.02	0.00	1.02
33.45	0.62	0.78	0.80*	1.02	0.00	1.02
33.50	0.62	0.78	0.80*	1.02	0.00	1.02

33.55	0.62	0.78	0.80*	1.02	0.00	1.02
33.60	0.62	0.78	0.80*	1.02	0.00	1.02
33.65	0.62	0.78	0.80*	1.02	0.00	1.02
33.70	0.62	0.78	0.80*	1.02	0.00	1.02
33.75	0.62	0.78	0.80*	1.02	0.00	1.02
33.80	0.62	0.78	0.80*	1.02	0.00	1.02
33.85	0.62	0.78	0.80*	1.02	0.00	1.02
33.90	0.62	0.78	0.80*	1.02	0.00	1.02
33.95	0.62	0.78	0.80*	1.02	0.00	1.02
34.00	0.62	0.78	0.80*	1.02	0.00	1.02
34.05	0.62	0.78	0.80*	1.02	0.00	1.02
34.10	0.62	0.78	0.80*	1.02	0.00	1.02
34.15	0.62	0.78	0.80*	1.02	0.00	1.02
34.20	0.62	0.78	0.80*	1.02	0.00	1.02
34.25	0.62	0.77	0.80*	1.02	0.00	1.02
34.30	0.62	0.77	0.80*	1.02	0.00	1.02
34.35	0.62	0.77	0.80*	1.02	0.00	1.02
34.40	0.62	0.77	0.80*	1.02	0.00	1.02
34.45	0.62	0.77	0.80*	1.02	0.00	1.02
34.50	0.62	0.77	0.80*	1.02	0.00	1.02
34.55	0.62	0.77	0.80*	1.02	0.00	1.02
34.60	0.62	0.77	0.80*	1.02	0.00	1.02
34.65	0.62	0.77	0.80*	1.02	0.00	1.02
34.70	0.62	0.77	0.80*	1.02	0.00	1.02
34.75	0.62	0.77	0.80*	1.02	0.00	1.02
34.80	0.62	0.77	0.80*	1.02	0.00	1.02
34.85	0.62	0.77	0.80*	1.02	0.00	1.02
34.90	0.62	0.77	0.80*	1.02	0.00	1.02
34.95	0.62	0.77	0.80*	1.02	0.00	1.02
35.00	0.62	0.77	0.80*	1.02	0.00	1.02
35.05	0.62	0.77	0.80*	1.02	0.00	1.02
35.10	0.62	0.77	0.80*	1.02	0.00	1.02
35.15	0.62	0.77	0.80*	1.02	0.00	1.02
35.20	0.62	0.77	0.80*	1.02	0.00	1.02
35.25	0.62	0.77	0.80*	1.02	0.00	1.02
35.30	0.62	0.77	0.80*	1.02	0.00	1.02
35.35	0.62	0.77	0.80*	1.02	0.00	1.02
35.40	0.62	0.77	0.80*	1.02	0.00	1.02
35.45	0.62	0.77	0.80*	1.02	0.00	1.02
35.50	0.62	0.77	0.80*	1.02	0.00	1.02
35.55	0.62	0.77	0.81*	1.02	0.00	1.02
35.60	0.62	0.77	0.81*	1.02	0.00	1.02
35.65	0.62	0.77	0.81*	1.02	0.00	1.02
35.70	0.62	0.77	0.81*	1.02	0.00	1.02
35.75	0.62	0.76	0.81*	1.02	0.00	1.02
35.80	0.62	0.76	0.81*	1.02	0.00	1.02
35.85	0.62	0.76	0.81*	1.02	0.00	1.02
35.90	0.62	0.76	0.81*	1.02	0.00	1.02
35.95	0.62	0.76	0.81*	1.02	0.00	1.02
36.00	0.62	0.76	0.81*	1.02	0.00	1.02
36.05	0.61	0.76	0.81*	1.02	0.00	1.02
36.10	0.61	0.76	0.81*	1.02	0.00	1.02
36.15	0.61	0.76	0.81*	1.02	0.00	1.02
36.20	0.61	0.76	0.81*	1.02	0.00	1.02
36.25	0.61	0.76	0.81*	1.02	0.00	1.02
36.30	0.61	0.76	0.81*	1.02	0.00	1.02
36.35	0.61	0.76	0.81*	1.02	0.00	1.02
36.40	0.61	0.76	0.81*	1.02	0.00	1.02
36.45	0.61	0.76	0.81*	1.02	0.00	1.02
36.50	0.61	0.76	0.81*	1.02	0.00	1.02
36.55	0.61	0.76	0.81*	1.02	0.00	1.02
36.60	0.61	0.76	0.81*	1.02	0.00	1.02
36.65	0.61	0.76	0.81*	1.02	0.00	1.02

36.70	0.61	0.76	0.81*	1.02	0.00	1.02
36.75	0.61	0.76	0.81*	1.02	0.00	1.02
36.80	0.61	0.76	0.81*	1.02	0.00	1.02
36.85	0.61	0.76	0.81*	1.01	0.00	1.01
36.90	0.50	0.76	0.66*	1.01	0.00	1.01
36.95	0.45	0.76	0.59*	1.00	0.00	1.00
37.00	0.42	0.76	0.55*	1.00	0.00	1.00
37.05	0.39	0.76	0.52*	0.99	0.00	0.99
37.10	0.37	0.76	0.49*	0.99	0.00	0.99
37.15	0.35	0.76	0.47*	0.98	0.00	0.98
37.20	0.34	0.76	0.44*	0.97	0.00	0.97
37.25	0.32	0.76	0.42*	0.96	0.00	0.96
37.30	0.31	0.75	0.40*	0.96	0.00	0.96
37.35	0.29	0.75	0.39*	0.95	0.00	0.95
37.40	0.28	0.75	0.37*	0.94	0.00	0.94
37.45	0.27	0.75	0.35*	0.93	0.00	0.93
37.50	0.25	0.75	0.34*	0.92	0.00	0.92
37.55	0.26	0.75	0.34*	0.91	0.00	0.91
37.60	0.26	0.75	0.35*	0.90	0.00	0.90
37.65	0.27	0.75	0.36*	0.90	0.00	0.90
37.70	0.27	0.75	0.36*	0.89	0.00	0.89
37.75	0.28	0.75	0.37*	0.88	0.00	0.88
37.80	0.28	0.75	0.37*	0.87	0.00	0.87
37.85	0.29	0.75	0.38*	0.86	0.00	0.86
37.90	0.29	0.75	0.39*	0.85	0.00	0.85
37.95	0.30	0.75	0.39*	0.84	0.00	0.84
38.00	0.30	0.75	0.40*	0.84	0.00	0.84
38.05	0.31	0.75	0.41*	0.83	0.00	0.83
38.10	0.31	0.75	0.41*	0.82	0.00	0.82
38.15	0.32	0.75	0.42*	0.81	0.00	0.81
38.20	0.32	0.75	0.43*	0.80	0.00	0.80
38.25	0.33	0.75	0.44*	0.80	0.00	0.80
38.30	0.33	0.75	0.44*	0.79	0.00	0.79
38.35	0.34	0.75	0.45*	0.78	0.00	0.78
38.40	0.34	0.75	0.46*	0.77	0.00	0.77
38.45	0.35	0.75	0.47*	0.77	0.00	0.77
38.50	0.36	0.75	0.48*	0.76	0.00	0.76
38.55	0.36	0.75	0.49*	0.75	0.00	0.75
38.60	0.37	0.75	0.50*	0.75	0.00	0.75
38.65	0.38	0.75	0.51*	0.74	0.00	0.74
38.70	0.39	0.75	0.52*	0.73	0.00	0.73
38.75	0.39	0.75	0.53*	0.73	0.00	0.73
38.80	0.40	0.75	0.54*	0.72	0.00	0.72
38.85	0.41	0.75	0.55*	0.71	0.00	0.71
38.90	0.42	0.75	0.56*	0.71	0.00	0.71
38.95	0.43	0.75	0.58*	0.70	0.00	0.70
39.00	0.44	0.74	0.60*	0.70	0.00	0.70
39.05	0.46	0.74	0.62*	0.69	0.00	0.69
39.10	0.48	0.74	0.64*	0.69	0.00	0.69
39.15	0.50	0.74	0.68*	0.68	0.00	0.68
39.20	0.56	0.74	0.76*	0.68	0.00	0.68
39.25	0.60	0.74	0.81*	0.67	0.00	0.67
39.30	0.60	0.74	0.81*	0.67	0.00	0.67
39.35	0.60	0.74	0.81*	0.66	0.00	0.66
39.40	0.60	0.74	0.81*	0.66	0.00	0.66
39.45	0.60	0.74	0.81*	0.66	0.00	0.66
39.50	0.60	0.74	0.81*	0.65	0.00	0.65
39.55	0.60	0.74	0.81*	0.65	0.00	0.65
39.60	0.60	0.74	0.81*	0.65	0.00	0.65
39.65	0.60	0.74	0.81*	0.65	0.00	0.65
39.70	0.60	0.74	0.81*	0.64	0.00	0.64
39.75	0.60	0.74	0.81*	0.64	0.00	0.64
39.80	0.60	0.74	0.81*	0.64	0.00	0.64

39.85	0.60	0.74	0.81*	0.64	0.00	0.64
39.90	0.60	0.74	0.81*	0.64	0.00	0.64
39.95	0.60	0.74	0.81*	0.64	0.00	0.64
40.00	0.60	0.74	0.81*	0.64	0.00	0.64
40.05	0.60	0.74	0.81*	0.63	0.00	0.63
40.10	0.60	0.74	0.81*	0.63	0.00	0.63
40.15	0.60	0.74	0.81*	0.63	0.00	0.63
40.20	0.60	0.74	0.81*	0.63	0.00	0.63
40.25	0.60	0.74	0.81*	0.63	0.00	0.63
40.30	0.60	0.74	0.81*	0.63	0.00	0.63
40.35	0.60	0.74	0.81*	0.63	0.00	0.63
40.40	0.60	0.74	0.81*	0.63	0.00	0.63
40.45	0.60	0.74	0.81*	0.63	0.00	0.63
40.50	0.60	0.74	0.81*	0.62	0.00	0.62
40.55	0.60	0.74	0.81*	0.62	0.00	0.62
40.60	0.60	0.74	0.81*	0.62	0.00	0.62
40.65	0.60	0.74	0.81*	0.62	0.00	0.62
40.70	0.60	0.74	0.81*	0.61	0.00	0.61
40.75	0.60	0.74	0.81*	0.61	0.00	0.61
40.80	0.60	0.73	0.81*	0.61	0.00	0.61
40.85	0.60	0.73	0.81*	0.60	0.00	0.60
40.90	0.60	0.73	0.81*	0.60	0.00	0.60
40.95	0.60	0.73	0.81*	0.60	0.00	0.60
41.00	0.60	0.73	0.81*	0.59	0.00	0.59
41.05	0.60	0.73	0.81*	0.59	0.00	0.59
41.10	0.59	0.73	0.80*	0.58	0.00	0.58
41.15	0.53	0.73	0.72*	0.58	0.00	0.58
41.20	0.50	0.73	0.68*	0.58	0.00	0.58
41.25	0.48	0.73	0.65*	0.57	0.00	0.57
41.30	0.46	0.73	0.63*	0.57	0.00	0.57
41.35	0.45	0.73	0.61*	0.56	0.00	0.56
41.40	0.44	0.73	0.60*	0.56	0.00	0.56
41.45	0.43	0.73	0.59*	0.55	0.00	0.55
41.50	0.42	0.73	0.58*	0.54	0.00	0.54
41.55	0.42	0.73	0.57*	0.54	0.00	0.54
41.60	0.41	0.73	0.56*	0.53	0.00	0.53
41.65	0.40	0.73	0.55*	0.53	0.00	0.53
41.70	0.40	0.73	0.54*	0.52	0.00	0.52
41.75	0.39	0.73	0.53*	0.51	0.00	0.51
41.80	0.38	0.73	0.53*	0.51	0.00	0.51
41.85	0.38	0.73	0.52*	0.50	0.00	0.50
41.90	0.37	0.73	0.51*	0.50	0.00	0.50
41.95	0.37	0.73	0.51*	0.49	0.00	0.49
42.00	0.36	0.73	0.50*	0.48	0.00	0.48
42.05	0.36	0.73	0.49*	0.48	0.00	0.48
42.10	0.35	0.73	0.49*	0.47	0.00	0.47
42.15	0.35	0.73	0.48*	0.46	0.00	0.46
42.20	0.35	0.73	0.48*	0.46	0.00	0.46
42.25	0.34	0.73	0.47*	0.45	0.00	0.45
42.30	0.34	0.73	0.46*	0.44	0.00	0.44
42.35	0.33	0.73	0.46*	0.43	0.00	0.43
42.40	0.33	0.73	0.45*	0.43	0.00	0.43
42.45	0.33	0.73	0.45*	0.42	0.00	0.42
42.50	0.32	0.73	0.44*	0.41	0.00	0.41
42.55	0.32	0.73	0.45*	0.41	0.00	0.41
42.60	0.33	0.72	0.45*	0.40	0.00	0.40
42.65	0.33	0.72	0.45*	0.39	0.00	0.39
42.70	0.33	0.72	0.45*	0.38	0.00	0.38
42.75	0.33	0.72	0.46*	0.38	0.00	0.38
42.80	0.33	0.72	0.46*	0.37	0.00	0.37
42.85	0.33	0.72	0.46*	0.36	0.00	0.36
42.90	0.34	0.72	0.46*	0.35	0.00	0.35
42.95	0.34	0.72	0.47*	0.35	0.00	0.35

43.00	0.34	0.72	0.47*	0.34	0.00	0.34
43.05	0.34	0.72	0.47*	0.33	0.00	0.33
43.10	0.34	0.72	0.48*	0.33	0.00	0.33
43.15	0.35	0.72	0.48*	0.32	0.00	0.32
43.20	0.35	0.72	0.48*	0.31	0.00	0.31
43.25	0.35	0.72	0.48*	0.31	0.00	0.31
43.30	0.35	0.72	0.49*	0.30	0.00	0.30
43.35	0.35	0.72	0.49*	0.29	0.00	0.29
43.40	0.36	0.72	0.49*	0.28	0.00	0.28
43.45	0.36	0.72	0.50*	0.28	0.00	0.28
43.50	0.36	0.72	0.50*	0.27	0.00	0.27
43.55	0.36	0.72	0.50*	0.26	0.00	0.26
43.60	0.36	0.72	0.51*	0.26	0.00	0.26
43.65	0.37	0.72	0.51*	0.25	0.00	0.25
43.70	0.37	0.72	0.51*	0.25	0.00	0.25
43.75	0.37	0.72	0.52*	0.24	0.00	0.24
43.80	0.37	0.72	0.52*	0.23	0.00	0.23
43.85	0.37	0.72	0.52*	0.23	0.00	0.23
43.90	0.38	0.72	0.53*	0.22	0.00	0.22
43.95	0.38	0.72	0.53*	0.21	0.00	0.21
44.00	0.38	0.72	0.53*	0.21	0.00	0.21
44.05	0.38	0.72	0.54*	0.20	0.00	0.20
44.10	0.39	0.72	0.54*	0.19	0.00	0.19
44.15	0.39	0.72	0.54*	0.19	0.00	0.19
44.20	0.39	0.72	0.55*	0.18	0.00	0.18
44.25	0.39	0.72	0.55*	0.18	0.00	0.18
44.30	0.40	0.71	0.56*	0.17	0.00	0.17
44.35	0.40	0.71	0.56*	0.16	0.00	0.16
44.40	0.40	0.71	0.56*	0.16	0.00	0.16
44.45	0.41	0.71	0.57*	0.15	0.00	0.15
44.50	0.41	0.71	0.57*	0.15	0.00	0.15
44.55	0.41	0.71	0.58*	0.14	0.00	0.14
44.60	0.42	0.71	0.58*	0.13	0.00	0.13
44.65	0.42	0.71	0.59*	0.13	0.00	0.13
44.70	0.42	0.71	0.59*	0.12	0.00	0.12
44.75	0.43	0.71	0.60*	0.12	0.00	0.12
44.80	0.43	0.71	0.60*	0.11	0.00	0.11
44.85	0.43	0.71	0.61*	0.11	0.00	0.11
44.90	0.44	0.71	0.61*	0.10	0.00	0.10
44.95	0.44	0.71	0.62*	0.09	0.00	0.09
45.00	0.45	0.71	0.63*	0.09	0.00	0.09
45.05	0.46	0.71	0.64*	0.08	0.00	0.08
45.10	0.47	0.71	0.67*	0.08	0.00	0.08
45.15	0.49	0.71	0.69*	0.07	0.00	0.07
45.20	0.53	0.71	0.74*	0.07	0.00	0.07
45.25	0.58	0.71	0.82*	0.07	0.00	0.07
45.30	0.58	0.71	0.82*	0.06	0.00	0.06
45.35	0.58	0.71	0.82*	0.06	0.00	0.06
45.40	0.58	0.71	0.82*	0.05	0.00	0.05
45.45	0.58	0.71	0.82*	0.05	0.00	0.05
45.50	0.58	0.71	0.82*	0.05	0.00	0.05
45.55	0.58	0.71	0.82*	0.04	0.00	0.04
45.60	0.58	0.71	0.83*	0.04	0.00	0.04
45.65	0.58	0.71	0.83*	0.03	0.00	0.03
45.70	0.58	0.71	0.83*	0.03	0.00	0.03
45.75	0.58	0.71	0.83*	0.03	0.00	0.03
45.80	0.58	0.71	0.83*	0.03	0.00	0.03
45.85	0.58	0.71	0.83*	0.02	0.00	0.02
45.90	0.58	0.70	0.83*	0.02	0.00	0.02
45.95	0.58	0.70	0.83*	0.02	0.00	0.02
46.00	0.58	0.70	0.83*	0.02	0.00	0.02
46.05	0.58	0.70	0.83*	0.02	0.00	0.02
46.10	0.58	0.70	0.83*	0.01	0.00	0.01

46.15	0.58	0.70	0.83*	0.01	0.00	0.01
46.20	0.58	0.70	0.83*	0.01	0.00	0.01
46.25	0.58	0.70	0.83*	0.01	0.00	0.01
46.30	0.58	0.70	0.83*	0.01	0.00	0.01
46.35	0.58	0.70	0.83*	0.01	0.00	0.01
46.40	0.58	0.70	0.83*	0.01	0.00	0.01
46.45	0.58	0.70	0.83*	0.01	0.00	0.01
46.50	0.58	0.70	0.83*	0.01	0.00	0.01
46.55	0.58	0.70	0.83*	0.01	0.00	0.01
46.60	0.58	0.70	0.83*	0.00	0.00	0.00
46.65	0.58	0.70	0.83*	0.00	0.00	0.00
46.70	0.58	0.70	0.83*	0.00	0.00	0.00
46.75	0.58	0.70	0.83*	0.00	0.00	0.00
46.80	0.58	0.70	0.83*	0.00	0.00	0.00
46.85	0.58	0.70	0.83*	0.00	0.00	0.00
46.90	0.58	0.70	0.83*	0.00	0.00	0.00
46.95	0.58	0.70	0.83*	0.00	0.00	0.00
47.00	0.58	0.70	0.83*	0.00	0.00	0.00
47.05	0.58	0.70	0.83*	0.00	0.00	0.00
47.10	0.58	0.70	0.83*	0.00	0.00	0.00
47.15	0.58	0.70	0.83*	0.00	0.00	0.00
47.20	0.58	0.70	0.83*	0.00	0.00	0.00
47.25	0.58	0.70	0.83*	0.00	0.00	0.00
47.30	0.58	0.70	0.83*	0.00	0.00	0.00
47.35	0.58	0.70	0.83*	0.00	0.00	0.00
47.40	0.58	0.70	0.83*	0.00	0.00	0.00
47.45	0.58	0.70	0.83*	0.00	0.00	0.00
47.50	0.58	0.69	0.83*	0.00	0.00	0.00
47.55	0.58	0.69	0.83*	0.00	0.00	0.00
47.60	0.58	0.69	0.83*	0.00	0.00	0.00
47.65	0.58	0.69	0.83*	0.00	0.00	0.00
47.70	0.58	0.69	0.83*	0.00	0.00	0.00
47.75	0.58	0.69	0.83*	0.00	0.00	0.00
47.80	0.58	0.69	0.83*	0.00	0.00	0.00
47.85	0.58	0.69	0.83*	0.00	0.00	0.00
47.90	0.58	0.69	0.83*	0.00	0.00	0.00
47.95	0.58	0.69	0.83*	0.00	0.00	0.00
48.00	0.58	0.69	0.83*	0.00	0.00	0.00
48.05	0.58	0.69	0.83*	0.00	0.00	0.00
48.10	0.58	0.69	0.83*	0.00	0.00	0.00
48.15	0.58	0.69	0.83*	0.00	0.00	0.00
48.20	0.58	0.69	0.83*	0.00	0.00	0.00
48.25	0.58	0.69	0.83*	0.00	0.00	0.00
48.30	0.57	0.69	0.83*	0.00	0.00	0.00
48.35	0.57	0.69	0.83*	0.00	0.00	0.00
48.40	0.57	0.69	0.83*	0.00	0.00	0.00
48.45	0.57	0.69	0.83*	0.00	0.00	0.00
48.50	0.57	0.69	0.83*	0.00	0.00	0.00
48.55	0.57	0.69	0.83*	0.00	0.00	0.00
48.60	0.57	0.69	0.83*	0.00	0.00	0.00
48.65	0.57	0.69	0.83*	0.00	0.00	0.00
48.70	0.57	0.69	0.83*	0.00	0.00	0.00
48.75	0.57	0.69	0.84*	0.00	0.00	0.00
48.80	0.57	0.69	0.84*	0.00	0.00	0.00
48.85	0.57	0.69	0.84*	0.00	0.00	0.00
48.90	0.57	0.69	0.84*	0.00	0.00	0.00
48.95	0.57	0.69	0.84*	0.00	0.00	0.00
49.00	0.57	0.69	0.84*	0.00	0.00	0.00
49.05	0.57	0.68	0.84*	0.00	0.00	0.00
49.10	0.57	0.68	0.84*	0.00	0.00	0.00
49.15	0.57	0.68	0.84*	0.00	0.00	0.00
49.20	0.57	0.68	0.84*	0.00	0.00	0.00
49.25	0.57	0.68	0.84*	0.00	0.00	0.00

49.30	0.57	0.68	0.84*	0.00	0.00	0.00
49.35	0.57	0.68	0.84*	0.00	0.00	0.00
49.40	0.57	0.68	0.84*	0.00	0.00	0.00
49.45	0.57	0.68	0.84*	0.00	0.00	0.00
49.50	0.57	0.68	0.84*	0.00	0.00	0.00
49.55	0.57	0.68	0.84*	0.00	0.00	0.00
49.60	0.57	0.68	0.84*	0.00	0.00	0.00
49.65	0.57	0.68	0.84*	0.00	0.00	0.00
49.70	0.57	0.68	0.84*	0.00	0.00	0.00
49.75	0.57	0.68	0.84*	0.00	0.00	0.00
49.80	0.57	0.68	0.84*	0.00	0.00	0.00
49.85	0.57	0.68	0.84*	0.00	0.00	0.00
49.90	0.57	0.68	0.84*	0.00	0.00	0.00
49.95	0.57	0.68	0.84*	0.00	0.00	0.00
50.00	0.57	0.68	0.84*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

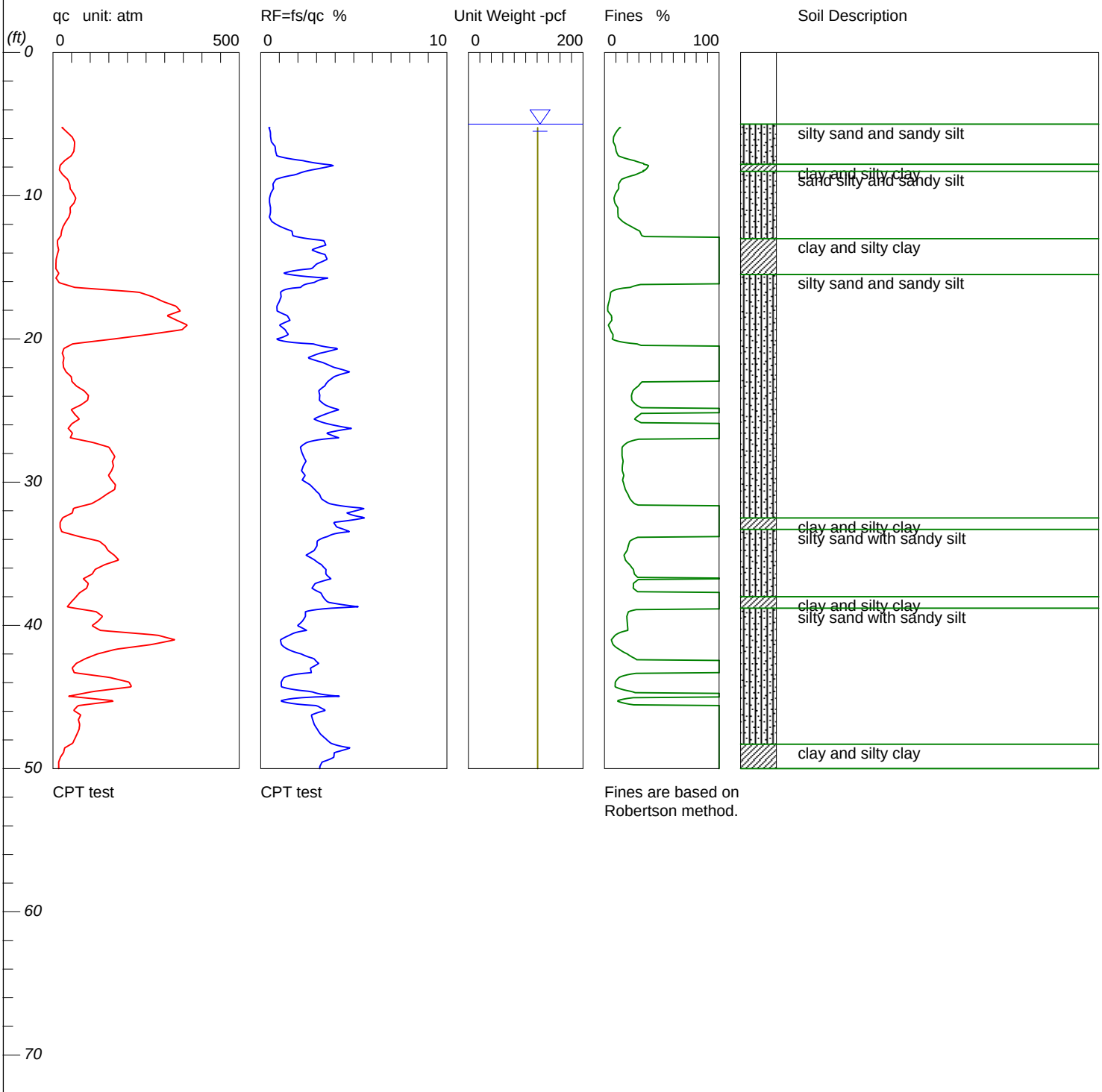
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=CPT-1 Water Depth=5 ft Surface Elev.=244

Magnitude=6.81
Acceleration=0.656g

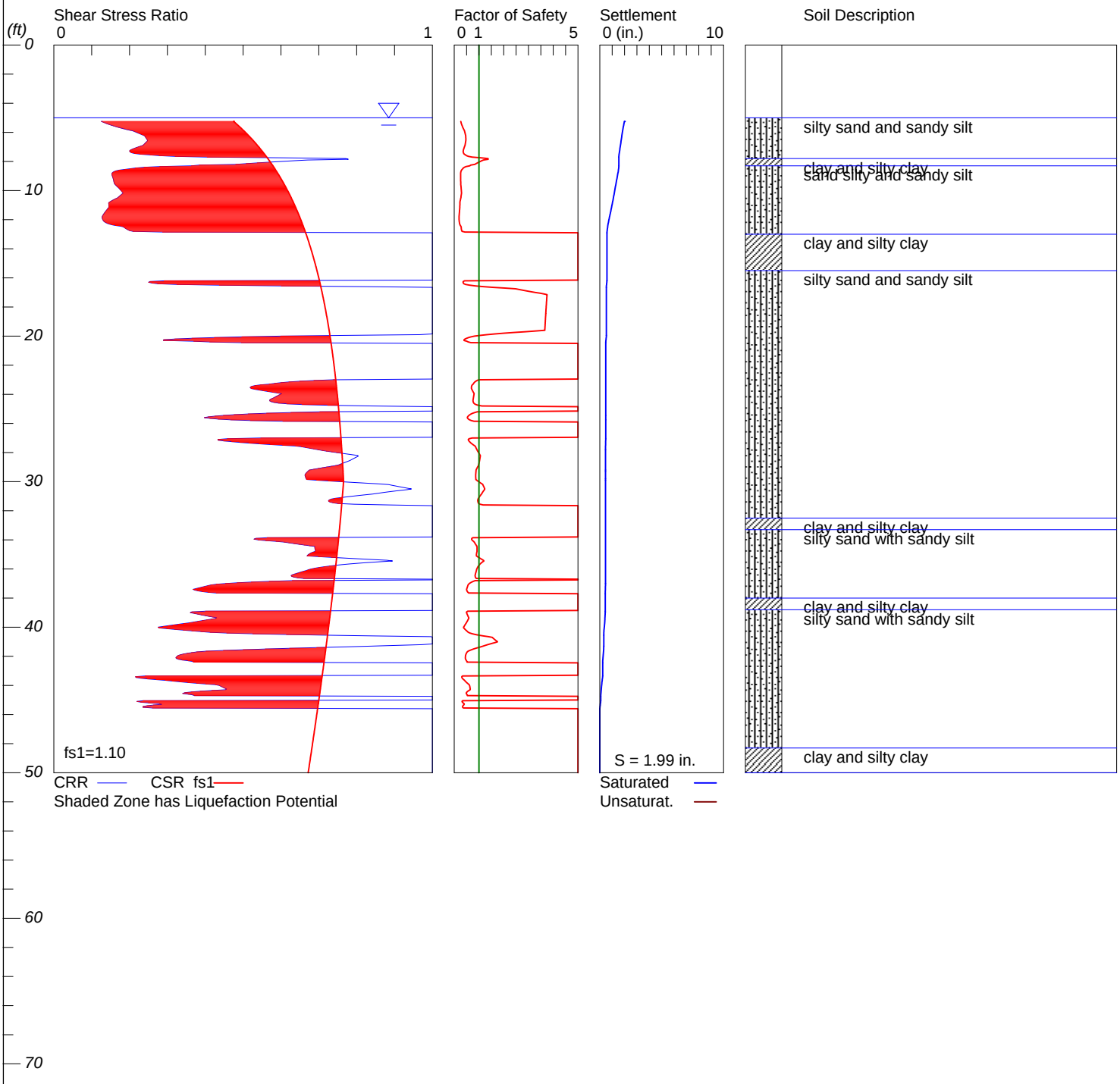


LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=CPT-1 Water Depth=5 ft Surface Elev.=244

Magnitude=6.81
Acceleration=0.656g



****

LIQUEFACTION ANALYSIS SUMMARY

****

Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 8/27/2020 1:31:07 PM

Input File Name: G:_Projects\2020\20G-0418\Liqefaction Analysis\20G-0418 CPT 1.liq
Title: Solemo 13 Acres
Subtitle: 20G-0418-0

Surface Elev.=244
Hole No.=CPT-1
Depth of Hole= 50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.81

Input Data:
Surface Elev.=244
Hole No.=CPT-1
Depth of Hole=50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.81
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
5.25	24.83	0.11	0.45	120.90	0.00	0.50
5.58	38.40	0.20	0.52	120.90	0.00	0.50
5.91	51.77	0.27	0.53	120.90	0.00	0.50
6.23	58.19	0.33	0.57	120.90	0.00	0.50
6.56	57.53	0.45	0.78	120.90	0.00	0.50
6.89	56.20	0.45	0.80	120.90	0.00	0.50
7.22	48.93	0.43	0.87	120.90	0.00	0.50
7.55	31.46	0.71	2.25	120.90	0.00	0.50
7.87	19.48	0.77	3.98	120.90	0.00	0.50
8.20	17.28	0.47	2.72	120.90	0.00	0.50
8.53	25.99	0.49	1.88	120.90	0.00	0.50
8.86	39.50	0.32	0.82	120.90	0.00	0.50
9.19	44.97	0.30	0.66	120.90	0.00	0.50

9.51	46.33	0.32	0.69	120.90	0.00	0.50
9.84	54.95	0.30	0.54	120.90	0.00	0.50
10.17	61.26	0.29	0.48	120.90	0.00	0.50
10.50	56.75	0.27	0.48	120.90	0.00	0.50
10.83	45.95	0.24	0.53	120.90	0.00	0.50
11.15	46.71	0.25	0.53	120.90	0.00	0.50
11.48	42.94	0.20	0.47	120.90	0.00	0.50
11.81	34.49	0.21	0.61	120.90	0.00	0.50
12.14	27.52	0.28	1.04	120.90	0.00	0.50
12.47	23.12	0.39	1.68	120.90	0.00	0.50
12.80	21.41	0.37	1.73	120.90	0.00	0.50
13.12	12.04	0.41	3.39	120.90	0.00	0.50
13.45	12.47	0.44	3.50	120.90	0.00	0.50
13.78	15.16	0.41	2.74	120.90	0.00	0.50
14.11	11.63	0.40	3.46	120.90	0.00	0.50
14.44	8.60	0.31	3.57	120.90	0.00	0.50
14.76	7.96	0.24	3.00	120.90	0.00	0.50
15.09	7.81	0.22	2.75	120.90	0.00	0.50
15.42	15.74	0.19	1.21	120.90	0.00	0.50
15.75	8.10	0.29	3.60	120.90	0.00	0.50
16.08	16.70	0.48	2.86	120.90	0.00	0.50
16.40	58.69	1.26	2.15	120.90	0.00	0.50
16.73	230.46	2.46	1.07	120.90	0.00	0.50
17.06	268.05	2.94	1.10	120.90	0.00	0.50
17.39	295.37	2.95	1.00	120.90	0.00	0.50
17.72	330.53	2.88	0.87	120.90	0.00	0.50
18.05	342.02	3.01	0.88	120.90	0.00	0.50
18.37	305.87	4.36	1.43	120.90	0.00	0.50
18.70	332.55	5.23	1.57	120.90	0.00	0.50
19.03	360.71	3.62	1.00	120.90	0.00	0.50
19.36	346.41	4.56	1.32	120.90	0.00	0.50
19.68	258.13	3.84	1.49	120.90	0.00	0.50
20.01	160.20	1.33	0.83	120.90	0.00	0.50
20.34	53.19	1.50	2.81	120.90	0.00	0.50
20.67	29.17	1.22	4.20	120.90	0.00	0.50
21.00	25.12	0.80	3.18	120.90	0.00	0.50
21.33	29.49	0.75	2.53	120.90	0.00	0.50
21.65	26.97	0.90	3.35	120.90	0.00	0.50
21.98	28.48	1.12	3.92	120.90	0.00	0.50
22.31	35.33	1.69	4.78	120.90	0.00	0.50
22.64	49.19	1.94	3.94	120.90	0.00	0.50
22.97	50.81	1.83	3.61	120.90	0.00	0.50
23.29	63.20	2.17	3.44	120.90	0.00	0.50
23.62	83.63	2.61	3.12	120.90	0.00	0.50
23.95	95.29	3.02	3.17	120.90	0.00	0.50
24.28	93.01	2.93	3.15	120.90	0.00	0.50
24.61	74.98	2.60	3.46	120.90	0.00	0.50
24.93	48.99	2.07	4.22	120.90	0.00	0.50
25.26	58.66	2.03	3.46	120.90	0.00	0.50
25.59	70.84	2.02	2.86	120.90	0.00	0.50
25.92	50.76	1.82	3.58	120.90	0.00	0.50
26.25	41.06	2.00	4.88	120.90	0.00	0.50
26.58	52.23	1.84	3.52	120.90	0.00	0.50
26.90	46.65	1.96	4.19	120.90	0.00	0.50
27.23	107.62	2.67	2.48	120.90	0.00	0.50
27.56	150.30	3.20	2.13	120.90	0.00	0.50
27.89	158.12	3.48	2.20	120.90	0.00	0.50
28.22	166.16	3.83	2.30	120.90	0.00	0.50
28.54	159.56	3.88	2.43	120.90	0.00	0.50
28.87	162.40	3.71	2.29	120.90	0.00	0.50
29.20	157.31	3.45	2.19	120.90	0.00	0.50
29.53	149.09	3.57	2.39	120.90	0.00	0.50
29.86	157.10	3.50	2.23	120.90	0.00	0.50

30.18	167.69	4.44	2.65	120.90	0.00	0.50
30.51	165.55	4.80	2.90	120.90	0.00	0.50
30.84	144.60	4.57	3.16	120.90	0.00	0.50
31.17	126.52	4.13	3.27	120.90	0.00	0.50
31.50	104.26	3.84	3.68	120.90	0.00	0.50
31.82	55.07	3.09	5.61	120.90	0.00	0.50
32.15	52.06	2.41	4.63	120.90	0.00	0.50
32.48	26.22	1.48	5.64	120.90	0.00	0.50
32.81	19.36	0.76	3.91	120.90	0.00	0.50
33.14	19.07	0.78	4.08	120.90	0.00	0.50
33.47	23.64	1.13	4.78	120.90	0.00	0.50
33.79	69.48	2.50	3.60	120.90	0.00	0.50
34.12	124.29	3.77	3.03	120.90	0.00	0.50
34.45	139.97	4.23	3.02	120.90	0.00	0.50
34.78	148.10	4.25	2.87	120.90	0.00	0.50
35.10	164.54	4.01	2.44	120.90	0.00	0.50
35.43	176.84	5.12	2.89	120.90	0.00	0.50
35.76	138.99	4.54	3.26	120.90	0.00	0.50
36.09	113.38	3.97	3.50	120.90	0.00	0.50
36.42	105.25	3.68	3.50	120.90	0.00	0.50
36.74	81.49	3.08	3.78	120.90	0.00	0.50
37.07	94.94	2.78	2.93	120.90	0.00	0.50
37.40	90.46	2.49	2.75	120.90	0.00	0.50
37.73	71.25	2.30	3.23	120.90	0.00	0.50
38.06	60.22	2.03	3.37	120.90	0.00	0.50
38.39	48.35	1.75	3.61	120.90	0.00	0.50
38.71	38.23	2.03	5.32	120.90	0.00	0.50
39.04	115.52	2.78	2.40	120.90	0.00	0.50
39.37	133.23	3.20	2.40	120.90	0.00	0.50
39.70	121.51	2.73	2.24	120.90	0.00	0.50
40.03	104.84	2.07	1.97	120.90	0.00	0.50
40.35	127.47	3.15	2.47	120.90	0.00	0.50
40.68	280.58	4.37	1.56	120.90	0.00	0.50
41.01	327.66	3.47	1.06	120.90	0.00	0.50
41.34	264.69	2.95	1.11	120.90	0.00	0.50
41.67	169.05	2.47	1.46	120.90	0.00	0.50
41.99	119.40	2.60	2.18	120.90	0.00	0.50
42.32	87.22	2.50	2.87	120.90	0.00	0.50
42.65	62.82	1.96	3.12	120.90	0.00	0.50
42.98	51.60	1.38	2.67	120.90	0.00	0.50
43.31	57.18	1.55	2.72	120.90	0.00	0.50
43.63	151.98	1.91	1.26	120.90	0.00	0.50
43.96	204.30	2.25	1.10	120.90	0.00	0.50
44.29	211.13	2.35	1.11	120.90	0.00	0.50
44.62	107.59	2.93	2.72	120.90	0.00	0.50
44.95	42.08	1.80	4.28	120.90	0.00	0.50
45.28	168.01	1.77	1.05	120.90	0.00	0.50
45.60	67.43	2.04	3.02	120.90	0.00	0.50
45.93	55.39	1.94	3.50	120.90	0.00	0.50
46.26	74.57	2.03	2.72	120.90	0.00	0.50
46.59	68.26	1.90	2.79	120.90	0.00	0.50
46.92	71.79	2.06	2.87	120.90	0.00	0.50
47.24	70.20	2.13	3.04	120.90	0.00	0.50
47.57	64.85	2.07	3.20	120.90	0.00	0.50
47.90	58.97	2.05	3.48	120.90	0.00	0.50
48.23	52.99	2.00	3.77	120.90	0.00	0.50
48.56	31.46	1.52	4.82	120.90	0.00	0.50
48.88	28.36	1.12	3.95	120.90	0.00	0.50
49.21	20.00	0.79	3.93	120.90	0.00	0.50
49.54	15.40	0.51	3.30	120.90	0.00	0.50
49.87	15.51	0.49	3.17	120.90	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not

relevant.

Output Results:

Settlement of Saturated Sands=1.99 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=1.99 in.
Differential Settlement=0.996 to 1.315 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
5.25	0.13	0.47	0.27*	1.99	0.00	1.99
5.30	0.13	0.48	0.27*	1.98	0.00	1.98
5.35	0.13	0.48	0.28*	1.97	0.00	1.97
5.40	0.14	0.48	0.29*	1.95	0.00	1.95
5.45	0.15	0.48	0.30*	1.94	0.00	1.94
5.50	0.15	0.49	0.31*	1.93	0.00	1.93
5.55	0.16	0.49	0.32*	1.92	0.00	1.92
5.60	0.16	0.49	0.33*	1.91	0.00	1.91
5.65	0.17	0.49	0.35*	1.90	0.00	1.90
5.70	0.18	0.49	0.36*	1.88	0.00	1.88
5.75	0.18	0.50	0.37*	1.87	0.00	1.87
5.80	0.19	0.50	0.39*	1.86	0.00	1.86
5.85	0.20	0.50	0.40*	1.85	0.00	1.85
5.90	0.21	0.50	0.42*	1.84	0.00	1.84
5.95	0.21	0.50	0.42*	1.83	0.00	1.83
6.00	0.22	0.51	0.43*	1.82	0.00	1.82
6.05	0.22	0.51	0.44*	1.82	0.00	1.82
6.10	0.23	0.51	0.45*	1.81	0.00	1.81
6.15	0.23	0.51	0.45*	1.80	0.00	1.80
6.20	0.24	0.51	0.46*	1.79	0.00	1.79
6.25	0.24	0.52	0.47*	1.78	0.00	1.78
6.30	0.24	0.52	0.47*	1.77	0.00	1.77
6.35	0.24	0.52	0.47*	1.76	0.00	1.76
6.40	0.24	0.52	0.47*	1.75	0.00	1.75
6.45	0.25	0.52	0.47*	1.74	0.00	1.74
6.50	0.25	0.52	0.47*	1.74	0.00	1.74
6.55	0.25	0.53	0.47*	1.73	0.00	1.73
6.60	0.25	0.53	0.47*	1.72	0.00	1.72
6.65	0.24	0.53	0.46*	1.71	0.00	1.71
6.70	0.24	0.53	0.46*	1.70	0.00	1.70
6.75	0.24	0.53	0.45*	1.69	0.00	1.69
6.80	0.24	0.53	0.45*	1.68	0.00	1.68
6.85	0.24	0.54	0.44*	1.68	0.00	1.68
6.90	0.23	0.54	0.44*	1.67	0.00	1.67
6.95	0.23	0.54	0.42*	1.66	0.00	1.66
7.00	0.22	0.54	0.41*	1.65	0.00	1.65
7.05	0.22	0.54	0.40*	1.64	0.00	1.64
7.10	0.21	0.54	0.39*	1.63	0.00	1.63
7.15	0.21	0.55	0.38*	1.62	0.00	1.62
7.20	0.20	0.55	0.37*	1.61	0.00	1.61
7.25	0.20	0.55	0.37*	1.60	0.00	1.60
7.30	0.20	0.55	0.36*	1.59	0.00	1.59
7.35	0.20	0.55	0.36*	1.59	0.00	1.59
7.40	0.21	0.55	0.37*	1.58	0.00	1.58
7.45	0.21	0.56	0.38*	1.57	0.00	1.57
7.50	0.23	0.56	0.41*	1.56	0.00	1.56
7.55	0.25	0.56	0.46*	1.55	0.00	1.55
7.60	0.28	0.56	0.50*	1.55	0.00	1.55
7.65	0.32	0.56	0.57*	1.54	0.00	1.54
7.70	0.40	0.56	0.72*	1.54	0.00	1.54
7.75	0.61	0.56	1.08	1.54	0.00	1.54
7.80	0.77	0.57	1.37	1.54	0.00	1.54

7.85	0.78	0.57	1.37	1.54	0.00	1.54
7.90	0.67	0.57	1.18	1.54	0.00	1.54
7.95	0.63	0.57	1.11	1.54	0.00	1.54
8.00	0.60	0.57	1.05	1.54	0.00	1.54
8.05	0.57	0.57	0.99*	1.54	0.00	1.54
8.10	0.54	0.57	0.94*	1.54	0.00	1.54
8.15	0.51	0.57	0.88*	1.54	0.00	1.54
8.20	0.48	0.58	0.83*	1.54	0.00	1.54
8.25	0.38	0.58	0.66*	1.54	0.00	1.54
8.30	0.36	0.58	0.63*	1.54	0.00	1.54
8.35	0.28	0.58	0.48*	1.54	0.00	1.54
8.40	0.24	0.58	0.41*	1.53	0.00	1.53
8.45	0.22	0.58	0.37*	1.53	0.00	1.53
8.50	0.20	0.58	0.34*	1.52	0.00	1.52
8.55	0.19	0.59	0.32*	1.51	0.00	1.51
8.60	0.17	0.59	0.29*	1.50	0.00	1.50
8.65	0.16	0.59	0.28*	1.50	0.00	1.50
8.70	0.16	0.59	0.27*	1.49	0.00	1.49
8.75	0.16	0.59	0.26*	1.48	0.00	1.48
8.80	0.15	0.59	0.26*	1.47	0.00	1.47
8.85	0.15	0.59	0.26*	1.45	0.00	1.45
8.90	0.15	0.59	0.26*	1.44	0.00	1.44
8.95	0.15	0.59	0.26*	1.43	0.00	1.43
9.00	0.15	0.60	0.26*	1.42	0.00	1.42
9.05	0.16	0.60	0.26*	1.41	0.00	1.41
9.10	0.16	0.60	0.26*	1.40	0.00	1.40
9.15	0.16	0.60	0.26*	1.39	0.00	1.39
9.20	0.16	0.60	0.26*	1.38	0.00	1.38
9.25	0.16	0.60	0.26*	1.37	0.00	1.37
9.30	0.16	0.60	0.26*	1.36	0.00	1.36
9.35	0.16	0.60	0.26*	1.35	0.00	1.35
9.40	0.16	0.60	0.26*	1.33	0.00	1.33
9.45	0.16	0.61	0.26*	1.32	0.00	1.32
9.50	0.16	0.61	0.26*	1.31	0.00	1.31
9.55	0.16	0.61	0.26*	1.30	0.00	1.30
9.60	0.16	0.61	0.27*	1.29	0.00	1.29
9.65	0.16	0.61	0.27*	1.28	0.00	1.28
9.70	0.17	0.61	0.27*	1.27	0.00	1.27
9.75	0.17	0.61	0.27*	1.26	0.00	1.26
9.80	0.17	0.61	0.28*	1.25	0.00	1.25
9.85	0.17	0.61	0.28*	1.24	0.00	1.24
9.90	0.17	0.62	0.28*	1.23	0.00	1.23
9.95	0.18	0.62	0.29*	1.22	0.00	1.22
10.00	0.18	0.62	0.29*	1.21	0.00	1.21
10.05	0.18	0.62	0.29*	1.20	0.00	1.20
10.10	0.18	0.62	0.29*	1.18	0.00	1.18
10.15	0.18	0.62	0.29*	1.17	0.00	1.17
10.20	0.18	0.62	0.29*	1.16	0.00	1.16
10.25	0.18	0.62	0.29*	1.15	0.00	1.15
10.30	0.18	0.62	0.28*	1.14	0.00	1.14
10.35	0.17	0.62	0.28*	1.13	0.00	1.13
10.40	0.17	0.63	0.28*	1.12	0.00	1.12
10.45	0.17	0.63	0.27*	1.11	0.00	1.11
10.50	0.17	0.63	0.27*	1.10	0.00	1.10
10.55	0.16	0.63	0.26*	1.09	0.00	1.09
10.60	0.16	0.63	0.25*	1.08	0.00	1.08
10.65	0.16	0.63	0.25*	1.07	0.00	1.07
10.70	0.15	0.63	0.24*	1.06	0.00	1.06
10.75	0.15	0.63	0.24*	1.04	0.00	1.04
10.80	0.15	0.63	0.23*	1.03	0.00	1.03
10.85	0.14	0.63	0.23*	1.02	0.00	1.02
10.90	0.15	0.63	0.23*	1.01	0.00	1.01
10.95	0.15	0.64	0.23*	1.00	0.00	1.00

11.00	0.15	0.64	0.23*	0.99	0.00	0.99
11.05	0.15	0.64	0.23*	0.97	0.00	0.97
11.10	0.15	0.64	0.23*	0.96	0.00	0.96
11.15	0.15	0.64	0.23*	0.95	0.00	0.95
11.20	0.14	0.64	0.22*	0.94	0.00	0.94
11.25	0.14	0.64	0.22*	0.93	0.00	0.93
11.30	0.14	0.64	0.22*	0.91	0.00	0.91
11.35	0.14	0.64	0.22*	0.90	0.00	0.90
11.40	0.14	0.64	0.21*	0.89	0.00	0.89
11.45	0.14	0.64	0.21*	0.88	0.00	0.88
11.50	0.13	0.64	0.21*	0.87	0.00	0.87
11.55	0.13	0.65	0.21*	0.85	0.00	0.85
11.60	0.13	0.65	0.20*	0.84	0.00	0.84
11.65	0.13	0.65	0.20*	0.83	0.00	0.83
11.70	0.13	0.65	0.20*	0.81	0.00	0.81
11.75	0.13	0.65	0.20*	0.80	0.00	0.80
11.80	0.13	0.65	0.20*	0.79	0.00	0.79
11.85	0.13	0.65	0.20*	0.78	0.00	0.78
11.90	0.13	0.65	0.20*	0.76	0.00	0.76
11.95	0.13	0.65	0.20*	0.75	0.00	0.75
12.00	0.13	0.65	0.20*	0.74	0.00	0.74
12.05	0.13	0.65	0.20*	0.73	0.00	0.73
12.10	0.13	0.65	0.20*	0.71	0.00	0.71
12.15	0.13	0.65	0.20*	0.70	0.00	0.70
12.20	0.14	0.66	0.21*	0.69	0.00	0.69
12.25	0.14	0.66	0.22*	0.68	0.00	0.68
12.30	0.15	0.66	0.22*	0.67	0.00	0.67
12.35	0.15	0.66	0.23*	0.66	0.00	0.66
12.40	0.16	0.66	0.25*	0.65	0.00	0.65
12.45	0.18	0.66	0.27*	0.64	0.00	0.64
12.50	0.18	0.66	0.28*	0.63	0.00	0.63
12.55	0.19	0.66	0.28*	0.62	0.00	0.62
12.60	0.19	0.66	0.29*	0.62	0.00	0.62
12.65	0.19	0.66	0.29*	0.61	0.00	0.61
12.70	0.20	0.66	0.30*	0.60	0.00	0.60
12.75	0.20	0.66	0.30*	0.59	0.00	0.59
12.80	0.21	0.66	0.31*	0.59	0.00	0.59
12.85	0.29	0.66	0.43*	0.58	0.00	0.58
12.90	2.00	0.67	5.00	0.58	0.00	0.58
12.95	2.00	0.67	5.00	0.58	0.00	0.58
13.00	2.00	0.67	5.00	0.58	0.00	0.58
13.05	2.00	0.67	5.00	0.58	0.00	0.58
13.10	2.00	0.67	5.00	0.58	0.00	0.58
13.15	2.00	0.67	5.00	0.58	0.00	0.58
13.20	2.00	0.67	5.00	0.58	0.00	0.58
13.25	2.00	0.67	5.00	0.58	0.00	0.58
13.30	2.00	0.67	5.00	0.58	0.00	0.58
13.35	2.00	0.67	5.00	0.58	0.00	0.58
13.40	2.00	0.67	5.00	0.58	0.00	0.58
13.45	2.00	0.67	5.00	0.58	0.00	0.58
13.50	2.00	0.67	5.00	0.58	0.00	0.58
13.55	2.00	0.67	5.00	0.58	0.00	0.58
13.60	2.00	0.67	5.00	0.58	0.00	0.58
13.65	2.00	0.67	5.00	0.58	0.00	0.58
13.70	2.00	0.68	5.00	0.58	0.00	0.58
13.75	2.00	0.68	5.00	0.58	0.00	0.58
13.80	2.00	0.68	5.00	0.58	0.00	0.58
13.85	2.00	0.68	5.00	0.58	0.00	0.58
13.90	2.00	0.68	5.00	0.58	0.00	0.58
13.95	2.00	0.68	5.00	0.58	0.00	0.58
14.00	2.00	0.68	5.00	0.58	0.00	0.58
14.05	2.00	0.68	5.00	0.58	0.00	0.58
14.10	2.00	0.68	5.00	0.58	0.00	0.58

14.15	2.00	0.68	5.00	0.58	0.00	0.58
14.20	2.00	0.68	5.00	0.58	0.00	0.58
14.25	2.00	0.68	5.00	0.58	0.00	0.58
14.30	2.00	0.68	5.00	0.58	0.00	0.58
14.35	2.00	0.68	5.00	0.58	0.00	0.58
14.40	2.00	0.68	5.00	0.58	0.00	0.58
14.45	2.00	0.68	5.00	0.58	0.00	0.58
14.50	2.00	0.68	5.00	0.58	0.00	0.58
14.55	2.00	0.69	5.00	0.58	0.00	0.58
14.60	2.00	0.69	5.00	0.58	0.00	0.58
14.65	2.00	0.69	5.00	0.58	0.00	0.58
14.70	2.00	0.69	5.00	0.58	0.00	0.58
14.75	2.00	0.69	5.00	0.58	0.00	0.58
14.80	2.00	0.69	5.00	0.58	0.00	0.58
14.85	2.00	0.69	5.00	0.58	0.00	0.58
14.90	2.00	0.69	5.00	0.58	0.00	0.58
14.95	2.00	0.69	5.00	0.58	0.00	0.58
15.00	2.00	0.69	5.00	0.58	0.00	0.58
15.05	2.00	0.69	5.00	0.58	0.00	0.58
15.10	2.00	0.69	5.00	0.58	0.00	0.58
15.15	2.00	0.69	5.00	0.58	0.00	0.58
15.20	2.00	0.69	5.00	0.58	0.00	0.58
15.25	2.00	0.69	5.00	0.58	0.00	0.58
15.30	2.00	0.69	5.00	0.58	0.00	0.58
15.35	2.00	0.69	5.00	0.58	0.00	0.58
15.40	2.00	0.69	5.00	0.58	0.00	0.58
15.45	2.00	0.69	5.00	0.58	0.00	0.58
15.50	2.00	0.70	5.00	0.58	0.00	0.58
15.55	2.00	0.70	5.00	0.58	0.00	0.58
15.60	2.00	0.70	5.00	0.58	0.00	0.58
15.65	2.00	0.70	5.00	0.58	0.00	0.58
15.70	2.00	0.70	5.00	0.58	0.00	0.58
15.75	2.00	0.70	5.00	0.58	0.00	0.58
15.80	2.00	0.70	5.00	0.58	0.00	0.58
15.85	2.00	0.70	5.00	0.58	0.00	0.58
15.90	2.00	0.70	5.00	0.58	0.00	0.58
15.95	2.00	0.70	5.00	0.58	0.00	0.58
16.00	2.00	0.70	5.00	0.58	0.00	0.58
16.05	2.00	0.70	5.00	0.58	0.00	0.58
16.10	2.00	0.70	5.00	0.58	0.00	0.58
16.15	2.00	0.70	5.00	0.58	0.00	0.58
16.20	0.29	0.70	0.42*	0.58	0.00	0.58
16.25	0.25	0.70	0.36*	0.57	0.00	0.57
16.30	0.25	0.70	0.36*	0.57	0.00	0.57
16.35	0.26	0.70	0.37*	0.56	0.00	0.56
16.40	0.27	0.70	0.39*	0.55	0.00	0.55
16.45	0.32	0.70	0.46*	0.55	0.00	0.55
16.50	0.44	0.70	0.62*	0.54	0.00	0.54
16.55	0.60	0.70	0.85*	0.53	0.00	0.53
16.60	0.82	0.71	1.16	0.53	0.00	0.53
16.65	1.10	0.71	1.56	0.53	0.00	0.53
16.70	1.46	0.71	2.06	0.53	0.00	0.53
16.75	1.76	0.71	2.49	0.53	0.00	0.53
16.80	1.86	0.71	2.63	0.53	0.00	0.53
16.85	1.97	0.71	2.78	0.53	0.00	0.53
16.90	2.08	0.71	2.94	0.53	0.00	0.53
16.95	2.20	0.71	3.10	0.53	0.00	0.53
17.00	2.32	0.71	3.27	0.53	0.00	0.53
17.05	2.46	0.71	3.46	0.53	0.00	0.53
17.10	2.57	0.71	3.62	0.53	0.00	0.53
17.15	2.66	0.71	3.75	0.53	0.00	0.53
17.20	2.66	0.71	3.75	0.53	0.00	0.53
17.25	2.66	0.71	3.75	0.53	0.00	0.53

17.30	2.66	0.71	3.74	0.53	0.00	0.53
17.35	2.66	0.71	3.74	0.53	0.00	0.53
17.40	2.66	0.71	3.74	0.53	0.00	0.53
17.45	2.66	0.71	3.74	0.53	0.00	0.53
17.50	2.66	0.71	3.74	0.53	0.00	0.53
17.55	2.66	0.71	3.73	0.53	0.00	0.53
17.60	2.66	0.71	3.73	0.53	0.00	0.53
17.65	2.66	0.71	3.73	0.53	0.00	0.53
17.70	2.66	0.71	3.73	0.53	0.00	0.53
17.75	2.66	0.71	3.73	0.53	0.00	0.53
17.80	2.66	0.71	3.72	0.53	0.00	0.53
17.85	2.66	0.72	3.72	0.53	0.00	0.53
17.90	2.66	0.72	3.72	0.53	0.00	0.53
17.95	2.66	0.72	3.72	0.53	0.00	0.53
18.00	2.66	0.72	3.72	0.53	0.00	0.53
18.05	2.66	0.72	3.71	0.53	0.00	0.53
18.10	2.66	0.72	3.71	0.53	0.00	0.53
18.15	2.66	0.72	3.71	0.53	0.00	0.53
18.20	2.66	0.72	3.71	0.53	0.00	0.53
18.25	2.66	0.72	3.71	0.53	0.00	0.53
18.30	2.66	0.72	3.70	0.53	0.00	0.53
18.35	2.66	0.72	3.70	0.53	0.00	0.53
18.40	2.66	0.72	3.70	0.53	0.00	0.53
18.45	2.66	0.72	3.70	0.53	0.00	0.53
18.50	2.66	0.72	3.70	0.53	0.00	0.53
18.55	2.66	0.72	3.70	0.53	0.00	0.53
18.60	2.66	0.72	3.69	0.53	0.00	0.53
18.65	2.66	0.72	3.69	0.53	0.00	0.53
18.70	2.66	0.72	3.69	0.53	0.00	0.53
18.75	2.66	0.72	3.69	0.53	0.00	0.53
18.80	2.66	0.72	3.69	0.53	0.00	0.53
18.85	2.66	0.72	3.69	0.53	0.00	0.53
18.90	2.66	0.72	3.68	0.53	0.00	0.53
18.95	2.66	0.72	3.68	0.53	0.00	0.53
19.00	2.66	0.72	3.68	0.53	0.00	0.53
19.05	2.66	0.72	3.68	0.53	0.00	0.53
19.10	2.66	0.72	3.68	0.53	0.00	0.53
19.15	2.66	0.72	3.68	0.53	0.00	0.53
19.20	2.66	0.72	3.67	0.53	0.00	0.53
19.25	2.66	0.72	3.67	0.53	0.00	0.53
19.30	2.66	0.73	3.67	0.53	0.00	0.53
19.35	2.66	0.73	3.67	0.53	0.00	0.53
19.40	2.66	0.73	3.67	0.53	0.00	0.53
19.45	2.66	0.73	3.67	0.53	0.00	0.53
19.50	2.66	0.73	3.66	0.53	0.00	0.53
19.55	2.66	0.73	3.66	0.53	0.00	0.53
19.60	2.66	0.73	3.66	0.53	0.00	0.53
19.65	2.38	0.73	3.27	0.53	0.00	0.53
19.70	2.09	0.73	2.87	0.53	0.00	0.53
19.75	1.76	0.73	2.41	0.53	0.00	0.53
19.80	1.46	0.73	2.00	0.53	0.00	0.53
19.85	1.20	0.73	1.64	0.53	0.00	0.53
19.90	0.97	0.73	1.33	0.53	0.00	0.53
19.95	0.77	0.73	1.05	0.53	0.00	0.53
20.00	0.60	0.73	0.82*	0.53	0.00	0.53
20.05	0.50	0.73	0.68*	0.53	0.00	0.53
20.10	0.42	0.73	0.58*	0.52	0.00	0.52
20.15	0.36	0.73	0.50*	0.51	0.00	0.51
20.20	0.32	0.73	0.44*	0.51	0.00	0.51
20.25	0.29	0.73	0.40*	0.50	0.00	0.50
20.30	0.29	0.73	0.40*	0.49	0.00	0.49
20.35	0.37	0.73	0.51*	0.49	0.00	0.49
20.40	0.41	0.73	0.56*	0.49	0.00	0.49

20.45	0.50	0.73	0.68*	0.48	0.00	0.48
20.50	2.00	0.73	5.00	0.48	0.00	0.48
20.55	2.00	0.73	5.00	0.48	0.00	0.48
20.60	2.00	0.73	5.00	0.48	0.00	0.48
20.65	2.00	0.73	5.00	0.48	0.00	0.48
20.70	2.00	0.73	5.00	0.48	0.00	0.48
20.75	2.00	0.73	5.00	0.48	0.00	0.48
20.80	2.00	0.73	5.00	0.48	0.00	0.48
20.85	2.00	0.73	5.00	0.48	0.00	0.48
20.90	2.00	0.73	5.00	0.48	0.00	0.48
20.95	2.00	0.73	5.00	0.48	0.00	0.48
21.00	2.00	0.74	5.00	0.48	0.00	0.48
21.05	2.00	0.74	5.00	0.48	0.00	0.48
21.10	2.00	0.74	5.00	0.48	0.00	0.48
21.15	2.00	0.74	5.00	0.48	0.00	0.48
21.20	2.00	0.74	5.00	0.48	0.00	0.48
21.25	2.00	0.74	5.00	0.48	0.00	0.48
21.30	2.00	0.74	5.00	0.48	0.00	0.48
21.35	2.00	0.74	5.00	0.48	0.00	0.48
21.40	2.00	0.74	5.00	0.48	0.00	0.48
21.45	2.00	0.74	5.00	0.48	0.00	0.48
21.50	2.00	0.74	5.00	0.48	0.00	0.48
21.55	2.00	0.74	5.00	0.48	0.00	0.48
21.60	2.00	0.74	5.00	0.48	0.00	0.48
21.65	2.00	0.74	5.00	0.48	0.00	0.48
21.70	2.00	0.74	5.00	0.48	0.00	0.48
21.75	2.00	0.74	5.00	0.48	0.00	0.48
21.80	2.00	0.74	5.00	0.48	0.00	0.48
21.85	2.00	0.74	5.00	0.48	0.00	0.48
21.90	2.00	0.74	5.00	0.48	0.00	0.48
21.95	2.00	0.74	5.00	0.48	0.00	0.48
22.00	2.00	0.74	5.00	0.48	0.00	0.48
22.05	2.00	0.74	5.00	0.48	0.00	0.48
22.10	2.00	0.74	5.00	0.48	0.00	0.48
22.15	2.00	0.74	5.00	0.48	0.00	0.48
22.20	2.00	0.74	5.00	0.48	0.00	0.48
22.25	2.00	0.74	5.00	0.48	0.00	0.48
22.30	2.00	0.74	5.00	0.48	0.00	0.48
22.35	2.00	0.74	5.00	0.48	0.00	0.48
22.40	2.00	0.74	5.00	0.48	0.00	0.48
22.45	2.00	0.74	5.00	0.48	0.00	0.48
22.50	2.00	0.74	5.00	0.48	0.00	0.48
22.55	2.00	0.74	5.00	0.48	0.00	0.48
22.60	2.00	0.74	5.00	0.48	0.00	0.48
22.65	2.00	0.74	5.00	0.48	0.00	0.48
22.70	2.00	0.74	5.00	0.48	0.00	0.48
22.75	2.00	0.74	5.00	0.48	0.00	0.48
22.80	2.00	0.74	5.00	0.48	0.00	0.48
22.85	2.00	0.74	5.00	0.48	0.00	0.48
22.90	2.00	0.74	5.00	0.48	0.00	0.48
22.95	2.00	0.74	5.00	0.48	0.00	0.48
23.00	0.74	0.74	0.99*	0.48	0.00	0.48
23.05	0.69	0.74	0.92*	0.48	0.00	0.48
23.10	0.65	0.75	0.87*	0.48	0.00	0.48
23.15	0.62	0.75	0.83*	0.48	0.00	0.48
23.20	0.60	0.75	0.80*	0.48	0.00	0.48
23.25	0.58	0.75	0.78*	0.48	0.00	0.48
23.30	0.57	0.75	0.76*	0.48	0.00	0.48
23.35	0.55	0.75	0.73*	0.48	0.00	0.48
23.40	0.53	0.75	0.71*	0.48	0.00	0.48
23.45	0.52	0.75	0.70*	0.48	0.00	0.48
23.50	0.52	0.75	0.70*	0.48	0.00	0.48
23.55	0.52	0.75	0.69*	0.48	0.00	0.48

23.60	0.52	0.75	0.70*	0.48	0.00	0.48
23.65	0.53	0.75	0.71*	0.48	0.00	0.48
23.70	0.54	0.75	0.72*	0.48	0.00	0.48
23.75	0.55	0.75	0.74*	0.48	0.00	0.48
23.80	0.56	0.75	0.75*	0.48	0.00	0.48
23.85	0.58	0.75	0.77*	0.48	0.00	0.48
23.90	0.59	0.75	0.79*	0.48	0.00	0.48
23.95	0.60	0.75	0.80*	0.48	0.00	0.48
24.00	0.60	0.75	0.80*	0.48	0.00	0.48
24.05	0.59	0.75	0.79*	0.48	0.00	0.48
24.10	0.59	0.75	0.79*	0.48	0.00	0.48
24.15	0.59	0.75	0.78*	0.48	0.00	0.48
24.20	0.58	0.75	0.78*	0.48	0.00	0.48
24.25	0.58	0.75	0.77*	0.48	0.00	0.48
24.30	0.58	0.75	0.77*	0.48	0.00	0.48
24.35	0.57	0.75	0.76*	0.48	0.00	0.48
24.40	0.57	0.75	0.76*	0.48	0.00	0.48
24.45	0.57	0.75	0.76*	0.48	0.00	0.48
24.50	0.57	0.75	0.76*	0.48	0.00	0.48
24.55	0.58	0.75	0.77*	0.48	0.00	0.48
24.60	0.59	0.75	0.79*	0.48	0.00	0.48
24.65	0.62	0.75	0.82*	0.48	0.00	0.48
24.70	0.66	0.75	0.87*	0.48	0.00	0.48
24.75	0.72	0.75	0.96*	0.48	0.00	0.48
24.80	0.84	0.75	1.12	0.48	0.00	0.48
24.85	2.00	0.75	5.00	0.48	0.00	0.48
24.90	2.00	0.75	5.00	0.48	0.00	0.48
24.95	2.00	0.75	5.00	0.48	0.00	0.48
25.00	2.00	0.75	5.00	0.48	0.00	0.48
25.05	2.00	0.75	5.00	0.48	0.00	0.48
25.10	2.00	0.75	5.00	0.48	0.00	0.48
25.15	2.00	0.75	5.00	0.48	0.00	0.48
25.20	0.70	0.75	0.93*	0.48	0.00	0.48
25.25	0.63	0.75	0.83*	0.48	0.00	0.48
25.30	0.56	0.75	0.75*	0.48	0.00	0.48
25.35	0.51	0.75	0.68*	0.48	0.00	0.48
25.40	0.48	0.75	0.63*	0.48	0.00	0.48
25.45	0.45	0.75	0.59*	0.48	0.00	0.48
25.50	0.43	0.75	0.56*	0.48	0.00	0.48
25.55	0.41	0.75	0.54*	0.48	0.00	0.48
25.60	0.40	0.75	0.53*	0.48	0.00	0.48
25.65	0.41	0.75	0.55*	0.48	0.00	0.48
25.70	0.43	0.75	0.57*	0.48	0.00	0.48
25.75	0.47	0.75	0.62*	0.48	0.00	0.48
25.80	0.52	0.75	0.69*	0.48	0.00	0.48
25.85	0.60	0.76	0.80*	0.48	0.00	0.48
25.90	2.00	0.76	5.00	0.48	0.00	0.48
25.95	2.00	0.76	5.00	0.48	0.00	0.48
26.00	2.00	0.76	5.00	0.48	0.00	0.48
26.05	2.00	0.76	5.00	0.48	0.00	0.48
26.10	2.00	0.76	5.00	0.48	0.00	0.48
26.15	2.00	0.76	5.00	0.48	0.00	0.48
26.20	2.00	0.76	5.00	0.48	0.00	0.48
26.25	2.00	0.76	5.00	0.48	0.00	0.48
26.30	2.00	0.76	5.00	0.48	0.00	0.48
26.35	2.00	0.76	5.00	0.48	0.00	0.48
26.40	2.00	0.76	5.00	0.48	0.00	0.48
26.45	2.00	0.76	5.00	0.48	0.00	0.48
26.50	2.00	0.76	5.00	0.48	0.00	0.48
26.55	2.00	0.76	5.00	0.48	0.00	0.48
26.60	2.00	0.76	5.00	0.48	0.00	0.48
26.65	2.00	0.76	5.00	0.48	0.00	0.48
26.70	2.00	0.76	5.00	0.48	0.00	0.48

26.75	2.00	0.76	5.00	0.48	0.00	0.48
26.80	2.00	0.76	5.00	0.48	0.00	0.48
26.85	2.00	0.76	5.00	0.48	0.00	0.48
26.90	2.00	0.76	5.00	0.48	0.00	0.48
26.95	2.00	0.76	5.00	0.48	0.00	0.48
27.00	0.55	0.76	0.72*	0.48	0.00	0.48
27.05	0.46	0.76	0.60*	0.48	0.00	0.48
27.10	0.43	0.76	0.57*	0.48	0.00	0.48
27.15	0.43	0.76	0.57*	0.48	0.00	0.48
27.20	0.45	0.76	0.59*	0.47	0.00	0.47
27.25	0.47	0.76	0.62*	0.47	0.00	0.47
27.30	0.49	0.76	0.65*	0.47	0.00	0.47
27.35	0.52	0.76	0.68*	0.47	0.00	0.47
27.40	0.54	0.76	0.71*	0.47	0.00	0.47
27.45	0.57	0.76	0.75*	0.47	0.00	0.47
27.50	0.60	0.76	0.80*	0.47	0.00	0.47
27.55	0.64	0.76	0.84*	0.47	0.00	0.47
27.60	0.65	0.76	0.86*	0.46	0.00	0.46
27.65	0.66	0.76	0.87*	0.46	0.00	0.46
27.70	0.68	0.76	0.89*	0.46	0.00	0.46
27.75	0.69	0.76	0.90*	0.46	0.00	0.46
27.80	0.70	0.76	0.92*	0.46	0.00	0.46
27.85	0.71	0.76	0.93*	0.46	0.00	0.46
27.90	0.72	0.76	0.95*	0.46	0.00	0.46
27.95	0.73	0.76	0.96*	0.46	0.00	0.46
28.00	0.75	0.76	0.98*	0.46	0.00	0.46
28.05	0.76	0.76	1.00*	0.46	0.00	0.46
28.10	0.77	0.76	1.02	0.46	0.00	0.46
28.15	0.79	0.76	1.04	0.46	0.00	0.46
28.20	0.80	0.76	1.05	0.46	0.00	0.46
28.25	0.80	0.76	1.06	0.46	0.00	0.46
28.30	0.80	0.76	1.05	0.46	0.00	0.46
28.35	0.80	0.76	1.05	0.46	0.00	0.46
28.40	0.79	0.76	1.04	0.46	0.00	0.46
28.45	0.79	0.76	1.04	0.46	0.00	0.46
28.50	0.79	0.76	1.03	0.46	0.00	0.46
28.55	0.78	0.76	1.03	0.46	0.00	0.46
28.60	0.78	0.76	1.02	0.46	0.00	0.46
28.65	0.77	0.76	1.01	0.46	0.00	0.46
28.70	0.77	0.76	1.01	0.46	0.00	0.46
28.75	0.76	0.76	1.00*	0.46	0.00	0.46
28.80	0.76	0.76	0.99*	0.46	0.00	0.46
28.85	0.75	0.76	0.99*	0.46	0.00	0.46
28.90	0.74	0.76	0.97*	0.46	0.00	0.46
28.95	0.73	0.76	0.96*	0.46	0.00	0.46
29.00	0.72	0.76	0.94*	0.46	0.00	0.46
29.05	0.71	0.76	0.93*	0.46	0.00	0.46
29.10	0.70	0.76	0.91*	0.46	0.00	0.46
29.15	0.69	0.76	0.90*	0.46	0.00	0.46
29.20	0.68	0.76	0.88*	0.46	0.00	0.46
29.25	0.67	0.76	0.88*	0.46	0.00	0.46
29.30	0.67	0.76	0.88*	0.46	0.00	0.46
29.35	0.67	0.76	0.88*	0.46	0.00	0.46
29.40	0.67	0.76	0.87*	0.46	0.00	0.46
29.45	0.67	0.76	0.87*	0.46	0.00	0.46
29.50	0.66	0.76	0.87*	0.46	0.00	0.46
29.55	0.66	0.76	0.87*	0.46	0.00	0.46
29.60	0.66	0.76	0.87*	0.46	0.00	0.46
29.65	0.66	0.76	0.87*	0.46	0.00	0.46
29.70	0.66	0.76	0.87*	0.46	0.00	0.46
29.75	0.67	0.76	0.87*	0.46	0.00	0.46
29.80	0.67	0.77	0.87*	0.46	0.00	0.46
29.85	0.67	0.77	0.87*	0.46	0.00	0.46

29.90	0.69	0.77	0.91*	0.46	0.00	0.46
29.95	0.73	0.77	0.95*	0.46	0.00	0.46
30.00	0.76	0.77	0.99*	0.46	0.00	0.46
30.05	0.79	0.77	1.03	0.46	0.00	0.46
30.10	0.82	0.77	1.08	0.46	0.00	0.46
30.15	0.86	0.76	1.12	0.46	0.00	0.46
30.20	0.88	0.76	1.16	0.46	0.00	0.46
30.25	0.89	0.76	1.17	0.46	0.00	0.46
30.30	0.90	0.76	1.18	0.46	0.00	0.46
30.35	0.91	0.76	1.20	0.46	0.00	0.46
30.40	0.92	0.76	1.21	0.46	0.00	0.46
30.45	0.93	0.76	1.22	0.46	0.00	0.46
30.50	0.94	0.76	1.24	0.46	0.00	0.46
30.55	0.93	0.76	1.22	0.46	0.00	0.46
30.60	0.92	0.76	1.20	0.46	0.00	0.46
30.65	0.90	0.76	1.18	0.46	0.00	0.46
30.70	0.88	0.76	1.16	0.46	0.00	0.46
30.75	0.87	0.76	1.14	0.46	0.00	0.46
30.80	0.86	0.76	1.12	0.46	0.00	0.46
30.85	0.84	0.76	1.10	0.46	0.00	0.46
30.90	0.82	0.76	1.08	0.46	0.00	0.46
30.95	0.81	0.76	1.06	0.46	0.00	0.46
31.00	0.79	0.76	1.03	0.46	0.00	0.46
31.05	0.77	0.76	1.01	0.46	0.00	0.46
31.10	0.76	0.76	0.99*	0.46	0.00	0.46
31.15	0.74	0.76	0.97*	0.46	0.00	0.46
31.20	0.73	0.76	0.96*	0.46	0.00	0.46
31.25	0.73	0.76	0.96*	0.46	0.00	0.46
31.30	0.73	0.76	0.95*	0.46	0.00	0.46
31.35	0.73	0.76	0.95*	0.46	0.00	0.46
31.40	0.73	0.76	0.96*	0.46	0.00	0.46
31.45	0.74	0.76	0.97*	0.46	0.00	0.46
31.50	0.75	0.76	0.99*	0.46	0.00	0.46
31.55	0.79	0.76	1.04	0.46	0.00	0.46
31.60	0.89	0.76	1.17	0.46	0.00	0.46
31.65	2.00	0.76	5.00	0.46	0.00	0.46
31.70	2.00	0.76	5.00	0.46	0.00	0.46
31.75	2.00	0.76	5.00	0.46	0.00	0.46
31.80	2.00	0.76	5.00	0.46	0.00	0.46
31.85	2.00	0.76	5.00	0.46	0.00	0.46
31.90	2.00	0.76	5.00	0.46	0.00	0.46
31.95	2.00	0.76	5.00	0.46	0.00	0.46
32.00	2.00	0.76	5.00	0.46	0.00	0.46
32.05	2.00	0.76	5.00	0.46	0.00	0.46
32.10	2.00	0.76	5.00	0.46	0.00	0.46
32.15	2.00	0.76	5.00	0.46	0.00	0.46
32.20	2.00	0.76	5.00	0.46	0.00	0.46
32.25	2.00	0.76	5.00	0.46	0.00	0.46
32.30	2.00	0.76	5.00	0.46	0.00	0.46
32.35	2.00	0.76	5.00	0.46	0.00	0.46
32.40	2.00	0.76	5.00	0.46	0.00	0.46
32.45	2.00	0.76	5.00	0.46	0.00	0.46
32.50	2.00	0.76	5.00	0.46	0.00	0.46
32.55	2.00	0.76	5.00	0.46	0.00	0.46
32.60	2.00	0.76	5.00	0.46	0.00	0.46
32.65	2.00	0.76	5.00	0.46	0.00	0.46
32.70	2.00	0.76	5.00	0.46	0.00	0.46
32.75	2.00	0.76	5.00	0.46	0.00	0.46
32.80	2.00	0.76	5.00	0.46	0.00	0.46
32.85	2.00	0.76	5.00	0.46	0.00	0.46
32.90	2.00	0.76	5.00	0.46	0.00	0.46
32.95	2.00	0.76	5.00	0.46	0.00	0.46
33.00	2.00	0.76	5.00	0.46	0.00	0.46

33.05	2.00	0.76	5.00	0.46	0.00	0.46
33.10	2.00	0.76	5.00	0.46	0.00	0.46
33.15	2.00	0.76	5.00	0.46	0.00	0.46
33.20	2.00	0.75	5.00	0.46	0.00	0.46
33.25	2.00	0.75	5.00	0.46	0.00	0.46
33.30	2.00	0.75	5.00	0.46	0.00	0.46
33.35	2.00	0.75	5.00	0.46	0.00	0.46
33.40	2.00	0.75	5.00	0.46	0.00	0.46
33.45	2.00	0.75	5.00	0.46	0.00	0.46
33.50	2.00	0.75	5.00	0.46	0.00	0.46
33.55	2.00	0.75	5.00	0.46	0.00	0.46
33.60	2.00	0.75	5.00	0.46	0.00	0.46
33.65	2.00	0.75	5.00	0.46	0.00	0.46
33.70	2.00	0.75	5.00	0.46	0.00	0.46
33.75	2.00	0.75	5.00	0.46	0.00	0.46
33.80	2.00	0.75	5.00	0.46	0.00	0.46
33.85	0.56	0.75	0.75*	0.46	0.00	0.46
33.90	0.53	0.75	0.71*	0.46	0.00	0.46
33.95	0.53	0.75	0.70*	0.46	0.00	0.46
34.00	0.54	0.75	0.72*	0.46	0.00	0.46
34.05	0.56	0.75	0.74*	0.46	0.00	0.46
34.10	0.59	0.75	0.78*	0.46	0.00	0.46
34.15	0.61	0.75	0.81*	0.46	0.00	0.46
34.20	0.62	0.75	0.83*	0.46	0.00	0.46
34.25	0.63	0.75	0.84*	0.46	0.00	0.46
34.30	0.65	0.75	0.86*	0.46	0.00	0.46
34.35	0.66	0.75	0.88*	0.46	0.00	0.46
34.40	0.68	0.75	0.90*	0.46	0.00	0.46
34.45	0.69	0.75	0.92*	0.46	0.00	0.46
34.50	0.69	0.75	0.92*	0.46	0.00	0.46
34.55	0.69	0.75	0.92*	0.46	0.00	0.46
34.60	0.69	0.75	0.92*	0.46	0.00	0.46
34.65	0.69	0.75	0.92*	0.46	0.00	0.46
34.70	0.69	0.75	0.92*	0.46	0.00	0.46
34.75	0.69	0.75	0.92*	0.46	0.00	0.46
34.80	0.69	0.75	0.92*	0.46	0.00	0.46
34.85	0.68	0.75	0.91*	0.46	0.00	0.46
34.90	0.68	0.75	0.91*	0.46	0.00	0.46
34.95	0.68	0.75	0.90*	0.46	0.00	0.46
35.00	0.67	0.75	0.90*	0.46	0.00	0.46
35.05	0.67	0.75	0.90*	0.46	0.00	0.46
35.10	0.67	0.75	0.89*	0.46	0.00	0.46
35.15	0.70	0.75	0.93*	0.46	0.00	0.46
35.20	0.73	0.75	0.98*	0.46	0.00	0.46
35.25	0.77	0.75	1.03	0.46	0.00	0.46
35.30	0.80	0.75	1.08	0.46	0.00	0.46
35.35	0.84	0.75	1.13	0.46	0.00	0.46
35.40	0.88	0.75	1.18	0.46	0.00	0.46
35.45	0.89	0.75	1.20	0.46	0.00	0.46
35.50	0.86	0.75	1.16	0.46	0.00	0.46
35.55	0.83	0.75	1.12	0.46	0.00	0.46
35.60	0.81	0.75	1.08	0.46	0.00	0.46
35.65	0.78	0.75	1.05	0.46	0.00	0.46
35.70	0.76	0.75	1.02	0.46	0.00	0.46
35.75	0.74	0.74	1.00*	0.46	0.00	0.46
35.80	0.73	0.74	0.98*	0.46	0.00	0.46
35.85	0.71	0.74	0.96*	0.46	0.00	0.46
35.90	0.70	0.74	0.94*	0.46	0.00	0.46
35.95	0.69	0.74	0.93*	0.46	0.00	0.46
36.00	0.68	0.74	0.91*	0.46	0.00	0.46
36.05	0.67	0.74	0.90*	0.46	0.00	0.46
36.10	0.67	0.74	0.90*	0.46	0.00	0.46
36.15	0.66	0.74	0.89*	0.46	0.00	0.46

36.20	0.65	0.74	0.88*	0.46	0.00	0.46
36.25	0.65	0.74	0.87*	0.46	0.00	0.46
36.30	0.64	0.74	0.86*	0.46	0.00	0.46
36.35	0.64	0.74	0.86*	0.46	0.00	0.46
36.40	0.63	0.74	0.85*	0.46	0.00	0.46
36.45	0.63	0.74	0.85*	0.46	0.00	0.46
36.50	0.63	0.74	0.85*	0.46	0.00	0.46
36.55	0.63	0.74	0.85*	0.46	0.00	0.46
36.60	0.64	0.74	0.87*	0.46	0.00	0.46
36.65	0.66	0.74	0.89*	0.46	0.00	0.46
36.70	2.00	0.74	5.00	0.46	0.00	0.46
36.75	2.00	0.74	5.00	0.46	0.00	0.46
36.80	0.63	0.74	0.85*	0.46	0.00	0.46
36.85	0.57	0.74	0.77*	0.46	0.00	0.46
36.90	0.52	0.74	0.70*	0.46	0.00	0.46
36.95	0.48	0.74	0.65*	0.46	0.00	0.46
37.00	0.45	0.74	0.61*	0.46	0.00	0.46
37.05	0.43	0.74	0.58*	0.46	0.00	0.46
37.10	0.41	0.74	0.56*	0.46	0.00	0.46
37.15	0.41	0.74	0.55*	0.46	0.00	0.46
37.20	0.40	0.74	0.54*	0.46	0.00	0.46
37.25	0.39	0.74	0.53*	0.45	0.00	0.45
37.30	0.38	0.74	0.52*	0.45	0.00	0.45
37.35	0.38	0.74	0.51*	0.45	0.00	0.45
37.40	0.37	0.74	0.50*	0.45	0.00	0.45
37.45	0.37	0.74	0.50*	0.45	0.00	0.45
37.50	0.38	0.74	0.52*	0.44	0.00	0.44
37.55	0.39	0.74	0.53*	0.44	0.00	0.44
37.60	0.41	0.74	0.55*	0.44	0.00	0.44
37.65	0.43	0.74	0.58*	0.44	0.00	0.44
37.70	2.00	0.74	5.00	0.44	0.00	0.44
37.75	2.00	0.74	5.00	0.44	0.00	0.44
37.80	2.00	0.74	5.00	0.44	0.00	0.44
37.85	2.00	0.74	5.00	0.44	0.00	0.44
37.90	2.00	0.74	5.00	0.44	0.00	0.44
37.95	2.00	0.74	5.00	0.44	0.00	0.44
38.00	2.00	0.74	5.00	0.44	0.00	0.44
38.05	2.00	0.73	5.00	0.44	0.00	0.44
38.10	2.00	0.73	5.00	0.44	0.00	0.44
38.15	2.00	0.73	5.00	0.44	0.00	0.44
38.20	2.00	0.73	5.00	0.44	0.00	0.44
38.25	2.00	0.73	5.00	0.44	0.00	0.44
38.30	2.00	0.73	5.00	0.44	0.00	0.44
38.35	2.00	0.73	5.00	0.44	0.00	0.44
38.40	2.00	0.73	5.00	0.44	0.00	0.44
38.45	2.00	0.73	5.00	0.44	0.00	0.44
38.50	2.00	0.73	5.00	0.44	0.00	0.44
38.55	2.00	0.73	5.00	0.44	0.00	0.44
38.60	2.00	0.73	5.00	0.44	0.00	0.44
38.65	2.00	0.73	5.00	0.44	0.00	0.44
38.70	2.00	0.73	5.00	0.44	0.00	0.44
38.75	2.00	0.73	5.00	0.44	0.00	0.44
38.80	2.00	0.73	5.00	0.44	0.00	0.44
38.85	2.00	0.73	5.00	0.44	0.00	0.44
38.90	0.40	0.73	0.55*	0.44	0.00	0.44
38.95	0.36	0.73	0.50*	0.44	0.00	0.44
39.00	0.36	0.73	0.49*	0.44	0.00	0.44
39.05	0.37	0.73	0.51*	0.43	0.00	0.43
39.10	0.38	0.73	0.52*	0.43	0.00	0.43
39.15	0.39	0.73	0.53*	0.43	0.00	0.43
39.20	0.40	0.73	0.55*	0.42	0.00	0.42
39.25	0.41	0.73	0.56*	0.42	0.00	0.42
39.30	0.42	0.73	0.58*	0.42	0.00	0.42

39.35	0.43	0.73	0.59*	0.42	0.00	0.42
39.40	0.43	0.73	0.59*	0.41	0.00	0.41
39.45	0.42	0.73	0.57*	0.41	0.00	0.41
39.50	0.40	0.73	0.55*	0.41	0.00	0.41
39.55	0.39	0.73	0.54*	0.41	0.00	0.41
39.60	0.38	0.73	0.52*	0.40	0.00	0.40
39.65	0.37	0.73	0.51*	0.40	0.00	0.40
39.70	0.36	0.73	0.49*	0.39	0.00	0.39
39.75	0.34	0.73	0.47*	0.39	0.00	0.39
39.80	0.33	0.73	0.45*	0.39	0.00	0.39
39.85	0.31	0.73	0.43*	0.38	0.00	0.38
39.90	0.30	0.73	0.41*	0.37	0.00	0.37
39.95	0.29	0.73	0.40*	0.37	0.00	0.37
40.00	0.28	0.73	0.38*	0.36	0.00	0.36
40.05	0.28	0.73	0.38*	0.36	0.00	0.36
40.10	0.30	0.73	0.41*	0.35	0.00	0.35
40.15	0.32	0.72	0.44*	0.34	0.00	0.34
40.20	0.34	0.72	0.47*	0.34	0.00	0.34
40.25	0.36	0.72	0.50*	0.33	0.00	0.33
40.30	0.39	0.72	0.54*	0.33	0.00	0.33
40.35	0.41	0.72	0.57*	0.33	0.00	0.33
40.40	0.46	0.72	0.63*	0.32	0.00	0.32
40.45	0.53	0.72	0.73*	0.32	0.00	0.32
40.50	0.61	0.72	0.85*	0.32	0.00	0.32
40.55	0.72	0.72	1.00*	0.32	0.00	0.32
40.60	0.85	0.72	1.18	0.32	0.00	0.32
40.65	1.00	0.72	1.38	0.32	0.00	0.32
40.70	1.11	0.72	1.54	0.32	0.00	0.32
40.75	1.13	0.72	1.57	0.32	0.00	0.32
40.80	1.16	0.72	1.60	0.32	0.00	0.32
40.85	1.18	0.72	1.64	0.32	0.00	0.32
40.90	1.21	0.72	1.67	0.32	0.00	0.32
40.95	1.23	0.72	1.71	0.32	0.00	0.32
41.00	1.26	0.72	1.75	0.32	0.00	0.32
41.05	1.20	0.72	1.66	0.32	0.00	0.32
41.10	1.12	0.72	1.55	0.32	0.00	0.32
41.15	1.04	0.72	1.45	0.32	0.00	0.32
41.20	0.97	0.72	1.35	0.32	0.00	0.32
41.25	0.90	0.72	1.26	0.32	0.00	0.32
41.30	0.84	0.72	1.17	0.32	0.00	0.32
41.35	0.77	0.72	1.08	0.32	0.00	0.32
41.40	0.69	0.72	0.97*	0.32	0.00	0.32
41.45	0.62	0.72	0.87*	0.32	0.00	0.32
41.50	0.56	0.72	0.78*	0.32	0.00	0.32
41.55	0.50	0.72	0.70*	0.31	0.00	0.31
41.60	0.45	0.72	0.62*	0.31	0.00	0.31
41.65	0.40	0.72	0.56*	0.30	0.00	0.30
41.70	0.38	0.72	0.53*	0.30	0.00	0.30
41.75	0.36	0.72	0.51*	0.29	0.00	0.29
41.80	0.35	0.72	0.49*	0.29	0.00	0.29
41.85	0.34	0.72	0.48*	0.28	0.00	0.28
41.90	0.33	0.72	0.47*	0.28	0.00	0.28
41.95	0.33	0.72	0.46*	0.27	0.00	0.27
42.00	0.33	0.72	0.46*	0.27	0.00	0.27
42.05	0.32	0.72	0.45*	0.26	0.00	0.26
42.10	0.32	0.72	0.45*	0.26	0.00	0.26
42.15	0.32	0.72	0.45*	0.25	0.00	0.25
42.20	0.33	0.71	0.46*	0.25	0.00	0.25
42.25	0.34	0.71	0.47*	0.24	0.00	0.24
42.30	0.35	0.71	0.50*	0.24	0.00	0.24
42.35	0.37	0.71	0.51*	0.24	0.00	0.24
42.40	0.37	0.71	0.52*	0.24	0.00	0.24
42.45	2.00	0.71	5.00	0.23	0.00	0.23

42.50	2.00	0.71	5.00	0.23	0.00	0.23
42.55	2.00	0.71	5.00	0.23	0.00	0.23
42.60	2.00	0.71	5.00	0.23	0.00	0.23
42.65	2.00	0.71	5.00	0.23	0.00	0.23
42.70	2.00	0.71	5.00	0.23	0.00	0.23
42.75	2.00	0.71	5.00	0.23	0.00	0.23
42.80	2.00	0.71	5.00	0.23	0.00	0.23
42.85	2.00	0.71	5.00	0.23	0.00	0.23
42.90	2.00	0.71	5.00	0.23	0.00	0.23
42.95	2.00	0.71	5.00	0.23	0.00	0.23
43.00	2.00	0.71	5.00	0.23	0.00	0.23
43.05	2.00	0.71	5.00	0.23	0.00	0.23
43.10	2.00	0.71	5.00	0.23	0.00	0.23
43.15	2.00	0.71	5.00	0.23	0.00	0.23
43.20	2.00	0.71	5.00	0.23	0.00	0.23
43.25	2.00	0.71	5.00	0.23	0.00	0.23
43.30	2.00	0.71	5.00	0.23	0.00	0.23
43.35	0.24	0.71	0.34*	0.23	0.00	0.23
43.40	0.22	0.71	0.30*	0.23	0.00	0.23
43.45	0.22	0.71	0.31*	0.22	0.00	0.22
43.50	0.23	0.71	0.32*	0.21	0.00	0.21
43.55	0.25	0.71	0.35*	0.21	0.00	0.21
43.60	0.27	0.71	0.38*	0.20	0.00	0.20
43.65	0.29	0.71	0.42*	0.19	0.00	0.19
43.70	0.31	0.71	0.44*	0.18	0.00	0.18
43.75	0.33	0.71	0.47*	0.18	0.00	0.18
43.80	0.35	0.71	0.50*	0.17	0.00	0.17
43.85	0.38	0.71	0.53*	0.16	0.00	0.16
43.90	0.40	0.71	0.57*	0.16	0.00	0.16
43.95	0.43	0.71	0.61*	0.15	0.00	0.15
44.00	0.44	0.71	0.62*	0.15	0.00	0.15
44.05	0.44	0.71	0.63*	0.14	0.00	0.14
44.10	0.44	0.70	0.63*	0.14	0.00	0.14
44.15	0.45	0.70	0.64*	0.13	0.00	0.13
44.20	0.45	0.70	0.64*	0.13	0.00	0.13
44.25	0.46	0.70	0.65*	0.12	0.00	0.12
44.30	0.45	0.70	0.64*	0.12	0.00	0.12
44.35	0.42	0.70	0.59*	0.11	0.00	0.11
44.40	0.39	0.70	0.55*	0.11	0.00	0.11
44.45	0.36	0.70	0.52*	0.10	0.00	0.10
44.50	0.35	0.70	0.49*	0.10	0.00	0.10
44.55	0.34	0.70	0.48*	0.09	0.00	0.09
44.60	0.35	0.70	0.50*	0.09	0.00	0.09
44.65	0.37	0.70	0.52*	0.08	0.00	0.08
44.70	0.37	0.70	0.53*	0.08	0.00	0.08
44.75	2.00	0.70	5.00	0.08	0.00	0.08
44.80	2.00	0.70	5.00	0.08	0.00	0.08
44.85	2.00	0.70	5.00	0.08	0.00	0.08
44.90	2.00	0.70	5.00	0.08	0.00	0.08
44.95	2.00	0.70	5.00	0.08	0.00	0.08
45.00	2.00	0.70	5.00	0.08	0.00	0.08
45.05	0.24	0.70	0.34*	0.08	0.00	0.08
45.10	0.22	0.70	0.31*	0.07	0.00	0.07
45.15	0.23	0.70	0.33*	0.06	0.00	0.06
45.20	0.25	0.70	0.36*	0.06	0.00	0.06
45.25	0.28	0.70	0.40*	0.05	0.00	0.05
45.30	0.28	0.70	0.41*	0.04	0.00	0.04
45.35	0.26	0.70	0.38*	0.04	0.00	0.04
45.40	0.25	0.70	0.35*	0.03	0.00	0.03
45.45	0.24	0.70	0.34*	0.02	0.00	0.02
45.50	0.24	0.70	0.34*	0.01	0.00	0.01
45.55	0.26	0.70	0.37*	0.01	0.00	0.01
45.60	2.00	0.70	5.00	0.00	0.00	0.00

45.65	2.00	0.70	5.00	0.00	0.00	0.00
45.70	2.00	0.70	5.00	0.00	0.00	0.00
45.75	2.00	0.70	5.00	0.00	0.00	0.00
45.80	2.00	0.70	5.00	0.00	0.00	0.00
45.85	2.00	0.70	5.00	0.00	0.00	0.00
45.90	2.00	0.70	5.00	0.00	0.00	0.00
45.95	2.00	0.69	5.00	0.00	0.00	0.00
46.00	2.00	0.69	5.00	0.00	0.00	0.00
46.05	2.00	0.69	5.00	0.00	0.00	0.00
46.10	2.00	0.69	5.00	0.00	0.00	0.00
46.15	2.00	0.69	5.00	0.00	0.00	0.00
46.20	2.00	0.69	5.00	0.00	0.00	0.00
46.25	2.00	0.69	5.00	0.00	0.00	0.00
46.30	2.00	0.69	5.00	0.00	0.00	0.00
46.35	2.00	0.69	5.00	0.00	0.00	0.00
46.40	2.00	0.69	5.00	0.00	0.00	0.00
46.45	2.00	0.69	5.00	0.00	0.00	0.00
46.50	2.00	0.69	5.00	0.00	0.00	0.00
46.55	2.00	0.69	5.00	0.00	0.00	0.00
46.60	2.00	0.69	5.00	0.00	0.00	0.00
46.65	2.00	0.69	5.00	0.00	0.00	0.00
46.70	2.00	0.69	5.00	0.00	0.00	0.00
46.75	2.00	0.69	5.00	0.00	0.00	0.00
46.80	2.00	0.69	5.00	0.00	0.00	0.00
46.85	2.00	0.69	5.00	0.00	0.00	0.00
46.90	2.00	0.69	5.00	0.00	0.00	0.00
46.95	2.00	0.69	5.00	0.00	0.00	0.00
47.00	2.00	0.69	5.00	0.00	0.00	0.00
47.05	2.00	0.69	5.00	0.00	0.00	0.00
47.10	2.00	0.69	5.00	0.00	0.00	0.00
47.15	2.00	0.69	5.00	0.00	0.00	0.00
47.20	2.00	0.69	5.00	0.00	0.00	0.00
47.25	2.00	0.69	5.00	0.00	0.00	0.00
47.30	2.00	0.69	5.00	0.00	0.00	0.00
47.35	2.00	0.69	5.00	0.00	0.00	0.00
47.40	2.00	0.69	5.00	0.00	0.00	0.00
47.45	2.00	0.69	5.00	0.00	0.00	0.00
47.50	2.00	0.69	5.00	0.00	0.00	0.00
47.55	2.00	0.69	5.00	0.00	0.00	0.00
47.60	2.00	0.69	5.00	0.00	0.00	0.00
47.65	2.00	0.69	5.00	0.00	0.00	0.00
47.70	2.00	0.69	5.00	0.00	0.00	0.00
47.75	2.00	0.68	5.00	0.00	0.00	0.00
47.80	2.00	0.68	5.00	0.00	0.00	0.00
47.85	2.00	0.68	5.00	0.00	0.00	0.00
47.90	2.00	0.68	5.00	0.00	0.00	0.00
47.95	2.00	0.68	5.00	0.00	0.00	0.00
48.00	2.00	0.68	5.00	0.00	0.00	0.00
48.05	2.00	0.68	5.00	0.00	0.00	0.00
48.10	2.00	0.68	5.00	0.00	0.00	0.00
48.15	2.00	0.68	5.00	0.00	0.00	0.00
48.20	2.00	0.68	5.00	0.00	0.00	0.00
48.25	2.00	0.68	5.00	0.00	0.00	0.00
48.30	2.00	0.68	5.00	0.00	0.00	0.00
48.35	2.00	0.68	5.00	0.00	0.00	0.00
48.40	2.00	0.68	5.00	0.00	0.00	0.00
48.45	2.00	0.68	5.00	0.00	0.00	0.00
48.50	2.00	0.68	5.00	0.00	0.00	0.00
48.55	2.00	0.68	5.00	0.00	0.00	0.00
48.60	2.00	0.68	5.00	0.00	0.00	0.00
48.65	2.00	0.68	5.00	0.00	0.00	0.00
48.70	2.00	0.68	5.00	0.00	0.00	0.00
48.75	2.00	0.68	5.00	0.00	0.00	0.00

48.80	2.00	0.68	5.00	0.00	0.00	0.00
48.85	2.00	0.68	5.00	0.00	0.00	0.00
48.90	2.00	0.68	5.00	0.00	0.00	0.00
48.95	2.00	0.68	5.00	0.00	0.00	0.00
49.00	2.00	0.68	5.00	0.00	0.00	0.00
49.05	2.00	0.68	5.00	0.00	0.00	0.00
49.10	2.00	0.68	5.00	0.00	0.00	0.00
49.15	2.00	0.68	5.00	0.00	0.00	0.00
49.20	2.00	0.68	5.00	0.00	0.00	0.00
49.25	2.00	0.68	5.00	0.00	0.00	0.00
49.30	2.00	0.68	5.00	0.00	0.00	0.00
49.35	2.00	0.68	5.00	0.00	0.00	0.00
49.40	2.00	0.68	5.00	0.00	0.00	0.00
49.45	2.00	0.68	5.00	0.00	0.00	0.00
49.50	2.00	0.67	5.00	0.00	0.00	0.00
49.55	2.00	0.67	5.00	0.00	0.00	0.00
49.60	2.00	0.67	5.00	0.00	0.00	0.00
49.65	2.00	0.67	5.00	0.00	0.00	0.00
49.70	2.00	0.67	5.00	0.00	0.00	0.00
49.75	2.00	0.67	5.00	0.00	0.00	0.00
49.80	2.00	0.67	5.00	0.00	0.00	0.00
49.85	2.00	0.67	5.00	0.00	0.00	0.00
49.90	2.00	0.67	5.00	0.00	0.00	0.00
49.95	2.00	0.67	5.00	0.00	0.00	0.00
50.00	2.00	0.67	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

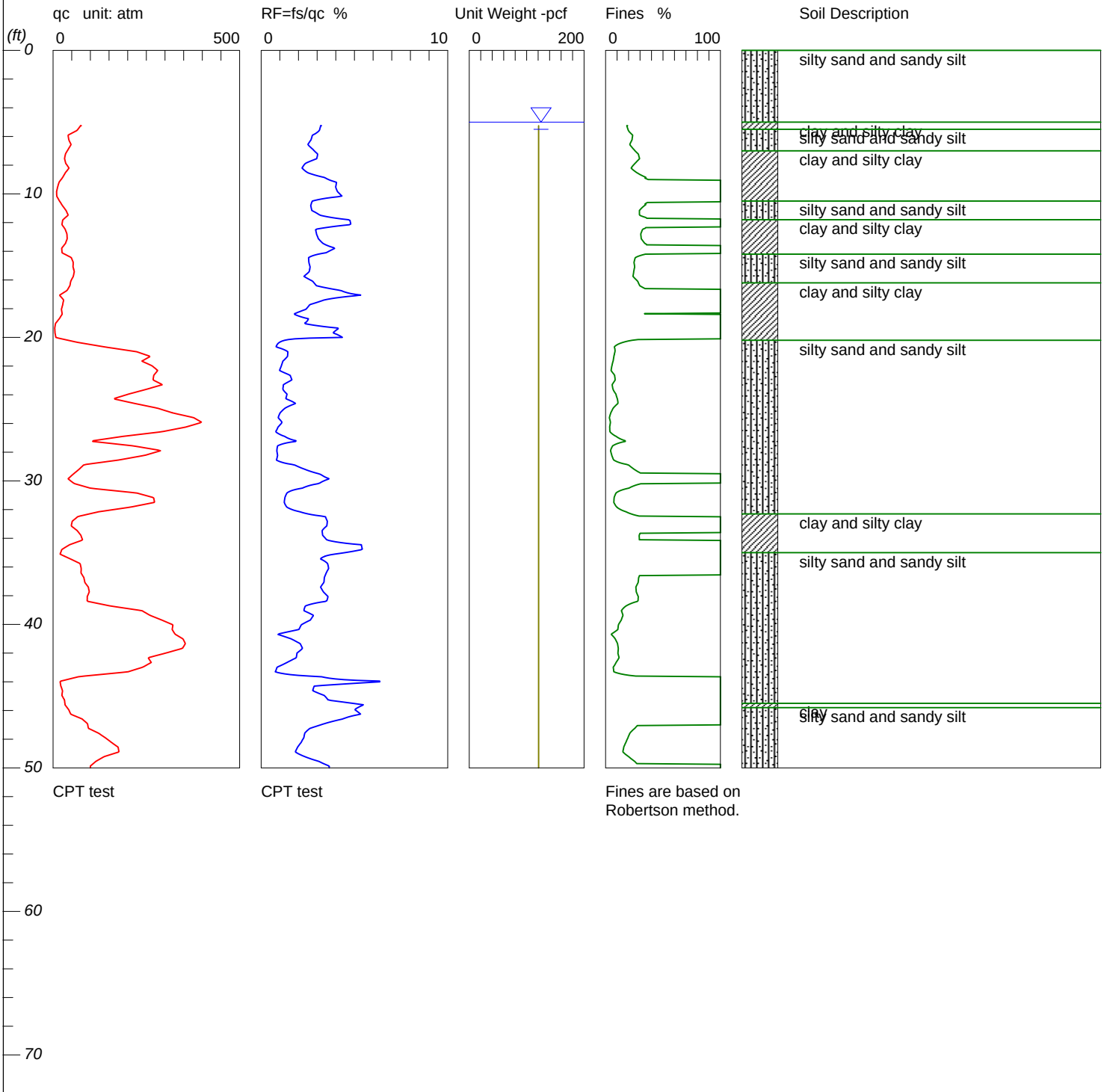
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=CPT-2 Water Depth=5 ft Surface Elev.=240

Magnitude=6.81
Acceleration=0.656g



CPT test

CPT test

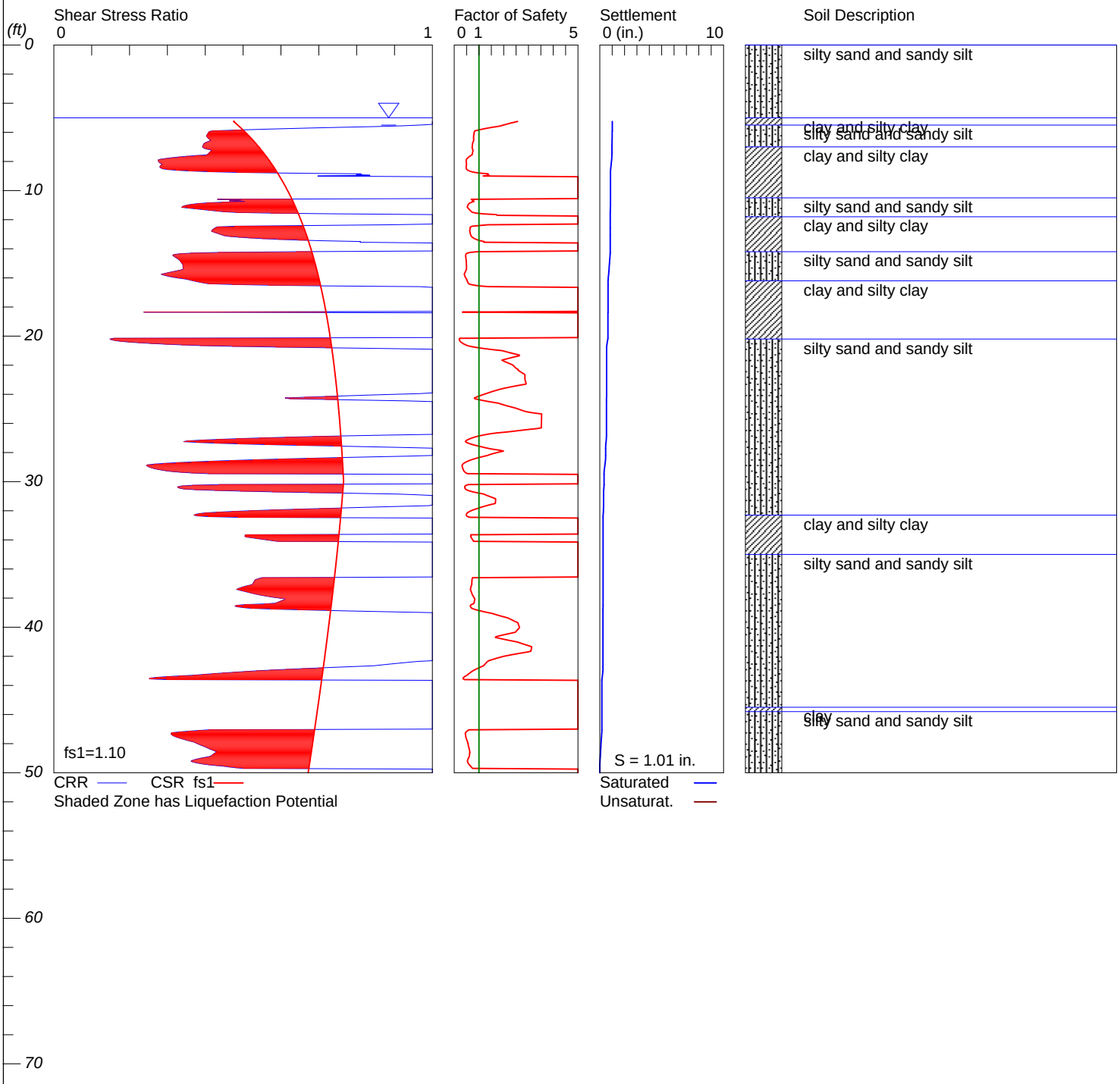
Fines are based on Robertson method.

LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=CPT-2 Water Depth=5 ft Surface Elev.=240

Magnitude=6.81
Acceleration=0.656g



****

LIQUEFACTION ANALYSIS SUMMARY

****

Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 8/27/2020 2:05:41 PM

Input File Name: G:_Projects\2020\20G-0418\Liqefaction Analysis\20G-0418 CPT2.liq
Title: Solemo 13 Acres
Subtitle: 20G-0418-0

Surface Elev.=240
Hole No.=CPT-2
Depth of Hole= 50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.81

Input Data:
Surface Elev.=240
Hole No.=CPT-2
Depth of Hole=50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.81
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
5.25	73.88	2.36	3.19	120.90	0.00	0.50
5.58	64.44	2.01	3.12	120.90	0.00	0.50
5.91	40.22	1.11	2.75	120.90	0.00	0.50
6.23	42.19	1.13	2.67	120.90	0.00	0.50
6.56	48.30	1.21	2.50	120.90	0.00	0.50
6.89	40.69	1.13	2.77	120.90	0.00	0.50
7.22	33.13	1.00	3.03	120.90	0.00	0.50
7.55	30.82	0.92	2.98	120.90	0.00	0.50
7.87	34.03	0.81	2.37	120.90	0.00	0.50
8.20	42.80	0.94	2.19	120.90	0.00	0.50
8.53	32.87	0.82	2.50	120.90	0.00	0.50
8.86	25.61	0.87	3.40	120.90	0.00	0.50
9.19	16.03	0.65	4.04	120.90	0.00	0.50

9.51	12.27	0.49	3.99	120.90	0.00	0.50
9.84	9.43	0.39	4.09	120.90	0.00	0.50
10.17	9.95	0.43	4.34	120.90	0.00	0.50
10.50	17.28	0.47	2.74	120.90	0.00	0.50
10.83	25.41	0.68	2.66	120.90	0.00	0.50
11.15	34.72	0.94	2.71	120.90	0.00	0.50
11.48	40.51	1.27	3.15	120.90	0.00	0.50
11.81	25.99	1.24	4.76	120.90	0.00	0.50
12.14	23.76	1.14	4.81	120.90	0.00	0.50
12.47	32.53	0.95	2.91	120.90	0.00	0.50
12.80	37.21	1.10	2.97	120.90	0.00	0.50
13.12	37.82	1.16	3.07	120.90	0.00	0.50
13.45	33.34	1.11	3.31	120.90	0.00	0.50
13.78	23.15	0.92	3.97	120.90	0.00	0.50
14.11	24.19	0.84	3.47	120.90	0.00	0.50
14.44	48.73	1.24	2.54	120.90	0.00	0.50
14.76	54.00	1.38	2.56	120.90	0.00	0.50
15.09	53.56	1.41	2.62	120.90	0.00	0.50
15.42	56.89	1.47	2.58	120.90	0.00	0.50
15.75	54.17	1.24	2.29	120.90	0.00	0.50
16.08	47.52	1.31	2.75	120.90	0.00	0.50
16.40	44.94	1.33	2.97	120.90	0.00	0.50
16.73	37.47	1.60	4.28	120.90	0.00	0.50
17.06	17.36	0.94	5.40	120.90	0.00	0.50
17.39	28.16	0.95	3.38	120.90	0.00	0.50
17.72	25.96	0.68	2.60	120.90	0.00	0.50
18.05	22.28	0.53	2.40	120.90	0.00	0.50
18.37	24.60	0.43	1.75	120.90	0.00	0.50
18.70	16.64	0.42	2.54	120.90	0.00	0.50
19.03	6.60	0.15	2.29	120.90	0.00	0.50
19.36	4.46	0.19	4.17	120.90	0.00	0.50
19.68	5.15	0.20	3.84	120.90	0.00	0.50
20.01	7.58	0.33	4.37	120.90	0.00	0.50
20.34	64.53	0.64	0.99	120.90	0.00	0.50
20.67	139.28	1.11	0.79	120.90	0.00	0.50
21.00	223.69	3.20	1.43	120.90	0.00	0.50
21.33	260.70	3.69	1.42	120.90	0.00	0.50
21.65	237.81	2.77	1.16	120.90	0.00	0.50
21.98	265.65	2.88	1.08	120.90	0.00	0.50
22.31	280.49	2.76	0.98	120.90	0.00	0.50
22.64	270.02	4.19	1.55	120.90	0.00	0.50
22.97	268.02	4.42	1.65	120.90	0.00	0.50
23.29	293.23	3.49	1.19	120.90	0.00	0.50
23.62	249.59	2.90	1.16	120.90	0.00	0.50
23.95	202.56	2.81	1.39	120.90	0.00	0.50
24.28	161.65	2.13	1.32	120.90	0.00	0.50
24.61	219.03	4.05	1.85	120.90	0.00	0.50
24.93	280.03	3.57	1.27	120.90	0.00	0.50
25.26	320.37	3.25	1.01	120.90	0.00	0.50
25.59	376.51	3.43	0.91	120.90	0.00	0.50
25.92	398.62	4.48	1.12	120.90	0.00	0.50
26.25	356.14	3.22	0.90	120.90	0.00	0.50
26.58	291.61	2.26	0.78	120.90	0.00	0.50
26.90	185.58	2.36	1.27	120.90	0.00	0.50
27.23	99.43	1.97	1.98	120.90	0.00	0.50
27.56	214.80	1.89	0.88	120.90	0.00	0.50
27.89	289.49	2.43	0.84	120.90	0.00	0.50
28.22	246.58	2.17	0.88	120.90	0.00	0.50
28.54	176.52	1.44	0.81	120.90	0.00	0.50
28.87	82.68	1.46	1.76	120.90	0.00	0.50
29.20	69.39	1.64	2.36	120.90	0.00	0.50
29.53	54.11	1.71	3.16	120.90	0.00	0.50
29.86	39.96	1.46	3.65	120.90	0.00	0.50

30.18	56.63	1.75	3.10	120.90	0.00	0.50
30.51	100.62	2.21	2.20	120.90	0.00	0.50
30.84	223.80	3.09	1.38	120.90	0.00	0.50
31.17	269.58	3.43	1.27	120.90	0.00	0.50
31.50	272.04	3.36	1.24	120.90	0.00	0.50
31.82	208.41	2.86	1.37	120.90	0.00	0.50
32.15	122.00	2.54	2.08	120.90	0.00	0.50
32.48	66.79	2.30	3.45	120.90	0.00	0.50
32.81	51.48	1.83	3.55	120.90	0.00	0.50
33.14	48.56	1.71	3.52	120.90	0.00	0.50
33.47	64.76	2.12	3.27	120.90	0.00	0.50
33.79	74.66	2.46	3.29	120.90	0.00	0.50
34.12	79.06	2.79	3.53	120.90	0.00	0.50
34.45	44.19	2.37	5.37	120.90	0.00	0.50
34.78	23.50	1.28	5.43	120.90	0.00	0.50
35.10	18.84	0.74	3.93	120.90	0.00	0.50
35.43	46.19	1.46	3.16	120.90	0.00	0.50
35.76	72.49	2.58	3.56	120.90	0.00	0.50
36.09	75.41	2.73	3.62	120.90	0.00	0.50
36.42	74.98	2.62	3.49	120.90	0.00	0.50
36.74	82.70	2.80	3.39	120.90	0.00	0.50
37.07	85.11	2.86	3.37	120.90	0.00	0.50
37.40	94.51	3.01	3.18	120.90	0.00	0.50
37.73	97.03	3.23	3.33	120.90	0.00	0.50
38.06	91.68	3.29	3.59	120.90	0.00	0.50
38.39	91.44	3.21	3.51	120.90	0.00	0.50
38.71	153.08	3.62	2.37	120.90	0.00	0.50
39.04	238.19	5.45	2.29	120.90	0.00	0.50
39.37	259.95	7.31	2.81	120.90	0.00	0.50
39.70	291.55	7.69	2.64	120.90	0.00	0.50
40.03	321.15	6.90	2.15	120.90	0.00	0.50
40.35	319.07	6.46	2.03	120.90	0.00	0.50
40.68	326.91	2.81	0.86	120.90	0.00	0.50
41.01	348.27	5.63	1.62	120.90	0.00	0.50
41.34	354.46	7.41	2.09	120.90	0.00	0.50
41.67	346.99	7.70	2.22	120.90	0.00	0.50
41.99	302.37	5.80	1.92	120.90	0.00	0.50
42.32	254.59	4.80	1.88	120.90	0.00	0.50
42.65	263.33	3.65	1.39	120.90	0.00	0.50
42.98	240.59	2.05	0.85	120.90	0.00	0.50
43.31	200.25	1.52	0.76	120.90	0.00	0.50
43.63	69.91	2.24	3.20	120.90	0.00	0.50
43.96	18.84	1.29	6.85	120.90	0.00	0.50
44.29	20.86	0.59	2.85	120.90	0.00	0.50
44.62	25.41	0.70	2.76	120.90	0.00	0.50
44.95	23.64	0.80	3.38	120.90	0.00	0.50
45.28	30.65	1.10	3.59	120.90	0.00	0.50
45.60	32.15	1.77	5.50	120.90	0.00	0.50
45.93	41.61	2.09	5.01	120.90	0.00	0.50
46.26	47.63	2.54	5.34	120.90	0.00	0.50
46.59	77.87	3.41	4.38	120.90	0.00	0.50
46.92	92.22	3.13	3.39	120.90	0.00	0.50
47.24	94.80	2.48	2.62	120.90	0.00	0.50
47.57	121.42	2.84	2.34	120.90	0.00	0.50
47.90	140.00	3.20	2.28	120.90	0.00	0.50
48.23	156.73	3.35	2.14	120.90	0.00	0.50
48.56	174.47	3.41	1.95	120.90	0.00	0.50
48.88	176.69	3.23	1.83	120.90	0.00	0.50
49.21	136.76	3.20	2.34	120.90	0.00	0.50
49.54	114.80	3.55	3.09	120.90	0.00	0.50
49.87	99.89	3.64	3.65	120.90	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not

relevant.

Output Results:

Settlement of Saturated Sands=1.01 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=1.01 in.
Differential Settlement=0.503 to 0.664 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
5.25	1.22	0.47	2.56	1.01	0.00	1.01
5.30	1.16	0.48	2.44	1.01	0.00	1.01
5.35	1.11	0.48	2.32	1.01	0.00	1.01
5.40	1.06	0.48	2.20	1.01	0.00	1.01
5.45	1.01	0.48	2.09	1.01	0.00	1.01
5.50	0.97	0.49	1.99	1.01	0.00	1.01
5.55	0.92	0.49	1.89	1.01	0.00	1.01
5.60	0.85	0.49	1.74	1.01	0.00	1.01
5.65	0.76	0.49	1.55	1.01	0.00	1.01
5.70	0.68	0.49	1.38	1.01	0.00	1.01
5.75	0.60	0.50	1.22	1.01	0.00	1.01
5.80	0.54	0.50	1.08	1.01	0.00	1.01
5.85	0.47	0.50	0.95*	1.01	0.00	1.01
5.90	0.42	0.50	0.83*	1.01	0.00	1.01
5.95	0.41	0.50	0.81*	1.00	0.00	1.00
6.00	0.41	0.51	0.81*	1.00	0.00	1.00
6.05	0.41	0.51	0.80*	1.00	0.00	1.00
6.10	0.41	0.51	0.80*	1.00	0.00	1.00
6.15	0.41	0.51	0.79*	1.00	0.00	1.00
6.20	0.40	0.51	0.79*	1.00	0.00	1.00
6.25	0.40	0.52	0.78*	1.00	0.00	1.00
6.30	0.40	0.52	0.78*	1.00	0.00	1.00
6.35	0.41	0.52	0.78*	1.00	0.00	1.00
6.40	0.41	0.52	0.78*	1.00	0.00	1.00
6.45	0.41	0.52	0.78*	0.99	0.00	0.99
6.50	0.41	0.52	0.79*	0.99	0.00	0.99
6.55	0.41	0.53	0.79*	0.99	0.00	0.99
6.60	0.41	0.53	0.78*	0.99	0.00	0.99
6.65	0.41	0.53	0.77*	0.99	0.00	0.99
6.70	0.40	0.53	0.76*	0.99	0.00	0.99
6.75	0.40	0.53	0.75*	0.99	0.00	0.99
6.80	0.40	0.53	0.74*	0.99	0.00	0.99
6.85	0.39	0.54	0.74*	0.99	0.00	0.99
6.90	0.39	0.54	0.73*	0.98	0.00	0.98
6.95	0.39	0.54	0.73*	0.98	0.00	0.98
7.00	0.39	0.54	0.73*	0.98	0.00	0.98
7.05	0.39	0.54	0.73*	0.98	0.00	0.98
7.10	0.40	0.54	0.73*	0.98	0.00	0.98
7.15	0.40	0.55	0.74*	0.98	0.00	0.98
7.20	0.41	0.55	0.76*	0.98	0.00	0.98
7.25	0.42	0.55	0.76*	0.98	0.00	0.98
7.30	0.41	0.55	0.75*	0.98	0.00	0.98
7.35	0.41	0.55	0.75*	0.98	0.00	0.98
7.40	0.41	0.55	0.74*	0.98	0.00	0.98
7.45	0.41	0.56	0.74*	0.98	0.00	0.98
7.50	0.41	0.56	0.73*	0.98	0.00	0.98
7.55	0.40	0.56	0.72*	0.98	0.00	0.98
7.60	0.37	0.56	0.67*	0.98	0.00	0.98
7.65	0.35	0.56	0.62*	0.97	0.00	0.97
7.70	0.33	0.56	0.58*	0.97	0.00	0.97
7.75	0.31	0.56	0.55*	0.97	0.00	0.97
7.80	0.29	0.57	0.52*	0.96	0.00	0.96

7.85	0.28	0.57	0.50*	0.96	0.00	0.96
7.90	0.28	0.57	0.48*	0.95	0.00	0.95
7.95	0.28	0.57	0.48*	0.95	0.00	0.95
8.00	0.28	0.57	0.48*	0.94	0.00	0.94
8.05	0.28	0.57	0.49*	0.94	0.00	0.94
8.10	0.28	0.57	0.49*	0.93	0.00	0.93
8.15	0.28	0.57	0.49*	0.92	0.00	0.92
8.20	0.29	0.58	0.50*	0.92	0.00	0.92
8.25	0.28	0.58	0.49*	0.91	0.00	0.91
8.30	0.28	0.58	0.49*	0.90	0.00	0.90
8.35	0.28	0.58	0.48*	0.90	0.00	0.90
8.40	0.28	0.58	0.48*	0.89	0.00	0.89
8.45	0.28	0.58	0.49*	0.89	0.00	0.89
8.50	0.29	0.58	0.49*	0.88	0.00	0.88
8.55	0.30	0.59	0.51*	0.88	0.00	0.88
8.60	0.32	0.59	0.55*	0.87	0.00	0.87
8.65	0.36	0.59	0.61*	0.87	0.00	0.87
8.70	0.41	0.59	0.69*	0.87	0.00	0.87
8.75	0.48	0.59	0.82*	0.87	0.00	0.87
8.80	0.61	0.59	1.04	0.87	0.00	0.87
8.85	0.81	0.59	1.37	0.87	0.00	0.87
8.90	0.80	0.59	1.35	0.87	0.00	0.87
8.95	0.84	0.59	1.40	0.87	0.00	0.87
9.00	0.70	0.60	1.17	0.87	0.00	0.87
9.05	2.00	0.60	5.00	0.87	0.00	0.87
9.10	2.00	0.60	5.00	0.87	0.00	0.87
9.15	2.00	0.60	5.00	0.87	0.00	0.87
9.20	2.00	0.60	5.00	0.87	0.00	0.87
9.25	2.00	0.60	5.00	0.87	0.00	0.87
9.30	2.00	0.60	5.00	0.87	0.00	0.87
9.35	2.00	0.60	5.00	0.87	0.00	0.87
9.40	2.00	0.60	5.00	0.87	0.00	0.87
9.45	2.00	0.61	5.00	0.87	0.00	0.87
9.50	2.00	0.61	5.00	0.87	0.00	0.87
9.55	2.00	0.61	5.00	0.87	0.00	0.87
9.60	2.00	0.61	5.00	0.87	0.00	0.87
9.65	2.00	0.61	5.00	0.87	0.00	0.87
9.70	2.00	0.61	5.00	0.87	0.00	0.87
9.75	2.00	0.61	5.00	0.87	0.00	0.87
9.80	2.00	0.61	5.00	0.87	0.00	0.87
9.85	2.00	0.61	5.00	0.87	0.00	0.87
9.90	2.00	0.62	5.00	0.87	0.00	0.87
9.95	2.00	0.62	5.00	0.87	0.00	0.87
10.00	2.00	0.62	5.00	0.87	0.00	0.87
10.05	2.00	0.62	5.00	0.87	0.00	0.87
10.10	2.00	0.62	5.00	0.87	0.00	0.87
10.15	2.00	0.62	5.00	0.87	0.00	0.87
10.20	2.00	0.62	5.00	0.87	0.00	0.87
10.25	2.00	0.62	5.00	0.87	0.00	0.87
10.30	2.00	0.62	5.00	0.87	0.00	0.87
10.35	2.00	0.62	5.00	0.87	0.00	0.87
10.40	2.00	0.63	5.00	0.87	0.00	0.87
10.45	2.00	0.63	5.00	0.87	0.00	0.87
10.50	2.00	0.63	5.00	0.87	0.00	0.87
10.55	2.00	0.63	5.00	0.87	0.00	0.87
10.60	0.43	0.63	0.69*	0.87	0.00	0.87
10.65	0.49	0.63	0.79*	0.87	0.00	0.87
10.70	0.46	0.63	0.74*	0.87	0.00	0.87
10.75	0.50	0.63	0.80*	0.87	0.00	0.87
10.80	0.44	0.63	0.70*	0.87	0.00	0.87
10.85	0.40	0.63	0.64*	0.87	0.00	0.87
10.90	0.38	0.63	0.60*	0.86	0.00	0.86
10.95	0.36	0.64	0.57*	0.86	0.00	0.86

11.00	0.35	0.64	0.55*	0.86	0.00	0.86
11.05	0.34	0.64	0.54*	0.86	0.00	0.86
11.10	0.34	0.64	0.53*	0.86	0.00	0.86
11.15	0.34	0.64	0.53*	0.86	0.00	0.86
11.20	0.35	0.64	0.55*	0.85	0.00	0.85
11.25	0.37	0.64	0.58*	0.85	0.00	0.85
11.30	0.39	0.64	0.61*	0.85	0.00	0.85
11.35	0.41	0.64	0.64*	0.85	0.00	0.85
11.40	0.43	0.64	0.67*	0.85	0.00	0.85
11.45	0.45	0.64	0.69*	0.85	0.00	0.85
11.50	0.48	0.64	0.75*	0.85	0.00	0.85
11.55	0.57	0.65	0.89*	0.85	0.00	0.85
11.60	0.75	0.65	1.16	0.85	0.00	0.85
11.65	1.10	0.65	1.70	0.85	0.00	0.85
11.70	1.13	0.65	1.74	0.85	0.00	0.85
11.75	2.00	0.65	5.00	0.85	0.00	0.85
11.80	2.00	0.65	5.00	0.85	0.00	0.85
11.85	2.00	0.65	5.00	0.85	0.00	0.85
11.90	2.00	0.65	5.00	0.85	0.00	0.85
11.95	2.00	0.65	5.00	0.85	0.00	0.85
12.00	2.00	0.65	5.00	0.85	0.00	0.85
12.05	2.00	0.65	5.00	0.85	0.00	0.85
12.10	2.00	0.65	5.00	0.85	0.00	0.85
12.15	2.00	0.65	5.00	0.85	0.00	0.85
12.20	2.00	0.66	5.00	0.85	0.00	0.85
12.25	2.00	0.66	5.00	0.85	0.00	0.85
12.30	2.00	0.66	5.00	0.85	0.00	0.85
12.35	0.89	0.66	1.35	0.85	0.00	0.85
12.40	0.68	0.66	1.03	0.85	0.00	0.85
12.45	0.48	0.66	0.72*	0.85	0.00	0.85
12.50	0.43	0.66	0.65*	0.85	0.00	0.85
12.55	0.43	0.66	0.65*	0.85	0.00	0.85
12.60	0.42	0.66	0.64*	0.85	0.00	0.85
12.65	0.42	0.66	0.64*	0.84	0.00	0.84
12.70	0.42	0.66	0.63*	0.84	0.00	0.84
12.75	0.42	0.66	0.63*	0.84	0.00	0.84
12.80	0.42	0.66	0.63*	0.84	0.00	0.84
12.85	0.42	0.66	0.64*	0.84	0.00	0.84
12.90	0.43	0.67	0.64*	0.84	0.00	0.84
12.95	0.43	0.67	0.65*	0.84	0.00	0.84
13.00	0.44	0.67	0.66*	0.84	0.00	0.84
13.05	0.44	0.67	0.67*	0.84	0.00	0.84
13.10	0.45	0.67	0.67*	0.84	0.00	0.84
13.15	0.46	0.67	0.69*	0.84	0.00	0.84
13.20	0.49	0.67	0.73*	0.84	0.00	0.84
13.25	0.52	0.67	0.77*	0.84	0.00	0.84
13.30	0.55	0.67	0.82*	0.84	0.00	0.84
13.35	0.59	0.67	0.88*	0.84	0.00	0.84
13.40	0.65	0.67	0.96*	0.84	0.00	0.84
13.45	0.71	0.67	1.06	0.84	0.00	0.84
13.50	0.81	0.67	1.20	0.84	0.00	0.84
13.55	0.81	0.67	1.20	0.84	0.00	0.84
13.60	2.00	0.67	5.00	0.84	0.00	0.84
13.65	2.00	0.67	5.00	0.84	0.00	0.84
13.70	2.00	0.68	5.00	0.84	0.00	0.84
13.75	2.00	0.68	5.00	0.84	0.00	0.84
13.80	2.00	0.68	5.00	0.84	0.00	0.84
13.85	2.00	0.68	5.00	0.84	0.00	0.84
13.90	2.00	0.68	5.00	0.84	0.00	0.84
13.95	2.00	0.68	5.00	0.84	0.00	0.84
14.00	2.00	0.68	5.00	0.84	0.00	0.84
14.05	2.00	0.68	5.00	0.84	0.00	0.84
14.10	2.00	0.68	5.00	0.84	0.00	0.84

14.15	2.00	0.68	5.00	0.84	0.00	0.84
14.20	0.64	0.68	0.94*	0.84	0.00	0.84
14.25	0.43	0.68	0.64*	0.84	0.00	0.84
14.30	0.36	0.68	0.53*	0.84	0.00	0.84
14.35	0.33	0.68	0.48*	0.84	0.00	0.84
14.40	0.32	0.68	0.46*	0.83	0.00	0.83
14.45	0.31	0.68	0.46*	0.83	0.00	0.83
14.50	0.32	0.68	0.46*	0.82	0.00	0.82
14.55	0.32	0.69	0.47*	0.82	0.00	0.82
14.60	0.32	0.69	0.47*	0.82	0.00	0.82
14.65	0.32	0.69	0.47*	0.81	0.00	0.81
14.70	0.33	0.69	0.48*	0.81	0.00	0.81
14.75	0.33	0.69	0.48*	0.80	0.00	0.80
14.80	0.33	0.69	0.48*	0.80	0.00	0.80
14.85	0.33	0.69	0.49*	0.79	0.00	0.79
14.90	0.34	0.69	0.49*	0.79	0.00	0.79
14.95	0.34	0.69	0.49*	0.78	0.00	0.78
15.00	0.34	0.69	0.49*	0.78	0.00	0.78
15.05	0.34	0.69	0.49*	0.78	0.00	0.78
15.10	0.34	0.69	0.49*	0.77	0.00	0.77
15.15	0.34	0.69	0.49*	0.77	0.00	0.77
15.20	0.34	0.69	0.49*	0.76	0.00	0.76
15.25	0.34	0.69	0.49*	0.76	0.00	0.76
15.30	0.34	0.69	0.49*	0.76	0.00	0.76
15.35	0.34	0.69	0.49*	0.75	0.00	0.75
15.40	0.34	0.69	0.49*	0.75	0.00	0.75
15.45	0.34	0.69	0.48*	0.74	0.00	0.74
15.50	0.33	0.70	0.47*	0.74	0.00	0.74
15.55	0.32	0.70	0.46*	0.73	0.00	0.73
15.60	0.31	0.70	0.44*	0.73	0.00	0.73
15.65	0.30	0.70	0.43*	0.72	0.00	0.72
15.70	0.29	0.70	0.42*	0.72	0.00	0.72
15.75	0.28	0.70	0.41*	0.71	0.00	0.71
15.80	0.29	0.70	0.42*	0.71	0.00	0.71
15.85	0.30	0.70	0.42*	0.70	0.00	0.70
15.90	0.30	0.70	0.44*	0.69	0.00	0.69
15.95	0.31	0.70	0.45*	0.69	0.00	0.69
16.00	0.33	0.70	0.47*	0.68	0.00	0.68
16.05	0.34	0.70	0.49*	0.68	0.00	0.68
16.10	0.35	0.70	0.50*	0.68	0.00	0.68
16.15	0.36	0.70	0.51*	0.67	0.00	0.67
16.20	0.37	0.70	0.52*	0.67	0.00	0.67
16.25	0.38	0.70	0.54*	0.67	0.00	0.67
16.30	0.39	0.70	0.55*	0.67	0.00	0.67
16.35	0.40	0.70	0.56*	0.67	0.00	0.67
16.40	0.41	0.70	0.58*	0.67	0.00	0.67
16.45	0.47	0.70	0.67*	0.66	0.00	0.66
16.50	0.57	0.70	0.80*	0.66	0.00	0.66
16.55	0.72	0.70	1.01	0.66	0.00	0.66
16.60	0.97	0.71	1.37	0.66	0.00	0.66
16.65	2.00	0.71	5.00	0.66	0.00	0.66
16.70	2.00	0.71	5.00	0.66	0.00	0.66
16.75	2.00	0.71	5.00	0.66	0.00	0.66
16.80	2.00	0.71	5.00	0.66	0.00	0.66
16.85	2.00	0.71	5.00	0.66	0.00	0.66
16.90	2.00	0.71	5.00	0.66	0.00	0.66
16.95	2.00	0.71	5.00	0.66	0.00	0.66
17.00	2.00	0.71	5.00	0.66	0.00	0.66
17.05	2.00	0.71	5.00	0.66	0.00	0.66
17.10	2.00	0.71	5.00	0.66	0.00	0.66
17.15	2.00	0.71	5.00	0.66	0.00	0.66
17.20	2.00	0.71	5.00	0.66	0.00	0.66
17.25	2.00	0.71	5.00	0.66	0.00	0.66

17.30	2.00	0.71	5.00	0.66	0.00	0.66
17.35	2.00	0.71	5.00	0.66	0.00	0.66
17.40	2.00	0.71	5.00	0.66	0.00	0.66
17.45	2.00	0.71	5.00	0.66	0.00	0.66
17.50	2.00	0.71	5.00	0.66	0.00	0.66
17.55	2.00	0.71	5.00	0.66	0.00	0.66
17.60	2.00	0.71	5.00	0.66	0.00	0.66
17.65	2.00	0.71	5.00	0.66	0.00	0.66
17.70	2.00	0.71	5.00	0.66	0.00	0.66
17.75	2.00	0.71	5.00	0.66	0.00	0.66
17.80	2.00	0.71	5.00	0.66	0.00	0.66
17.85	2.00	0.72	5.00	0.66	0.00	0.66
17.90	2.00	0.72	5.00	0.66	0.00	0.66
17.95	2.00	0.72	5.00	0.66	0.00	0.66
18.00	2.00	0.72	5.00	0.66	0.00	0.66
18.05	2.00	0.72	5.00	0.66	0.00	0.66
18.10	2.00	0.72	5.00	0.66	0.00	0.66
18.15	2.00	0.72	5.00	0.66	0.00	0.66
18.20	2.00	0.72	5.00	0.66	0.00	0.66
18.25	2.00	0.72	5.00	0.66	0.00	0.66
18.30	2.00	0.72	5.00	0.66	0.00	0.66
18.35	0.24	0.72	0.33*	0.66	0.00	0.66
18.40	2.00	0.72	5.00	0.66	0.00	0.66
18.45	2.00	0.72	5.00	0.66	0.00	0.66
18.50	2.00	0.72	5.00	0.66	0.00	0.66
18.55	2.00	0.72	5.00	0.66	0.00	0.66
18.60	2.00	0.72	5.00	0.66	0.00	0.66
18.65	2.00	0.72	5.00	0.66	0.00	0.66
18.70	2.00	0.72	5.00	0.66	0.00	0.66
18.75	2.00	0.72	5.00	0.66	0.00	0.66
18.80	2.00	0.72	5.00	0.66	0.00	0.66
18.85	2.00	0.72	5.00	0.66	0.00	0.66
18.90	2.00	0.72	5.00	0.66	0.00	0.66
18.95	2.00	0.72	5.00	0.66	0.00	0.66
19.00	2.00	0.72	5.00	0.66	0.00	0.66
19.05	2.00	0.72	5.00	0.66	0.00	0.66
19.10	2.00	0.72	5.00	0.66	0.00	0.66
19.15	2.00	0.72	5.00	0.66	0.00	0.66
19.20	2.00	0.72	5.00	0.66	0.00	0.66
19.25	2.00	0.72	5.00	0.66	0.00	0.66
19.30	2.00	0.73	5.00	0.66	0.00	0.66
19.35	2.00	0.73	5.00	0.66	0.00	0.66
19.40	2.00	0.73	5.00	0.66	0.00	0.66
19.45	2.00	0.73	5.00	0.66	0.00	0.66
19.50	2.00	0.73	5.00	0.66	0.00	0.66
19.55	2.00	0.73	5.00	0.66	0.00	0.66
19.60	2.00	0.73	5.00	0.66	0.00	0.66
19.65	2.00	0.73	5.00	0.66	0.00	0.66
19.70	2.00	0.73	5.00	0.66	0.00	0.66
19.75	2.00	0.73	5.00	0.66	0.00	0.66
19.80	2.00	0.73	5.00	0.66	0.00	0.66
19.85	2.00	0.73	5.00	0.66	0.00	0.66
19.90	2.00	0.73	5.00	0.66	0.00	0.66
19.95	2.00	0.73	5.00	0.66	0.00	0.66
20.00	2.00	0.73	5.00	0.66	0.00	0.66
20.05	2.00	0.73	5.00	0.66	0.00	0.66
20.10	2.00	0.73	5.00	0.66	0.00	0.66
20.15	0.16	0.73	0.22*	0.66	0.00	0.66
20.20	0.15	0.73	0.20*	0.65	0.00	0.65
20.25	0.15	0.73	0.21*	0.64	0.00	0.64
20.30	0.16	0.73	0.22*	0.63	0.00	0.63
20.35	0.17	0.73	0.24*	0.62	0.00	0.62
20.40	0.20	0.73	0.27*	0.61	0.00	0.61

20.45	0.22	0.73	0.30*	0.60	0.00	0.60
20.50	0.25	0.73	0.35*	0.59	0.00	0.59
20.55	0.29	0.73	0.40*	0.58	0.00	0.58
20.60	0.34	0.73	0.46*	0.57	0.00	0.57
20.65	0.39	0.73	0.53*	0.57	0.00	0.57
20.70	0.47	0.73	0.64*	0.56	0.00	0.56
20.75	0.59	0.73	0.80*	0.55	0.00	0.55
20.80	0.72	0.73	0.98*	0.55	0.00	0.55
20.85	0.87	0.73	1.18	0.55	0.00	0.55
20.90	1.04	0.73	1.41	0.55	0.00	0.55
20.95	1.23	0.73	1.67	0.55	0.00	0.55
21.00	1.43	0.74	1.94	0.55	0.00	0.55
21.05	1.51	0.74	2.05	0.55	0.00	0.55
21.10	1.59	0.74	2.16	0.55	0.00	0.55
21.15	1.67	0.74	2.27	0.55	0.00	0.55
21.20	1.76	0.74	2.39	0.55	0.00	0.55
21.25	1.85	0.74	2.51	0.55	0.00	0.55
21.30	1.94	0.74	2.63	0.55	0.00	0.55
21.35	1.94	0.74	2.63	0.55	0.00	0.55
21.40	1.85	0.74	2.51	0.55	0.00	0.55
21.45	1.76	0.74	2.38	0.55	0.00	0.55
21.50	1.67	0.74	2.26	0.55	0.00	0.55
21.55	1.58	0.74	2.15	0.55	0.00	0.55
21.60	1.50	0.74	2.04	0.55	0.00	0.55
21.65	1.42	0.74	1.93	0.55	0.00	0.55
21.70	1.46	0.74	1.98	0.55	0.00	0.55
21.75	1.51	0.74	2.04	0.55	0.00	0.55
21.80	1.56	0.74	2.11	0.55	0.00	0.55
21.85	1.61	0.74	2.18	0.55	0.00	0.55
21.90	1.67	0.74	2.25	0.55	0.00	0.55
21.95	1.72	0.74	2.32	0.55	0.00	0.55
22.00	1.76	0.74	2.38	0.55	0.00	0.55
22.05	1.78	0.74	2.41	0.55	0.00	0.55
22.10	1.80	0.74	2.43	0.55	0.00	0.55
22.15	1.82	0.74	2.46	0.55	0.00	0.55
22.20	1.85	0.74	2.49	0.55	0.00	0.55
22.25	1.88	0.74	2.54	0.55	0.00	0.55
22.30	1.92	0.74	2.59	0.55	0.00	0.55
22.35	1.92	0.74	2.58	0.55	0.00	0.55
22.40	1.95	0.74	2.63	0.55	0.00	0.55
22.45	1.99	0.74	2.68	0.55	0.00	0.55
22.50	2.02	0.74	2.72	0.55	0.00	0.55
22.55	2.06	0.74	2.77	0.55	0.00	0.55
22.60	2.09	0.74	2.82	0.55	0.00	0.55
22.65	2.12	0.74	2.86	0.55	0.00	0.55
22.70	2.12	0.74	2.86	0.55	0.00	0.55
22.75	2.12	0.74	2.86	0.55	0.00	0.55
22.80	2.13	0.74	2.86	0.55	0.00	0.55
22.85	2.13	0.74	2.86	0.55	0.00	0.55
22.90	2.13	0.74	2.86	0.55	0.00	0.55
22.95	2.13	0.74	2.86	0.55	0.00	0.55
23.00	2.13	0.74	2.86	0.55	0.00	0.55
23.05	2.14	0.74	2.87	0.55	0.00	0.55
23.10	2.14	0.75	2.88	0.55	0.00	0.55
23.15	2.15	0.75	2.89	0.55	0.00	0.55
23.20	2.16	0.75	2.90	0.55	0.00	0.55
23.25	2.17	0.75	2.91	0.55	0.00	0.55
23.30	2.16	0.75	2.90	0.55	0.00	0.55
23.35	2.03	0.75	2.72	0.55	0.00	0.55
23.40	1.91	0.75	2.56	0.55	0.00	0.55
23.45	1.79	0.75	2.40	0.55	0.00	0.55
23.50	1.68	0.75	2.25	0.55	0.00	0.55
23.55	1.58	0.75	2.11	0.55	0.00	0.55

23.60	1.48	0.75	1.98	0.55	0.00	0.55
23.65	1.39	0.75	1.86	0.55	0.00	0.55
23.70	1.31	0.75	1.75	0.55	0.00	0.55
23.75	1.23	0.75	1.65	0.55	0.00	0.55
23.80	1.16	0.75	1.55	0.55	0.00	0.55
23.85	1.09	0.75	1.46	0.55	0.00	0.55
23.90	1.03	0.75	1.37	0.55	0.00	0.55
23.95	0.97	0.75	1.29	0.55	0.00	0.55
24.00	0.90	0.75	1.20	0.55	0.00	0.55
24.05	0.83	0.75	1.11	0.55	0.00	0.55
24.10	0.77	0.75	1.03	0.55	0.00	0.55
24.15	0.72	0.75	0.96*	0.55	0.00	0.55
24.20	0.66	0.75	0.88*	0.54	0.00	0.54
24.25	0.61	0.75	0.82*	0.54	0.00	0.54
24.30	0.62	0.75	0.83*	0.54	0.00	0.54
24.35	0.72	0.75	0.96*	0.54	0.00	0.54
24.40	0.82	0.75	1.09	0.54	0.00	0.54
24.45	0.93	0.75	1.24	0.54	0.00	0.54
24.50	1.05	0.75	1.40	0.54	0.00	0.54
24.55	1.18	0.75	1.58	0.54	0.00	0.54
24.60	1.32	0.75	1.76	0.54	0.00	0.54
24.65	1.40	0.75	1.86	0.54	0.00	0.54
24.70	1.47	0.75	1.95	0.54	0.00	0.54
24.75	1.54	0.75	2.05	0.54	0.00	0.54
24.80	1.62	0.75	2.15	0.54	0.00	0.54
24.85	1.70	0.75	2.26	0.54	0.00	0.54
24.90	1.79	0.75	2.38	0.54	0.00	0.54
24.95	1.87	0.75	2.49	0.54	0.00	0.54
25.00	1.93	0.75	2.57	0.54	0.00	0.54
25.05	1.99	0.75	2.65	0.54	0.00	0.54
25.10	2.06	0.75	2.74	0.54	0.00	0.54
25.15	2.13	0.75	2.82	0.54	0.00	0.54
25.20	2.21	0.75	2.93	0.54	0.00	0.54
25.25	2.33	0.75	3.09	0.54	0.00	0.54
25.30	2.49	0.75	3.31	0.54	0.00	0.54
25.35	2.66	0.75	3.53	0.54	0.00	0.54
25.40	2.66	0.75	3.53	0.54	0.00	0.54
25.45	2.66	0.75	3.53	0.54	0.00	0.54
25.50	2.66	0.75	3.53	0.54	0.00	0.54
25.55	2.66	0.75	3.53	0.54	0.00	0.54
25.60	2.66	0.75	3.53	0.54	0.00	0.54
25.65	2.66	0.75	3.53	0.54	0.00	0.54
25.70	2.66	0.75	3.53	0.54	0.00	0.54
25.75	2.66	0.75	3.53	0.54	0.00	0.54
25.80	2.66	0.75	3.53	0.54	0.00	0.54
25.85	2.66	0.76	3.53	0.54	0.00	0.54
25.90	2.66	0.76	3.52	0.54	0.00	0.54
25.95	2.66	0.76	3.52	0.54	0.00	0.54
26.00	2.66	0.76	3.52	0.54	0.00	0.54
26.05	2.66	0.76	3.52	0.54	0.00	0.54
26.10	2.66	0.76	3.52	0.54	0.00	0.54
26.15	2.66	0.76	3.52	0.54	0.00	0.54
26.20	2.66	0.76	3.52	0.54	0.00	0.54
26.25	2.66	0.76	3.52	0.54	0.00	0.54
26.30	2.66	0.76	3.52	0.54	0.00	0.54
26.35	2.54	0.76	3.36	0.54	0.00	0.54
26.40	2.33	0.76	3.08	0.54	0.00	0.54
26.45	2.13	0.76	2.81	0.54	0.00	0.54
26.50	1.94	0.76	2.56	0.54	0.00	0.54
26.55	1.76	0.76	2.33	0.54	0.00	0.54
26.60	1.55	0.76	2.05	0.54	0.00	0.54
26.65	1.31	0.76	1.73	0.54	0.00	0.54
26.70	1.13	0.76	1.50	0.54	0.00	0.54

26.75	1.00	0.76	1.32	0.54	0.00	0.54
26.80	0.88	0.76	1.16	0.54	0.00	0.54
26.85	0.78	0.76	1.03	0.54	0.00	0.54
26.90	0.68	0.76	0.90*	0.54	0.00	0.54
26.95	0.61	0.76	0.81*	0.53	0.00	0.53
27.00	0.54	0.76	0.71*	0.53	0.00	0.53
27.05	0.48	0.76	0.63*	0.53	0.00	0.53
27.10	0.43	0.76	0.57*	0.52	0.00	0.52
27.15	0.39	0.76	0.51*	0.52	0.00	0.52
27.20	0.35	0.76	0.46*	0.51	0.00	0.51
27.25	0.34	0.76	0.45*	0.51	0.00	0.51
27.30	0.38	0.76	0.50*	0.50	0.00	0.50
27.35	0.42	0.76	0.56*	0.49	0.00	0.49
27.40	0.48	0.76	0.64*	0.49	0.00	0.49
27.45	0.56	0.76	0.73*	0.48	0.00	0.48
27.50	0.64	0.76	0.84*	0.48	0.00	0.48
27.55	0.74	0.76	0.97*	0.48	0.00	0.48
27.60	0.83	0.76	1.09	0.47	0.00	0.47
27.65	0.92	0.76	1.21	0.47	0.00	0.47
27.70	1.02	0.76	1.34	0.47	0.00	0.47
27.75	1.13	0.76	1.49	0.47	0.00	0.47
27.80	1.27	0.76	1.67	0.47	0.00	0.47
27.85	1.42	0.76	1.87	0.47	0.00	0.47
27.90	1.51	0.76	1.99	0.47	0.00	0.47
27.95	1.42	0.76	1.86	0.47	0.00	0.47
28.00	1.32	0.76	1.74	0.47	0.00	0.47
28.05	1.23	0.76	1.62	0.47	0.00	0.47
28.10	1.15	0.76	1.51	0.47	0.00	0.47
28.15	1.08	0.76	1.42	0.47	0.00	0.47
28.20	1.02	0.76	1.34	0.47	0.00	0.47
28.25	0.93	0.76	1.22	0.47	0.00	0.47
28.30	0.84	0.76	1.10	0.47	0.00	0.47
28.35	0.75	0.76	0.98*	0.47	0.00	0.47
28.40	0.67	0.76	0.88*	0.47	0.00	0.47
28.45	0.59	0.76	0.78*	0.46	0.00	0.46
28.50	0.53	0.76	0.69*	0.46	0.00	0.46
28.55	0.46	0.76	0.61*	0.45	0.00	0.45
28.60	0.41	0.76	0.54*	0.45	0.00	0.45
28.65	0.36	0.76	0.48*	0.44	0.00	0.44
28.70	0.32	0.76	0.42*	0.43	0.00	0.43
28.75	0.29	0.76	0.38*	0.43	0.00	0.43
28.80	0.26	0.76	0.35*	0.42	0.00	0.42
28.85	0.25	0.76	0.32*	0.41	0.00	0.41
28.90	0.24	0.76	0.32*	0.41	0.00	0.41
28.95	0.25	0.76	0.33*	0.40	0.00	0.40
29.00	0.25	0.76	0.33*	0.39	0.00	0.39
29.05	0.26	0.76	0.34*	0.38	0.00	0.38
29.10	0.26	0.76	0.35*	0.38	0.00	0.38
29.15	0.27	0.76	0.36*	0.37	0.00	0.37
29.20	0.28	0.76	0.37*	0.36	0.00	0.36
29.25	0.30	0.76	0.39*	0.36	0.00	0.36
29.30	0.31	0.76	0.41*	0.35	0.00	0.35
29.35	0.33	0.76	0.44*	0.35	0.00	0.35
29.40	0.36	0.76	0.47*	0.34	0.00	0.34
29.45	0.41	0.76	0.53*	0.34	0.00	0.34
29.50	2.00	0.76	5.00	0.34	0.00	0.34
29.55	2.00	0.76	5.00	0.34	0.00	0.34
29.60	2.00	0.76	5.00	0.34	0.00	0.34
29.65	2.00	0.76	5.00	0.34	0.00	0.34
29.70	2.00	0.76	5.00	0.34	0.00	0.34
29.75	2.00	0.76	5.00	0.34	0.00	0.34
29.80	2.00	0.77	5.00	0.34	0.00	0.34
29.85	2.00	0.77	5.00	0.34	0.00	0.34

29.90	2.00	0.77	5.00	0.34	0.00	0.34
29.95	2.00	0.77	5.00	0.34	0.00	0.34
30.00	2.00	0.77	5.00	0.34	0.00	0.34
30.05	2.00	0.77	5.00	0.34	0.00	0.34
30.10	2.00	0.77	5.00	0.34	0.00	0.34
30.15	2.00	0.76	5.00	0.34	0.00	0.34
30.20	0.44	0.76	0.57*	0.34	0.00	0.34
30.25	0.37	0.76	0.48*	0.34	0.00	0.34
30.30	0.34	0.76	0.44*	0.34	0.00	0.34
30.35	0.33	0.76	0.43*	0.34	0.00	0.34
30.40	0.33	0.76	0.43*	0.33	0.00	0.33
30.45	0.33	0.76	0.44*	0.33	0.00	0.33
30.50	0.34	0.76	0.45*	0.32	0.00	0.32
30.55	0.37	0.76	0.49*	0.32	0.00	0.32
30.60	0.42	0.76	0.56*	0.31	0.00	0.31
30.65	0.49	0.76	0.65*	0.31	0.00	0.31
30.70	0.58	0.76	0.76*	0.30	0.00	0.30
30.75	0.68	0.76	0.89*	0.30	0.00	0.30
30.80	0.79	0.76	1.04	0.30	0.00	0.30
30.85	0.91	0.76	1.19	0.30	0.00	0.30
30.90	0.96	0.76	1.26	0.30	0.00	0.30
30.95	1.01	0.76	1.33	0.30	0.00	0.30
31.00	1.07	0.76	1.40	0.30	0.00	0.30
31.05	1.13	0.76	1.48	0.30	0.00	0.30
31.10	1.19	0.76	1.56	0.30	0.00	0.30
31.15	1.25	0.76	1.64	0.30	0.00	0.30
31.20	1.28	0.76	1.67	0.30	0.00	0.30
31.25	1.27	0.76	1.67	0.30	0.00	0.30
31.30	1.27	0.76	1.67	0.30	0.00	0.30
31.35	1.27	0.76	1.67	0.30	0.00	0.30
31.40	1.27	0.76	1.67	0.30	0.00	0.30
31.45	1.27	0.76	1.67	0.30	0.00	0.30
31.50	1.26	0.76	1.65	0.30	0.00	0.30
31.55	1.16	0.76	1.53	0.30	0.00	0.30
31.60	1.07	0.76	1.41	0.30	0.00	0.30
31.65	0.99	0.76	1.30	0.30	0.00	0.30
31.70	0.91	0.76	1.20	0.30	0.00	0.30
31.75	0.84	0.76	1.11	0.30	0.00	0.30
31.80	0.77	0.76	1.02	0.30	0.00	0.30
31.85	0.70	0.76	0.92*	0.30	0.00	0.30
31.90	0.63	0.76	0.83*	0.30	0.00	0.30
31.95	0.57	0.76	0.75*	0.30	0.00	0.30
32.00	0.52	0.76	0.68*	0.29	0.00	0.29
32.05	0.47	0.76	0.62*	0.29	0.00	0.29
32.10	0.43	0.76	0.57*	0.29	0.00	0.29
32.15	0.40	0.76	0.53*	0.28	0.00	0.28
32.20	0.38	0.76	0.51*	0.28	0.00	0.28
32.25	0.37	0.76	0.49*	0.27	0.00	0.27
32.30	0.37	0.76	0.49*	0.27	0.00	0.27
32.35	0.38	0.76	0.50*	0.27	0.00	0.27
32.40	0.41	0.76	0.54*	0.26	0.00	0.26
32.45	0.49	0.76	0.64*	0.26	0.00	0.26
32.50	2.00	0.76	5.00	0.26	0.00	0.26
32.55	2.00	0.76	5.00	0.26	0.00	0.26
32.60	2.00	0.76	5.00	0.26	0.00	0.26
32.65	2.00	0.76	5.00	0.26	0.00	0.26
32.70	2.00	0.76	5.00	0.26	0.00	0.26
32.75	2.00	0.76	5.00	0.26	0.00	0.26
32.80	2.00	0.76	5.00	0.26	0.00	0.26
32.85	2.00	0.76	5.00	0.26	0.00	0.26
32.90	2.00	0.76	5.00	0.26	0.00	0.26
32.95	2.00	0.76	5.00	0.26	0.00	0.26
33.00	2.00	0.76	5.00	0.26	0.00	0.26

33.05	2.00	0.76	5.00	0.26	0.00	0.26
33.10	2.00	0.76	5.00	0.26	0.00	0.26
33.15	2.00	0.76	5.00	0.26	0.00	0.26
33.20	2.00	0.75	5.00	0.26	0.00	0.26
33.25	2.00	0.75	5.00	0.26	0.00	0.26
33.30	2.00	0.75	5.00	0.26	0.00	0.26
33.35	2.00	0.75	5.00	0.26	0.00	0.26
33.40	2.00	0.75	5.00	0.26	0.00	0.26
33.45	2.00	0.75	5.00	0.26	0.00	0.26
33.50	2.00	0.75	5.00	0.26	0.00	0.26
33.55	2.00	0.75	5.00	0.26	0.00	0.26
33.60	2.00	0.75	5.00	0.26	0.00	0.26
33.65	0.51	0.75	0.67*	0.26	0.00	0.26
33.70	0.51	0.75	0.67*	0.26	0.00	0.26
33.75	0.50	0.75	0.67*	0.26	0.00	0.26
33.80	0.51	0.75	0.67*	0.26	0.00	0.26
33.85	0.52	0.75	0.69*	0.26	0.00	0.26
33.90	0.53	0.75	0.71*	0.26	0.00	0.26
33.95	0.55	0.75	0.73*	0.26	0.00	0.26
34.00	0.56	0.75	0.75*	0.26	0.00	0.26
34.05	0.58	0.75	0.77*	0.26	0.00	0.26
34.10	0.59	0.75	0.78*	0.26	0.00	0.26
34.15	2.00	0.75	5.00	0.26	0.00	0.26
34.20	2.00	0.75	5.00	0.26	0.00	0.26
34.25	2.00	0.75	5.00	0.26	0.00	0.26
34.30	2.00	0.75	5.00	0.26	0.00	0.26
34.35	2.00	0.75	5.00	0.26	0.00	0.26
34.40	2.00	0.75	5.00	0.26	0.00	0.26
34.45	2.00	0.75	5.00	0.26	0.00	0.26
34.50	2.00	0.75	5.00	0.26	0.00	0.26
34.55	2.00	0.75	5.00	0.26	0.00	0.26
34.60	2.00	0.75	5.00	0.26	0.00	0.26
34.65	2.00	0.75	5.00	0.26	0.00	0.26
34.70	2.00	0.75	5.00	0.26	0.00	0.26
34.75	2.00	0.75	5.00	0.26	0.00	0.26
34.80	2.00	0.75	5.00	0.26	0.00	0.26
34.85	2.00	0.75	5.00	0.26	0.00	0.26
34.90	2.00	0.75	5.00	0.26	0.00	0.26
34.95	2.00	0.75	5.00	0.26	0.00	0.26
35.00	2.00	0.75	5.00	0.26	0.00	0.26
35.05	2.00	0.75	5.00	0.26	0.00	0.26
35.10	2.00	0.75	5.00	0.26	0.00	0.26
35.15	2.00	0.75	5.00	0.26	0.00	0.26
35.20	2.00	0.75	5.00	0.26	0.00	0.26
35.25	2.00	0.75	5.00	0.26	0.00	0.26
35.30	2.00	0.75	5.00	0.26	0.00	0.26
35.35	2.00	0.75	5.00	0.26	0.00	0.26
35.40	2.00	0.75	5.00	0.26	0.00	0.26
35.45	2.00	0.75	5.00	0.26	0.00	0.26
35.50	2.00	0.75	5.00	0.26	0.00	0.26
35.55	2.00	0.75	5.00	0.26	0.00	0.26
35.60	2.00	0.75	5.00	0.26	0.00	0.26
35.65	2.00	0.75	5.00	0.26	0.00	0.26
35.70	2.00	0.75	5.00	0.26	0.00	0.26
35.75	2.00	0.74	5.00	0.26	0.00	0.26
35.80	2.00	0.74	5.00	0.26	0.00	0.26
35.85	2.00	0.74	5.00	0.26	0.00	0.26
35.90	2.00	0.74	5.00	0.26	0.00	0.26
35.95	2.00	0.74	5.00	0.26	0.00	0.26
36.00	2.00	0.74	5.00	0.26	0.00	0.26
36.05	2.00	0.74	5.00	0.26	0.00	0.26
36.10	2.00	0.74	5.00	0.26	0.00	0.26
36.15	2.00	0.74	5.00	0.26	0.00	0.26

36.20	2.00	0.74	5.00	0.26	0.00	0.26
36.25	2.00	0.74	5.00	0.26	0.00	0.26
36.30	2.00	0.74	5.00	0.26	0.00	0.26
36.35	2.00	0.74	5.00	0.26	0.00	0.26
36.40	2.00	0.74	5.00	0.26	0.00	0.26
36.45	2.00	0.74	5.00	0.26	0.00	0.26
36.50	2.00	0.74	5.00	0.26	0.00	0.26
36.55	2.00	0.74	5.00	0.26	0.00	0.26
36.60	0.55	0.74	0.74*	0.26	0.00	0.26
36.65	0.54	0.74	0.73*	0.26	0.00	0.26
36.70	0.54	0.74	0.72*	0.26	0.00	0.26
36.75	0.53	0.74	0.72*	0.26	0.00	0.26
36.80	0.53	0.74	0.72*	0.26	0.00	0.26
36.85	0.53	0.74	0.71*	0.26	0.00	0.26
36.90	0.53	0.74	0.71*	0.26	0.00	0.26
36.95	0.53	0.74	0.71*	0.26	0.00	0.26
37.00	0.53	0.74	0.71*	0.26	0.00	0.26
37.05	0.53	0.74	0.71*	0.26	0.00	0.26
37.10	0.52	0.74	0.70*	0.26	0.00	0.26
37.15	0.51	0.74	0.69*	0.26	0.00	0.26
37.20	0.50	0.74	0.68*	0.26	0.00	0.26
37.25	0.50	0.74	0.67*	0.26	0.00	0.26
37.30	0.49	0.74	0.67*	0.26	0.00	0.26
37.35	0.49	0.74	0.66*	0.26	0.00	0.26
37.40	0.48	0.74	0.65*	0.26	0.00	0.26
37.45	0.49	0.74	0.66*	0.26	0.00	0.26
37.50	0.50	0.74	0.67*	0.26	0.00	0.26
37.55	0.51	0.74	0.69*	0.26	0.00	0.26
37.60	0.51	0.74	0.70*	0.26	0.00	0.26
37.65	0.52	0.74	0.71*	0.26	0.00	0.26
37.70	0.53	0.74	0.72*	0.26	0.00	0.26
37.75	0.54	0.74	0.73*	0.26	0.00	0.26
37.80	0.55	0.74	0.74*	0.26	0.00	0.26
37.85	0.56	0.74	0.76*	0.26	0.00	0.26
37.90	0.57	0.74	0.77*	0.26	0.00	0.26
37.95	0.58	0.74	0.79*	0.26	0.00	0.26
38.00	0.60	0.74	0.81*	0.26	0.00	0.26
38.05	0.61	0.73	0.83*	0.26	0.00	0.26
38.10	0.61	0.73	0.83*	0.26	0.00	0.26
38.15	0.60	0.73	0.82*	0.26	0.00	0.26
38.20	0.60	0.73	0.82*	0.26	0.00	0.26
38.25	0.59	0.73	0.81*	0.26	0.00	0.26
38.30	0.59	0.73	0.80*	0.26	0.00	0.26
38.35	0.59	0.73	0.80*	0.26	0.00	0.26
38.40	0.56	0.73	0.76*	0.26	0.00	0.26
38.45	0.50	0.73	0.69*	0.26	0.00	0.26
38.50	0.48	0.73	0.66*	0.26	0.00	0.26
38.55	0.48	0.73	0.65*	0.26	0.00	0.26
38.60	0.49	0.73	0.66*	0.26	0.00	0.26
38.65	0.50	0.73	0.68*	0.26	0.00	0.26
38.70	0.52	0.73	0.71*	0.26	0.00	0.26
38.75	0.57	0.73	0.78*	0.26	0.00	0.26
38.80	0.64	0.73	0.88*	0.26	0.00	0.26
38.85	0.72	0.73	0.99*	0.26	0.00	0.26
38.90	0.81	0.73	1.11	0.26	0.00	0.26
38.95	0.90	0.73	1.24	0.26	0.00	0.26
39.00	1.01	0.73	1.38	0.26	0.00	0.26
39.05	1.11	0.73	1.52	0.26	0.00	0.26
39.10	1.18	0.73	1.62	0.26	0.00	0.26
39.15	1.25	0.73	1.71	0.26	0.00	0.26
39.20	1.32	0.73	1.82	0.26	0.00	0.26
39.25	1.40	0.73	1.92	0.26	0.00	0.26
39.30	1.48	0.73	2.03	0.26	0.00	0.26

39.35	1.56	0.73	2.14	0.26	0.00	0.26
39.40	1.62	0.73	2.22	0.26	0.00	0.26
39.45	1.66	0.73	2.27	0.26	0.00	0.26
39.50	1.70	0.73	2.33	0.26	0.00	0.26
39.55	1.74	0.73	2.39	0.26	0.00	0.26
39.60	1.78	0.73	2.45	0.26	0.00	0.26
39.65	1.83	0.73	2.52	0.26	0.00	0.26
39.70	1.87	0.73	2.58	0.26	0.00	0.26
39.75	1.88	0.73	2.58	0.26	0.00	0.26
39.80	1.88	0.73	2.59	0.26	0.00	0.26
39.85	1.89	0.73	2.60	0.26	0.00	0.26
39.90	1.90	0.73	2.61	0.26	0.00	0.26
39.95	1.90	0.73	2.62	0.26	0.00	0.26
40.00	1.91	0.73	2.64	0.26	0.00	0.26
40.05	1.91	0.73	2.63	0.26	0.00	0.26
40.10	1.89	0.73	2.60	0.26	0.00	0.26
40.15	1.87	0.72	2.58	0.26	0.00	0.26
40.20	1.85	0.72	2.55	0.26	0.00	0.26
40.25	1.83	0.72	2.52	0.26	0.00	0.26
40.30	1.81	0.72	2.49	0.26	0.00	0.26
40.35	1.79	0.72	2.47	0.26	0.00	0.26
40.40	1.69	0.72	2.33	0.26	0.00	0.26
40.45	1.58	0.72	2.19	0.26	0.00	0.26
40.50	1.49	0.72	2.06	0.26	0.00	0.26
40.55	1.40	0.72	1.93	0.26	0.00	0.26
40.60	1.31	0.72	1.81	0.26	0.00	0.26
40.65	1.22	0.72	1.69	0.26	0.00	0.26
40.70	1.20	0.72	1.66	0.26	0.00	0.26
40.75	1.29	0.72	1.79	0.26	0.00	0.26
40.80	1.39	0.72	1.92	0.26	0.00	0.26
40.85	1.49	0.72	2.06	0.26	0.00	0.26
40.90	1.59	0.72	2.20	0.26	0.00	0.26
40.95	1.70	0.72	2.35	0.26	0.00	0.26
41.00	1.81	0.72	2.51	0.26	0.00	0.26
41.05	1.88	0.72	2.61	0.26	0.00	0.26
41.10	1.94	0.72	2.69	0.26	0.00	0.26
41.15	2.00	0.72	2.78	0.26	0.00	0.26
41.20	2.07	0.72	2.87	0.26	0.00	0.26
41.25	2.13	0.72	2.96	0.26	0.00	0.26
41.30	2.20	0.72	3.06	0.26	0.00	0.26
41.35	2.25	0.72	3.13	0.26	0.00	0.26
41.40	2.25	0.72	3.13	0.26	0.00	0.26
41.45	2.24	0.72	3.12	0.26	0.00	0.26
41.50	2.24	0.72	3.12	0.26	0.00	0.26
41.55	2.23	0.72	3.11	0.26	0.00	0.26
41.60	2.23	0.72	3.11	0.26	0.00	0.26
41.65	2.22	0.72	3.10	0.26	0.00	0.26
41.70	2.14	0.72	2.98	0.26	0.00	0.26
41.75	2.01	0.72	2.80	0.26	0.00	0.26
41.80	1.88	0.72	2.62	0.26	0.00	0.26
41.85	1.76	0.72	2.46	0.26	0.00	0.26
41.90	1.65	0.72	2.30	0.26	0.00	0.26
41.95	1.54	0.72	2.15	0.26	0.00	0.26
42.00	1.43	0.72	2.00	0.26	0.00	0.26
42.05	1.35	0.72	1.89	0.26	0.00	0.26
42.10	1.28	0.72	1.79	0.26	0.00	0.26
42.15	1.20	0.72	1.68	0.26	0.00	0.26
42.20	1.13	0.71	1.59	0.26	0.00	0.26
42.25	1.07	0.71	1.49	0.26	0.00	0.26
42.30	1.00	0.71	1.40	0.26	0.00	0.26
42.35	0.96	0.71	1.35	0.26	0.00	0.26
42.40	0.94	0.71	1.32	0.26	0.00	0.26
42.45	0.92	0.71	1.29	0.26	0.00	0.26

42.50	0.90	0.71	1.26	0.26	0.00	0.26
42.55	0.88	0.71	1.24	0.26	0.00	0.26
42.60	0.86	0.71	1.21	0.26	0.00	0.26
42.65	0.84	0.71	1.19	0.26	0.00	0.26
42.70	0.80	0.71	1.12	0.26	0.00	0.26
42.75	0.75	0.71	1.05	0.26	0.00	0.26
42.80	0.70	0.71	0.98*	0.26	0.00	0.26
42.85	0.65	0.71	0.92*	0.26	0.00	0.26
42.90	0.61	0.71	0.86*	0.25	0.00	0.25
42.95	0.57	0.71	0.80*	0.25	0.00	0.25
43.00	0.53	0.71	0.75*	0.25	0.00	0.25
43.05	0.50	0.71	0.71*	0.24	0.00	0.24
43.10	0.47	0.71	0.67*	0.24	0.00	0.24
43.15	0.44	0.71	0.63*	0.23	0.00	0.23
43.20	0.42	0.71	0.59*	0.23	0.00	0.23
43.25	0.39	0.71	0.55*	0.22	0.00	0.22
43.30	0.37	0.71	0.52*	0.21	0.00	0.21
43.35	0.33	0.71	0.47*	0.21	0.00	0.21
43.40	0.30	0.71	0.42*	0.20	0.00	0.20
43.45	0.27	0.71	0.38*	0.19	0.00	0.19
43.50	0.25	0.71	0.36*	0.18	0.00	0.18
43.55	0.25	0.71	0.36*	0.18	0.00	0.18
43.60	0.30	0.71	0.42*	0.17	0.00	0.17
43.65	2.00	0.71	5.00	0.17	0.00	0.17
43.70	2.00	0.71	5.00	0.17	0.00	0.17
43.75	2.00	0.71	5.00	0.17	0.00	0.17
43.80	2.00	0.71	5.00	0.17	0.00	0.17
43.85	2.00	0.71	5.00	0.17	0.00	0.17
43.90	2.00	0.71	5.00	0.17	0.00	0.17
43.95	2.00	0.71	5.00	0.17	0.00	0.17
44.00	2.00	0.71	5.00	0.17	0.00	0.17
44.05	2.00	0.71	5.00	0.17	0.00	0.17
44.10	2.00	0.70	5.00	0.17	0.00	0.17
44.15	2.00	0.70	5.00	0.17	0.00	0.17
44.20	2.00	0.70	5.00	0.17	0.00	0.17
44.25	2.00	0.70	5.00	0.17	0.00	0.17
44.30	2.00	0.70	5.00	0.17	0.00	0.17
44.35	2.00	0.70	5.00	0.17	0.00	0.17
44.40	2.00	0.70	5.00	0.17	0.00	0.17
44.45	2.00	0.70	5.00	0.17	0.00	0.17
44.50	2.00	0.70	5.00	0.17	0.00	0.17
44.55	2.00	0.70	5.00	0.17	0.00	0.17
44.60	2.00	0.70	5.00	0.17	0.00	0.17
44.65	2.00	0.70	5.00	0.17	0.00	0.17
44.70	2.00	0.70	5.00	0.17	0.00	0.17
44.75	2.00	0.70	5.00	0.17	0.00	0.17
44.80	2.00	0.70	5.00	0.17	0.00	0.17
44.85	2.00	0.70	5.00	0.17	0.00	0.17
44.90	2.00	0.70	5.00	0.17	0.00	0.17
44.95	2.00	0.70	5.00	0.17	0.00	0.17
45.00	2.00	0.70	5.00	0.17	0.00	0.17
45.05	2.00	0.70	5.00	0.17	0.00	0.17
45.10	2.00	0.70	5.00	0.17	0.00	0.17
45.15	2.00	0.70	5.00	0.17	0.00	0.17
45.20	2.00	0.70	5.00	0.17	0.00	0.17
45.25	2.00	0.70	5.00	0.17	0.00	0.17
45.30	2.00	0.70	5.00	0.17	0.00	0.17
45.35	2.00	0.70	5.00	0.17	0.00	0.17
45.40	2.00	0.70	5.00	0.17	0.00	0.17
45.45	2.00	0.70	5.00	0.17	0.00	0.17
45.50	2.00	0.70	5.00	0.17	0.00	0.17
45.55	2.00	0.70	5.00	0.17	0.00	0.17
45.60	2.00	0.70	5.00	0.17	0.00	0.17

45.65	2.00	0.70	5.00	0.17	0.00	0.17
45.70	2.00	0.70	5.00	0.17	0.00	0.17
45.75	2.00	0.70	5.00	0.17	0.00	0.17
45.80	2.00	0.70	5.00	0.17	0.00	0.17
45.85	2.00	0.70	5.00	0.17	0.00	0.17
45.90	2.00	0.70	5.00	0.17	0.00	0.17
45.95	2.00	0.69	5.00	0.17	0.00	0.17
46.00	2.00	0.69	5.00	0.17	0.00	0.17
46.05	2.00	0.69	5.00	0.17	0.00	0.17
46.10	2.00	0.69	5.00	0.17	0.00	0.17
46.15	2.00	0.69	5.00	0.17	0.00	0.17
46.20	2.00	0.69	5.00	0.17	0.00	0.17
46.25	2.00	0.69	5.00	0.17	0.00	0.17
46.30	2.00	0.69	5.00	0.17	0.00	0.17
46.35	2.00	0.69	5.00	0.17	0.00	0.17
46.40	2.00	0.69	5.00	0.17	0.00	0.17
46.45	2.00	0.69	5.00	0.17	0.00	0.17
46.50	2.00	0.69	5.00	0.17	0.00	0.17
46.55	2.00	0.69	5.00	0.17	0.00	0.17
46.60	2.00	0.69	5.00	0.17	0.00	0.17
46.65	2.00	0.69	5.00	0.17	0.00	0.17
46.70	2.00	0.69	5.00	0.17	0.00	0.17
46.75	2.00	0.69	5.00	0.17	0.00	0.17
46.80	2.00	0.69	5.00	0.17	0.00	0.17
46.85	2.00	0.69	5.00	0.17	0.00	0.17
46.90	2.00	0.69	5.00	0.17	0.00	0.17
46.95	2.00	0.69	5.00	0.17	0.00	0.17
47.00	2.00	0.69	5.00	0.17	0.00	0.17
47.05	0.41	0.69	0.59*	0.17	0.00	0.17
47.10	0.38	0.69	0.55*	0.17	0.00	0.17
47.15	0.35	0.69	0.51*	0.16	0.00	0.16
47.20	0.33	0.69	0.48*	0.16	0.00	0.16
47.25	0.31	0.69	0.45*	0.16	0.00	0.16
47.30	0.31	0.69	0.45*	0.16	0.00	0.16
47.35	0.31	0.69	0.45*	0.15	0.00	0.15
47.40	0.31	0.69	0.45*	0.15	0.00	0.15
47.45	0.31	0.69	0.46*	0.14	0.00	0.14
47.50	0.32	0.69	0.46*	0.14	0.00	0.14
47.55	0.32	0.69	0.47*	0.13	0.00	0.13
47.60	0.33	0.69	0.48*	0.13	0.00	0.13
47.65	0.34	0.69	0.49*	0.13	0.00	0.13
47.70	0.34	0.69	0.50*	0.12	0.00	0.12
47.75	0.35	0.68	0.51*	0.12	0.00	0.12
47.80	0.36	0.68	0.52*	0.11	0.00	0.11
47.85	0.36	0.68	0.53*	0.11	0.00	0.11
47.90	0.37	0.68	0.54*	0.11	0.00	0.11
47.95	0.38	0.68	0.55*	0.10	0.00	0.10
48.00	0.38	0.68	0.55*	0.10	0.00	0.10
48.05	0.38	0.68	0.56*	0.09	0.00	0.09
48.10	0.39	0.68	0.57*	0.09	0.00	0.09
48.15	0.39	0.68	0.58*	0.09	0.00	0.09
48.20	0.40	0.68	0.58*	0.08	0.00	0.08
48.25	0.40	0.68	0.59*	0.08	0.00	0.08
48.30	0.41	0.68	0.60*	0.08	0.00	0.08
48.35	0.41	0.68	0.60*	0.07	0.00	0.07
48.40	0.42	0.68	0.61*	0.07	0.00	0.07
48.45	0.42	0.68	0.62*	0.07	0.00	0.07
48.50	0.42	0.68	0.62*	0.07	0.00	0.07
48.55	0.43	0.68	0.63*	0.06	0.00	0.06
48.60	0.43	0.68	0.63*	0.06	0.00	0.06
48.65	0.43	0.68	0.63*	0.06	0.00	0.06
48.70	0.42	0.68	0.62*	0.05	0.00	0.05
48.75	0.42	0.68	0.62*	0.05	0.00	0.05

48.80	0.42	0.68	0.61*	0.05	0.00	0.05
48.85	0.41	0.68	0.61*	0.04	0.00	0.04
48.90	0.41	0.68	0.60*	0.04	0.00	0.04
48.95	0.40	0.68	0.59*	0.03	0.00	0.03
49.00	0.39	0.68	0.57*	0.03	0.00	0.03
49.05	0.38	0.68	0.56*	0.03	0.00	0.03
49.10	0.37	0.68	0.55*	0.02	0.00	0.02
49.15	0.37	0.68	0.54*	0.02	0.00	0.02
49.20	0.36	0.68	0.54*	0.02	0.00	0.02
49.25	0.37	0.68	0.54*	0.01	0.00	0.01
49.30	0.37	0.68	0.55*	0.01	0.00	0.01
49.35	0.38	0.68	0.57*	0.01	0.00	0.01
49.40	0.39	0.68	0.58*	0.00	0.00	0.00
49.45	0.41	0.68	0.61*	0.00	0.00	0.00
49.50	0.43	0.67	0.63*	0.00	0.00	0.00
49.55	0.45	0.67	0.66*	0.00	0.00	0.00
49.60	0.46	0.67	0.69*	0.00	0.00	0.00
49.65	0.48	0.67	0.71*	0.00	0.00	0.00
49.70	0.50	0.67	0.74*	0.00	0.00	0.00
49.75	2.00	0.67	5.00	0.00	0.00	0.00
49.80	2.00	0.67	5.00	0.00	0.00	0.00
49.85	2.00	0.67	5.00	0.00	0.00	0.00
49.90	2.00	0.67	5.00	0.00	0.00	0.00
49.95	2.00	0.67	5.00	0.00	0.00	0.00
50.00	2.00	0.67	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

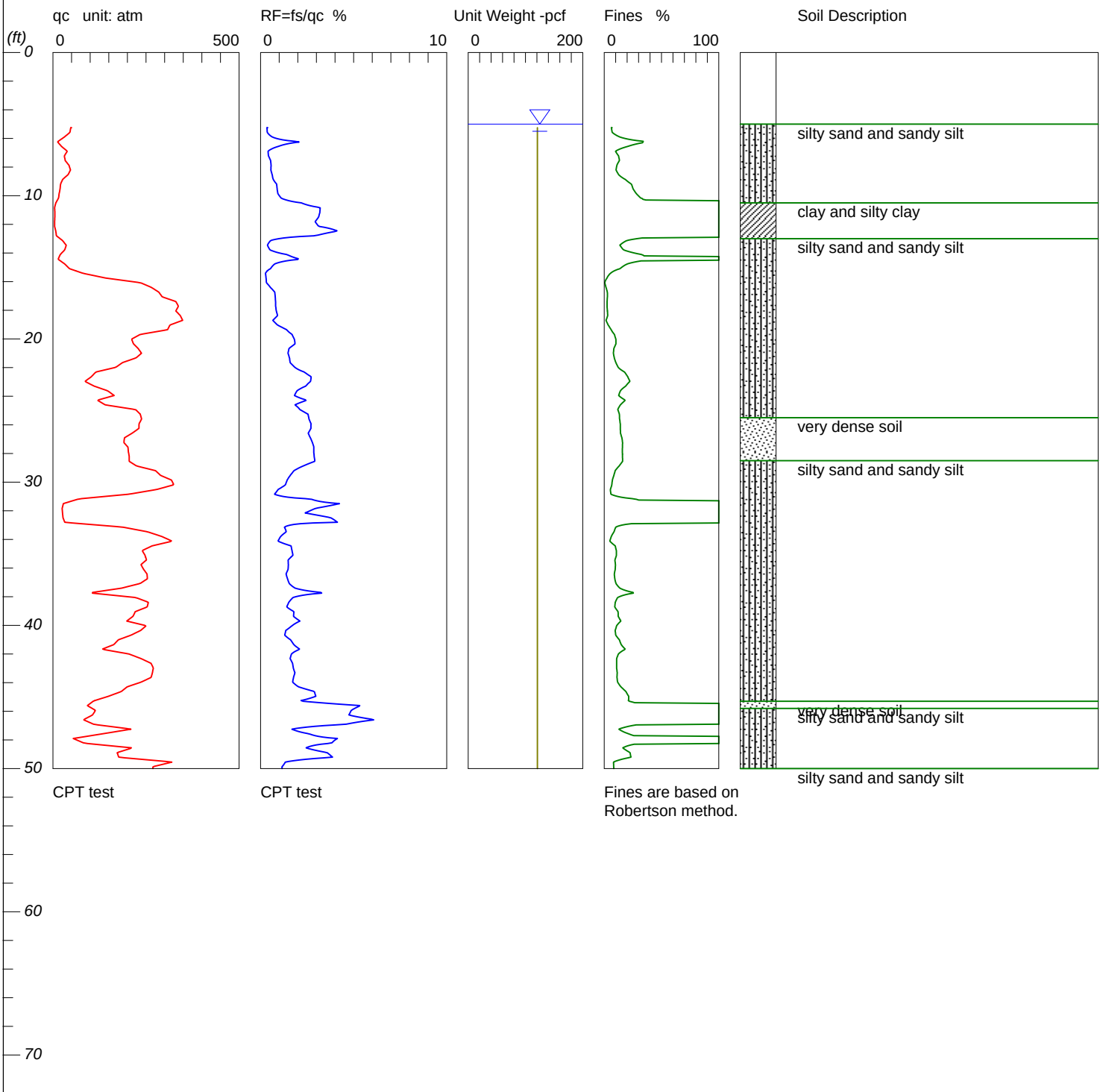
1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=CPT-3 Water Depth=5 ft Surface Elev.=244

Magnitude=6.81
Acceleration=0.656g

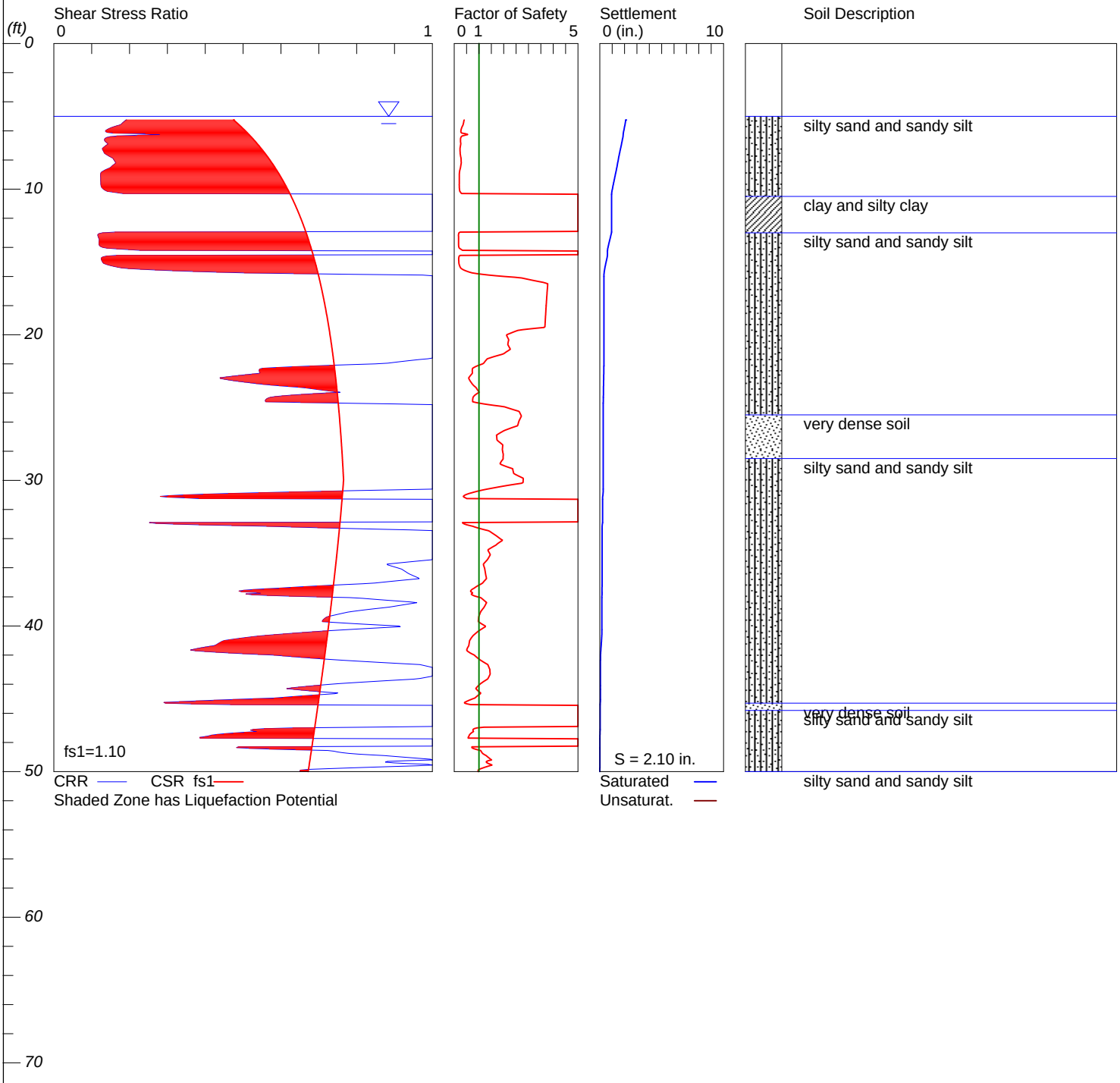


LIQUEFACTION ANALYSIS

Solemo 13 Acres

Hole No.=CPT-3 Water Depth=5 ft Surface Elev.=244

Magnitude=6.81
Acceleration=0.656g



****

LIQUEFACTION ANALYSIS SUMMARY

****

Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 8/27/2020 2:19:10 PM

Input File Name: G:_Projects\2020\20G-0418\Liqefaction Analysis\20G-0418 CPT3.liq
Title: Solemo 13 Acres
Subtitle: 20G-0418-0

Surface Elev.=244
Hole No.=CPT-3
Depth of Hole= 50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration= 0.66 g
Earthquake Magnitude= 6.81

Input Data:
Surface Elev.=244
Hole No.=CPT-3
Depth of Hole=50.00 ft
Water Table during Earthquake= 5.00 ft
Water Table during In-Situ Testing= 60.00 ft
Max. Acceleration=0.66 g
Earthquake Magnitude=6.81
No-Liquefiable Soils: Based on Analysis

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu, M-correction
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
9. User request factor of safety (apply to CSR) , User= 1.1
Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	Rf pcf	gamma %	Fines mm	D50
5.25	47.92	0.17	0.34	120.90	0.00	0.50
5.58	45.63	0.16	0.36	120.90	0.00	0.50
5.91	30.47	0.19	0.64	120.90	0.00	0.50
6.23	12.21	0.26	2.17	120.90	0.00	0.50
6.56	23.21	0.22	0.94	120.90	0.00	0.50
6.89	38.46	0.15	0.40	120.90	0.00	0.50
7.22	30.65	0.13	0.42	120.90	0.00	0.50
7.55	32.90	0.18	0.54	120.90	0.00	0.50
7.87	43.12	0.24	0.56	120.90	0.00	0.50
8.20	47.11	0.26	0.55	120.90	0.00	0.50
8.53	40.69	0.25	0.62	120.90	0.00	0.50
8.86	26.13	0.18	0.68	120.90	0.00	0.50
9.19	20.43	0.18	0.86	120.90	0.00	0.50

9.51	19.22	0.17	0.89	120.90	0.00	0.50
9.84	16.81	0.16	0.93	120.90	0.00	0.50
10.17	14.87	0.17	1.11	120.90	0.00	0.50
10.50	7.76	0.17	2.19	120.90	0.00	0.50
10.83	4.40	0.14	3.21	120.90	0.00	0.50
11.15	5.18	0.17	3.19	120.90	0.00	0.50
11.48	5.06	0.16	3.12	120.90	0.00	0.50
11.81	4.54	0.13	2.93	120.90	0.00	0.50
12.14	4.46	0.14	3.12	120.90	0.00	0.50
12.47	7.52	0.31	4.13	120.90	0.00	0.50
12.80	9.32	0.28	2.95	120.90	0.00	0.50
13.12	25.32	0.14	0.55	120.90	0.00	0.50
13.45	35.71	0.13	0.37	120.90	0.00	0.50
13.78	31.63	0.16	0.50	120.90	0.00	0.50
14.11	19.50	0.28	1.42	120.90	0.00	0.50
14.44	13.92	0.30	2.13	120.90	0.00	0.50
14.76	31.63	0.24	0.76	120.90	0.00	0.50
15.09	44.13	0.24	0.53	120.90	0.00	0.50
15.42	81.08	0.21	0.26	120.90	0.00	0.50
15.75	141.56	0.42	0.29	120.90	0.00	0.50
16.08	235.44	0.74	0.31	120.90	0.00	0.50
16.40	264.58	1.40	0.53	120.90	0.00	0.50
16.73	284.31	2.17	0.76	120.90	0.00	0.50
17.06	293.43	2.31	0.79	120.90	0.00	0.50
17.39	330.12	2.66	0.80	120.90	0.00	0.50
17.72	337.04	2.73	0.81	120.90	0.00	0.50
18.05	330.01	2.79	0.85	120.90	0.00	0.50
18.37	342.22	3.12	0.91	120.90	0.00	0.50
18.70	348.27	2.30	0.66	120.90	0.00	0.50
19.03	314.09	2.86	0.91	120.90	0.00	0.50
19.36	307.98	4.31	1.40	120.90	0.00	0.50
19.68	234.40	3.96	1.69	120.90	0.00	0.50
20.01	211.36	3.84	1.82	120.90	0.00	0.50
20.34	216.22	4.01	1.85	120.90	0.00	0.50
20.67	228.93	3.49	1.53	120.90	0.00	0.50
21.00	237.90	3.51	1.48	120.90	0.00	0.50
21.33	223.08	3.47	1.55	120.90	0.00	0.50
21.65	186.65	2.97	1.59	120.90	0.00	0.50
21.98	168.82	3.11	1.84	120.90	0.00	0.50
22.31	115.20	2.70	2.35	120.90	0.00	0.50
22.64	103.19	2.81	2.72	120.90	0.00	0.50
22.97	85.97	2.31	2.69	120.90	0.00	0.50
23.29	110.63	2.69	2.43	120.90	0.00	0.50
23.62	147.03	2.87	1.95	120.90	0.00	0.50
23.95	164.37	3.00	1.82	120.90	0.00	0.50
24.28	119.34	2.97	2.49	120.90	0.00	0.50
24.61	140.67	2.59	1.84	120.90	0.00	0.50
24.93	222.30	4.69	2.11	120.90	0.00	0.50
25.26	234.68	5.99	2.55	120.90	0.00	0.50
25.59	238.16	6.19	2.60	120.90	0.00	0.50
25.92	231.36	6.27	2.71	120.90	0.00	0.50
26.25	230.89	6.24	2.70	120.90	0.00	0.50
26.58	213.15	5.45	2.56	120.90	0.00	0.50
26.90	192.26	5.15	2.68	120.90	0.00	0.50
27.23	190.41	5.31	2.79	120.90	0.00	0.50
27.56	201.61	5.77	2.86	120.90	0.00	0.50
27.89	202.62	5.79	2.86	120.90	0.00	0.50
28.22	204.88	5.91	2.88	120.90	0.00	0.50
28.54	204.62	5.97	2.92	120.90	0.00	0.50
28.87	224.64	5.14	2.29	120.90	0.00	0.50
29.20	275.63	4.96	1.80	120.90	0.00	0.50
29.53	289.12	4.61	1.59	120.90	0.00	0.50
29.86	318.55	4.55	1.43	120.90	0.00	0.50

30.18	324.65	4.34	1.34	120.90	0.00	0.50
30.51	278.76	2.61	0.94	120.90	0.00	0.50
30.84	204.53	1.51	0.74	120.90	0.00	0.50
31.17	69.65	1.87	2.68	120.90	0.00	0.50
31.50	28.07	1.19	4.25	120.90	0.00	0.50
31.82	24.74	0.73	2.96	120.90	0.00	0.50
32.15	25.78	0.62	2.40	120.90	0.00	0.50
32.48	26.88	1.01	3.76	120.90	0.00	0.50
32.81	31.86	1.32	4.14	120.90	0.00	0.50
33.14	186.50	2.38	1.28	120.90	0.00	0.50
33.47	253.84	3.50	1.38	120.90	0.00	0.50
33.79	292.33	3.15	1.08	120.90	0.00	0.50
34.12	320.14	2.99	0.93	120.90	0.00	0.50
34.45	266.31	4.36	1.64	120.90	0.00	0.50
34.78	239.84	4.05	1.69	120.90	0.00	0.50
35.10	247.24	4.30	1.74	120.90	0.00	0.50
35.43	251.27	3.72	1.48	120.90	0.00	0.50
35.76	236.33	3.53	1.49	120.90	0.00	0.50
36.09	243.63	3.60	1.48	120.90	0.00	0.50
36.42	252.68	3.46	1.37	120.90	0.00	0.50
36.74	253.76	3.67	1.45	120.90	0.00	0.50
37.07	234.43	3.61	1.54	120.90	0.00	0.50
37.40	184.22	3.41	1.85	120.90	0.00	0.50
37.73	98.56	3.45	3.50	120.90	0.00	0.50
38.06	222.76	3.87	1.74	120.90	0.00	0.50
38.39	256.33	3.89	1.52	120.90	0.00	0.50
38.71	253.06	3.55	1.40	120.90	0.00	0.50
39.04	221.11	3.96	1.79	120.90	0.00	0.50
39.37	214.95	3.80	1.77	120.90	0.00	0.50
39.70	198.22	4.19	2.12	120.90	0.00	0.50
40.03	250.60	4.23	1.69	120.90	0.00	0.50
40.35	235.55	3.20	1.36	120.90	0.00	0.50
40.68	209.86	2.72	1.30	120.90	0.00	0.50
41.01	175.51	2.83	1.61	120.90	0.00	0.50
41.34	163.76	2.92	1.78	120.90	0.00	0.50
41.67	131.93	2.79	2.11	120.90	0.00	0.50
41.99	203.69	3.39	1.66	120.90	0.00	0.50
42.32	237.06	3.76	1.59	120.90	0.00	0.50
42.65	263.51	4.52	1.72	120.90	0.00	0.50
42.98	269.61	4.74	1.76	120.90	0.00	0.50
43.31	267.21	4.93	1.85	120.90	0.00	0.50
43.63	263.68	4.66	1.77	120.90	0.00	0.50
43.96	236.80	4.07	1.72	120.90	0.00	0.50
44.29	199.29	4.06	2.04	120.90	0.00	0.50
44.62	183.64	5.31	2.89	120.90	0.00	0.50
44.95	149.49	4.44	2.97	120.90	0.00	0.50
45.28	109.24	2.28	2.08	120.90	0.00	0.50
45.60	92.34	4.97	5.38	120.90	0.00	0.50
45.93	114.30	5.57	4.87	120.90	0.00	0.50
46.26	106.20	5.04	4.74	120.90	0.00	0.50
46.59	82.01	5.04	6.15	120.90	0.00	0.50
46.92	110.37	5.02	4.54	120.90	0.00	0.50
47.24	210.46	3.53	1.67	120.90	0.00	0.50
47.57	133.20	3.48	2.61	120.90	0.00	0.50
47.90	54.46	2.25	4.13	120.90	0.00	0.50
48.23	84.01	3.20	3.82	120.90	0.00	0.50
48.56	213.13	5.19	2.44	120.90	0.00	0.50
48.88	172.35	6.16	3.58	120.90	0.00	0.50
49.21	176.95	6.86	3.88	120.90	0.00	0.50
49.54	320.51	4.27	1.33	120.90	0.00	0.50
49.87	268.48	3.11	1.16	120.90	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not

relevant.

Output Results:

Settlement of Saturated Sands=2.10 in.
Settlement of Unsaturated Sands=0.00 in.
Total Settlement of Saturated and Unsaturated Sands=2.10 in.
Differential Settlement=1.050 to 1.387 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
5.25	0.19	0.47	0.40*	2.10	0.00	2.10
5.30	0.19	0.48	0.39*	2.09	0.00	2.09
5.35	0.19	0.48	0.39*	2.08	0.00	2.08
5.40	0.18	0.48	0.38*	2.07	0.00	2.07
5.45	0.18	0.48	0.38*	2.06	0.00	2.06
5.50	0.18	0.49	0.37*	2.05	0.00	2.05
5.55	0.18	0.49	0.36*	2.04	0.00	2.04
5.60	0.17	0.49	0.35*	2.03	0.00	2.03
5.65	0.17	0.49	0.34*	2.02	0.00	2.02
5.70	0.16	0.49	0.32*	2.00	0.00	2.00
5.75	0.15	0.50	0.31*	1.99	0.00	1.99
5.80	0.15	0.50	0.30*	1.98	0.00	1.98
5.85	0.14	0.50	0.29*	1.97	0.00	1.97
5.90	0.14	0.50	0.28*	1.96	0.00	1.96
5.95	0.14	0.50	0.27*	1.95	0.00	1.95
6.00	0.14	0.51	0.27*	1.94	0.00	1.94
6.05	0.14	0.51	0.27*	1.92	0.00	1.92
6.10	0.14	0.51	0.28*	1.91	0.00	1.91
6.15	0.16	0.51	0.30*	1.90	0.00	1.90
6.20	0.24	0.51	0.47*	1.89	0.00	1.89
6.25	0.28	0.52	0.54*	1.89	0.00	1.89
6.30	0.22	0.52	0.43*	1.88	0.00	1.88
6.35	0.17	0.52	0.32*	1.88	0.00	1.88
6.40	0.15	0.52	0.28*	1.87	0.00	1.87
6.45	0.14	0.52	0.27*	1.86	0.00	1.86
6.50	0.14	0.52	0.26*	1.85	0.00	1.85
6.55	0.13	0.53	0.26*	1.84	0.00	1.84
6.60	0.13	0.53	0.25*	1.83	0.00	1.83
6.65	0.13	0.53	0.25*	1.81	0.00	1.81
6.70	0.14	0.53	0.25*	1.80	0.00	1.80
6.75	0.14	0.53	0.26*	1.79	0.00	1.79
6.80	0.14	0.53	0.26*	1.78	0.00	1.78
6.85	0.14	0.54	0.26*	1.77	0.00	1.77
6.90	0.14	0.54	0.27*	1.75	0.00	1.75
6.95	0.14	0.54	0.26*	1.74	0.00	1.74
7.00	0.14	0.54	0.25*	1.73	0.00	1.73
7.05	0.14	0.54	0.25*	1.72	0.00	1.72
7.10	0.13	0.54	0.24*	1.71	0.00	1.71
7.15	0.13	0.55	0.24*	1.69	0.00	1.69
7.20	0.13	0.55	0.23*	1.68	0.00	1.68
7.25	0.13	0.55	0.23*	1.67	0.00	1.67
7.30	0.13	0.55	0.23*	1.65	0.00	1.65
7.35	0.13	0.55	0.24*	1.64	0.00	1.64
7.40	0.13	0.55	0.24*	1.63	0.00	1.63
7.45	0.13	0.56	0.24*	1.62	0.00	1.62
7.50	0.13	0.56	0.24*	1.60	0.00	1.60
7.55	0.13	0.56	0.24*	1.59	0.00	1.59
7.60	0.14	0.56	0.25*	1.58	0.00	1.58
7.65	0.14	0.56	0.25*	1.57	0.00	1.57
7.70	0.14	0.56	0.26*	1.56	0.00	1.56
7.75	0.15	0.56	0.26*	1.54	0.00	1.54
7.80	0.15	0.57	0.27*	1.53	0.00	1.53

7.85	0.15	0.57	0.27*	1.52	0.00	1.52
7.90	0.16	0.57	0.28*	1.51	0.00	1.51
7.95	0.16	0.57	0.28*	1.50	0.00	1.50
8.00	0.16	0.57	0.28*	1.49	0.00	1.49
8.05	0.16	0.57	0.28*	1.48	0.00	1.48
8.10	0.16	0.57	0.28*	1.47	0.00	1.47
8.15	0.16	0.57	0.28*	1.45	0.00	1.45
8.20	0.16	0.58	0.28*	1.44	0.00	1.44
8.25	0.16	0.58	0.28*	1.43	0.00	1.43
8.30	0.16	0.58	0.27*	1.42	0.00	1.42
8.35	0.16	0.58	0.27*	1.41	0.00	1.41
8.40	0.15	0.58	0.27*	1.40	0.00	1.40
8.45	0.15	0.58	0.26*	1.39	0.00	1.39
8.50	0.15	0.58	0.26*	1.38	0.00	1.38
8.55	0.15	0.59	0.25*	1.37	0.00	1.37
8.60	0.14	0.59	0.24*	1.36	0.00	1.36
8.65	0.14	0.59	0.23*	1.34	0.00	1.34
8.70	0.13	0.59	0.23*	1.33	0.00	1.33
8.75	0.13	0.59	0.22*	1.32	0.00	1.32
8.80	0.13	0.59	0.22*	1.31	0.00	1.31
8.85	0.12	0.59	0.21*	1.30	0.00	1.30
8.90	0.12	0.59	0.21*	1.28	0.00	1.28
8.95	0.12	0.59	0.21*	1.27	0.00	1.27
9.00	0.12	0.60	0.21*	1.26	0.00	1.26
9.05	0.12	0.60	0.21*	1.24	0.00	1.24
9.10	0.12	0.60	0.21*	1.23	0.00	1.23
9.15	0.12	0.60	0.21*	1.22	0.00	1.22
9.20	0.12	0.60	0.21*	1.21	0.00	1.21
9.25	0.12	0.60	0.21*	1.19	0.00	1.19
9.30	0.12	0.60	0.21*	1.18	0.00	1.18
9.35	0.12	0.60	0.20*	1.17	0.00	1.17
9.40	0.12	0.60	0.20*	1.16	0.00	1.16
9.45	0.12	0.61	0.20*	1.15	0.00	1.15
9.50	0.12	0.61	0.20*	1.13	0.00	1.13
9.55	0.12	0.61	0.20*	1.12	0.00	1.12
9.60	0.12	0.61	0.20*	1.11	0.00	1.11
9.65	0.12	0.61	0.20*	1.10	0.00	1.10
9.70	0.12	0.61	0.20*	1.09	0.00	1.09
9.75	0.12	0.61	0.20*	1.07	0.00	1.07
9.80	0.12	0.61	0.20*	1.06	0.00	1.06
9.85	0.13	0.61	0.20*	1.05	0.00	1.05
9.90	0.13	0.62	0.21*	1.04	0.00	1.04
9.95	0.13	0.62	0.21*	1.03	0.00	1.03
10.00	0.13	0.62	0.21*	1.02	0.00	1.02
10.05	0.13	0.62	0.22*	1.00	0.00	1.00
10.10	0.14	0.62	0.22*	0.99	0.00	0.99
10.15	0.14	0.62	0.23*	0.98	0.00	0.98
10.20	0.15	0.62	0.25*	0.97	0.00	0.97
10.25	0.17	0.62	0.27*	0.96	0.00	0.96
10.30	0.18	0.62	0.29*	0.96	0.00	0.96
10.35	2.00	0.62	5.00	0.95	0.00	0.95
10.40	2.00	0.63	5.00	0.95	0.00	0.95
10.45	2.00	0.63	5.00	0.95	0.00	0.95
10.50	2.00	0.63	5.00	0.95	0.00	0.95
10.55	2.00	0.63	5.00	0.95	0.00	0.95
10.60	2.00	0.63	5.00	0.95	0.00	0.95
10.65	2.00	0.63	5.00	0.95	0.00	0.95
10.70	2.00	0.63	5.00	0.95	0.00	0.95
10.75	2.00	0.63	5.00	0.95	0.00	0.95
10.80	2.00	0.63	5.00	0.95	0.00	0.95
10.85	2.00	0.63	5.00	0.95	0.00	0.95
10.90	2.00	0.63	5.00	0.95	0.00	0.95
10.95	2.00	0.64	5.00	0.95	0.00	0.95

11.00	2.00	0.64	5.00	0.95	0.00	0.95
11.05	2.00	0.64	5.00	0.95	0.00	0.95
11.10	2.00	0.64	5.00	0.95	0.00	0.95
11.15	2.00	0.64	5.00	0.95	0.00	0.95
11.20	2.00	0.64	5.00	0.95	0.00	0.95
11.25	2.00	0.64	5.00	0.95	0.00	0.95
11.30	2.00	0.64	5.00	0.95	0.00	0.95
11.35	2.00	0.64	5.00	0.95	0.00	0.95
11.40	2.00	0.64	5.00	0.95	0.00	0.95
11.45	2.00	0.64	5.00	0.95	0.00	0.95
11.50	2.00	0.64	5.00	0.95	0.00	0.95
11.55	2.00	0.65	5.00	0.95	0.00	0.95
11.60	2.00	0.65	5.00	0.95	0.00	0.95
11.65	2.00	0.65	5.00	0.95	0.00	0.95
11.70	2.00	0.65	5.00	0.95	0.00	0.95
11.75	2.00	0.65	5.00	0.95	0.00	0.95
11.80	2.00	0.65	5.00	0.95	0.00	0.95
11.85	2.00	0.65	5.00	0.95	0.00	0.95
11.90	2.00	0.65	5.00	0.95	0.00	0.95
11.95	2.00	0.65	5.00	0.95	0.00	0.95
12.00	2.00	0.65	5.00	0.95	0.00	0.95
12.05	2.00	0.65	5.00	0.95	0.00	0.95
12.10	2.00	0.65	5.00	0.95	0.00	0.95
12.15	2.00	0.65	5.00	0.95	0.00	0.95
12.20	2.00	0.66	5.00	0.95	0.00	0.95
12.25	2.00	0.66	5.00	0.95	0.00	0.95
12.30	2.00	0.66	5.00	0.95	0.00	0.95
12.35	2.00	0.66	5.00	0.95	0.00	0.95
12.40	2.00	0.66	5.00	0.95	0.00	0.95
12.45	2.00	0.66	5.00	0.95	0.00	0.95
12.50	2.00	0.66	5.00	0.95	0.00	0.95
12.55	2.00	0.66	5.00	0.95	0.00	0.95
12.60	2.00	0.66	5.00	0.95	0.00	0.95
12.65	2.00	0.66	5.00	0.95	0.00	0.95
12.70	2.00	0.66	5.00	0.95	0.00	0.95
12.75	2.00	0.66	5.00	0.95	0.00	0.95
12.80	2.00	0.66	5.00	0.95	0.00	0.95
12.85	2.00	0.66	5.00	0.95	0.00	0.95
12.90	2.00	0.67	5.00	0.95	0.00	0.95
12.95	0.16	0.67	0.24*	0.95	0.00	0.95
13.00	0.13	0.67	0.19*	0.94	0.00	0.94
13.05	0.12	0.67	0.18*	0.93	0.00	0.93
13.10	0.12	0.67	0.17*	0.92	0.00	0.92
13.15	0.12	0.67	0.17*	0.90	0.00	0.90
13.20	0.12	0.67	0.17*	0.89	0.00	0.89
13.25	0.12	0.67	0.17*	0.87	0.00	0.87
13.30	0.12	0.67	0.18*	0.86	0.00	0.86
13.35	0.12	0.67	0.18*	0.84	0.00	0.84
13.40	0.12	0.67	0.18*	0.83	0.00	0.83
13.45	0.12	0.67	0.18*	0.81	0.00	0.81
13.50	0.12	0.67	0.18*	0.80	0.00	0.80
13.55	0.12	0.67	0.18*	0.79	0.00	0.79
13.60	0.12	0.67	0.18*	0.77	0.00	0.77
13.65	0.12	0.67	0.18*	0.76	0.00	0.76
13.70	0.12	0.68	0.18*	0.74	0.00	0.74
13.75	0.12	0.68	0.18*	0.73	0.00	0.73
13.80	0.12	0.68	0.18*	0.72	0.00	0.72
13.85	0.12	0.68	0.18*	0.70	0.00	0.70
13.90	0.12	0.68	0.18*	0.69	0.00	0.69
13.95	0.12	0.68	0.18*	0.67	0.00	0.67
14.00	0.13	0.68	0.19*	0.66	0.00	0.66
14.05	0.14	0.68	0.20*	0.65	0.00	0.65
14.10	0.17	0.68	0.24*	0.64	0.00	0.64

14.15	0.20	0.68	0.29*	0.63	0.00	0.63
14.20	0.23	0.68	0.33*	0.62	0.00	0.62
14.25	2.00	0.68	5.00	0.62	0.00	0.62
14.30	2.00	0.68	5.00	0.62	0.00	0.62
14.35	2.00	0.68	5.00	0.62	0.00	0.62
14.40	2.00	0.68	5.00	0.62	0.00	0.62
14.45	2.00	0.68	5.00	0.62	0.00	0.62
14.50	2.00	0.68	5.00	0.62	0.00	0.62
14.55	0.16	0.69	0.24*	0.62	0.00	0.62
14.60	0.14	0.69	0.20*	0.61	0.00	0.61
14.65	0.13	0.69	0.19*	0.60	0.00	0.60
14.70	0.13	0.69	0.18*	0.59	0.00	0.59
14.75	0.13	0.69	0.18*	0.57	0.00	0.57
14.80	0.13	0.69	0.18*	0.56	0.00	0.56
14.85	0.13	0.69	0.18*	0.55	0.00	0.55
14.90	0.13	0.69	0.18*	0.54	0.00	0.54
14.95	0.13	0.69	0.18*	0.52	0.00	0.52
15.00	0.13	0.69	0.19*	0.51	0.00	0.51
15.05	0.13	0.69	0.19*	0.50	0.00	0.50
15.10	0.13	0.69	0.19*	0.49	0.00	0.49
15.15	0.14	0.69	0.20*	0.47	0.00	0.47
15.20	0.14	0.69	0.21*	0.46	0.00	0.46
15.25	0.15	0.69	0.22*	0.45	0.00	0.45
15.30	0.16	0.69	0.23*	0.44	0.00	0.44
15.35	0.17	0.69	0.24*	0.42	0.00	0.42
15.40	0.18	0.69	0.26*	0.41	0.00	0.41
15.45	0.20	0.69	0.28*	0.40	0.00	0.40
15.50	0.23	0.70	0.33*	0.39	0.00	0.39
15.55	0.27	0.70	0.38*	0.38	0.00	0.38
15.60	0.31	0.70	0.45*	0.37	0.00	0.37
15.65	0.37	0.70	0.53*	0.36	0.00	0.36
15.70	0.43	0.70	0.62*	0.36	0.00	0.36
15.75	0.50	0.70	0.72*	0.35	0.00	0.35
15.80	0.63	0.70	0.91*	0.34	0.00	0.34
15.85	0.79	0.70	1.13	0.34	0.00	0.34
15.90	0.97	0.70	1.39	0.33	0.00	0.33
15.95	1.19	0.70	1.70	0.33	0.00	0.33
16.00	1.43	0.70	2.05	0.33	0.00	0.33
16.05	1.71	0.70	2.44	0.33	0.00	0.33
16.10	1.91	0.70	2.73	0.33	0.00	0.33
16.15	2.01	0.70	2.86	0.33	0.00	0.33
16.20	2.10	0.70	3.00	0.33	0.00	0.33
16.25	2.20	0.70	3.14	0.33	0.00	0.33
16.30	2.31	0.70	3.28	0.33	0.00	0.33
16.35	2.41	0.70	3.43	0.33	0.00	0.33
16.40	2.52	0.70	3.59	0.33	0.00	0.33
16.45	2.60	0.70	3.69	0.33	0.00	0.33
16.50	2.66	0.70	3.78	0.33	0.00	0.33
16.55	2.66	0.70	3.78	0.33	0.00	0.33
16.60	2.66	0.71	3.77	0.33	0.00	0.33
16.65	2.66	0.71	3.77	0.33	0.00	0.33
16.70	2.66	0.71	3.77	0.33	0.00	0.33
16.75	2.66	0.71	3.77	0.33	0.00	0.33
16.80	2.66	0.71	3.77	0.33	0.00	0.33
16.85	2.66	0.71	3.76	0.33	0.00	0.33
16.90	2.66	0.71	3.76	0.33	0.00	0.33
16.95	2.66	0.71	3.76	0.33	0.00	0.33
17.00	2.66	0.71	3.76	0.33	0.00	0.33
17.05	2.66	0.71	3.75	0.33	0.00	0.33
17.10	2.66	0.71	3.75	0.33	0.00	0.33
17.15	2.66	0.71	3.75	0.33	0.00	0.33
17.20	2.66	0.71	3.75	0.33	0.00	0.33
17.25	2.66	0.71	3.75	0.33	0.00	0.33

17.30	2.66	0.71	3.74	0.33	0.00	0.33
17.35	2.66	0.71	3.74	0.33	0.00	0.33
17.40	2.66	0.71	3.74	0.33	0.00	0.33
17.45	2.66	0.71	3.74	0.33	0.00	0.33
17.50	2.66	0.71	3.74	0.33	0.00	0.33
17.55	2.66	0.71	3.73	0.33	0.00	0.33
17.60	2.66	0.71	3.73	0.33	0.00	0.33
17.65	2.66	0.71	3.73	0.33	0.00	0.33
17.70	2.66	0.71	3.73	0.33	0.00	0.33
17.75	2.66	0.71	3.73	0.33	0.00	0.33
17.80	2.66	0.71	3.72	0.33	0.00	0.33
17.85	2.66	0.72	3.72	0.33	0.00	0.33
17.90	2.66	0.72	3.72	0.33	0.00	0.33
17.95	2.66	0.72	3.72	0.33	0.00	0.33
18.00	2.66	0.72	3.72	0.33	0.00	0.33
18.05	2.66	0.72	3.71	0.33	0.00	0.33
18.10	2.66	0.72	3.71	0.33	0.00	0.33
18.15	2.66	0.72	3.71	0.33	0.00	0.33
18.20	2.66	0.72	3.71	0.33	0.00	0.33
18.25	2.66	0.72	3.71	0.33	0.00	0.33
18.30	2.66	0.72	3.70	0.33	0.00	0.33
18.35	2.66	0.72	3.70	0.33	0.00	0.33
18.40	2.66	0.72	3.70	0.33	0.00	0.33
18.45	2.66	0.72	3.70	0.33	0.00	0.33
18.50	2.66	0.72	3.70	0.33	0.00	0.33
18.55	2.66	0.72	3.70	0.33	0.00	0.33
18.60	2.66	0.72	3.69	0.33	0.00	0.33
18.65	2.66	0.72	3.69	0.33	0.00	0.33
18.70	2.66	0.72	3.69	0.33	0.00	0.33
18.75	2.66	0.72	3.69	0.33	0.00	0.33
18.80	2.66	0.72	3.69	0.33	0.00	0.33
18.85	2.66	0.72	3.69	0.33	0.00	0.33
18.90	2.66	0.72	3.68	0.33	0.00	0.33
18.95	2.66	0.72	3.68	0.33	0.00	0.33
19.00	2.66	0.72	3.68	0.33	0.00	0.33
19.05	2.66	0.72	3.68	0.33	0.00	0.33
19.10	2.66	0.72	3.68	0.33	0.00	0.33
19.15	2.66	0.72	3.68	0.33	0.00	0.33
19.20	2.66	0.72	3.67	0.33	0.00	0.33
19.25	2.66	0.72	3.67	0.33	0.00	0.33
19.30	2.66	0.73	3.67	0.33	0.00	0.33
19.35	2.66	0.73	3.67	0.33	0.00	0.33
19.40	2.66	0.73	3.67	0.33	0.00	0.33
19.45	2.66	0.73	3.67	0.33	0.00	0.33
19.50	2.63	0.73	3.63	0.33	0.00	0.33
19.55	2.41	0.73	3.32	0.33	0.00	0.33
19.60	2.21	0.73	3.04	0.33	0.00	0.33
19.65	2.02	0.73	2.77	0.33	0.00	0.33
19.70	1.87	0.73	2.57	0.33	0.00	0.33
19.75	1.81	0.73	2.49	0.33	0.00	0.33
19.80	1.76	0.73	2.41	0.33	0.00	0.33
19.85	1.70	0.73	2.34	0.33	0.00	0.33
19.90	1.65	0.73	2.26	0.33	0.00	0.33
19.95	1.60	0.73	2.19	0.33	0.00	0.33
20.00	1.55	0.73	2.12	0.33	0.00	0.33
20.05	1.54	0.73	2.12	0.33	0.00	0.33
20.10	1.56	0.73	2.13	0.33	0.00	0.33
20.15	1.57	0.73	2.15	0.33	0.00	0.33
20.20	1.58	0.73	2.16	0.33	0.00	0.33
20.25	1.59	0.73	2.18	0.33	0.00	0.33
20.30	1.60	0.73	2.19	0.33	0.00	0.33
20.35	1.61	0.73	2.20	0.33	0.00	0.33
20.40	1.61	0.73	2.19	0.33	0.00	0.33

20.45	1.60	0.73	2.19	0.33	0.00	0.33
20.50	1.60	0.73	2.18	0.33	0.00	0.33
20.55	1.59	0.73	2.18	0.33	0.00	0.33
20.60	1.59	0.73	2.17	0.33	0.00	0.33
20.65	1.59	0.73	2.16	0.33	0.00	0.33
20.70	1.59	0.73	2.17	0.33	0.00	0.33
20.75	1.61	0.73	2.19	0.33	0.00	0.33
20.80	1.62	0.73	2.21	0.33	0.00	0.33
20.85	1.63	0.73	2.22	0.33	0.00	0.33
20.90	1.64	0.73	2.24	0.33	0.00	0.33
20.95	1.66	0.73	2.25	0.33	0.00	0.33
21.00	1.67	0.74	2.27	0.33	0.00	0.33
21.05	1.63	0.74	2.22	0.33	0.00	0.33
21.10	1.60	0.74	2.17	0.33	0.00	0.33
21.15	1.57	0.74	2.13	0.33	0.00	0.33
21.20	1.54	0.74	2.09	0.33	0.00	0.33
21.25	1.50	0.74	2.04	0.33	0.00	0.33
21.30	1.47	0.74	2.00	0.33	0.00	0.33
21.35	1.42	0.74	1.92	0.33	0.00	0.33
21.40	1.34	0.74	1.81	0.33	0.00	0.33
21.45	1.26	0.74	1.71	0.33	0.00	0.33
21.50	1.19	0.74	1.61	0.33	0.00	0.33
21.55	1.12	0.74	1.51	0.33	0.00	0.33
21.60	1.05	0.74	1.42	0.33	0.00	0.33
21.65	0.99	0.74	1.34	0.33	0.00	0.33
21.70	0.97	0.74	1.31	0.33	0.00	0.33
21.75	0.95	0.74	1.28	0.33	0.00	0.33
21.80	0.93	0.74	1.26	0.33	0.00	0.33
21.85	0.91	0.74	1.24	0.33	0.00	0.33
21.90	0.90	0.74	1.21	0.33	0.00	0.33
21.95	0.88	0.74	1.19	0.33	0.00	0.33
22.00	0.85	0.74	1.15	0.33	0.00	0.33
22.05	0.79	0.74	1.06	0.33	0.00	0.33
22.10	0.73	0.74	0.98*	0.33	0.00	0.33
22.15	0.68	0.74	0.91*	0.33	0.00	0.33
22.20	0.63	0.74	0.85*	0.33	0.00	0.33
22.25	0.59	0.74	0.79*	0.33	0.00	0.33
22.30	0.55	0.74	0.74*	0.33	0.00	0.33
22.35	0.54	0.74	0.73*	0.33	0.00	0.33
22.40	0.54	0.74	0.73*	0.32	0.00	0.32
22.45	0.54	0.74	0.73*	0.32	0.00	0.32
22.50	0.54	0.74	0.73*	0.32	0.00	0.32
22.55	0.54	0.74	0.73*	0.32	0.00	0.32
22.60	0.55	0.74	0.73*	0.32	0.00	0.32
22.65	0.54	0.74	0.73*	0.32	0.00	0.32
22.70	0.52	0.74	0.70*	0.32	0.00	0.32
22.75	0.50	0.74	0.68*	0.32	0.00	0.32
22.80	0.49	0.74	0.66*	0.32	0.00	0.32
22.85	0.47	0.74	0.63*	0.32	0.00	0.32
22.90	0.45	0.74	0.61*	0.31	0.00	0.31
22.95	0.44	0.74	0.59*	0.31	0.00	0.31
23.00	0.44	0.74	0.59*	0.31	0.00	0.31
23.05	0.45	0.74	0.60*	0.31	0.00	0.31
23.10	0.46	0.75	0.62*	0.31	0.00	0.31
23.15	0.47	0.75	0.64*	0.31	0.00	0.31
23.20	0.49	0.75	0.65*	0.31	0.00	0.31
23.25	0.50	0.75	0.67*	0.31	0.00	0.31
23.30	0.52	0.75	0.70*	0.30	0.00	0.30
23.35	0.53	0.75	0.72*	0.30	0.00	0.30
23.40	0.55	0.75	0.74*	0.30	0.00	0.30
23.45	0.57	0.75	0.77*	0.30	0.00	0.30
23.50	0.59	0.75	0.80*	0.30	0.00	0.30
23.55	0.62	0.75	0.83*	0.30	0.00	0.30

23.60	0.65	0.75	0.86*	0.30	0.00	0.30
23.65	0.67	0.75	0.89*	0.30	0.00	0.30
23.70	0.68	0.75	0.91*	0.30	0.00	0.30
23.75	0.69	0.75	0.93*	0.30	0.00	0.30
23.80	0.71	0.75	0.95*	0.29	0.00	0.29
23.85	0.72	0.75	0.97*	0.29	0.00	0.29
23.90	0.74	0.75	0.99*	0.29	0.00	0.29
23.95	0.76	0.75	1.01	0.29	0.00	0.29
24.00	0.72	0.75	0.96*	0.29	0.00	0.29
24.05	0.68	0.75	0.91*	0.29	0.00	0.29
24.10	0.65	0.75	0.87*	0.29	0.00	0.29
24.15	0.63	0.75	0.84*	0.29	0.00	0.29
24.20	0.60	0.75	0.80*	0.29	0.00	0.29
24.25	0.58	0.75	0.78*	0.29	0.00	0.29
24.30	0.57	0.75	0.76*	0.29	0.00	0.29
24.35	0.57	0.75	0.75*	0.29	0.00	0.29
24.40	0.56	0.75	0.75*	0.29	0.00	0.29
24.45	0.56	0.75	0.75*	0.28	0.00	0.28
24.50	0.56	0.75	0.74*	0.28	0.00	0.28
24.55	0.56	0.75	0.74*	0.28	0.00	0.28
24.60	0.56	0.75	0.75*	0.28	0.00	0.28
24.65	0.65	0.75	0.87*	0.28	0.00	0.28
24.70	0.77	0.75	1.02	0.28	0.00	0.28
24.75	0.90	0.75	1.20	0.28	0.00	0.28
24.80	1.05	0.75	1.39	0.28	0.00	0.28
24.85	1.21	0.75	1.60	0.28	0.00	0.28
24.90	1.38	0.75	1.84	0.28	0.00	0.28
24.95	1.53	0.75	2.04	0.28	0.00	0.28
25.00	1.60	0.75	2.12	0.28	0.00	0.28
25.05	1.67	0.75	2.21	0.28	0.00	0.28
25.10	1.74	0.75	2.31	0.28	0.00	0.28
25.15	1.81	0.75	2.40	0.28	0.00	0.28
25.20	1.88	0.75	2.50	0.28	0.00	0.28
25.25	1.96	0.75	2.60	0.28	0.00	0.28
25.30	1.99	0.75	2.64	0.28	0.00	0.28
25.35	2.00	0.75	2.65	0.28	0.00	0.28
25.40	2.01	0.75	2.66	0.28	0.00	0.28
25.45	2.02	0.75	2.68	0.28	0.00	0.28
25.50	2.03	0.75	2.69	0.28	0.00	0.28
25.55	2.04	0.75	2.70	0.28	0.00	0.28
25.60	2.05	0.75	2.71	0.28	0.00	0.28
25.65	2.03	0.75	2.70	0.28	0.00	0.28
25.70	2.02	0.75	2.68	0.28	0.00	0.28
25.75	2.01	0.75	2.67	0.28	0.00	0.28
25.80	2.00	0.75	2.65	0.28	0.00	0.28
25.85	1.99	0.76	2.64	0.28	0.00	0.28
25.90	1.98	0.76	2.62	0.28	0.00	0.28
25.95	1.97	0.76	2.61	0.28	0.00	0.28
26.00	1.97	0.76	2.60	0.28	0.00	0.28
26.05	1.96	0.76	2.59	0.28	0.00	0.28
26.10	1.95	0.76	2.59	0.28	0.00	0.28
26.15	1.95	0.76	2.58	0.28	0.00	0.28
26.20	1.94	0.76	2.57	0.28	0.00	0.28
26.25	1.93	0.76	2.56	0.28	0.00	0.28
26.30	1.87	0.76	2.47	0.28	0.00	0.28
26.35	1.80	0.76	2.38	0.28	0.00	0.28
26.40	1.74	0.76	2.30	0.28	0.00	0.28
26.45	1.68	0.76	2.22	0.28	0.00	0.28
26.50	1.62	0.76	2.14	0.28	0.00	0.28
26.55	1.56	0.76	2.06	0.28	0.00	0.28
26.60	1.51	0.76	2.00	0.28	0.00	0.28
26.65	1.47	0.76	1.95	0.28	0.00	0.28
26.70	1.44	0.76	1.89	0.28	0.00	0.28

26.75	1.40	0.76	1.84	0.28	0.00	0.28
26.80	1.36	0.76	1.80	0.28	0.00	0.28
26.85	1.33	0.76	1.75	0.28	0.00	0.28
26.90	1.29	0.76	1.70	0.28	0.00	0.28
26.95	1.30	0.76	1.71	0.28	0.00	0.28
27.00	1.30	0.76	1.72	0.28	0.00	0.28
27.05	1.30	0.76	1.72	0.28	0.00	0.28
27.10	1.31	0.76	1.72	0.28	0.00	0.28
27.15	1.31	0.76	1.72	0.28	0.00	0.28
27.20	1.31	0.76	1.73	0.28	0.00	0.28
27.25	1.32	0.76	1.74	0.28	0.00	0.28
27.30	1.35	0.76	1.78	0.28	0.00	0.28
27.35	1.38	0.76	1.81	0.28	0.00	0.28
27.40	1.40	0.76	1.85	0.28	0.00	0.28
27.45	1.43	0.76	1.88	0.28	0.00	0.28
27.50	1.46	0.76	1.92	0.28	0.00	0.28
27.55	1.48	0.76	1.95	0.28	0.00	0.28
27.60	1.49	0.76	1.96	0.28	0.00	0.28
27.65	1.49	0.76	1.96	0.28	0.00	0.28
27.70	1.49	0.76	1.95	0.28	0.00	0.28
27.75	1.48	0.76	1.95	0.28	0.00	0.28
27.80	1.48	0.76	1.95	0.28	0.00	0.28
27.85	1.48	0.76	1.95	0.28	0.00	0.28
27.90	1.48	0.76	1.95	0.28	0.00	0.28
27.95	1.49	0.76	1.95	0.28	0.00	0.28
28.00	1.49	0.76	1.96	0.28	0.00	0.28
28.05	1.49	0.76	1.96	0.28	0.00	0.28
28.10	1.50	0.76	1.97	0.28	0.00	0.28
28.15	1.50	0.76	1.97	0.28	0.00	0.28
28.20	1.51	0.76	1.98	0.28	0.00	0.28
28.25	1.51	0.76	1.98	0.28	0.00	0.28
28.30	1.51	0.76	1.98	0.28	0.00	0.28
28.35	1.51	0.76	1.98	0.28	0.00	0.28
28.40	1.51	0.76	1.98	0.28	0.00	0.28
28.45	1.51	0.76	1.98	0.28	0.00	0.28
28.50	1.51	0.76	1.98	0.28	0.00	0.28
28.55	1.50	0.76	1.97	0.28	0.00	0.28
28.60	1.48	0.76	1.95	0.28	0.00	0.28
28.65	1.47	0.76	1.92	0.28	0.00	0.28
28.70	1.45	0.76	1.90	0.28	0.00	0.28
28.75	1.44	0.76	1.88	0.28	0.00	0.28
28.80	1.42	0.76	1.87	0.28	0.00	0.28
28.85	1.41	0.76	1.85	0.28	0.00	0.28
28.90	1.44	0.76	1.88	0.28	0.00	0.28
28.95	1.49	0.76	1.95	0.28	0.00	0.28
29.00	1.55	0.76	2.03	0.28	0.00	0.28
29.05	1.61	0.76	2.10	0.28	0.00	0.28
29.10	1.67	0.76	2.19	0.28	0.00	0.28
29.15	1.74	0.76	2.27	0.28	0.00	0.28
29.20	1.80	0.76	2.36	0.28	0.00	0.28
29.25	1.81	0.76	2.37	0.28	0.00	0.28
29.30	1.81	0.76	2.37	0.28	0.00	0.28
29.35	1.82	0.76	2.38	0.28	0.00	0.28
29.40	1.82	0.76	2.38	0.28	0.00	0.28
29.45	1.83	0.76	2.39	0.28	0.00	0.28
29.50	1.83	0.76	2.40	0.28	0.00	0.28
29.55	1.85	0.76	2.43	0.28	0.00	0.28
29.60	1.90	0.76	2.48	0.28	0.00	0.28
29.65	1.94	0.76	2.54	0.28	0.00	0.28
29.70	1.99	0.76	2.60	0.28	0.00	0.28
29.75	2.03	0.76	2.66	0.28	0.00	0.28
29.80	2.08	0.77	2.72	0.28	0.00	0.28
29.85	2.13	0.77	2.78	0.28	0.00	0.28

29.90	2.13	0.77	2.79	0.28	0.00	0.28
29.95	2.13	0.77	2.79	0.28	0.00	0.28
30.00	2.13	0.77	2.79	0.28	0.00	0.28
30.05	2.13	0.77	2.78	0.28	0.00	0.28
30.10	2.13	0.77	2.78	0.28	0.00	0.28
30.15	2.13	0.76	2.78	0.28	0.00	0.28
30.20	2.08	0.76	2.72	0.28	0.00	0.28
30.25	1.92	0.76	2.51	0.28	0.00	0.28
30.30	1.78	0.76	2.32	0.28	0.00	0.28
30.35	1.64	0.76	2.14	0.28	0.00	0.28
30.40	1.50	0.76	1.97	0.28	0.00	0.28
30.45	1.38	0.76	1.80	0.28	0.00	0.28
30.50	1.26	0.76	1.65	0.28	0.00	0.28
30.55	1.13	0.76	1.49	0.28	0.00	0.28
30.60	1.01	0.76	1.33	0.28	0.00	0.28
30.65	0.90	0.76	1.18	0.28	0.00	0.28
30.70	0.80	0.76	1.05	0.28	0.00	0.28
30.75	0.71	0.76	0.93*	0.28	0.00	0.28
30.80	0.62	0.76	0.81*	0.27	0.00	0.27
30.85	0.54	0.76	0.71*	0.27	0.00	0.27
30.90	0.46	0.76	0.60*	0.26	0.00	0.26
30.95	0.40	0.76	0.52*	0.26	0.00	0.26
31.00	0.34	0.76	0.45*	0.25	0.00	0.25
31.05	0.30	0.76	0.40*	0.24	0.00	0.24
31.10	0.28	0.76	0.37*	0.24	0.00	0.24
31.15	0.30	0.76	0.39*	0.23	0.00	0.23
31.20	0.35	0.76	0.45*	0.22	0.00	0.22
31.25	0.38	0.76	0.50*	0.22	0.00	0.22
31.30	2.00	0.76	5.00	0.22	0.00	0.22
31.35	2.00	0.76	5.00	0.22	0.00	0.22
31.40	2.00	0.76	5.00	0.22	0.00	0.22
31.45	2.00	0.76	5.00	0.22	0.00	0.22
31.50	2.00	0.76	5.00	0.22	0.00	0.22
31.55	2.00	0.76	5.00	0.22	0.00	0.22
31.60	2.00	0.76	5.00	0.22	0.00	0.22
31.65	2.00	0.76	5.00	0.22	0.00	0.22
31.70	2.00	0.76	5.00	0.22	0.00	0.22
31.75	2.00	0.76	5.00	0.22	0.00	0.22
31.80	2.00	0.76	5.00	0.22	0.00	0.22
31.85	2.00	0.76	5.00	0.22	0.00	0.22
31.90	2.00	0.76	5.00	0.22	0.00	0.22
31.95	2.00	0.76	5.00	0.22	0.00	0.22
32.00	2.00	0.76	5.00	0.22	0.00	0.22
32.05	2.00	0.76	5.00	0.22	0.00	0.22
32.10	2.00	0.76	5.00	0.22	0.00	0.22
32.15	2.00	0.76	5.00	0.22	0.00	0.22
32.20	2.00	0.76	5.00	0.22	0.00	0.22
32.25	2.00	0.76	5.00	0.22	0.00	0.22
32.30	2.00	0.76	5.00	0.22	0.00	0.22
32.35	2.00	0.76	5.00	0.22	0.00	0.22
32.40	2.00	0.76	5.00	0.22	0.00	0.22
32.45	2.00	0.76	5.00	0.22	0.00	0.22
32.50	2.00	0.76	5.00	0.22	0.00	0.22
32.55	2.00	0.76	5.00	0.22	0.00	0.22
32.60	2.00	0.76	5.00	0.22	0.00	0.22
32.65	2.00	0.76	5.00	0.22	0.00	0.22
32.70	2.00	0.76	5.00	0.22	0.00	0.22
32.75	2.00	0.76	5.00	0.22	0.00	0.22
32.80	2.00	0.76	5.00	0.22	0.00	0.22
32.85	2.00	0.76	5.00	0.22	0.00	0.22
32.90	0.25	0.76	0.33*	0.22	0.00	0.22
32.95	0.27	0.76	0.36*	0.21	0.00	0.21
33.00	0.32	0.76	0.42*	0.21	0.00	0.21

33.05	0.38	0.76	0.51*	0.20	0.00	0.20
33.10	0.47	0.76	0.62*	0.19	0.00	0.19
33.15	0.56	0.76	0.74*	0.19	0.00	0.19
33.20	0.63	0.75	0.83*	0.19	0.00	0.19
33.25	0.70	0.75	0.92*	0.19	0.00	0.19
33.30	0.77	0.75	1.02	0.18	0.00	0.18
33.35	0.85	0.75	1.13	0.18	0.00	0.18
33.40	0.94	0.75	1.25	0.18	0.00	0.18
33.45	1.03	0.75	1.37	0.18	0.00	0.18
33.50	1.08	0.75	1.44	0.18	0.00	0.18
33.55	1.11	0.75	1.48	0.18	0.00	0.18
33.60	1.14	0.75	1.52	0.18	0.00	0.18
33.65	1.18	0.75	1.56	0.18	0.00	0.18
33.70	1.21	0.75	1.61	0.18	0.00	0.18
33.75	1.24	0.75	1.65	0.18	0.00	0.18
33.80	1.28	0.75	1.70	0.18	0.00	0.18
33.85	1.31	0.75	1.74	0.18	0.00	0.18
33.90	1.33	0.75	1.77	0.18	0.00	0.18
33.95	1.36	0.75	1.81	0.18	0.00	0.18
34.00	1.39	0.75	1.85	0.18	0.00	0.18
34.05	1.42	0.75	1.89	0.18	0.00	0.18
34.10	1.46	0.75	1.95	0.18	0.00	0.18
34.15	1.45	0.75	1.93	0.18	0.00	0.18
34.20	1.41	0.75	1.88	0.18	0.00	0.18
34.25	1.38	0.75	1.83	0.18	0.00	0.18
34.30	1.34	0.75	1.79	0.18	0.00	0.18
34.35	1.32	0.75	1.75	0.18	0.00	0.18
34.40	1.29	0.75	1.72	0.18	0.00	0.18
34.45	1.26	0.75	1.68	0.18	0.00	0.18
34.50	1.22	0.75	1.63	0.18	0.00	0.18
34.55	1.18	0.75	1.58	0.18	0.00	0.18
34.60	1.14	0.75	1.52	0.18	0.00	0.18
34.65	1.11	0.75	1.48	0.18	0.00	0.18
34.70	1.07	0.75	1.43	0.18	0.00	0.18
34.75	1.03	0.75	1.38	0.18	0.00	0.18
34.80	1.02	0.75	1.36	0.18	0.00	0.18
34.85	1.03	0.75	1.38	0.18	0.00	0.18
34.90	1.04	0.75	1.39	0.18	0.00	0.18
34.95	1.05	0.75	1.41	0.18	0.00	0.18
35.00	1.07	0.75	1.43	0.18	0.00	0.18
35.05	1.08	0.75	1.44	0.18	0.00	0.18
35.10	1.09	0.75	1.46	0.18	0.00	0.18
35.15	1.08	0.75	1.44	0.18	0.00	0.18
35.20	1.07	0.75	1.43	0.18	0.00	0.18
35.25	1.05	0.75	1.41	0.18	0.00	0.18
35.30	1.04	0.75	1.39	0.18	0.00	0.18
35.35	1.03	0.75	1.38	0.18	0.00	0.18
35.40	1.01	0.75	1.36	0.18	0.00	0.18
35.45	1.00	0.75	1.34	0.18	0.00	0.18
35.50	0.98	0.75	1.31	0.18	0.00	0.18
35.55	0.96	0.75	1.28	0.18	0.00	0.18
35.60	0.94	0.75	1.26	0.18	0.00	0.18
35.65	0.92	0.75	1.23	0.18	0.00	0.18
35.70	0.90	0.75	1.21	0.18	0.00	0.18
35.75	0.88	0.74	1.18	0.18	0.00	0.18
35.80	0.88	0.74	1.18	0.18	0.00	0.18
35.85	0.89	0.74	1.19	0.18	0.00	0.18
35.90	0.89	0.74	1.20	0.18	0.00	0.18
35.95	0.90	0.74	1.21	0.18	0.00	0.18
36.00	0.91	0.74	1.22	0.18	0.00	0.18
36.05	0.91	0.74	1.23	0.18	0.00	0.18
36.10	0.92	0.74	1.24	0.18	0.00	0.18
36.15	0.92	0.74	1.24	0.18	0.00	0.18

36.20	0.93	0.74	1.25	0.18	0.00	0.18
36.25	0.93	0.74	1.25	0.18	0.00	0.18
36.30	0.93	0.74	1.25	0.18	0.00	0.18
36.35	0.93	0.74	1.26	0.18	0.00	0.18
36.40	0.94	0.74	1.26	0.18	0.00	0.18
36.45	0.94	0.74	1.27	0.18	0.00	0.18
36.50	0.95	0.74	1.27	0.18	0.00	0.18
36.55	0.95	0.74	1.28	0.18	0.00	0.18
36.60	0.95	0.74	1.29	0.18	0.00	0.18
36.65	0.96	0.74	1.29	0.18	0.00	0.18
36.70	0.96	0.74	1.30	0.18	0.00	0.18
36.75	0.97	0.74	1.30	0.18	0.00	0.18
36.80	0.94	0.74	1.28	0.18	0.00	0.18
36.85	0.92	0.74	1.25	0.18	0.00	0.18
36.90	0.90	0.74	1.22	0.18	0.00	0.18
36.95	0.89	0.74	1.20	0.18	0.00	0.18
37.00	0.87	0.74	1.17	0.18	0.00	0.18
37.05	0.85	0.74	1.15	0.18	0.00	0.18
37.10	0.82	0.74	1.10	0.18	0.00	0.18
37.15	0.77	0.74	1.05	0.18	0.00	0.18
37.20	0.73	0.74	0.99*	0.18	0.00	0.18
37.25	0.70	0.74	0.94*	0.18	0.00	0.18
37.30	0.66	0.74	0.89*	0.18	0.00	0.18
37.35	0.63	0.74	0.85*	0.18	0.00	0.18
37.40	0.60	0.74	0.81*	0.18	0.00	0.18
37.45	0.56	0.74	0.75*	0.18	0.00	0.18
37.50	0.52	0.74	0.71*	0.18	0.00	0.18
37.55	0.50	0.74	0.68*	0.18	0.00	0.18
37.60	0.49	0.74	0.66*	0.18	0.00	0.18
37.65	0.50	0.74	0.67*	0.17	0.00	0.17
37.70	0.54	0.74	0.73*	0.17	0.00	0.17
37.75	0.55	0.74	0.74*	0.17	0.00	0.17
37.80	0.51	0.74	0.69*	0.17	0.00	0.17
37.85	0.52	0.74	0.71*	0.17	0.00	0.17
37.90	0.56	0.74	0.77*	0.17	0.00	0.17
37.95	0.62	0.74	0.85*	0.17	0.00	0.17
38.00	0.69	0.74	0.94*	0.17	0.00	0.17
38.05	0.78	0.73	1.06	0.17	0.00	0.17
38.10	0.82	0.73	1.11	0.17	0.00	0.17
38.15	0.84	0.73	1.14	0.17	0.00	0.17
38.20	0.86	0.73	1.18	0.17	0.00	0.17
38.25	0.89	0.73	1.21	0.17	0.00	0.17
38.30	0.92	0.73	1.25	0.17	0.00	0.17
38.35	0.94	0.73	1.28	0.17	0.00	0.17
38.40	0.96	0.73	1.31	0.17	0.00	0.17
38.45	0.95	0.73	1.29	0.17	0.00	0.17
38.50	0.93	0.73	1.28	0.17	0.00	0.17
38.55	0.92	0.73	1.26	0.17	0.00	0.17
38.60	0.91	0.73	1.24	0.17	0.00	0.17
38.65	0.90	0.73	1.23	0.17	0.00	0.17
38.70	0.89	0.73	1.21	0.17	0.00	0.17
38.75	0.87	0.73	1.19	0.17	0.00	0.17
38.80	0.85	0.73	1.17	0.17	0.00	0.17
38.85	0.84	0.73	1.14	0.17	0.00	0.17
38.90	0.82	0.73	1.12	0.17	0.00	0.17
38.95	0.80	0.73	1.10	0.17	0.00	0.17
39.00	0.79	0.73	1.08	0.17	0.00	0.17
39.05	0.78	0.73	1.06	0.17	0.00	0.17
39.10	0.77	0.73	1.05	0.17	0.00	0.17
39.15	0.76	0.73	1.04	0.17	0.00	0.17
39.20	0.75	0.73	1.03	0.17	0.00	0.17
39.25	0.74	0.73	1.02	0.17	0.00	0.17
39.30	0.73	0.73	1.01	0.17	0.00	0.17

39.35	0.72	0.73	0.99*	0.17	0.00	0.17
39.40	0.72	0.73	0.99*	0.17	0.00	0.17
39.45	0.72	0.73	0.98*	0.17	0.00	0.17
39.50	0.71	0.73	0.98*	0.17	0.00	0.17
39.55	0.71	0.73	0.98*	0.17	0.00	0.17
39.60	0.71	0.73	0.98*	0.17	0.00	0.17
39.65	0.71	0.73	0.97*	0.17	0.00	0.17
39.70	0.71	0.73	0.98*	0.17	0.00	0.17
39.75	0.74	0.73	1.01	0.17	0.00	0.17
39.80	0.77	0.73	1.06	0.17	0.00	0.17
39.85	0.80	0.73	1.10	0.17	0.00	0.17
39.90	0.84	0.73	1.15	0.17	0.00	0.17
39.95	0.87	0.73	1.20	0.17	0.00	0.17
40.00	0.91	0.73	1.26	0.17	0.00	0.17
40.05	0.92	0.73	1.26	0.17	0.00	0.17
40.10	0.88	0.73	1.21	0.17	0.00	0.17
40.15	0.84	0.72	1.16	0.17	0.00	0.17
40.20	0.81	0.72	1.12	0.17	0.00	0.17
40.25	0.78	0.72	1.07	0.17	0.00	0.17
40.30	0.74	0.72	1.02	0.17	0.00	0.17
40.35	0.71	0.72	0.98*	0.17	0.00	0.17
40.40	0.68	0.72	0.94*	0.17	0.00	0.17
40.45	0.66	0.72	0.91*	0.17	0.00	0.17
40.50	0.63	0.72	0.87*	0.17	0.00	0.17
40.55	0.61	0.72	0.84*	0.16	0.00	0.16
40.60	0.58	0.72	0.80*	0.16	0.00	0.16
40.65	0.56	0.72	0.77*	0.16	0.00	0.16
40.70	0.54	0.72	0.74*	0.16	0.00	0.16
40.75	0.52	0.72	0.72*	0.15	0.00	0.15
40.80	0.50	0.72	0.70*	0.15	0.00	0.15
40.85	0.49	0.72	0.68*	0.15	0.00	0.15
40.90	0.48	0.72	0.66*	0.14	0.00	0.14
40.95	0.46	0.72	0.64*	0.14	0.00	0.14
41.00	0.45	0.72	0.62*	0.14	0.00	0.14
41.05	0.44	0.72	0.62*	0.13	0.00	0.13
41.10	0.44	0.72	0.61*	0.13	0.00	0.13
41.15	0.44	0.72	0.61*	0.12	0.00	0.12
41.20	0.43	0.72	0.60*	0.12	0.00	0.12
41.25	0.43	0.72	0.60*	0.12	0.00	0.12
41.30	0.43	0.72	0.60*	0.11	0.00	0.11
41.35	0.42	0.72	0.59*	0.11	0.00	0.11
41.40	0.41	0.72	0.57*	0.11	0.00	0.11
41.45	0.40	0.72	0.56*	0.10	0.00	0.10
41.50	0.39	0.72	0.54*	0.10	0.00	0.10
41.55	0.38	0.72	0.53*	0.09	0.00	0.09
41.60	0.37	0.72	0.51*	0.09	0.00	0.09
41.65	0.36	0.72	0.50*	0.08	0.00	0.08
41.70	0.37	0.72	0.52*	0.08	0.00	0.08
41.75	0.40	0.72	0.56*	0.07	0.00	0.07
41.80	0.43	0.72	0.60*	0.07	0.00	0.07
41.85	0.46	0.72	0.64*	0.07	0.00	0.07
41.90	0.50	0.72	0.70*	0.06	0.00	0.06
41.95	0.54	0.72	0.75*	0.06	0.00	0.06
42.00	0.58	0.72	0.81*	0.06	0.00	0.06
42.05	0.60	0.72	0.84*	0.06	0.00	0.06
42.10	0.63	0.72	0.88*	0.06	0.00	0.06
42.15	0.65	0.72	0.91*	0.06	0.00	0.06
42.20	0.68	0.71	0.95*	0.06	0.00	0.06
42.25	0.70	0.71	0.99*	0.06	0.00	0.06
42.30	0.73	0.71	1.02	0.05	0.00	0.05
42.35	0.76	0.71	1.07	0.05	0.00	0.05
42.40	0.79	0.71	1.11	0.05	0.00	0.05
42.45	0.83	0.71	1.16	0.05	0.00	0.05

42.50	0.86	0.71	1.21	0.05	0.00	0.05
42.55	0.89	0.71	1.25	0.05	0.00	0.05
42.60	0.93	0.71	1.31	0.05	0.00	0.05
42.65	0.97	0.71	1.36	0.05	0.00	0.05
42.70	0.98	0.71	1.37	0.05	0.00	0.05
42.75	0.98	0.71	1.38	0.05	0.00	0.05
42.80	0.99	0.71	1.39	0.05	0.00	0.05
42.85	1.00	0.71	1.41	0.05	0.00	0.05
42.90	1.01	0.71	1.42	0.05	0.00	0.05
42.95	1.02	0.71	1.43	0.05	0.00	0.05
43.00	1.02	0.71	1.44	0.05	0.00	0.05
43.05	1.02	0.71	1.44	0.05	0.00	0.05
43.10	1.02	0.71	1.44	0.05	0.00	0.05
43.15	1.03	0.71	1.44	0.05	0.00	0.05
43.20	1.03	0.71	1.45	0.05	0.00	0.05
43.25	1.03	0.71	1.45	0.05	0.00	0.05
43.30	1.03	0.71	1.45	0.05	0.00	0.05
43.35	1.02	0.71	1.44	0.05	0.00	0.05
43.40	1.01	0.71	1.42	0.05	0.00	0.05
43.45	1.00	0.71	1.41	0.05	0.00	0.05
43.50	0.99	0.71	1.40	0.05	0.00	0.05
43.55	0.98	0.71	1.38	0.05	0.00	0.05
43.60	0.97	0.71	1.37	0.05	0.00	0.05
43.65	0.95	0.71	1.34	0.05	0.00	0.05
43.70	0.92	0.71	1.30	0.05	0.00	0.05
43.75	0.88	0.71	1.25	0.05	0.00	0.05
43.80	0.85	0.71	1.20	0.05	0.00	0.05
43.85	0.82	0.71	1.16	0.05	0.00	0.05
43.90	0.79	0.71	1.12	0.05	0.00	0.05
43.95	0.76	0.71	1.07	0.05	0.00	0.05
44.00	0.73	0.71	1.04	0.05	0.00	0.05
44.05	0.71	0.71	1.01	0.05	0.00	0.05
44.10	0.69	0.70	0.97*	0.05	0.00	0.05
44.15	0.67	0.70	0.94*	0.05	0.00	0.05
44.20	0.65	0.70	0.92*	0.05	0.00	0.05
44.25	0.63	0.70	0.89*	0.05	0.00	0.05
44.30	0.62	0.70	0.87*	0.05	0.00	0.05
44.35	0.63	0.70	0.90*	0.05	0.00	0.05
44.40	0.65	0.70	0.93*	0.05	0.00	0.05
44.45	0.67	0.70	0.96*	0.05	0.00	0.05
44.50	0.70	0.70	0.99*	0.05	0.00	0.05
44.55	0.72	0.70	1.03	0.05	0.00	0.05
44.60	0.75	0.70	1.07	0.05	0.00	0.05
44.65	0.74	0.70	1.06	0.05	0.00	0.05
44.70	0.71	0.70	1.02	0.05	0.00	0.05
44.75	0.68	0.70	0.97*	0.05	0.00	0.05
44.80	0.66	0.70	0.94*	0.05	0.00	0.05
44.85	0.63	0.70	0.90*	0.05	0.00	0.05
44.90	0.61	0.70	0.87*	0.05	0.00	0.05
44.95	0.58	0.70	0.83*	0.05	0.00	0.05
45.00	0.53	0.70	0.75*	0.05	0.00	0.05
45.05	0.47	0.70	0.68*	0.05	0.00	0.05
45.10	0.42	0.70	0.60*	0.05	0.00	0.05
45.15	0.38	0.70	0.54*	0.05	0.00	0.05
45.20	0.33	0.70	0.47*	0.05	0.00	0.05
45.25	0.29	0.70	0.42*	0.04	0.00	0.04
45.30	0.29	0.70	0.42*	0.03	0.00	0.03
45.35	0.36	0.70	0.52*	0.03	0.00	0.03
45.40	0.47	0.70	0.67*	0.03	0.00	0.03
45.45	2.00	0.70	5.00	0.03	0.00	0.03
45.50	2.00	0.70	5.00	0.03	0.00	0.03
45.55	2.00	0.70	5.00	0.03	0.00	0.03
45.60	2.00	0.70	5.00	0.03	0.00	0.03

45.65	2.00	0.70	5.00	0.03	0.00	0.03
45.70	2.00	0.70	5.00	0.03	0.00	0.03
45.75	2.00	0.70	5.00	0.03	0.00	0.03
45.80	2.00	0.70	5.00	0.03	0.00	0.03
45.85	2.00	0.70	5.00	0.03	0.00	0.03
45.90	2.00	0.70	5.00	0.03	0.00	0.03
45.95	2.00	0.69	5.00	0.03	0.00	0.03
46.00	2.00	0.69	5.00	0.03	0.00	0.03
46.05	2.00	0.69	5.00	0.03	0.00	0.03
46.10	2.00	0.69	5.00	0.03	0.00	0.03
46.15	2.00	0.69	5.00	0.03	0.00	0.03
46.20	2.00	0.69	5.00	0.03	0.00	0.03
46.25	2.00	0.69	5.00	0.03	0.00	0.03
46.30	2.00	0.69	5.00	0.03	0.00	0.03
46.35	2.00	0.69	5.00	0.03	0.00	0.03
46.40	2.00	0.69	5.00	0.03	0.00	0.03
46.45	2.00	0.69	5.00	0.03	0.00	0.03
46.50	2.00	0.69	5.00	0.03	0.00	0.03
46.55	2.00	0.69	5.00	0.03	0.00	0.03
46.60	2.00	0.69	5.00	0.03	0.00	0.03
46.65	2.00	0.69	5.00	0.03	0.00	0.03
46.70	2.00	0.69	5.00	0.03	0.00	0.03
46.75	2.00	0.69	5.00	0.03	0.00	0.03
46.80	2.00	0.69	5.00	0.03	0.00	0.03
46.85	2.00	0.69	5.00	0.03	0.00	0.03
46.90	2.00	0.69	5.00	0.03	0.00	0.03
46.95	0.83	0.69	1.20	0.03	0.00	0.03
47.00	0.63	0.69	0.92*	0.03	0.00	0.03
47.05	0.56	0.69	0.81*	0.03	0.00	0.03
47.10	0.53	0.69	0.76*	0.03	0.00	0.03
47.15	0.52	0.69	0.76*	0.03	0.00	0.03
47.20	0.53	0.69	0.77*	0.03	0.00	0.03
47.25	0.54	0.69	0.78*	0.02	0.00	0.02
47.30	0.50	0.69	0.73*	0.02	0.00	0.02
47.35	0.47	0.69	0.69*	0.02	0.00	0.02
47.40	0.45	0.69	0.66*	0.02	0.00	0.02
47.45	0.43	0.69	0.63*	0.02	0.00	0.02
47.50	0.42	0.69	0.61*	0.01	0.00	0.01
47.55	0.41	0.69	0.60*	0.01	0.00	0.01
47.60	0.40	0.69	0.58*	0.01	0.00	0.01
47.65	0.39	0.69	0.56*	0.01	0.00	0.01
47.70	0.39	0.69	0.56*	0.01	0.00	0.01
47.75	2.00	0.68	5.00	0.01	0.00	0.01
47.80	2.00	0.68	5.00	0.01	0.00	0.01
47.85	2.00	0.68	5.00	0.01	0.00	0.01
47.90	2.00	0.68	5.00	0.01	0.00	0.01
47.95	2.00	0.68	5.00	0.01	0.00	0.01
48.00	2.00	0.68	5.00	0.01	0.00	0.01
48.05	2.00	0.68	5.00	0.01	0.00	0.01
48.10	2.00	0.68	5.00	0.01	0.00	0.01
48.15	2.00	0.68	5.00	0.01	0.00	0.01
48.20	2.00	0.68	5.00	0.01	0.00	0.01
48.25	2.00	0.68	5.00	0.01	0.00	0.01
48.30	0.49	0.68	0.71*	0.01	0.00	0.01
48.35	0.48	0.68	0.71*	0.01	0.00	0.01
48.40	0.52	0.68	0.76*	0.01	0.00	0.01
48.45	0.57	0.68	0.84*	0.00	0.00	0.00
48.50	0.64	0.68	0.94*	0.00	0.00	0.00
48.55	0.72	0.68	1.06	0.00	0.00	0.00
48.60	0.74	0.68	1.09	0.00	0.00	0.00
48.65	0.75	0.68	1.10	0.00	0.00	0.00
48.70	0.76	0.68	1.12	0.00	0.00	0.00
48.75	0.78	0.68	1.15	0.00	0.00	0.00

48.80	0.80	0.68	1.18	0.00	0.00	0.00
48.85	0.84	0.68	1.23	0.00	0.00	0.00
48.90	0.87	0.68	1.29	0.00	0.00	0.00
48.95	0.90	0.68	1.32	0.00	0.00	0.00
49.00	0.92	0.68	1.36	0.00	0.00	0.00
49.05	0.94	0.68	1.39	0.00	0.00	0.00
49.10	0.97	0.68	1.43	0.00	0.00	0.00
49.15	1.00	0.68	1.47	0.00	0.00	0.00
49.20	1.02	0.68	1.51	0.00	0.00	0.00
49.25	0.93	0.68	1.38	0.00	0.00	0.00
49.30	0.88	0.68	1.30	0.00	0.00	0.00
49.35	0.88	0.68	1.30	0.00	0.00	0.00
49.40	0.90	0.68	1.33	0.00	0.00	0.00
49.45	0.94	0.68	1.39	0.00	0.00	0.00
49.50	0.99	0.67	1.46	0.00	0.00	0.00
49.55	1.03	0.67	1.52	0.00	0.00	0.00
49.60	0.96	0.67	1.43	0.00	0.00	0.00
49.65	0.90	0.67	1.33	0.00	0.00	0.00
49.70	0.84	0.67	1.24	0.00	0.00	0.00
49.75	0.78	0.67	1.16	0.00	0.00	0.00
49.80	0.72	0.67	1.07	0.00	0.00	0.00
49.85	0.67	0.67	1.00*	0.00	0.00	0.00
49.90	0.65	0.67	0.97*	0.00	0.00	0.00
49.95	0.65	0.67	0.97*	0.00	0.00	0.00
50.00	0.65	0.67	0.97*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

RMA GeoScience
Every Project Matters | www.rmacompanies.com

APPENDIX F

REFERENCES

REFERENCES

1. California Building Standards Commission, 2019 California Building Code.

2. California Division of Mines and Geology (CDMG), Earthquake Zones of Required investigation El Monte Quadrangle, Earthquake Fault Zones Revised Official Map Released June 15, 2017, Seismic Hazard Zones Official Map Released March 25, 1999, Scale 1:24,000.

3. CDMG, Seismic Hazard Zone Report for the El Monte 7.5-Minute Quadrangle, Los Angeles County, California, 1998, Seismic Hazard Zone Report 024.

4. Google Earth (2018), Aerial Photographs, 1994-2018.

5. Kramer, S.L., "Geotechnical Earthquake Engineering," Prentice Hall, 1996.

6. NETR Online Historic Aerials and Topographic Maps, www.historicaerials.com, Aerial Photographs 1952-2014, Topographic Maps 1896-2012.

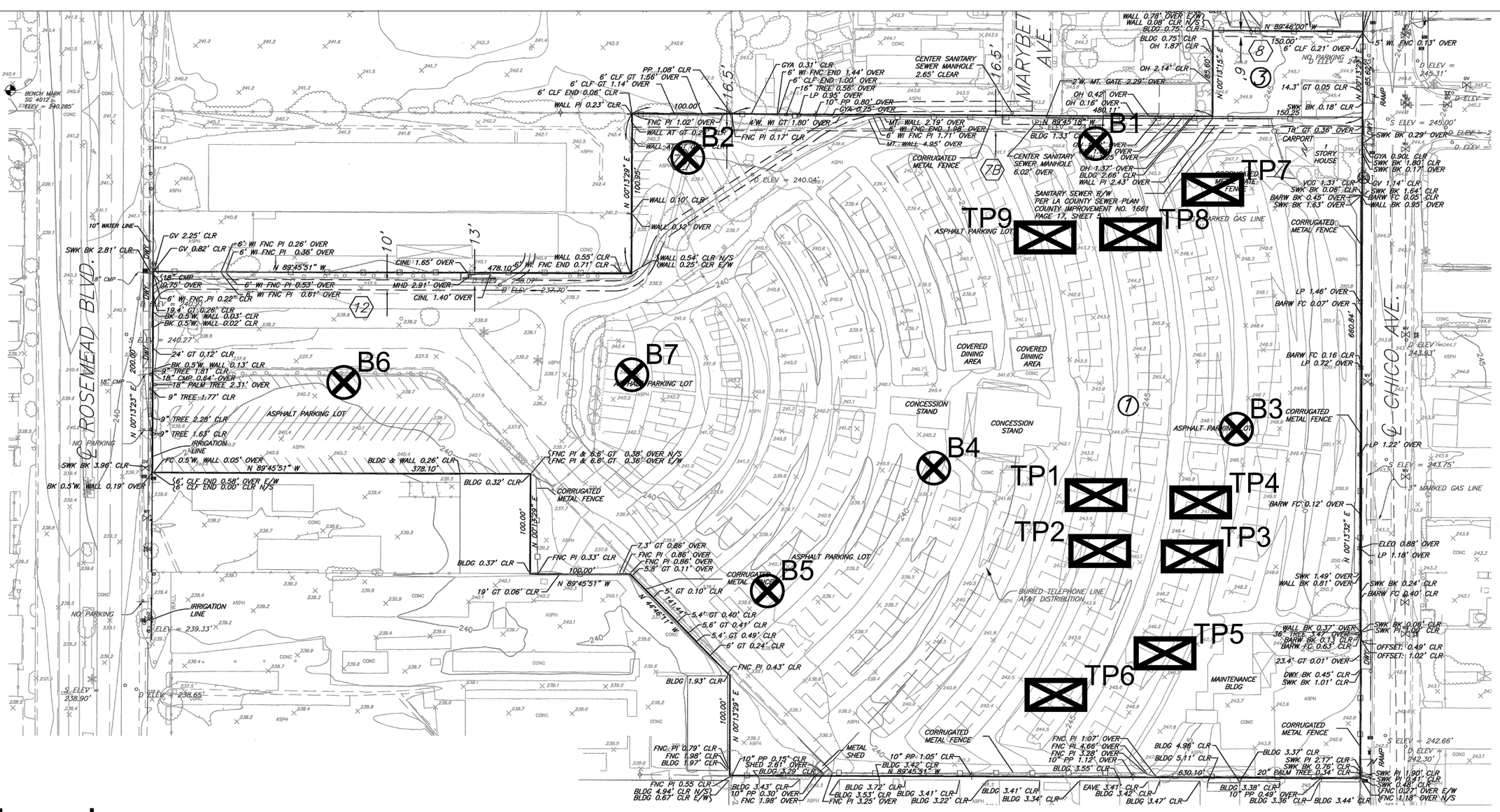
7. State of California, Department of Conservation, http://www.conservation.ca.gov/cgs/Pages/Index.aspx

8. UCSB Library's digital Aerial Photography Collections, Photo C-5364, Frame 28, Scale 1:9,000, September 11, 1938. C-300, Frame K 394, Scale 1:18,000, December 31, 1927.

9. Applied Technology Council (ATC) Hazards by Location https://hazards.atcouncil.org

10. Seismic Earth Pressures on Retaining Walls, S004.0, Rev. 1/6/2020, Geotechnical and Materials Engineering Division, Administrative Manual, County of Los Angeles, Department of Public Works.

11. Gregg Drilling, LLC, Cone Penetration Testing Procedure (CPT), Revised 02/05/2015/



Legend

B4 — Approximate Boring Location

TP6 — Approximate Test Pit Location

NO.	DATE	DESCRIPTION	BY
1	10/23/15	TITLE REPORT UPDATE 2 – DATED SEPTEMBER 24, 2015	RCJ

B & E ENGINEERS
CIVIL ENGINEERS SURVEYING LAND PLANNING
20 E. FOOTHILL BLVD., STE 230, ARCADIA, CA 91006-2375
TEL: (626) 446-4449 FAX: (626) 446-6566

ALTA / ACSM LAND TITLE SURVEY

LOTS 29 - 30, TRACT 621, M.B. 15 - 182-183
& LOTS 5, 6, 7, 8, 9, 12, 13, 15 & 16 TRACT 11104, MAP 195 - 14
CITY OF SOUTH EL MONTE, COUNTY OF LOS ANGELES

SCALE: 1" = 50'	DRAWN: RCJ	DATE: 10-23-15
JN: 2015208	CHECKED: JL	SHEET: 2 OF: 3

RMA GeoScience

Boring and Test Pit Location Map

2540 Rosemead Boulevard
South El Monte, CA

Plate 1

RMA Job No:	20G-0418
Report Date:	8/2020
Prepared By:	MRM