

Initial Geotechnical Data Report Mercury – Building 8 Data Nevada National Security Site (NNSS) Nye County, Nevada

Burns & McDonnell

8201 Norman Center Drive, Suite 500 | Minneapolis, Minnesota 55437

February 20, 2026 | Project No. 305320003



Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS

Ninyo & Moore

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Initial Geotechnical Data Report
Mercury – Building 8 Data
Nevada National Security Site (NNSS)
Nye County, Nevada

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1 INTRODUCTION

In accordance with your request, Ninyo & Moore has performed a geotechnical data evaluation for the Building 8 project to be located at the Nevada National Security Site (NNSS) in Mercury, Nye County, Nevada. The location of the site is shown on Figure 1. The purpose of our evaluation was to assess the general geologic and geotechnical related considerations pertaining to the project site. This report presents the findings from our study.

2 SCOPE OF SERVICES

The scope of our services includes the following:

- Review of pertinent background data listed in the References section of this report. The data included aerial photographs and published geologic maps and literature.
- Coordination and mobilization for subsurface exploration with mark-out of existing utilities performed by NNSS personnel.
- Performance of a geologic reconnaissance to evaluate the possible presence of faults and other potential geologic hazards at the site.
- Drilling, logging, and sampling of 13 exploratory test borings to depths ranging from approximately 31 to 51 feet at the proposed project site. The purpose of the borings was to evaluate the subsurface soil profile at the site, and to obtain soil samples for laboratory testing.
- Performance of a refraction microtremor (ReMi) and multichannel analysis of surface wave (MASW) survey to evaluate seismic Site Class in general accordance with the referenced American Society of Civil Engineers Publication 7 (ASCE, 2010). The surveys were performed to characterize the average subsurface shear wave velocity to a depth of approximately 100 feet below existing ground surface.
- Performance of laboratory tests on selected soil samples obtained from the exploratory borings to evaluate in-place moisture content and dry density, gradation, Atterberg limits, maximum dry density and optimum moisture content (Standard Proctor), chloride content, pH, reduction-oxidation potential, sodium content, sulfate content, sulfide content, sodium sulfate content and solubility (total salts).
- Compilation and analysis of the accumulated data.
- Preparation of this data report presenting our findings regarding the project.

3 PROJECT DESCRIPTION

It is our understanding that the project will include design and construction of a new single-story, above-grade building on a site that is approximately 2.2 acres in size. The dimensions and anticipated loading of the structure are not known at the time of this report. Between 10 feet of cut and 5 feet of fill are anticipated for grading of the subject site. We understand that shallow

spread footings with concrete slab-on-grade floors are being considered for support of the building. Exterior concrete slabs or mats may be provided to support equipment associated with the building. Light poles and similar pole structures may be supported by drilled shaft foundations. The project also includes on-site asphalt and concrete pavements for parking areas, driveways, and loading areas. Below-grade vault structures such as manholes are also assumed to be a part of the project. We understand that the project will be designed and constructed in accordance with the 2015 International Building Code (IBC).

4 GENERAL SITE CONDITIONS

Based on our review of historical aerial photos of the project site, we understand that either a gravel surfaced or asphalt concrete paved parking area existed in the southeast corner of the site. In 2019 this portion of the site and surrounding area were redeveloped including rerouting of the existing road at the southern boundary, and a new asphalt concrete paved parking area was constructed which borders the southern boundary of the site. There were also several light poles and/or transmission towers running through the center of the site that were removed along with the 2019 redevelopment. The surface throughout the rest of the site has experienced significant earthwork including rough grading and excavation of an approximately 12,000 square foot, approximately 4 foot deep rectangular area in the middle of the site. Aside from this previously excavated area, the topography is generally flat, and slopes down from northeast to southwest at a grade of approximately 7 percent. Indications of underground utilities including water, power, sewer, and communications lines were observed at the site.

5 GEOLOGY

Based on our field observations, subsurface exploration, and review of referenced geologic and soils data, the project site is underlain by relatively shallow fill material, which in turn is underlain by Quaternary alluvium consisting of unconsolidated sand and gravel. Ninyo & Moore's findings regarding the geologic setting, potential geologic hazards, and ground motions are provided in the following sections.

5.1 Geologic Setting

The project site is located in Mercury Valley, which lies in the southwestern portion of the Great Basin within the Basin and Range physiographic province. Mercury Valley is a naturally formed structural basin as a result of block faulting, a fundamental characteristic of the Basin and Range physiographic province. Bordering the alluvium-filled valley are relatively steep mountains including Mercury Ridge, North Ridge, and South Ridge to the east; Red Mountain to the

northwest; and the Specter Range to the west. Based on our review of the referenced geologic map of the Mercury quadrangle (Barnes, 1982), the site is underlain by Quaternary alluvium consisting of unconsolidated sand and gravel.

5.2 Potential Geologic Hazards

Ninyo & Moore’s geotechnical study included an evaluation of the possible presence of geologic hazards, such as faults and ground fissures, in the project area. This evaluation included visual observation of the site for indications of adverse geologic features and review of published geologic and soils maps and literature. The distances from the site to the nearest fault of a given seismic activity level are provided in the following table.

| Fault | Seismic Activity Level * | Distance From Project Site (miles) |
|--------------------------|---|---|
| Rock Valley Fault Zone | Latest Quaternary Active (less than 15,000 years ago) | 5.0 |
| Mercury Ridge Faults | Undifferentiated Quaternary (less than 1,600,000 years ago) | 4.4 |
| Crossgrain Valley Faults | Middle and Late Quaternary Active (less than 750,000 years ago) | 1.9 |

Note: *Adopted from the referenced Quaternary fault and fold database (USGS, 2025).

Ground fissures, generally believed to be caused by erosion and differential stress resulting from regional subsidence due primarily to withdrawal of groundwater, are known to occur near faults in southern Nevada. Review of the referenced geologic data does not indicate the presence of ground fissures along the project alignments and no ground fissures were observed during our field activities.

5.3 Ground Motions

Ninyo & Moore performed a ReMi and MASW survey to obtain the shear wave velocity profile to a nominal depth of approximately 100 feet at the subject site to evaluate the seismic Site Class in general accordance with the referenced American Society of Civil Engineers Publication 7 (ASCE, 2010). The approximate location/alignment of the ReMi and MASW surveys are shown on Figure 2, and additional information regarding the surveys are provided in Appendix D. The upper portion of the shear-wave velocity profile is generally based on the MASW results where this technique provides better resolution, with the lower portion of the profile generally based on the ReMi method. The results of the ReMi and MASW surveys indicate a calculated average shear wave velocity of 2,056 feet per second to 100-foot depth. Based on the ReMi and MASW survey results, seismic Site Class C is appropriate for design of this project.

Using the referenced online seismic hazard tool (ASCE, 2010), estimated maximum considered earthquake spectral response accelerations for short (0.2 second) and long (1.0 second) periods were obtained for the subject site, which is located at approximately 36.66039 degrees north latitude and 115.99823 degrees west longitude. The parameters in the following table are characteristic of the site for design purposes.

| Table 2 – Seismic Design Criteria | |
|---|---------------|
| Site Coefficients and Spectral Response Acceleration Parameters | Values |
| Risk Category | II |
| Site Class | C |
| Site Coefficient, F_a | 1.143 |
| Site Coefficient, F_v | 1.590 |
| Mapped Spectral Response Acceleration at 0.2-second Period, S_s | 0.643 g |
| Mapped Spectral Response Acceleration at 1.0-second Period, S_1 | 0.210 g |
| Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{MS} | 0.735 g |
| Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{M1} | 0.335 g |
| Design Spectral Response Acceleration at 0.2-second Period, S_{DS} | 0.490 g |
| Design Spectral Response Acceleration at 1.0-second Period, S_{D1} | 0.223 g |
| Mapped Peak Ground Acceleration, PGA | 0.258 g |
| Site-Adjusted Peak Ground Acceleration, PGA_M | 0.295 g |
| Seismic Design Category | D |

6 FIELD EXPLORATION AND LABORATORY TESTING

Ninyo & Moore’s subsurface exploration at the project site was performed between November 4 and November 12, 2025. The exploration included drilling, logging, and sampling of 13 small-diameter exploratory borings. The borings were advanced to depths ranging from approximately 31 to 51 feet with a truck-mounted CME-85 drill rig utilizing 8-inch diameter hollow-stem augers. The purpose of the borings was to evaluate general subsurface conditions at the project site, and to collect bulk and relatively undisturbed soil samples for laboratory testing. Locations of the borings performed at the project site are shown on Figure 2.

Laboratory tests were performed on representative soil samples collected from the borings to evaluate in-place moisture content and dry density, gradation, Atterberg limits, maximum dry density and optimum moisture content (Standard Proctor), chloride content, pH, reduction-oxidation potential, sodium content, sulfate content, sulfide content, sodium sulfate content, and solubility (total salts). Results of in-place moisture content and dry density tests are provided on the logs in Appendix A. The other soil laboratory test results and descriptions of the testing procedures utilized are presented in Appendix B. Chemical test results are presented in Appendix C.

6.1 Subsurface Soils Encountered

Generalized descriptions of the subsurface soils (fill and native soil) encountered in the borings are provided in the following sections.

6.1.1 Fill

The ground surface throughout the subject site has been previously graded providing a layer of fill ranging from approximately 1 foot to 2 feet thick based on the boring results. The fill consisted primarily of medium dense to dense, poorly graded gravel with silt and sand. Existing fill should be considered uncontrolled fill and not suitable in its present condition for support of the proposed improvements.

6.1.2 Native Soil

Native soil was encountered beneath the fill and extended to the maximum depth of our exploratory borings (up to approximately 51 feet). The encountered native soil consisted primarily of coarse-grained soil including clayey gravel with sand, clayey sand with gravel, well-graded gravel with silt and sand, poorly-graded gravel with silt and sand, well-graded sand with silt and gravel, silty gravel with sand, and silty sand with gravel. Some of the native soils exhibited varying amounts of porosity, particularly the clayey gravel and clayey sand.

Significant layers of rock-like, moderately hard to hard, moderately to strongly cemented soil (caliche) were encountered in the borings at depths of 3.5 feet or deeper. Additional layers of rock-like caliche may also be encountered at shallow depths at locations between or beyond the boring locations. Caliche is a naturally occurring cemented soil with rock-like characteristics. The following describes typical properties of caliche encountered in southern Nevada.

- Generally, occurs in layers a few inches to several feet thick.
- Layers typically vary significantly in thickness, degree of cementation, and hardness over relatively short distances.
- Varies in composition from primarily fine-grained material to primarily coarse-grained material.
- Moderately hard, moderately cemented caliche can generally be gouged with a knife with difficulty and broken with a few hammer blows.

- Hard and very hard, strongly cemented caliche is difficult to scratch with a knife and breaks with difficulty with repeated hammer blows.
- Impedes earthwork operations, including grading and utility line trenching. Rock excavation methods are generally needed.

The following table describes the approximate depth, thickness, hardness and degree of cementation of caliche layers encountered in the borings.

| Table 3 – Caliche Layers Encountered | | | |
|---|--|--|---|
| Boring | Approximate Depth to Top of Layer (feet)* | Approximate Thickness of Layer (feet) | Hardness and Degree of Cementation** |
| B-8-1 | 24.0 | 3.0 | Hard, strongly cemented |
| B-8-1 | 45.0 | 2.5 | Hard, strongly cemented |
| B-8-2 | 3.5 | 1.0 | Moderately hard, strongly cemented |
| B-8-3 | 4.5 | 1.0 | Moderately hard, strongly cemented |
| B-8-3 | 29.0 | 3.0 | Hard, strongly cemented |
| B-8-4 | 9.5 | 1.0 | Hard, strongly cemented |
| B-8-4 | 15.0 | 1.0 | Hard, strongly cemented |
| B-8-4 | 25.0 | 3.0 | Hard, strongly cemented |
| B-8-6 | 39.0 | 4.0 | Hard, strongly cemented |
| B-8-7 | 15.0 | 1.5 | Hard, strongly cemented |
| B-8-7 | 24.0 | 1.5 | Hard, strongly cemented |
| B-8-8 | 7.0 | 1.5 | Moderately hard, strongly cemented |
| B-8-8 | 30.5 | 1.0 | Hard, strongly cemented |
| B-8-8 | 39.0 | 4.0 | Hard, strongly cemented |
| B-8-10 | 28.0 | 2.3 | Hard, strongly cemented |
| B-8-11 | 35.5 | 1.5 | Hard, strongly cemented |
| B-8-11 | 44.0 | 4.0 | Hard, strongly cemented |
| B-8-13 | 29.0 | 3.0 | Hard, strongly cemented |
| B-8-13 | 40.0 | 3.0 | Hard, strongly cemented |

Notes:
 * Depth measured from ground surface adjacent to boring.
 **Additional relatively thin cemented caliche lenses are indicated on the boring logs in Appendix A.

6.1.3 Laboratory Tests

Laboratory tests were performed on selected samples obtained from the exploratory borings. Results of in-place moisture content and dry density tests are presented on the boring logs in Appendix A. Other soil laboratory test results are presented in Appendix B. Chemical test results are presented in Appendix C. Results of laboratory tests are summarized in the following table.

Table 4 – Summary of Laboratory Test Results

| Test Type | Test Results | Remarks |
|---|---|---|
| Gradation Percent Gravel Percent Sand Percent Silt and Clay | 20 to 59 35 to 60 7 to 20 | Predominantly coarse-grained soil |
| Atterberg Limits Liquid Limit Plastic Limit Plasticity Index | Non-Plastic to 37 Non-Plastic to 20 Non-Plastic to 17 | Generally, low plasticity |
| Compaction Characteristics Optimum Moisture Content Maximum Dry Density | 4.0 to 5.5 percent 143.5 to 146.0 pcf | Based on standard effort |
| Resistivity (Saturated Minimum) | 1,000 to 5,100 Ohm-cm | Does not meet threshold where chloride and sulfate content should necessarily be evaluated |
| Chloride Content | 0.0007 to 0.0025 percent | Below threshold where soil is considered corrosive to buried steel pipe Corrosion protection of reinforcement class C0 for reinforced concrete cast against and permanently in contact with ground |
| pH | 8.50 to 8.85 | Non-factor to corrosion of buried steel pipe (alkaline) |
| Reduction-Oxidation Potential | 168 to 204 mV | -- |
| Sodium Sulfate Content | 0.0020 to 0.0430 percent | Below threshold where soil may be susceptible to chemical heave |
| Sodium Content | 0.0017 to 0.0250 percent | -- |
| Sulfide Content | <0.50 mg/Kg | -- |
| Sulfate Content | 0.0014 to 0.0290 percent | Sulfate exposure class S0 to concrete cast against and permanently in contact with ground Below threshold where soil is considered corrosive to buried steel pipe |
| Total Salts (Solubility) | 0.0180 to 0.0870 percent | Low solubility |

6.2 Groundwater

Groundwater was not encountered in our exploratory borings, which were advanced up to a depth of approximately 51 feet. Seasonal fluctuations in groundwater levels may occur. These fluctuations may be due to variations in ground surface topography, subsurface geologic conditions, rainfall, irrigation, and other factors. Evaluation of factors associated with groundwater fluctuations and surface water flow was beyond the scope of this study.

7 LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical data report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for data purposes only and may not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings of this report by parties other than the client is undertaken at said parties' sole risk.

8 REFERENCES

American Society of Civil Engineers (ASCE), 2010, Hazard Tool, Standard Version 7-10: <http://ascehazardtool.org>.

American Society for Testing and Materials (ASTM), 2025, Annual Book of ASTM Standards, Section 4 - Construction: Volume 04.08, Soil and Rock (I), D 420 to D 5876: dated March.

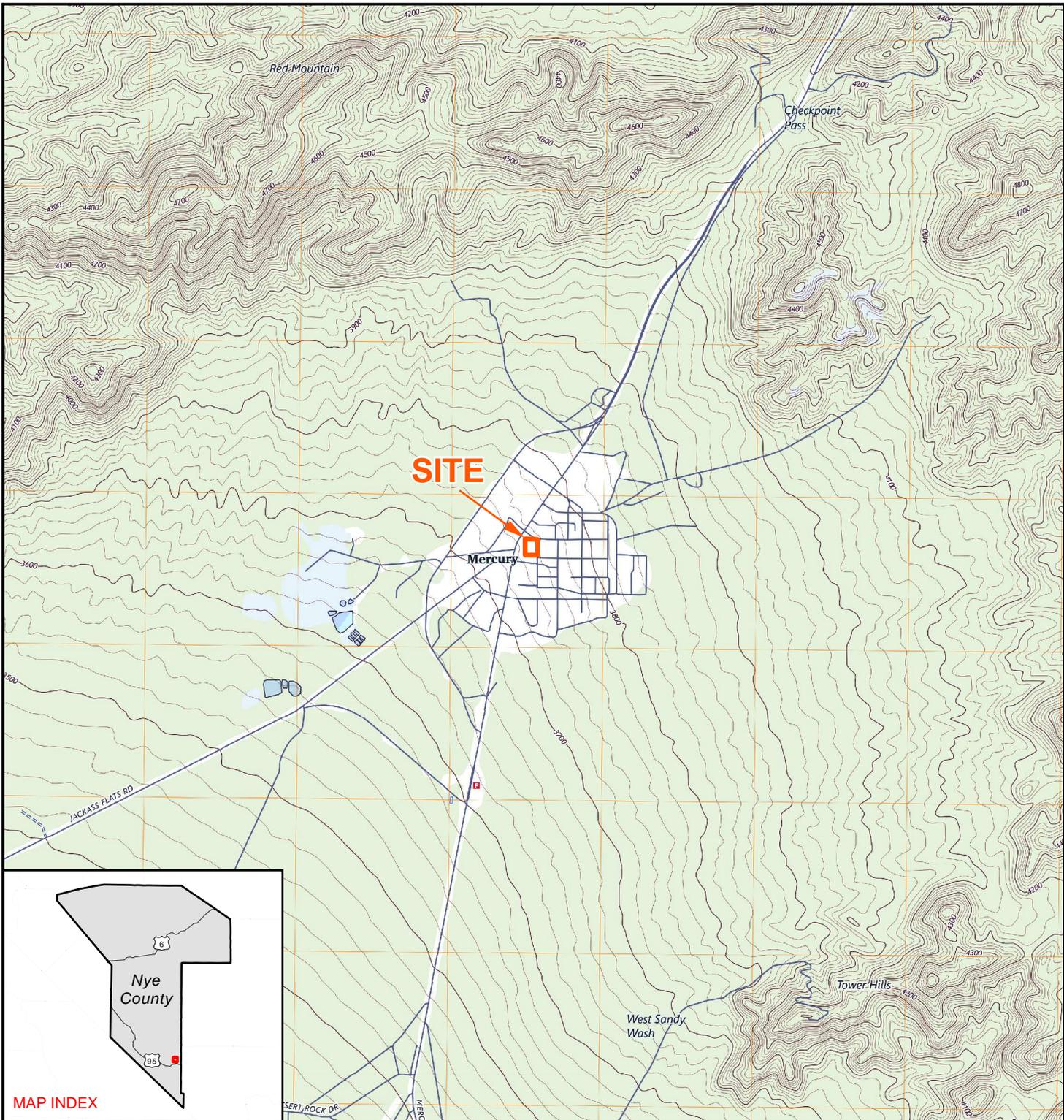
Barnes, H., et al. (Barnes), 1982, Geologic and Tectonic Maps of the Mercury Quadrangle.

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FIGURES



MAP INDEX

P305320003.aprx 2/19/2026 DRAFTED BY: JDL

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: USGS, 2025



FIGURE 1

SITE LOCATION

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE NYE COUNTY, NEVADA

305320003 | 2/26

MERCURY HIGHWAY



LEGEND

-  **B-8-13** BORING
TD=50.6 TD=TOTAL DEPTH IN FEET
-  FUTURE BUILDING 8 SITE
-  ReMi/MASW SURVEY

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: GOOGLE, 2026



FIGURE 2

BORING LOCATIONS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE NYE COUNTY, NEVADA



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P305320003.aprx 2/19/2026 DRAFTED BY: JDL



APPENDIX A

Exploratory Boring Logs

APPENDIX A

EXPLORATORY BORING LOGS

Field Procedure for the Collection of Disturbed Samples

Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples

Bulk samples of representative earth materials were obtained from the exploratory borings. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Sampler

Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of 1 $\frac{3}{8}$ inches. The sampler was driven into the ground with a 140-pound hammer free-falling from a height of 30 inches in general accordance with ASTM D 1586 and the blow counts were recorded. Soil samples were observed and removed from the sampler, bagged, sealed, and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples

Relatively undisturbed soil samples were obtained in the field using a sampler, with an external diameter of 3.0 inches lined with 1-inch long, thin brass rings with inside diameters of 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer attached to the drill rig in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer, and the number of blows during driving are presented on the boring logs as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

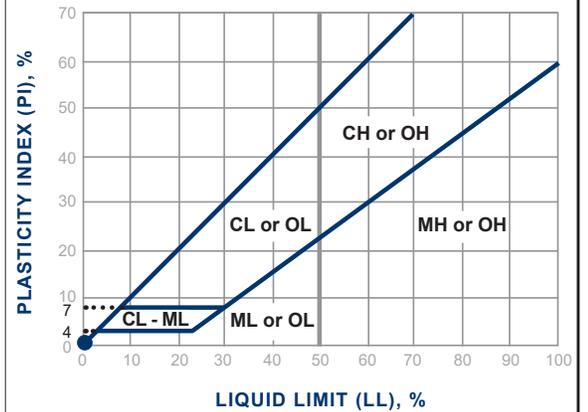
Soil Classification Chart Per ASTM D 2488

| Primary Divisions | | Secondary Divisions | | | |
|--|---|---|--|---------------------------------|--------------|
| | | Group Symbol | Group Name | | |
| COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve | GRAVEL more than 50% of coarse fraction retained on No. 4 sieve | CLEAN GRAVEL less than 5% fines | GW | well-graded GRAVEL | |
| | | | GP | poorly graded GRAVEL | |
| | | GRAVEL with DUAL CLASSIFICATIONS 5% to 12% fines | GW-GM | well-graded GRAVEL with silt | |
| | | | GP-GM | poorly graded GRAVEL with silt | |
| | | | GW-GC | well-graded GRAVEL with clay | |
| | | | GP-GC | poorly graded GRAVEL with | |
| | | | GM | silty GRAVEL | |
| | | | GC | clayey GRAVEL | |
| | | GRAVEL with FINES more than 12% fines | GC-GM | silty, clayey GRAVEL | |
| | | | SW | well-graded SAND | |
| | SP | | poorly graded SAND | | |
| | SW-SM | | well-graded SAND with silt | | |
| | SAND 50% or more of coarse fraction passes No. 4 sieve | CLEAN SAND less than 5% fines | SP-SM | poorly graded SAND with silt | |
| | | | SW-SC | well-graded SAND with clay | |
| | | SAND with DUAL CLASSIFICATIONS 5% to 12% fines | SP-SC | poorly graded SAND with clay | |
| | | | SM | silty SAND | |
| | | | SC | clayey SAND | |
| | | | SC-SM | silty, clayey SAND | |
| | | | SAND with FINES more than 12% fines | CL | lean CLAY |
| | | | | ML | SILT |
| FINE-GRAINED SOILS 50% or more passes No. 200 sieve | | SILT and CLAY liquid limit less than 50% | INORGANIC | CL-ML | silty CLAY |
| | | | | ORGANIC | OL (PI > 4) |
| | OL (PI < 4) | | | | organic SILT |
| | SILT and CLAY liquid limit 50% or more | | INORGANIC | | CH |
| | | | | MH | elastic SILT |
| | | | ORGANIC | OH (plots on or above "A"-line) | organic CLAY |
| | | OH (plots below "A"-line) | | organic SILT | |
| | Highly Organic Soils | | PT | Peat | |

Grain Size

| Description | Sieve Size | Grain Size | Approximate Size |
|-------------|--------------|------------|--------------------------------|
| Boulders | > 12" | > 12" | Larger than basketball-sized |
| Cobbles | 3 - 12" | 3 - 12" | Fist-sized to basketball-sized |
| Gravel | Coarse | 3/4 - 3" | Thumb-sized to fist-sized |
| | Fine | #4 - 3/4" | Pea-sized to thumb-sized |
| Sand | Coarse | #10 - #4 | Rock-salt-sized to pea-sized |
| | Medium | #40 - #10 | Sugar-sized to rock-salt-sized |
| | Fine | #200 - #40 | Flour-sized to sugar-sized |
| Fines | Passing #200 | < 0.0029" | Flour-sized and smaller |

Plasticity Chart



Apparent Density - Coarse-Grained Soil

| Apparent Density | Spooling Cable or Cathead | | Automatic Trip Hammer | |
|------------------|---------------------------|------------------------------------|-----------------------|------------------------------------|
| | SPT (blows/foot) | Modified Split Barrel (blows/foot) | SPT (blows/foot) | Modified Split Barrel (blows/foot) |
| Very Loose | ≤ 4 | ≤ 8 | ≤ 3 | ≤ 5 |
| Loose | 5 - 10 | 9 - 21 | 4 - 7 | 6 - 14 |
| Medium Dense | 11 - 30 | 22 - 63 | 8 - 20 | 15 - 42 |
| Dense | 31 - 50 | 64 - 105 | 21 - 33 | 43 - 70 |
| Very Dense | > 50 | > 105 | > 33 | > 70 |

Consistency - Fine-Grained Soil

| Consistency | Spooling Cable or Cathead | | Automatic Trip Hammer | |
|-------------|---------------------------|------------------------------------|-----------------------|------------------------------------|
| | SPT (blows/foot) | Modified Split Barrel (blows/foot) | SPT (blows/foot) | Modified Split Barrel (blows/foot) |
| Very Soft | < 2 | < 3 | < 1 | < 2 |
| Soft | 2 - 4 | 3 - 5 | 1 - 3 | 2 - 3 |
| Firm | 5 - 8 | 6 - 10 | 4 - 5 | 4 - 6 |
| Stiff | 9 - 15 | 11 - 20 | 6 - 10 | 7 - 13 |
| Very Stiff | 16 - 30 | 21 - 39 | 11 - 20 | 14 - 26 |
| Hard | > 30 | > 39 | > 20 | > 26 |

BORING LOG EXPLANATION SHEET

| DEPTH (feet) | SAMPLES | | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | |
|--------------|---------|--------|------------|--|-------------------|---|----------------------------|---|
| | Bulk | Driven | | | | | | |
| 0 | █ | | | | | | | Bulk sample. Modified split-barrel drive sampler. No recovery with modified split-barrel drive sampler. Sample retained by others. Standard Penetration Test (SPT). No recovery with a SPT. Shelby tube sample. Distance pushed in inches/length of sample recovered in inches. No recovery with Shelby tube sampler. Continuous Push Sample. Seepage. Groundwater encountered during drilling. Groundwater measured after drilling. |
| 5 | | XX/XX | | | | | | |
| 10 | | | |  | | | | |
| 15 | | | | | |  | SM | <u>MAJOR MATERIAL TYPE (SOIL):</u> Solid line denotes unit change. |
| 15 | | | | | |  | CL | Dashed line denotes material change. Attitudes: Strike/Dip b: Bedding c: Contact j: Joint f: Fracture F: Fault cs: Clay Seam s: Shear bss: Basal Slide Surface sf: Shear Fracture sz: Shear Zone sbs: Shear Bedding Surface |
| 20 | | | | | | | | The total depth line is a solid line that is drawn at the bottom of the boring. |

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|----------------|--------------|-------------------|--------|----------------------------|--|------------|-------------|
| | | | | | | | 11/4/2025 | B-8-1 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,749' ± (MSL) | 1 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | | |
| | 9/6" 13/6" 19/6" | | | | | | | | |
| 5 | | 37/6" 50/2" | 1.6 | | | SM | Light brown, dry, very dense, silty SAND with gravel; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | 28/6" 20/6" 32/6" | | 3.9 | | | | Moist. | | |
| 10 | | 38/6" 50/3" | | | | | | | |
| | 32/6" 31/6" 31/6" | | 7.0 | | | | | | |
| 15 | | 20/6" 50/2" | 5.3 | 110.8 | | | | | |
| 20 | | | | | | | | | |

FIGURE A - 1

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---|-------------------------|--------------|-------------------|---|----------------------------|---|------------|-------------|
| | | | | | | | 11/4/2025 | B-8-1 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,749' ± (MSL) | 2 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 |  | 17/6" 26/6" 22/6" | 4.5 | |  | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 25 |  | 50/3" | | |  | | Grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 30 |  | 25/6" 50/5" | | |  | GC | Brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 35 |  | 22/6" 50/3" | 5.4 | 112.2 |  | | | | |
| 40 | | | | | | | | | |

FIGURE A - 2

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|--------|----------------------------|--|------------|-------------|
| | | | | | | | 11/4/2025 | B-8-1 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,749' ± (MSL) | 3 | 3 |
| | | | | | | | METHOD OF DRILLING | | |
| | | | | | | | CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 40 | | 39/6" 35/6" 23/6" | 4.0 | | | GC | <u>NATIVE SOIL:</u> (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 45 | | 50/2" | | | | | Grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 50 | | 20/6" 30/6" 39/6" | 7.8 | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | | | | | | | Total Depth = 51.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/4/2025. | | |
| | | | | | | | <u>Notes:</u> Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |
| 55 | | | | | | | | | |
| 60 | | | | | | | | | |

FIGURE A - 3

| DEPTH (feet) | BULK SAMPLES Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|-------------------------|------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/4/2025 | B-8-2 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,755' ± (MSL) | 1 | 2 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, very dense, silty GRAVEL with sand. | | |
| | 14/6" 29/6" 50/1" | | | | | | Light pinkish brown, dry, moderately hard, moderately cemented CALICHE. | | |
| 5 | 33/6" 46/6" 50/2" | | 3.6 | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | 37/6" 50/2" | | 2.1 | 105.9 | | | Moist. | | |
| 10 | 17/6" 23/6" 25/6" | | 4.0 | | | | Porous. | | |
| | 27/6" 50/3" | | 2.0 | 129.7 | | | | | |
| 15 | 18/6" 19/6" 24/6" | | 3.2 | | | | | | |
| 20 | | | | | | | | | |

FIGURE A - 4

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--|----------------------------|--|------------|-------------|
| | | | | | | | | 11/4/2025 | B-8-2 | |
| | | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | | 3,755' ± (MSL) | 2 | 2 |
| | | | | | | | | METHOD OF DRILLING | | |
| | | | | | | | | CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | | KNS | KNS | BLO |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 | | | 37/6" 38/6" 39/6" | 4.0 | |  | GC | <u>NATIVE SOIL:</u> (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 25 | | | 24/6" 25/6" 28/6" | | | | | Brown. | | |
| 30 | | | 23/6" 38/6" 39/6" | | | | | | | |
| 35 | | | | | | | | Total Depth = 31.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/4/2025. | | |
| 40 | | | | | | | | <u>Notes:</u> Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |

FIGURE A - 5

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|--------|----------------------------|--|------------|-------------|
| | | | | | | | 11/5/2025 | B-8-3 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,761' ± (MSL) | 1 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, very dense, silty GRAVEL with sand. | | |
| | | 16/6" 21/6" 50/3" | | | | | Light pinkish brown, dry, moderately hard, moderately cemented CALICHE. | | |
| 5 | | 50/5" | | | | | Light brown, moist, very dense, silty SAND with gravel; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | | | 4.9 | | | SM | | | |
| | | 22/6" 48/6" 42/6" | | | | | | | |
| 10 | | | 4.3 | | | | | | |
| | | 18/6" 24/6" 25/6" | | | | | | | |
| | | | | | | | | | |
| | | 21/6" 39/6" 34/6" | | | | | | | |
| 15 | | | 5.4 | | | | | | |
| | | 23/6" 26/6" 28/6" | | | | | | | |
| 20 | | | | | | | | | |

FIGURE A - 6

| DEPTH (feet) | SAMPLES Bulk Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|---|----------------------------|---|------------|-------------|
| | | | | | | | 11/5/2025 | B-8-3 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,761' ± (MSL) | 2 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 | | 14/6" 17/6" 20/6" | 4.8 | |  | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 25 | | 27/6" 40/2" 34/6" | | |  | | | | |
| 30 | | 50/5" | | |  | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 35 | | 22/6" 27/6" 22/6" | | |  | GC | Light brown, moist, very dense, clayey GRAVEL with sand. | | |
| 40 | | | | | | | | | |

FIGURE A - 7

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--|----------------------------|--|------------|-------------|--|
| | | | | | | | | 11/5/2025 | B-8-3 | | |
| | | | | | | | | GROUND ELEVATION | SHEET | OF | |
| | | | | | | | | 3,761' ± (MSL) | 3 | 3 | |
| | | | | | | | | METHOD OF DRILLING | | | |
| | | | | | | | | CME-85 Hollow Stem Auger Drill Rig | | | |
| | | | | | | | | DRIVE WEIGHT | DROP | | |
| | | | | | | | | 140 lbs. (Auto Trip) | 30" | | |
| | | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY | |
| | | | | | | | | KNS | KNS | BLO | |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | | |
| 40 | | | 28/6" 42/6" 37/6" | | |  | GC | <u>NATIVE SOIL:</u> (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | | |
| 45 | | | 25/6" 31/6" 28/6" | | | | | | | | |
| 50 | | | 19/6" 29/6" 42/6" | | | | | | | | |
| | | | | | | | | Total Depth = 51.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/5/2025. | | | |
| | | | | | | | | <u>Notes:</u> Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | | |
| 55 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |

FIGURE A - 8

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/4/2025 | B-8-4 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,749' ± (MSL) | 1 | 2 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | | |
| | 15/6" 20/6" 12/6" | | | | | | | | |
| 5 | 10/6" 34/6" 50/2" | | 1.5 | 111.0 | | | Very dense; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | 22/6" 37/6" 38/6" | | 3.4 | | | SM | Light brown, moist, very dense, silty SAND with gravel. | | |
| | 50/3" | | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 10 | 31/6" 29/6" 22/6" | | 2.6 | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | 50/3" | | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 15 | | | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 20 | | | | | | | | | |

FIGURE A - 9

| DEPTH (feet) | SAMPLES | | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED <u>11/4/2025</u> BORING NO. <u>B-8-4</u> | |
|--------------|---------|--------|-------------------------|--------------|-------------------|--|----------------------------|---|----------------------------|
| | Bulk | Driven | | | | | | GROUND ELEVATION <u>3,749' ± (MSL)</u> | SHEET <u>2</u> OF <u>2</u> |
| | | | | | | | | METHOD OF DRILLING <u>CME-85 Hollow Stem Auger Drill Rig</u> | |
| | | | | | | | | DRIVE WEIGHT <u>140 lbs. (Auto Trip)</u> DROP <u>30"</u> | |
| | | | | | | | | SAMPLED BY <u>KNS</u> LOGGED BY <u>KNS</u> REVIEWED BY <u>BLO</u> | |
| | | | | | | | | DESCRIPTION/INTERPRETATION | |
| 20 | | | 26/6" 36/6" 27/6" | | |  | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; porous, scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | |
| 25 | | | 50/5" | | |  | | Light grayish brown, moist, hard, strongly cemented CALICHE. | |
| 30 | | | 27/6" 45/6" 25/6" | | |  | GC | Light brown, moist, very dense, clayey GRAVEL with sand. | |
| | | | | | | | | Total Depth = 31.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/4/2025. | |
| | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | |
| 35 | | | | | | | | | |
| 40 | | | | | | | | | |

FIGURE A - 10

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|------------|--------------|-------------------|--------|----------------------------|--|------------|-------------|
| | | | | | | | 11/5/2025 | B-8-5 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,758' ± (MSL) | 1 | 2 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | GP-GM | | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | GM | | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | | |
| | 10/6" 14/6" 10/6" | | | | | | | | |
| 5 | | | 1.4 | | SM | | Light brown, dry, very dense, silty SAND with gravel; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | 12/6" 23/6" 20/6" | | | | | | | | |
| | 20/6" 22/6" 27/6" | | 2.0 | | | | | | |
| | 30/6" 50/5" | | | | | | | | |
| | 36/6" 33/6" 49/6" | | 4.5 | | | | Moist. | | |
| 15 | | | 4.1 | | GC | | Light brown, moist, very dense, clayey GRAVEL with sand; porous. | | |
| | 23/6" 33/6" 43/6" | | | | | | | | |
| 20 | | | | | | | | | |

FIGURE A - 11

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | | | | | | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--------|----------------------------|--|------------------------------------|-----------|-----|-------------|-----|--|--|
| | | | | | | | | 11/5/2025 | B-8-5 | | | | | | |
| | | | | | | | | GROUND ELEVATION | 3,758' ± (MSL) | SHEET | 2 | OF | 2 | | |
| | | | | | | | | METHOD OF DRILLING | CME-85 Hollow Stem Auger Drill Rig | | | | | | |
| | | | | | | | | DRIVE WEIGHT | 140 lbs. (Auto Trip) | DROP | 30" | | | | |
| | | | | | | | | SAMPLED BY | KNS | LOGGED BY | KNS | REVIEWED BY | BLO | | |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | | | | | | |
| 20 | | | 20/6" 23/6" 23/6" | 2.3 | | | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; porous, scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | | | | | | |
| 25 | | | 20/6" 31/6" 32/6" | | | | | | | | | | | | |
| 30 | | | 17/6" 29/6" 35/6" | | | | | | | | | | | | |
| | | | | | | | | Total Depth = 31.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/5/2025. | | | | | | | |
| | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | | | | | | |
| 35 | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | |

FIGURE A - 12

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/10/2025 | B-8-6 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,749' ± (MSL) | 1 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | | |
| | | 15/6" 20/6" 23/6" | 1.1 | 129.2 | | | Medium dense. | | |
| 5 | | 7/6" 8/6" 9/6" | | | | | | | |
| | | 14/6" 34/6" 50/5" | 2.3 | 129.8 | | SW-SM | Light brown, dry, very dense, well-graded SAND with silt and gravel; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 10 | | 15/6" 38/6" 39/6" | | | | | | | |
| | | 19/6" 50/5" | 2.8 | 109.9 | | GM | Light brown, dry, very dense, silty GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 15 | | 13/6" 27/6" 27/6" | | | | | | | |
| 20 | | | | | | | | | |

FIGURE A - 13

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/10/2025 | B-8-6 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,749' ± (MSL) | 2 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 | | 25/6" 47/6" 48/6" | 3.5 | 123.2 | | GP-GM | NATIVE SOIL: (Continued) Light brown, moist, very dense, poorly graded GRAVEL with silt and sand. | | |
| 25 | | 10/6" 15/6" 21/6" | | | | | | | |
| 30 | | 13/6" 31/6" 37/6" | 4.2 | 101.7 | | | Dense. | | |
| 35 | | 22/6" 30/6" 23/6" | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 40 | | | | | | | Grayish brown, moist, hard, strongly cemented CALICHE. | | |

FIGURE A - 14

| DEPTH (feet) | SAMPLES | | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED <u>11/10/2025</u> BORING NO. <u>B-8-6</u> GROUND ELEVATION <u>3,749' ± (MSL)</u> SHEET <u>3</u> OF <u>3</u> METHOD OF DRILLING <u>CME-85 Hollow Stem Auger Drill Rig</u> DRIVE WEIGHT <u>140 lbs. (Auto Trip)</u> DROP <u>30"</u> SAMPLED BY <u>KNS</u> LOGGED BY <u>KNS</u> REVIEWED BY <u>BLO</u> | | |
|--------------|---------|--------|-------------------------|--------------|-------------------|--------|----------------------------|--|--|--|
| | Bulk | Driven | | | | | | DESCRIPTION/INTERPRETATION | | |
| 40 | | | 50/3" | | | | | NATIVE SOIL: (Continued) Grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 45 | | | 26/6" 50/5" | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 50 | | | 21/6" 36/6" 44/6" | | | | | Total Depth = 51.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/5/2025. | | |
| 55 | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |
| 60 | | | | | | | | | | |

FIGURE A - 15

| DEPTH (feet) | BULK SAMPLES Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|-------------------------|------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/5/2025 | B-8-7 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,754' ± (MSL) | 1 | 2 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | 1.8 | 127.7 | | GW-GM | NATIVE SOIL: Light brown, dry, dense, well-graded GRAVEL with silt and sand. | | |
| | 14/6" 21/6" 26/6" | | | | | | | | |
| 5 | 9/6" 15/6" 17/6" | | | | | | | | |
| | 46/6" 50/1" | | 7.0 | 108.6 | | GM | Light brown, moist, very dense, silty GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 10 | 40/6" 36/6" 39/6" | | | | | | | | |
| | 30/6" 42/6" 50/4" | | 6.3 | 122.6 | | | | | |
| 15 | 50/3" | | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| | | | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 20 | | | | | | | | | |

FIGURE A - 16

| DEPTH (feet) | SAMPLES | | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED <u>11/5/2025</u> BORING NO. <u>B-8-7</u> | |
|--------------|---------|--------|----------------|--------------|-------------------|--------|----------------------------|--|----------------------------|
| | Bulk | Driven | | | | | | GROUND ELEVATION <u>3,754' ± (MSL)</u> | SHEET <u>2</u> OF <u>2</u> |
| | | | | | | | | METHOD OF DRILLING <u>CME-85 Hollow Stem Auger Drill Rig</u> | |
| | | | | | | | | DRIVE WEIGHT <u>140 lbs. (Auto Trip)</u> DROP <u>30"</u> | |
| | | | | | | | | SAMPLED BY <u>KNS</u> LOGGED BY <u>KNS</u> REVIEWED BY <u>BLO</u> | |
| | | | | | | | | DESCRIPTION/INTERPRETATION | |
| 20 | | | 34/6" 50/5" | 4.2 | 112.7 | | GC | <u>NATIVE SOIL: (Continued)</u> Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | |
| 25 | | | 50/5" | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | |
| 30 | | | 17/6" 50/4" | 3.5 | 116.2 | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | |
| 35 | | | | | | | | Total Depth = 30.8 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/5/2025. | |
| 40 | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | |

FIGURE A - 17

| DEPTH (feet) | BULK SAMPLES Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|------------------------|-------------------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/6/2025 | B-8-8 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,762' ± (MSL) | 1 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | 10/6" 8/6" 8/6" | 2.3 | 120.3 | | GW-GM | NATIVE SOIL: Light brown, dry, medium dense, well-graded GRAVEL with silt and sand. | | |
| 5 | | 9/6" 18/6" 21/6" | | | | GM | Light brown, moist, very dense, silty GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | | 50/3" | | | | | Light grayish brown, moist, moderately hard, moderately cemented CALICHE. | | |
| 10 | | 21/6" 22/6" 29/6" | | | | GM | Light brown, moist, very dense, silty GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | | 24/6" 50/5" | 7.0 | 107.1 | | | | | |
| 15 | | 21/6" 28/6" 49/6" | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; porous, scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 20 | | | | | | | | | |

FIGURE A - 18

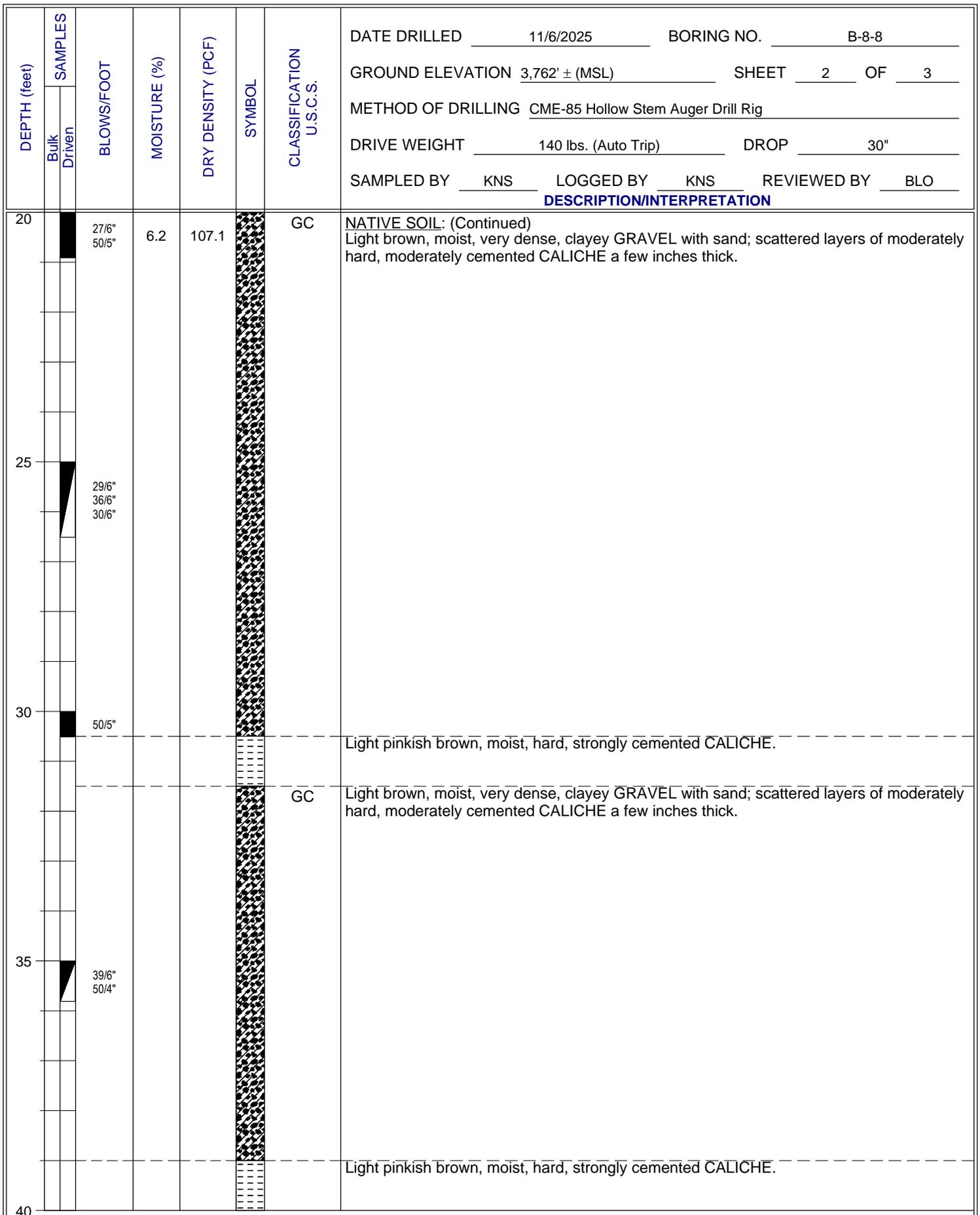


FIGURE A - 19

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | | 11/6/2025 | B-8-8 | |
| | | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | | 3,762' ± (MSL) | 3 | 3 |
| | | | | | | | | METHOD OF DRILLING | | |
| | | | | | | | | CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | | KNS | KNS | BLO |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 40 | | | 50/4" | | | | | NATIVE SOIL: (Continued) Light pinkish brown, moist, hard, strongly cemented CALICHE. | | |
| | | | | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 45 | | | 28/6" 33/6" 40/6" | | | | | | | |
| 50 | | | 50/5" | | | | | Total Depth = 50.4 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/6/2025. | | |
| | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |
| 55 | | | | | | | | | | |
| 60 | | | | | | | | | | |

FIGURE A - 20

| DEPTH (feet) | SAMPLES | | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | GENERAL INFORMATION | |
|-----------------------------------|-------------------------|--------|------------|--------------|-------------------|--------|----------------------------|---|-------------------------------|
| | Bulk | Driven | | | | | | DATE DRILLED | BORING NO. |
| | | | | | | | | 11/12/2025 | B-8-9 |
| | | | | | | | | 3,751' ± (MSL) | SHEET 1 OF 2 |
| | | | | | | | | CME-85 Hollow Stem Auger Drill Rig | |
| | | | | | | | | 140 lbs. (Auto Trip) | DROP 30" |
| | | | | | | | | KNS | LOGGED BY KNS REVIEWED BY BLO |
| DESCRIPTION/INTERPRETATION | | | | | | | | | |
| 0 | | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | |
| | | | | | | | GM | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | |
| | 10/6" 12/6" 10/6" | | | | | | | | |
| 5 | | | | 2.3 | 117.9 | | SW-SM | Light brown, dry, medium dense, well-graded SAND with silt and gravel. | |
| | 7/6" 8/6" 8/6" | | | | | | | | |
| | 17/6" 31/6" 34/6" | | | | | | | Very dense. | |
| 10 | | | | 3.6 | 111.8 | | | Moist; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | |
| | 31/6" 50/5" | | | | | | | | |
| | 27/6" 50/5" | | | | | | | | |
| 15 | | | | 3.4 | | | | | |
| | 25/6" 29/6" 30/6" | | | | | | | | |
| 20 | | | | | | | | | |

FIGURE A - 21

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | | | | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--------|----------------------------|--|------------------------------------|-----------|-----|-------------|-----|
| | | | | | | | | 11/12/2025 | B-8-9 | | | | |
| | | | | | | | | GROUND ELEVATION | 3,751' ± (MSL) | SHEET | 2 | OF | 2 |
| | | | | | | | | METHOD OF DRILLING | CME-85 Hollow Stem Auger Drill Rig | | | | |
| | | | | | | | | DRIVE WEIGHT | 140 lbs. (Auto Trip) | DROP | 30" | | |
| | | | | | | | | SAMPLED BY | KNS | LOGGED BY | KNS | REVIEWED BY | BLO |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | | | | |
| 20 | | | 17/6" 17/6" 27/6" | 4.8 | | | SC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey SAND with gravel; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | | | | |
| 25 | | | 17/6" 20/6" 22/6" | 4.0 | | | | | | | | | |
| 30 | | | 48/6" 36/6" 42/6" | | | | | | | | | | |
| | | | | | | | | Total Depth = 31.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/12/2025. | | | | | |
| | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | | | | |
| 35 | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | |

FIGURE A - 22

| DEPTH (feet) | BULK SAMPLES Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED <u>11/12/2025</u> BORING NO. <u>B-8-10</u> | |
|--------------|-------------------------|------------|--------------|-------------------|--------|----------------------------|---|--|
| | | | | | | | GROUND ELEVATION <u>3,758' ± (MSL)</u> SHEET <u>1</u> OF <u>2</u> | |
| | | | | | | | METHOD OF DRILLING <u>CME-85 Hollow Stem Auger Drill Rig</u> | |
| | | | | | | | DRIVE WEIGHT <u>140 lbs. (Auto Trip)</u> DROP <u>30"</u> | |
| | | | | | | | SAMPLED BY <u>KNS</u> LOGGED BY <u>KNS</u> REVIEWED BY <u>BLO</u> | |
| | | | | | | | DESCRIPTION/INTERPRETATION | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, medium dense, silty GRAVEL with sand. | |
| | 13/6" 14/6" 23/6" | | 1.6 | 111.8 | | | | |
| 5 | | | | | | | Very dense. | |
| | 19/6" 23/6" 32/6" | | | | | | | |
| | 20/6" 33/6" 50/6" | | 2.0 | 129.9 | | GP-GM | Light brown, dry, very dense, poorly graded GRAVEL with silt and sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | |
| 10 | | | | | | | | |
| | 22/6" 28/6" 40/6" | | | | | | | |
| | 21/6" 30/6" 50/6" | | 7.9 | 112.0 | | SC | Light brown, moist, very dense, clayey SAND with gravel. | |
| 15 | | | | | | | | |
| | 16/6" 26/6" 40/6" | | | | | | | |
| 20 | | | | | | | | |

FIGURE A - 23

| DEPTH (feet) | BULK SAMPLES Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|-------------------------|------------|--------------|-------------------|--------|----------------------------|---|------------|--|
| | | | | | | | 11/12/2025 | B-8-10 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,758' ± (MSL) | 2 | 2 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 | 24/6" 32/6" 32/6" | | 4.3 | | | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; porous, scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 25 | 24/6" 30/6" 25/6" | | 4.3 | | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. |
| 30 | 50/3" | | | | | | Total Depth = 30.3 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/12/2025. | | |
| | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |
| 35 | | | | | | | | | |
| 40 | | | | | | | | | |

FIGURE A - 24

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED <u>11/10/2025</u> BORING NO. <u>B-8-11</u> GROUND ELEVATION <u>3,748' ± (MSL)</u> SHEET <u>1</u> OF <u>3</u> METHOD OF DRILLING <u>CME-85 Hollow Stem Auger Drill Rig</u> DRIVE WEIGHT <u>140 lbs. (Auto Trip)</u> DROP <u>30"</u> SAMPLED BY <u>KNS</u> LOGGED BY <u>KNS</u> REVIEWED BY <u>BLO</u> | | |
|--------------|--|------------|--------------|-------------------|--------|----------------------------|---|--|--|
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | | |
| 5 | 15/6" 12/6" 13/6" 15/6" 20/6" 25/6" 16/6" 50/5" | | 2.3 | 123.6 | | | Very dense; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 10 | 35/6" 50/5" | | 3.5 | 108.2 | | | Moist. | | |
| 15 | 21/6" 35/6" 37/6" 31/6" 40/6" 36/6" | | 4.1 | 118.0 | | SP-SM | Light brown, moist, very dense, poorly graded SAND with silt and gravel. | | |
| 20 | | | | | | | | | |

FIGURE A - 25

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | | |
|--------------|---------------------------|------------|--------------|-------------------|--------|----------------------------|--|--|-------------|--|
| | | | | | | | 11/10/2025 | B-8-11 | | |
| | | | | | | | GROUND ELEVATION | SHEET | OF | |
| | | | | | | | 3,748' ± (MSL) | 2 | 3 | |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | | |
| | | | | | | | DRIVE WEIGHT | DROP | | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY | |
| | | | | | | | KNS | KNS | BLO | |
| | | | | | | | DESCRIPTION/INTERPRETATION | | | |
| 20 | 19/6" 20/6" 27/6" | | | | | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | | |
| 25 | 36/6" 50/5" | | 5.7 | 107.7 | | | | | | |
| 30 | 30/6" 35/6" 28/6" | | | | | | | | | |
| 35 | 44/6" 50/2" | | 5.5 | 97.2 | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| | | | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | | |
| 40 | | | | | | | | | | |

FIGURE A - 26

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|--------|----------------------------|--|------------|-------------|
| | | | | | | | 11/10/2025 | B-8-11 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,748' ± (MSL) | 3 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 40 | | 41/6" 49/6" 40/6" | | | | GC | <u>NATIVE SOIL: (Continued)</u> Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 45 | | 50/4" | | | | GC | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 50 | | 50/5" | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 55 | | | | | | | Total Depth = 50.4 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/10/2025. | | |
| 60 | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |

FIGURE A - 27

| DEPTH (feet) | BULK SAMPLES Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED <u>11/12/2025</u> BORING NO. <u>B-8-12</u> | |
|--------------|-------------------------|------------|--------------|-------------------|--------|----------------------------|---|--|
| | | | | | | | GROUND ELEVATION <u>3,753' ± (MSL)</u> SHEET <u>1</u> OF <u>2</u> | |
| | | | | | | | METHOD OF DRILLING <u>CME-85 Hollow Stem Auger Drill Rig</u> | |
| | | | | | | | DRIVE WEIGHT <u>140 lbs. (Auto Trip)</u> DROP <u>30"</u> | |
| | | | | | | | SAMPLED BY <u>KNS</u> LOGGED BY <u>KNS</u> REVIEWED BY <u>BLO</u> | |
| | | | | | | | DESCRIPTION/INTERPRETATION | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | |
| | | | | | | SM | NATIVE SOIL: Light brown, dry, dense, silty SAND with gravel. | |
| | 10/6" 14/6" 15/6" | | | | | | | |
| 5 | | | 2.2 | 114.7 | | | Medium dense. | |
| | 9/6" 8/6" 9/6" | | | | | | | |
| | | | | | | GP-GM | Light brown, moist, very dense, poorly graded GRAVEL with silt and sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | |
| | 24/6" 48/6" 50/5" | | | | | | | |
| 10 | | | 4.0 | 116.3 | | | | |
| | 37/6" 38/6" 50/5" | | | | | | | |
| | | | | | | | | |
| | 21/6" 36/6" 33/6" | | | | | | | |
| 15 | | | 2.6 | 128.0 | | | | |
| | 21/6" 34/6" 42/6" | | | | | | | |
| 20 | | | | | | | | |

FIGURE A - 28

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--------|----------------------------|--|------------|-------------|
| | | | | | | | | 11/12/2025 | B-8-12 | |
| | | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | | 3,753' ± (MSL) | 2 | 2 |
| | | | | | | | | METHOD OF DRILLING | | |
| | | | | | | | | CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | | KNS | KNS | BLO |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 | | | 29/6" 37/6" 43/6" | | | | GC | <u>NATIVE SOIL: (Continued)</u> Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 25 | | | 42/6" 45/6" 50/5" | 5.6 | 119.6 | | | | | |
| 30 | | | 25/6" 30/6" 41/6" | | | | | | | |
| 35 | | | | | | | | Total Depth = 31.5 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/12/2025. | | |
| 40 | | | | | | | | <u>Notes:</u> Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |

FIGURE A - 29

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/6/2025 | B-8-13 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,760' ± (MSL) | 1 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 0 | | | | | | GP-GM | FILL: Light brown, dry, medium dense, poorly graded GRAVEL with silt and sand. | | |
| | | | | | | GM | NATIVE SOIL: Light brown, dry, dense, silty GRAVEL with sand. | | |
| | 12/6" 13/6" 16/6" | | | | | | | | |
| 5 | 28/6" 50/4" | | 4.8 | 105.2 | | | Moist, very dense, scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| | 14/6" 15/6" 14/6" | | | | | | | | |
| 10 | 9/6" 25/6" 50/5" | | 3.3 | 106.7 | | | | | |
| | 15/6" 12/6" 9/6" | | | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; porous. | | |
| 15 | 27/6" 50/5" | | 7.3 | 94.4 | | | Scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 20 | | | | | | | | | |

FIGURE A - 30

| DEPTH (feet) | Bulk Driven SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|---------------------------|-------------------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | 11/6/2025 | B-8-13 | |
| | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | 3,760' ± (MSL) | 2 | 3 |
| | | | | | | | METHOD OF DRILLING CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | KNS | KNS | BLO |
| | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 20 | | 23/6" 27/6" 40/6" | | | | GC | NATIVE SOIL: (Continued) Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 25 | | 33/6" 44/6" 46/6" | 4.7 | 119.2 | | GW-GM | Light brown, moist, very dense, well-graded GRAVEL with silt and sand. | | |
| 30 | | 50/5" | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 35 | | 25/6" 27/6" 29/6" | 7.0 | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 40 | | | | | | | | | |

FIGURE A - 31

| DEPTH (feet) | Bulk Driven | SAMPLES | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S. | DATE DRILLED | BORING NO. | |
|--------------|----------------|---------|-------------------------|--------------|-------------------|--------|----------------------------|---|------------|-------------|
| | | | | | | | | 11/6/2025 | B-8-13 | |
| | | | | | | | | GROUND ELEVATION | SHEET | OF |
| | | | | | | | | 3,760' ± (MSL) | 3 | 3 |
| | | | | | | | | METHOD OF DRILLING | | |
| | | | | | | | | CME-85 Hollow Stem Auger Drill Rig | | |
| | | | | | | | | DRIVE WEIGHT | DROP | |
| | | | | | | | | 140 lbs. (Auto Trip) | 30" | |
| | | | | | | | | SAMPLED BY | LOGGED BY | REVIEWED BY |
| | | | | | | | | KNS | KNS | BLO |
| | | | | | | | | DESCRIPTION/INTERPRETATION | | |
| 40 | | | 50/4" | | | | | Light grayish brown, moist, hard, strongly cemented CALICHE. | | |
| 45 | | | 26/6" 46/6" 26/6" | 10.2 | | | GC | Light brown, moist, very dense, clayey GRAVEL with sand; scattered layers of moderately hard, moderately cemented CALICHE a few inches thick. | | |
| 50 | | | 42/6" 50/1" | | | | | Total Depth = 50.6 feet. Groundwater not encountered while drilling. Backfilled with grout on 11/6/2025. | | |
| 55 | | | | | | | | Notes: Groundwater may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. | | |
| 60 | | | | | | | | | | |

FIGURE A - 32



APPENDIX B

Laboratory Testing

APPENDIX B

LABORATORY TESTING

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory borings in Appendix A.

In Place Moisture and Density

The moisture content and dry density of samples obtained from the exploratory borings were evaluated in general accordance with ASTM D 2216 and D 2937. The test results are presented on the logs of the exploratory borings in Appendix A.

Gradation Analysis

Gradation analysis tests were performed on selected representative soil samples in general accordance with ASTM D 422. These test results were utilized in evaluating the soil classifications in accordance with the USCS. The grain size distribution curves are shown on Figure B-1 through Figure B-14.

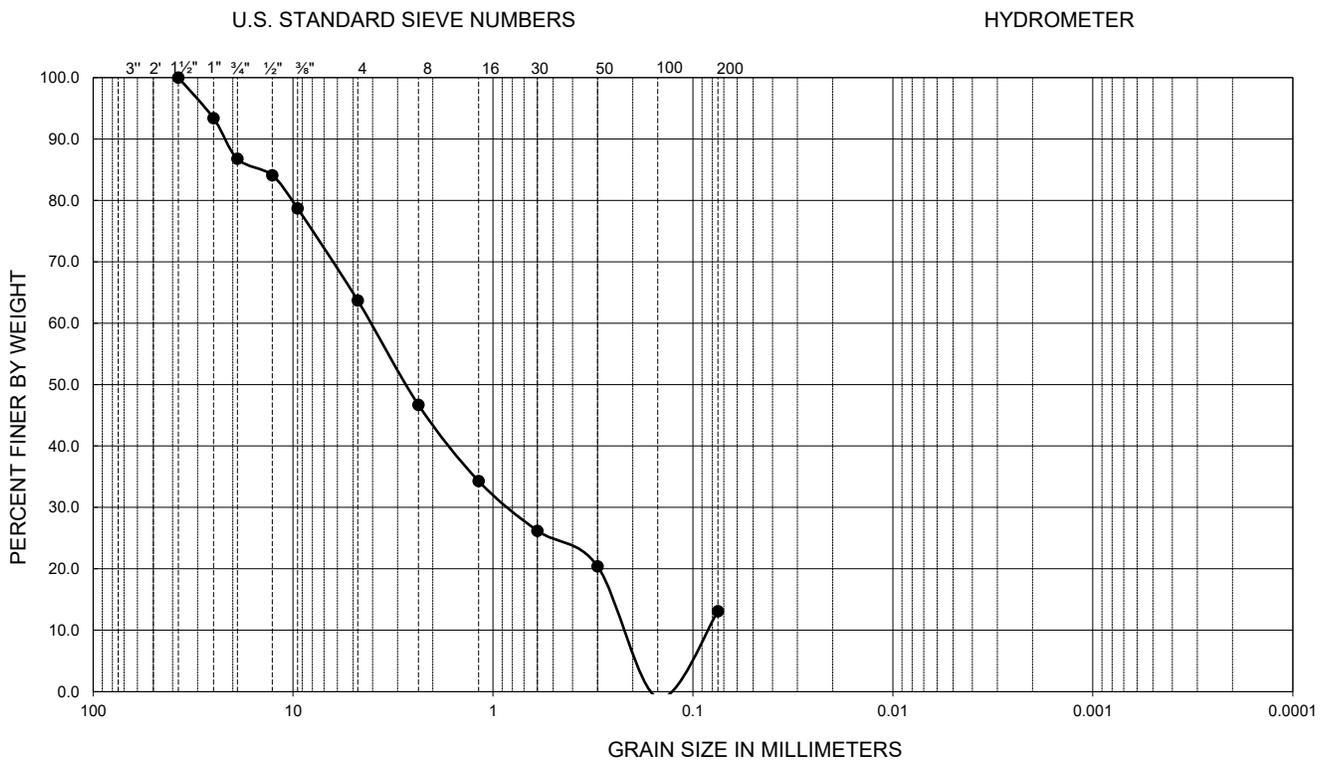
Atterberg Limits

Tests were performed on selected representative soil samples to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. These test results were utilized to evaluate the soil classification in accordance with the USCS. The test results and classifications are shown on Figure B-15 and Figure B-16.

Proctor Density Tests

The maximum dry density and optimum moisture content of selected representative soil samples were evaluated using the standard Proctor method in general accordance with ASTM D 698. The results of these tests are summarized on Figures B-17 and B-18.

| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|------|
| ● | B-8-1 | 7.5' | NP | NP | NP | -- | 0.82 | 4.08 | -- | -- | 13.1 | SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|------------------------|
| Gravel | Sand | Fines | |
| 36.3 | 50.6 | 13.1 | Silty SAND with gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-1

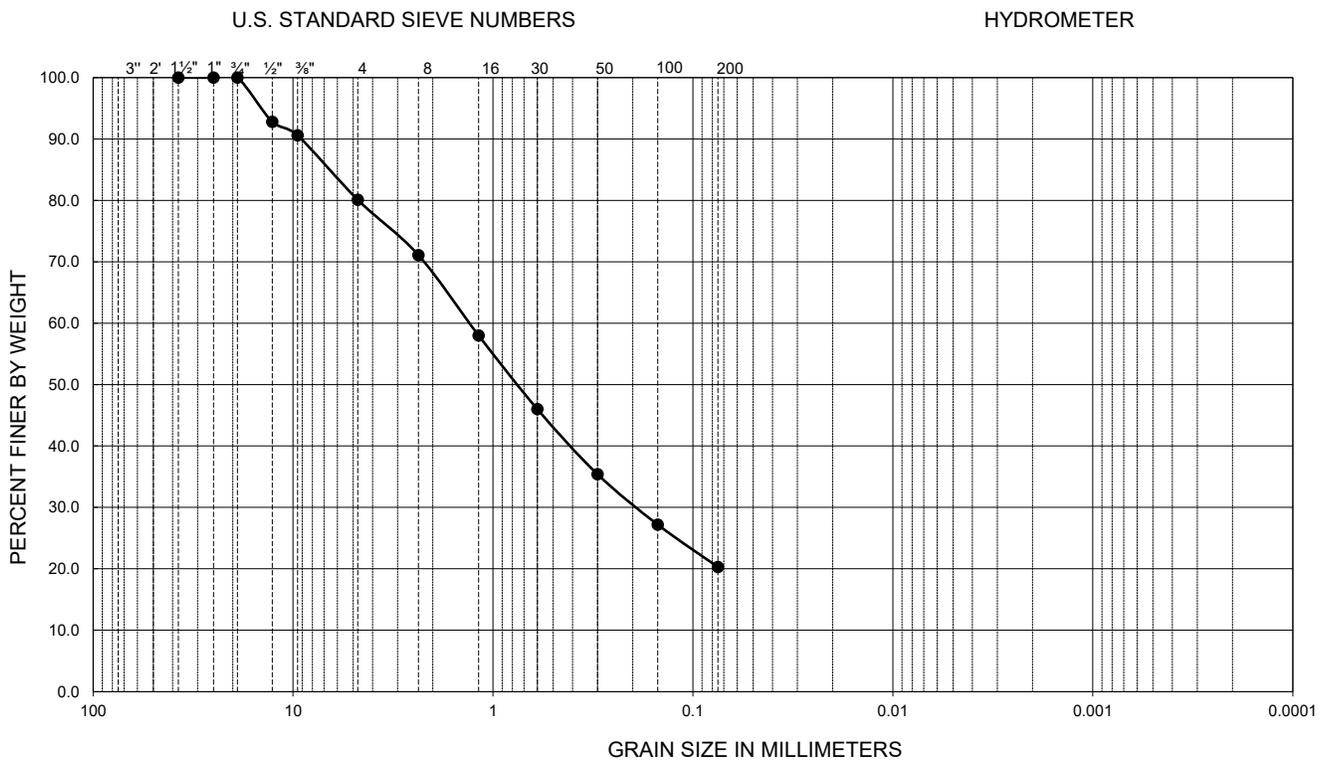
GRADATION TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|------|
| ● | B-8-3 | 7.5' | NP | NP | NP | -- | 0.19 | 1.31 | -- | -- | 20.3 | SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|------------------------|
| Gravel | Sand | Fines | Silty SAND with gravel |
| 19.9 | 59.8 | 20.3 | |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

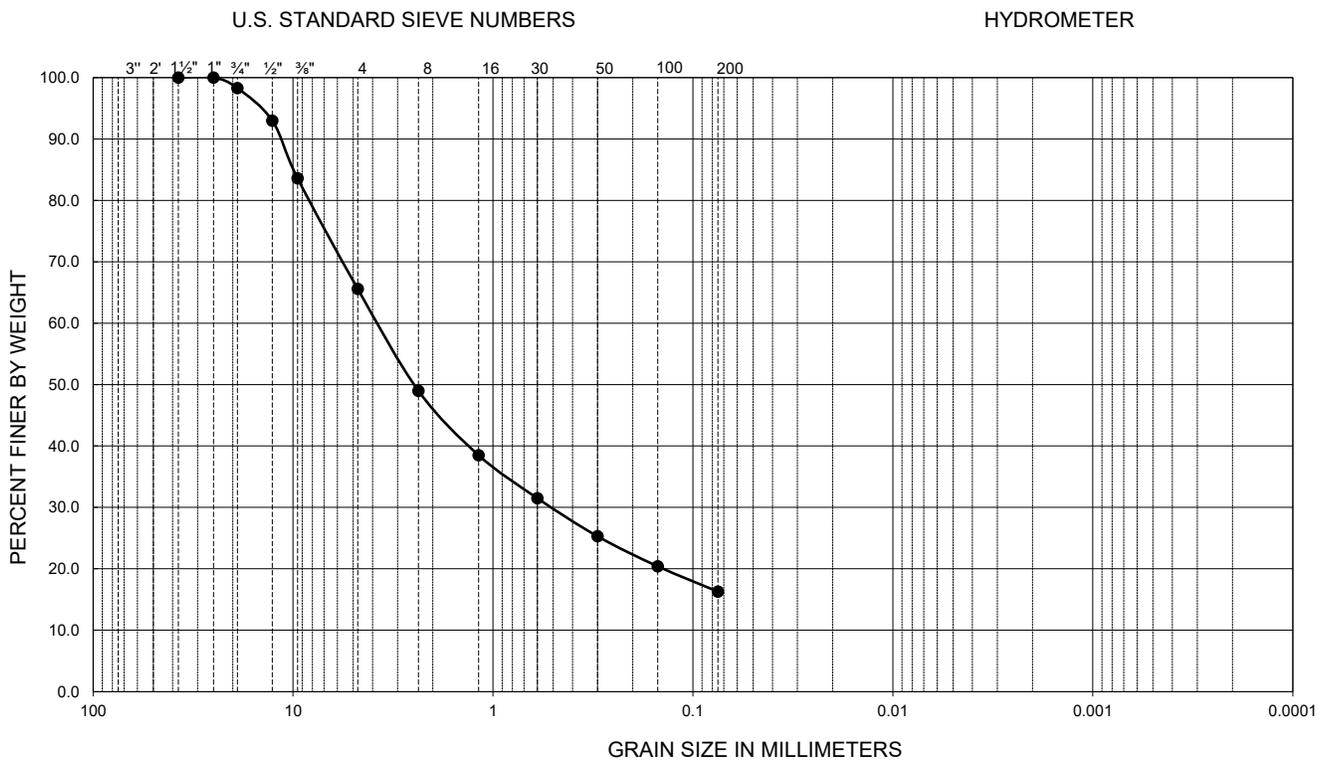
FIGURE B-2

GRADATION TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA



| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|------|
| ● | B-8-4 | 7.5' | NP | NP | NP | -- | 0.51 | 3.75 | -- | -- | 16.3 | SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|------------------------|
| Gravel | Sand | Fines | |
| 34.4 | 49.3 | 16.3 | Silty SAND with gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-3

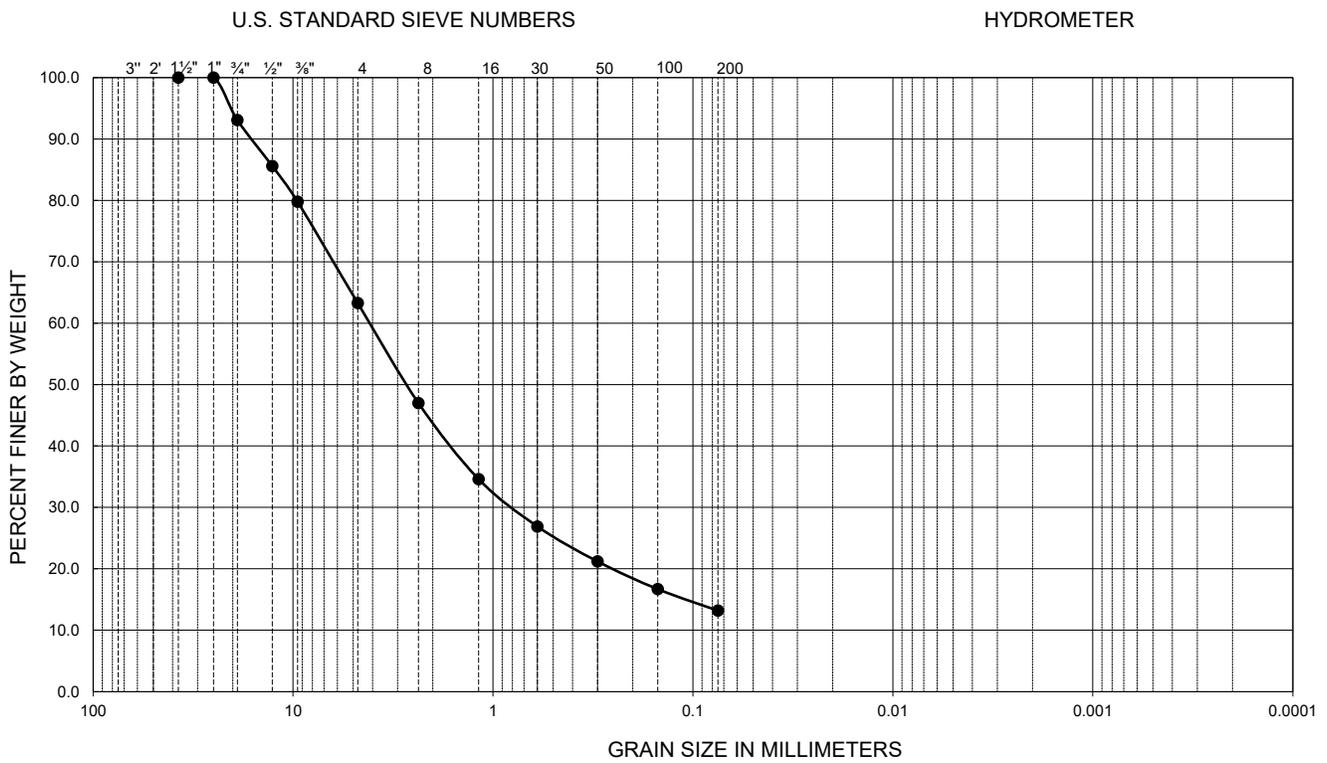
GRADATION TEST RESULTS

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|------|
| ● | B-8-5 | 7.5' | NP | NP | NP | -- | 0.79 | 4.12 | -- | -- | 13.2 | SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|------------------------|
| Gravel | Sand | Fines | |
| 36.7 | 50.1 | 13.2 | Silty SAND with gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-4

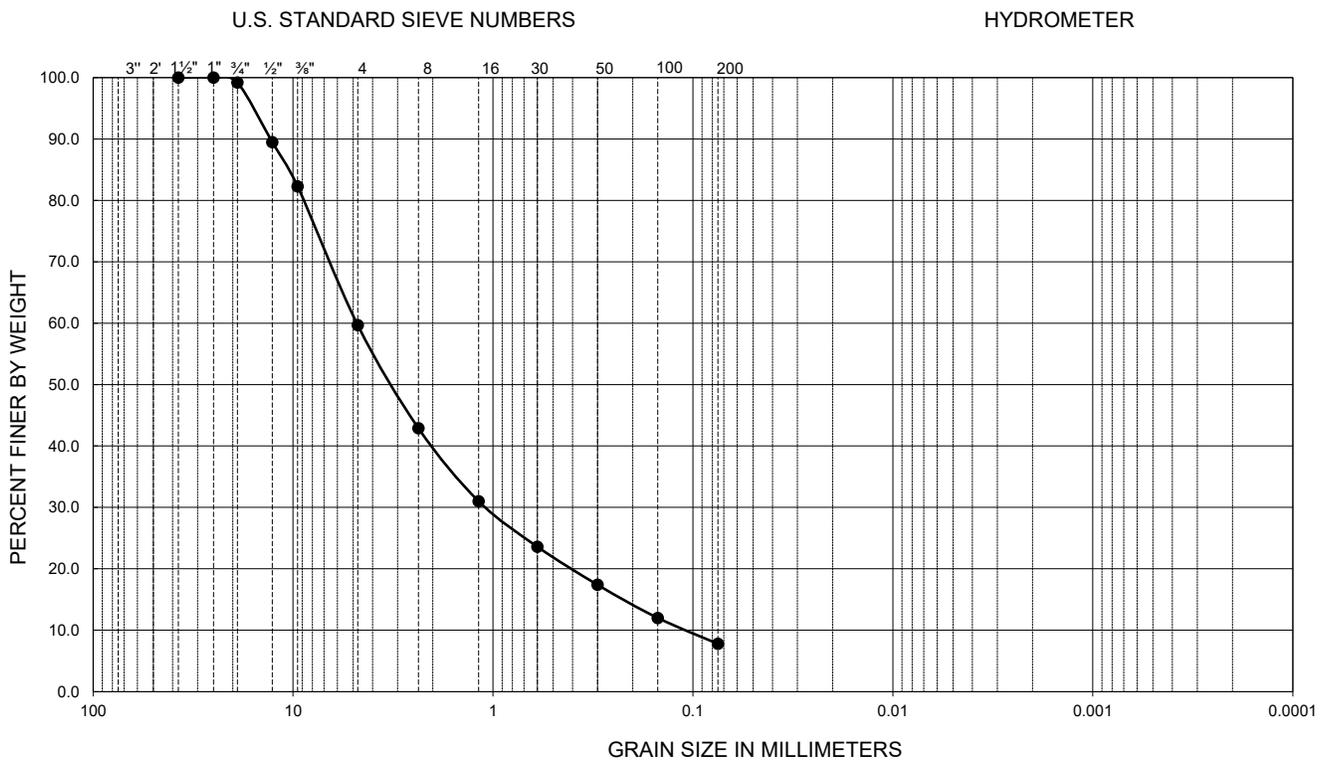
GRADATION TEST RESULTS

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-6 | 7.5' | NP | NP | NP | 0.11 | 1.08 | 4.79 | 44.5 | 2.2 | 7.8 | SW-SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---------------------------------------|
| Gravel | Sand | Fines | |
| 40.3 | 51.9 | 7.8 | Well-graded SAND with silt and gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-5

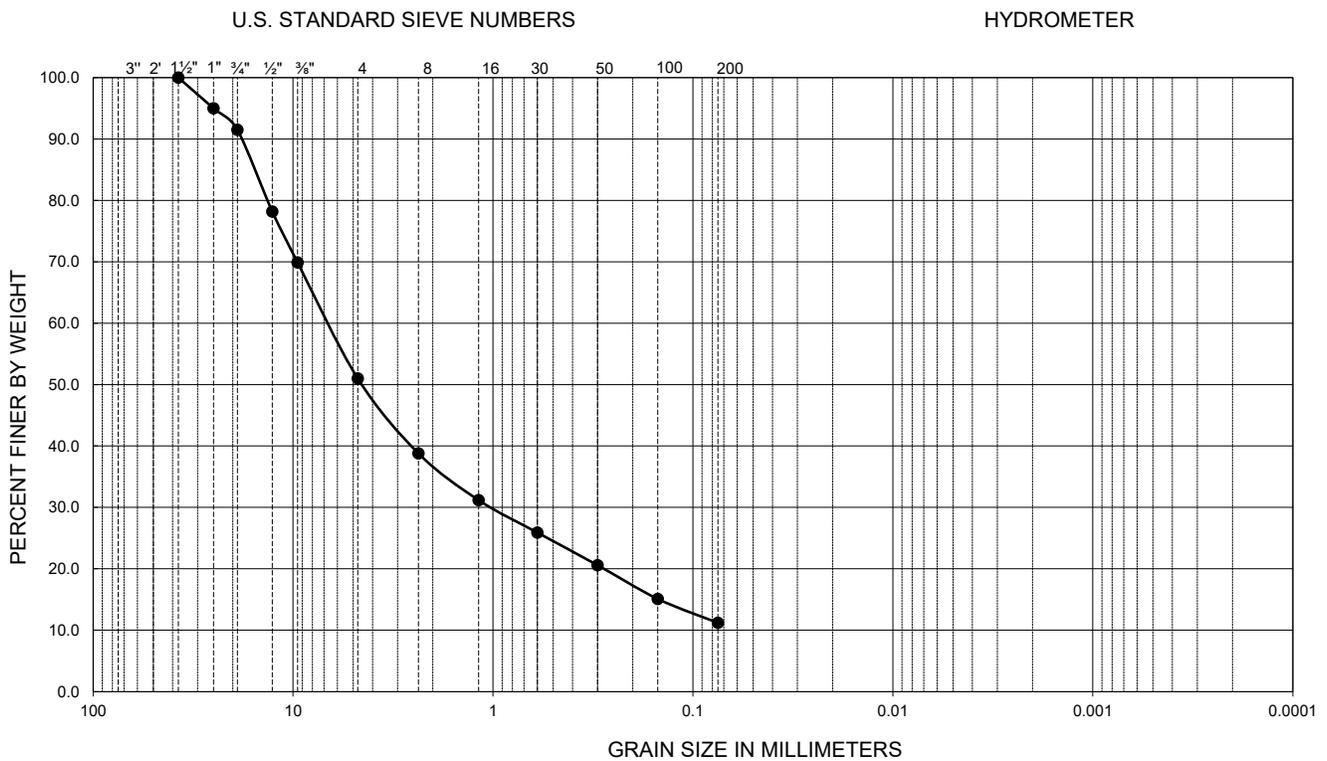
GRADATION TEST RESULTS

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-6 | 20' | NP | NP | NP | -- | 1.01 | 6.61 | -- | -- | 11.2 | GP-GM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---|
| Gravel | Sand | Fines | |
| 49.0 | 39.8 | 11.2 | Poorly graded GRAVEL with silt and sand |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-6

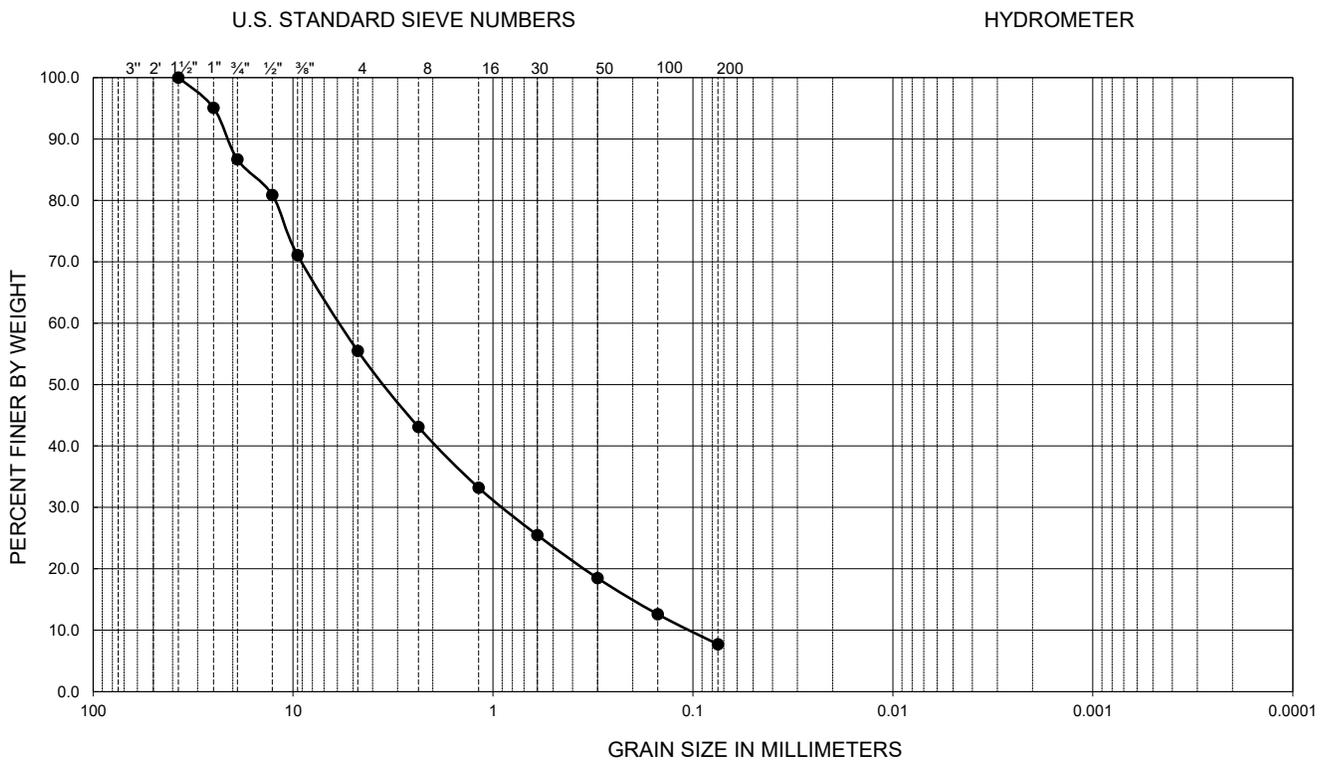
GRADATION TEST RESULTS

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-9 | 5' | NP | NP | NP | 0.10 | 0.89 | 5.80 | 55.9 | 1.3 | 7.7 | SW-SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---------------------------------------|
| Gravel | Sand | Fines | |
| 44.5 | 47.8 | 7.7 | Well-graded SAND with silt and gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

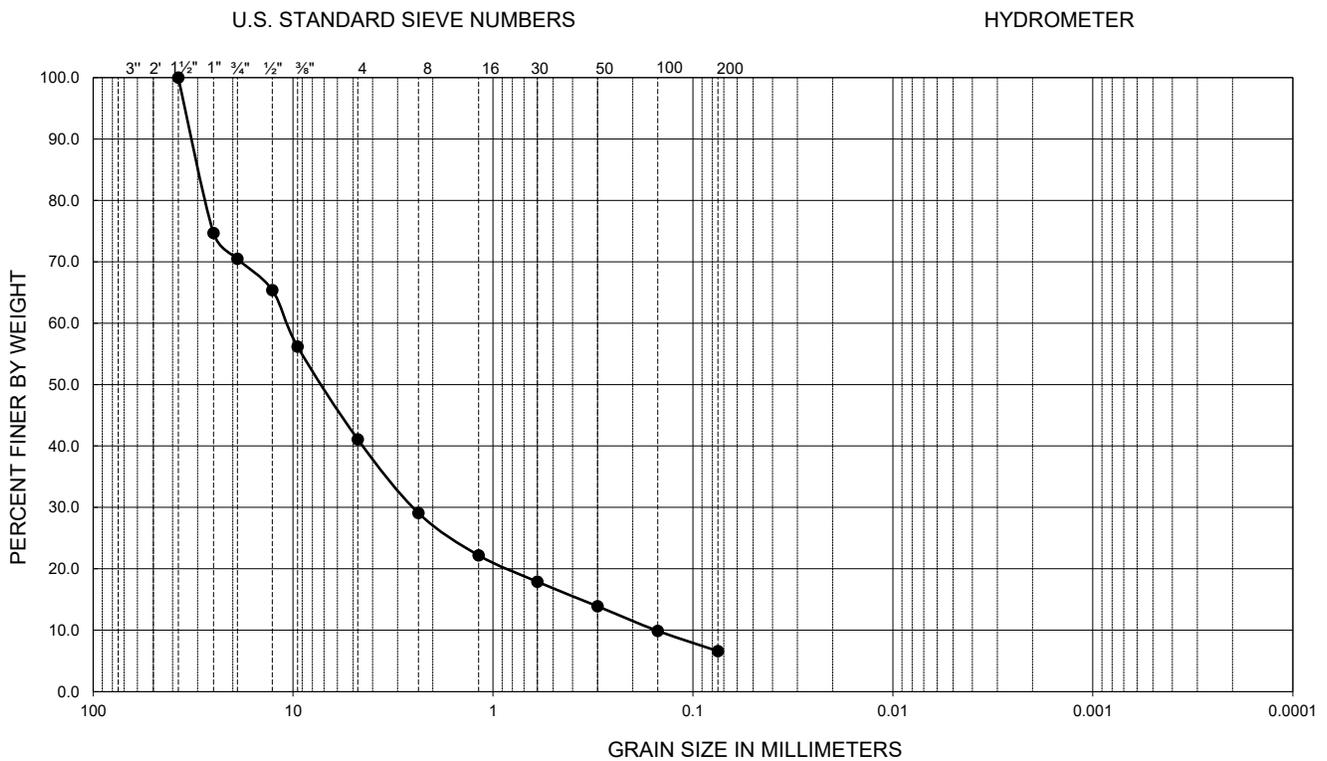
FIGURE B-9

GRADATION TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA



| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-10 | 7.5' | NP | NP | NP | 0.15 | 2.49 | 10.71 | 70.2 | 3.8 | 6.6 | GP-GM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---|
| Gravel | Sand | Fines | |
| 58.9 | 34.5 | 6.6 | Poorly graded GRAVEL with silt and sand |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-10

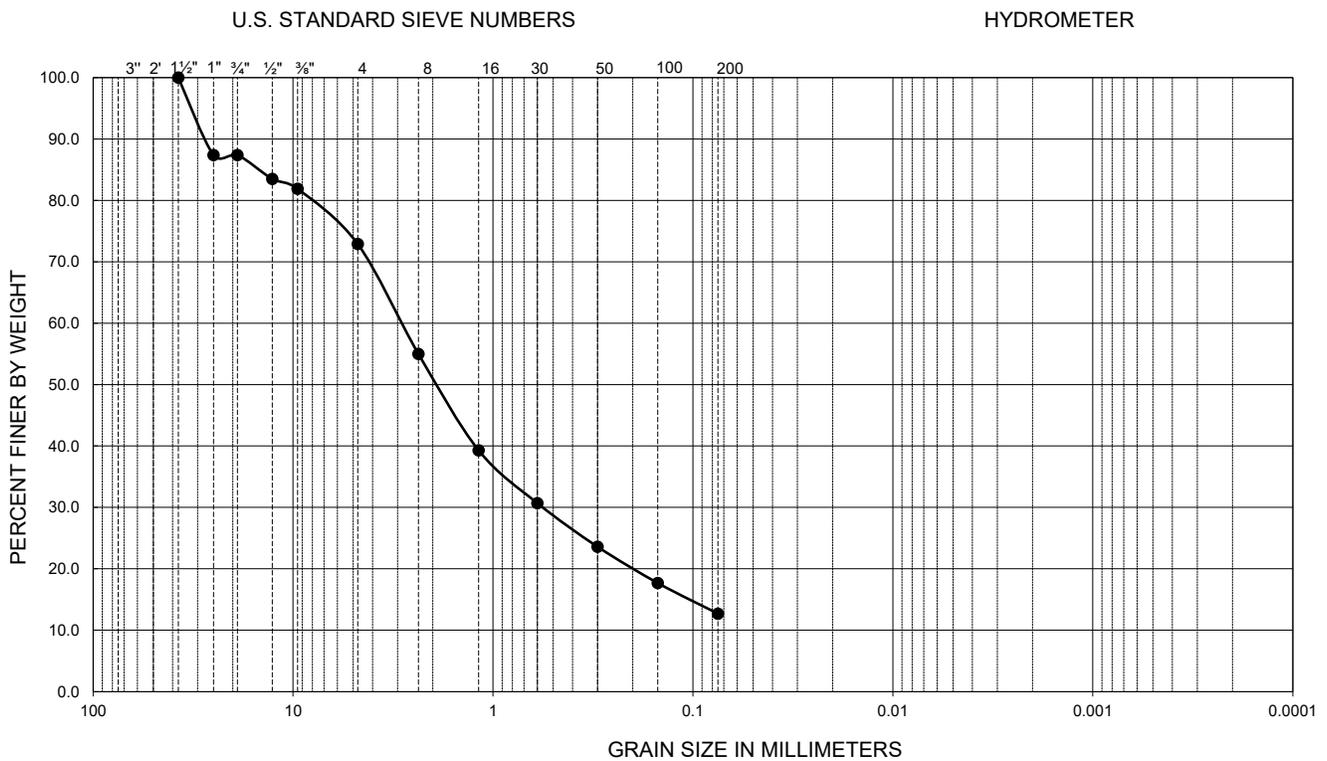
GRADATION TEST RESULTS

MERCURY - BUILDING 8 DATA
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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|------|
| ● | B-8-10 | 12.5' | NP | NP | NP | -- | 0.56 | 2.87 | -- | -- | 12.7 | SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|------------------------|
| Gravel | Sand | Fines | |
| 27.1 | 60.2 | 12.7 | Silty SAND with gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-11

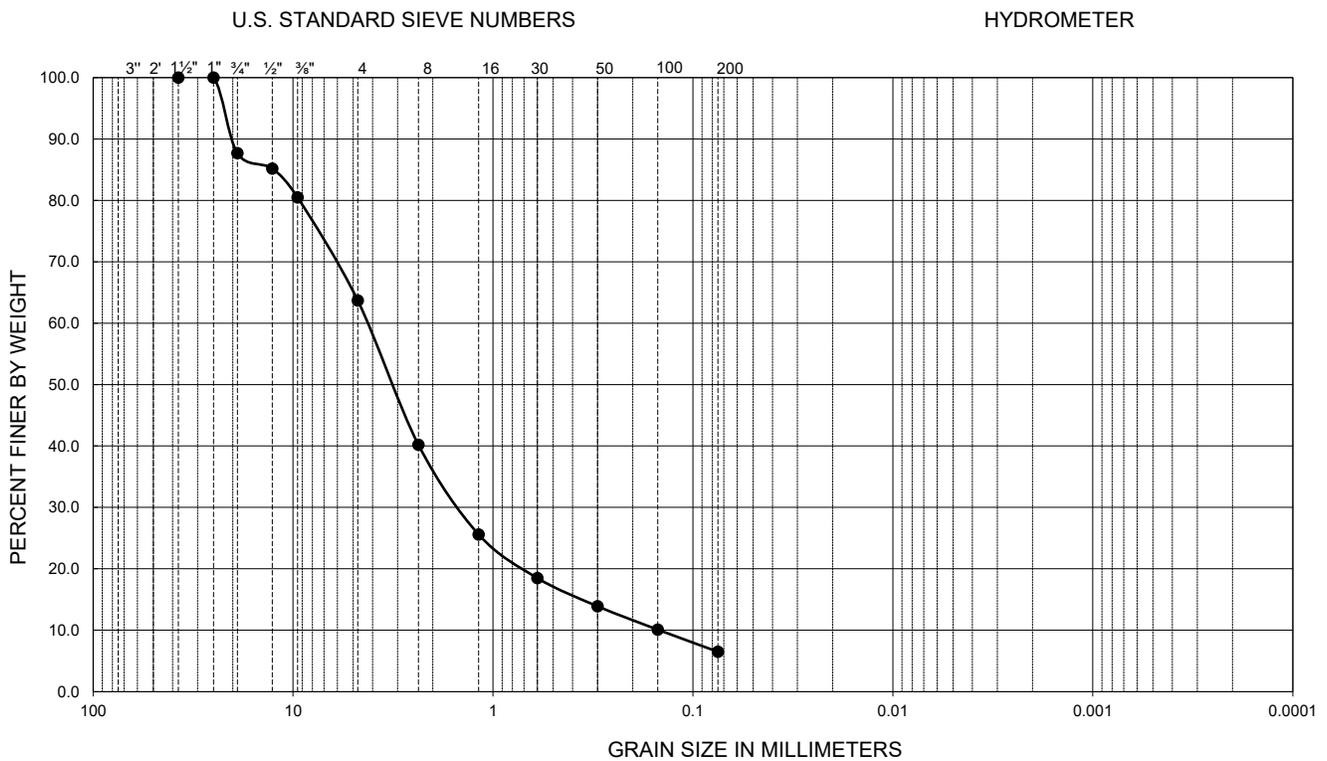
GRADATION TEST RESULTS

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-11 | 15' | NP | NP | NP | 0.15 | 1.45 | 4.25 | 28.9 | 3.4 | 6.5 | SP-SM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---|
| Gravel | Sand | Fines | |
| 36.3 | 57.2 | 6.5 | Poorly graded SAND with silt and gravel |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-12

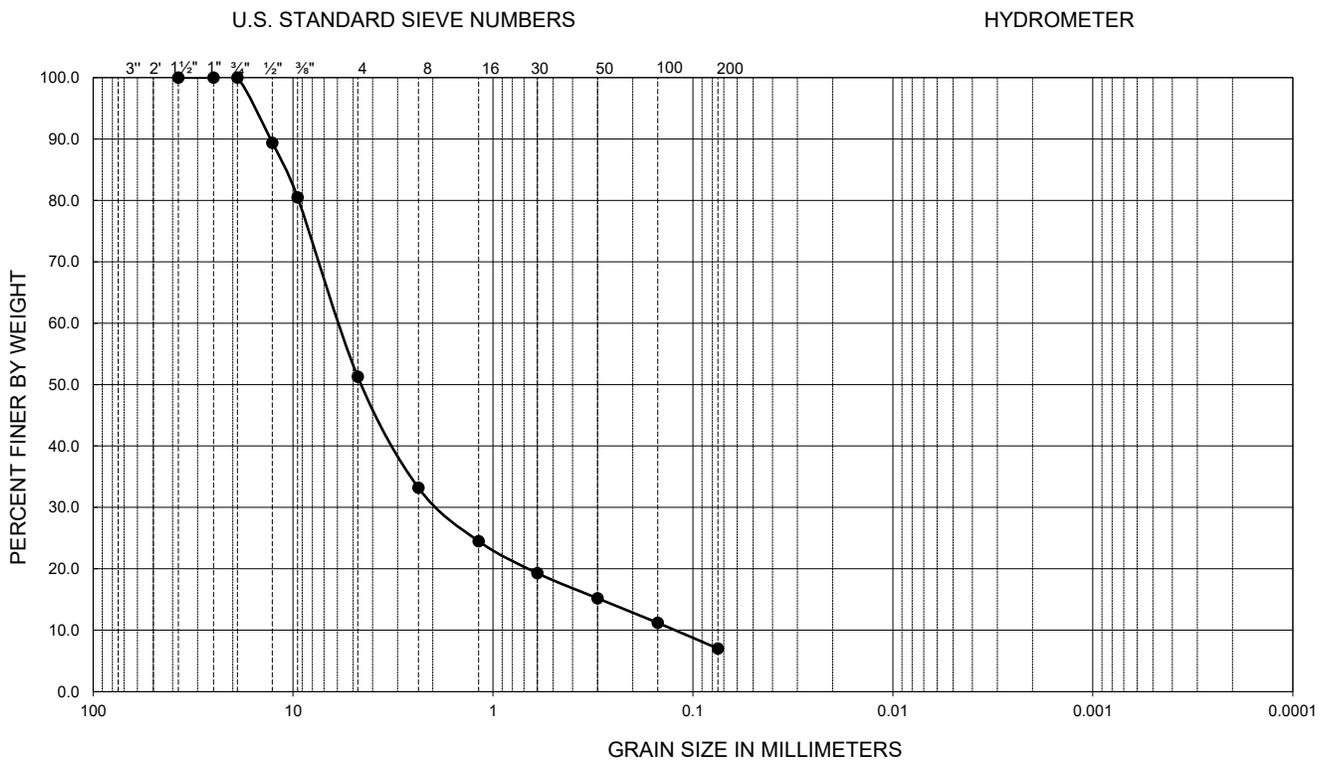
GRADATION TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

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| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-12 | 10' | NP | NP | NP | 0.12 | 1.83 | 5.84 | 47.5 | 4.7 | 7.0 | GP-GM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---|
| Gravel | Sand | Fines | |
| 48.7 | 44.3 | 7.0 | Poorly graded GRAVEL with silt and sand |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

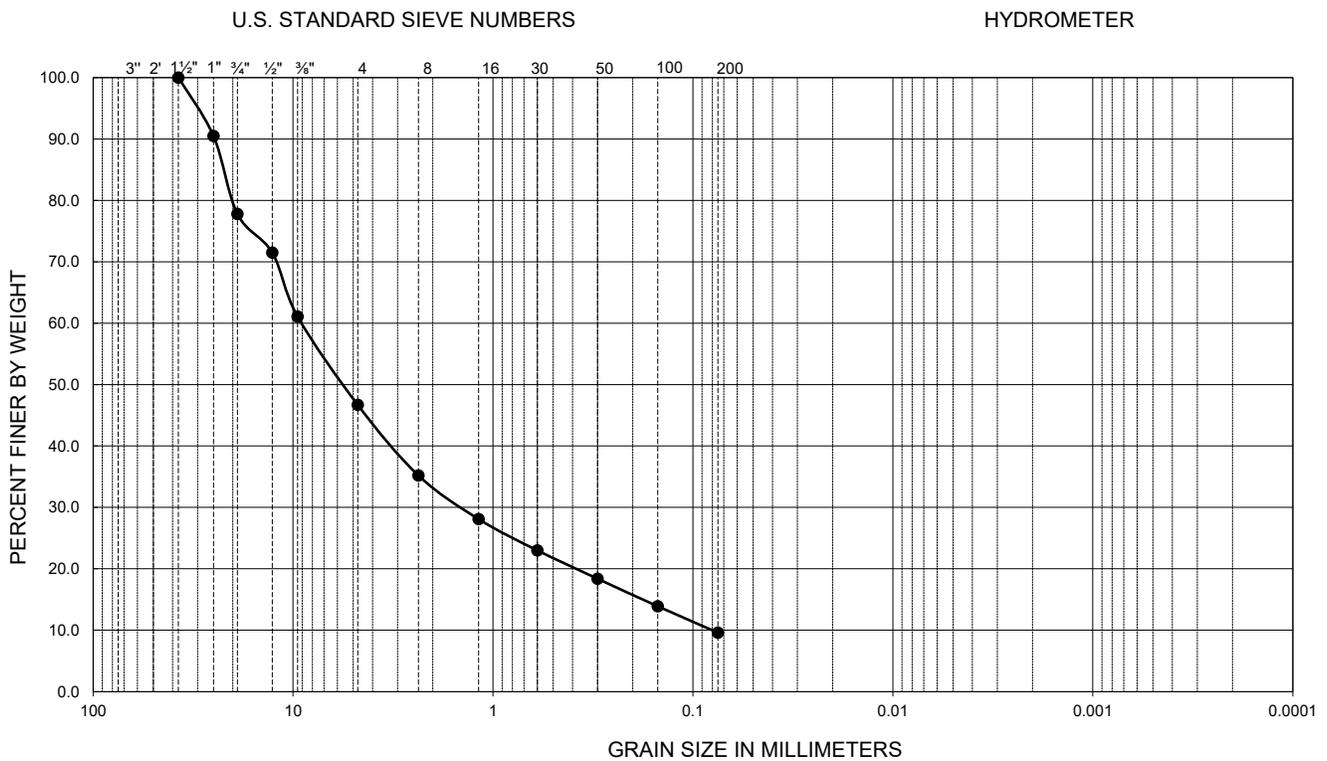
FIGURE B-13

GRADATION TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA



| | | | | | | |
|--------|------|--------|--------|------|-------|------|
| GRAVEL | | SAND | | | FINES | |
| Coarse | Fine | Coarse | Medium | Fine | SILT | CLAY |



| Symbol | Sample Location | Depth (ft) | Liquid Limit | Plastic Limit | Plasticity Index | D ₁₀ | D ₃₀ | D ₆₀ | C _u | C _c | Passing No. 200 (%) | USCS |
|--------|-----------------|------------|--------------|---------------|------------------|-----------------|-----------------|-----------------|----------------|----------------|---------------------|-------|
| ● | B-8-13 | 25' | NP | NP | NP | 0.08 | 1.42 | 9.01 | 112.6 | 2.8 | 9.6 | GW-GM |

| Material Percent by Weight | | | Soil Type |
|----------------------------|------|-------|---------------------------------------|
| Gravel | Sand | Fines | |
| 53.3 | 37.1 | 9.6 | Well-graded GRAVEL with silt and sand |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

"NP" INDICATES NON-PLASTIC

FIGURE B-14

GRADATION TEST RESULTS

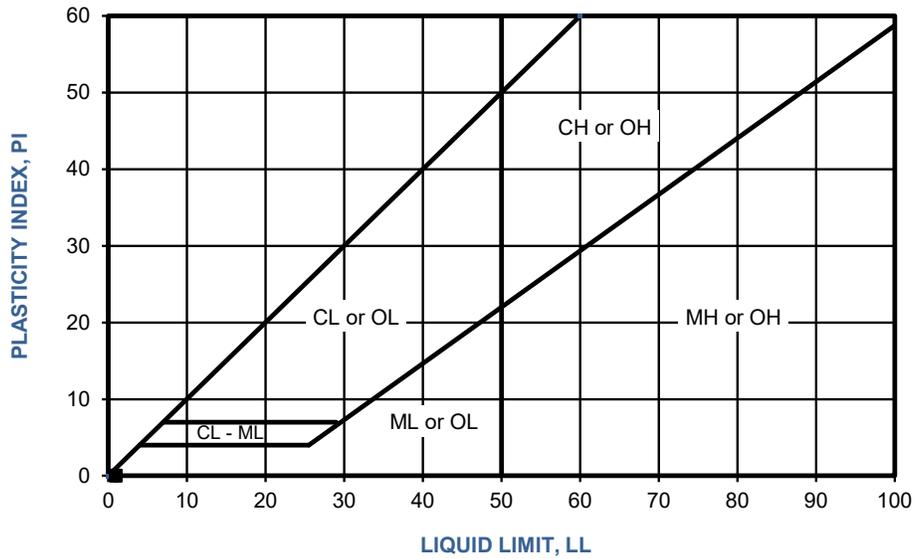
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NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

305320003 | 2/2026



| SYMBOL | LOCATION | DEPTH (ft) | LIQUID LIMIT | PLASTIC LIMIT | PLASTICITY INDEX | USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve) | USCS |
|--------|----------|------------|--------------|---------------|------------------|--|-------|
| | B-8-1 | 7.5-9.0 | NP | NP | NP | ML | SM |
| | B-8-3 | 7.5-9.0 | NP | NP | NP | ML | SM |
| | B-8-4 | 7.5-9.0 | NP | NP | NP | ML | SM |
| | B-8-5 | 7.5-9.0 | NP | NP | NP | ML | SM |
| | B-8-6 | 7.5-9.0 | NP | NP | NP | ML | SW-SM |
| | B-8-6 | 20.0-21.5 | NP | NP | NP | ML | GP-GM |
| | B-8-7 | 2.5-4.0 | NP | NP | NP | ML | GW-GM |
| | B-8-8 | 2.5-4.0 | NP | NP | NP | ML | GW-GM |

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

FIGURE B-15

Ninyo & Moore

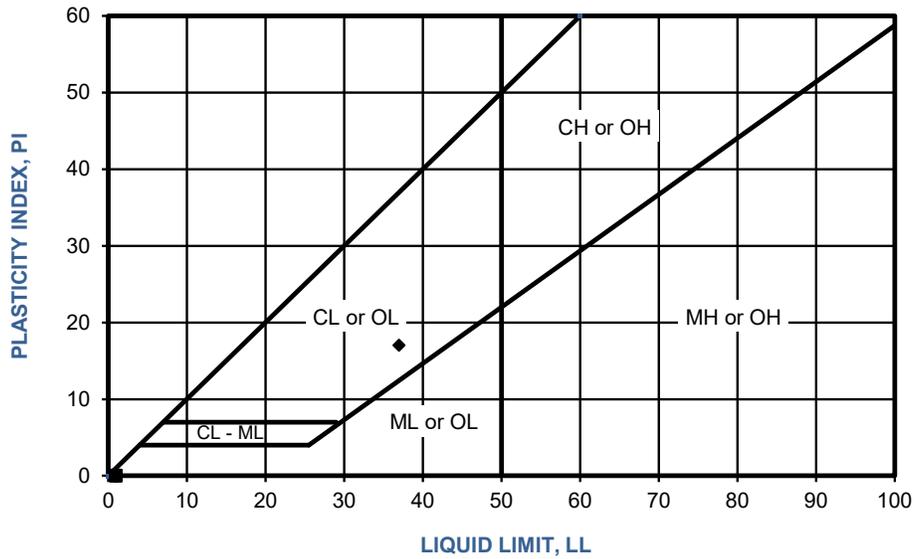
A SOCOTEC COMPANY

ATTERBERG LIMITS TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

| SYMBOL | LOCATION | DEPTH (ft) | LIQUID LIMIT | PLASTIC LIMIT | PLASTICITY INDEX | USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve) | USCS |
|--------|----------|------------|--------------|---------------|------------------|--|-------|
| ◆ | B-8-9 | 5.0-6.5 | NP | NP | NP | ML | SW-SM |
| | B-8-10 | 7.5-9.0 | NP | NP | NP | ML | GP-GM |
| | B-8-10 | 12.5-14.0 | 37 | 20 | 17 | CL | SC |
| | B-8-11 | 15.0-16.5 | NP | NP | NP | ML | SP-SM |
| | B-8-12 | 10.0-11.4 | NP | NP | NP | ML | GP-GM |
| | B-8-13 | 25.0-26.5 | NP | NP | NP | ML | GW-GM |

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

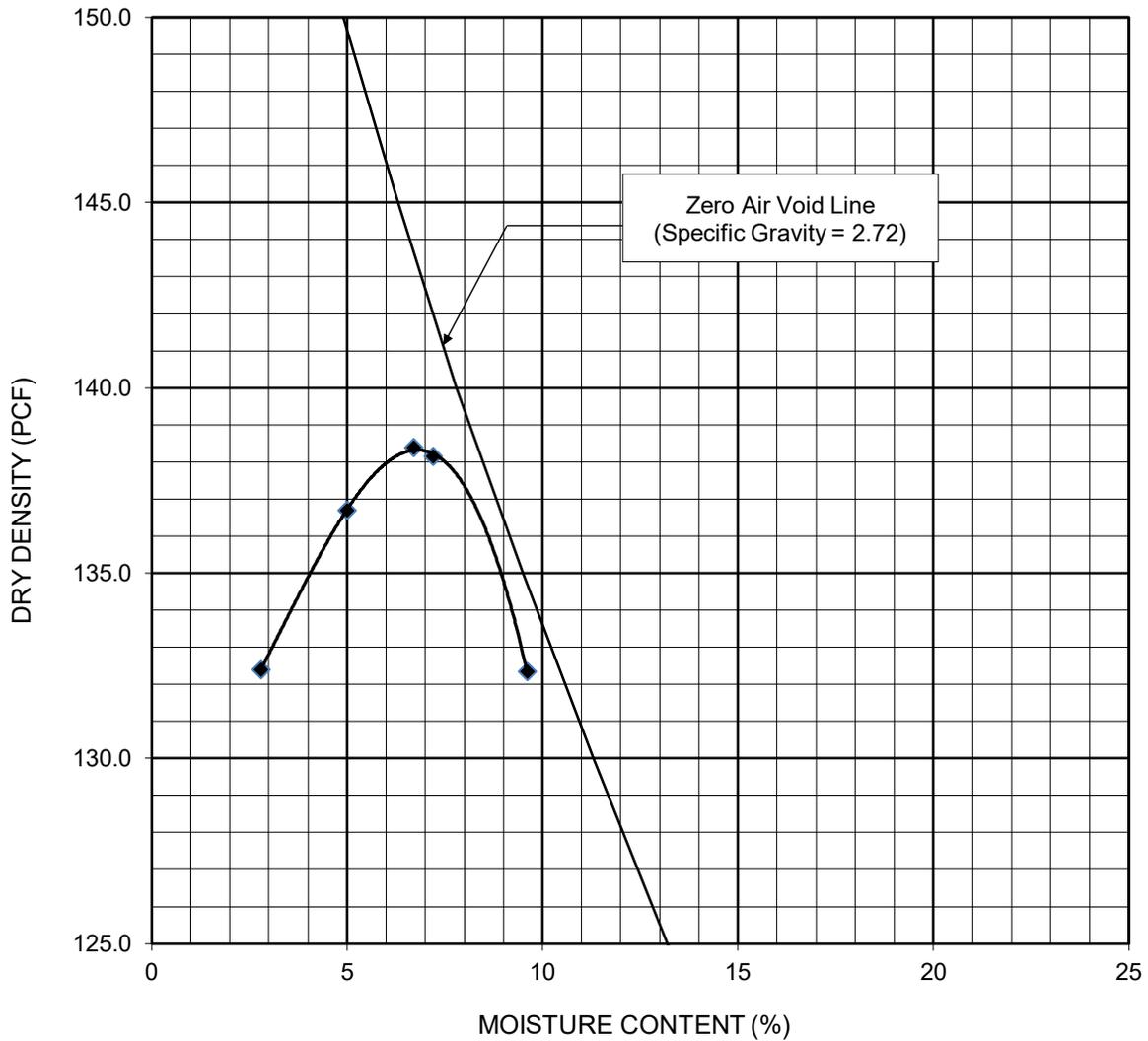
FIGURE B-16

Ninyo & Moore

A SOCOTEC COMPANY

ATTERBERG LIMITS TEST RESULTS

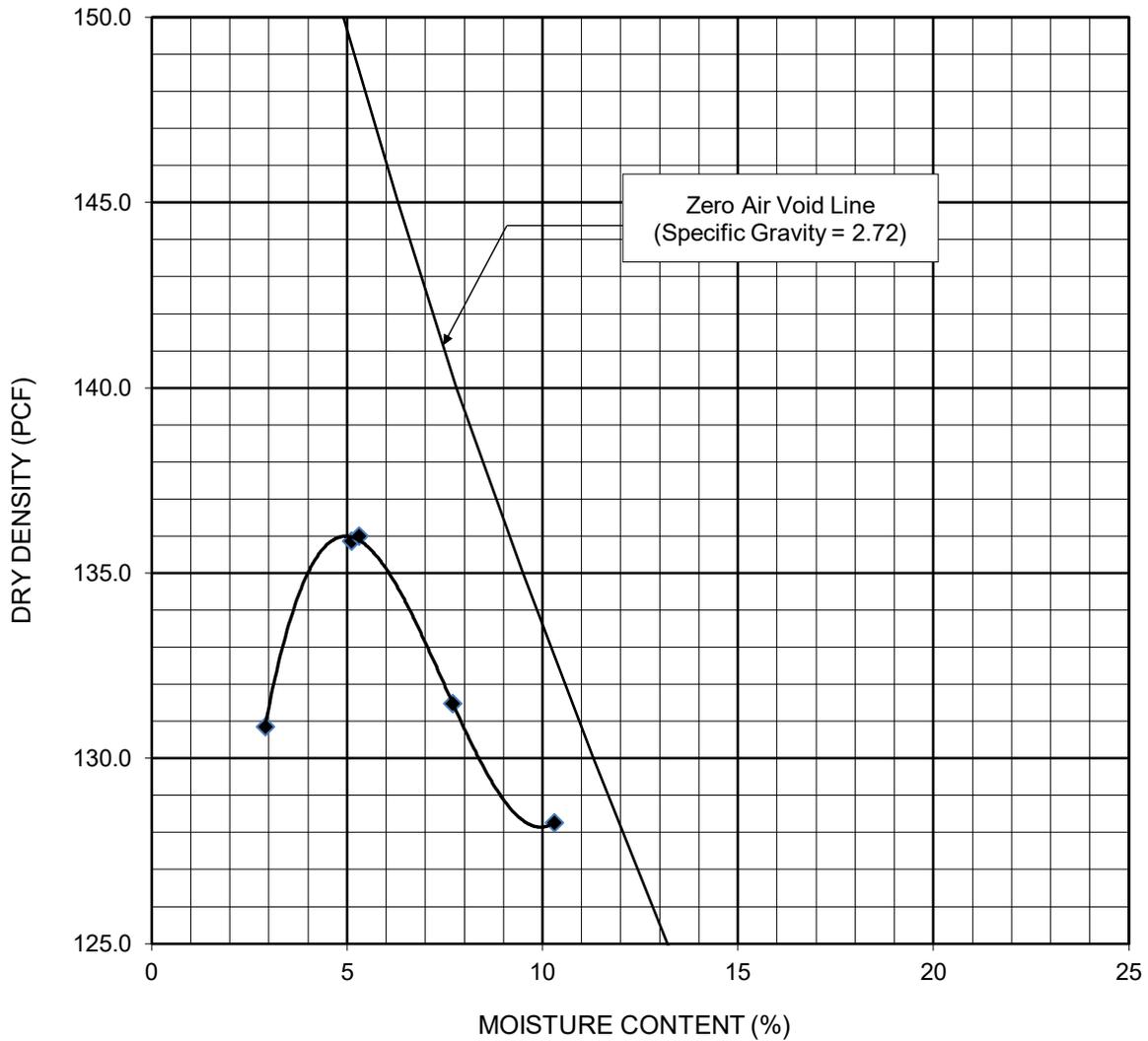
MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA



| Sample Location | Depth (ft) | Soil Description | Maximum Dry Density (pcf) | Optimum Moisture Content (%) |
|---|------------|------------------------|---------------------------|------------------------------|
| B-8-7 | 1.0-5.0 | Silty Gravel with Sand | 138.4 | 6.7 |
| Dry Density and Moisture Content Values Corrected for Oversize (ASTM D 4718-87) | | | 146.0 | 5.5 |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1557 ASTM D 698 METHOD A B C

FIGURE B-17



| Sample Location | Depth (ft) | Soil Description | Maximum Dry Density (pcf) | Optimum Moisture Content (%) |
|---|------------|------------------------|---------------------------|------------------------------|
| B-8-10 | 1.0-5.0 | Silty Gravel with Sand | 136.0 | 5.3 |
| Dry Density and Moisture Content Values Corrected for Oversize (ASTM D 4718-87) | | | 143.5 | 4.0 |

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1557 ASTM D 698 METHOD A B C

FIGURE B-18

PROCTOR DENSITY TEST RESULTS

MERCURY - BUILDING 8 DATA
NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA

305320003 | 2/2026



APPENDIX C

Chemical Test Results

APPENDIX C

CHEMICAL TEST RESULTS

The results of chemical tests performed are provided in this appendix.

CLIENT COMPANY NAME: Ninyo and Moore
 CLIENT PROJECT NAME: **Mercury Bldg 8**
 CLIENT PROJECT NUMBER: 305320003
 VERITAS LAB ORDER ID: V25L258

ANALYTICAL RESULTS

CLIENT SAMPLE ID: **B-8-3 @ 7.5'-9'** DATE/TIME SAMPLED: 11/25/25 0:00
 VERITAS SAMPLE ID: V25L258-02 DATE/TIME RECEIVED: 12/17/25 13:30

Matrix: Soil

Analysis: Soil Solubility/Corrosion Parameters

| PARAMETER | RESULT | UNITS | METHOD | DATE ANALYZED |
|----------------------------------|-----------------|----------|--------------|---------------|
| pH | 8.50 | pH Units | EPA 9045 D | 12/22/25 |
| Redox Potential (ORP) | 203 | mV | SM 2580B | 12/22/25 |
| Resistivity, Saturated (Minimum) | 5000 | Ohm-cm | AASHTO T-288 | 12/19/25 |
| Soluble Sodium | 0.0017 | % | SM 3500-Na B | 12/19/25 |
| Soluble Sulfate | 0.0014 | % | ASTM D516 | 12/19/25 |
| Soluble Sulfide | <0.50 | mg/Kg | SM 4500-S2-D | 12/23/25 |
| Total Soluble Sodium Sulfate | 0.0020 | % | Calculation | 12/19/25 |
| Soluble Chloride | 0.0012 | % | SM 4500-Cl E | 12/19/25 |
| Total Soluble Salts (Solubility) | 0.018 | % | SM 2540C | 12/19/25 |

CLIENT COMPANY NAME: Ninyo and Moore
 CLIENT PROJECT NAME: **Mercury Bldg 8**
 CLIENT PROJECT NUMBER: 305320003
 VERITAS LAB ORDER ID: V25L258

ANALYTICAL RESULTS

CLIENT SAMPLE ID: **B-8-8 @ 5'-6.5'** DATE/TIME SAMPLED: 11/25/25 0:00
 VERITAS SAMPLE ID: V25L258-03 DATE/TIME RECEIVED: 12/17/25 13:30

Matrix: Soil

Analysis: Soil Solubility/Corrosion Parameters

| PARAMETER | RESULT | UNITS | METHOD | DATE ANALYZED |
|----------------------------------|-----------------|----------|--------------|---------------|
| pH | 8.85 | pH Units | EPA 9045 D | 12/22/25 |
| Redox Potential (ORP) | 197 | mV | SM 2580B | 12/22/25 |
| Resistivity, Saturated (Minimum) | 1000 | Ohm-cm | AASHTO T-288 | 12/19/25 |
| Soluble Sodium | 0.025 | % | SM 3500-Na B | 12/19/25 |
| Soluble Sulfate | 0.029 | % | ASTM D516 | 12/19/25 |
| Soluble Sulfide | <0.50 | mg/Kg | SM 4500-S2-D | 12/23/25 |
| Total Soluble Sodium Sulfate | 0.043 | % | Calculation | 12/19/25 |
| Soluble Chloride | 0.0025 | % | SM 4500-Cl E | 12/19/25 |
| Total Soluble Salts (Solubility) | 0.087 | % | SM 2540C | 12/19/25 |

CLIENT COMPANY NAME: Ninyo and Moore
 CLIENT PROJECT NAME: **Mercury Bldg 8**
 CLIENT PROJECT NUMBER: 305320003
 VERITAS LAB ORDER ID: V25L258

ANALYTICAL RESULTS

CLIENT SAMPLE ID: **B-8-10 @ 5'-6.5'** DATE/TIME SAMPLED: 11/25/25 0:00
 VERITAS SAMPLE ID: V25L258-04 DATE/TIME RECEIVED: 12/17/25 13:30

Matrix: Soil

Analysis: Soil Solubility/Corrosion Parameters

| PARAMETER | RESULT | UNITS | METHOD | DATE ANALYZED |
|----------------------------------|-----------------|----------|--------------|---------------|
| pH | 8.84 | pH Units | EPA 9045 D | 12/22/25 |
| Redox Potential (ORP) | 168 | mV | SM 2580B | 12/22/25 |
| Resistivity, Saturated (Minimum) | 3700 | Ohm-cm | AASHTO T-288 | 12/19/25 |
| Soluble Sodium | 0.015 | % | SM 3500-Na B | 12/19/25 |
| Soluble Sulfate | 0.0052 | % | ASTM D516 | 12/19/25 |
| Soluble Sulfide | <0.50 | mg/Kg | SM 4500-S2-D | 12/23/25 |
| Total Soluble Sodium Sulfate | 0.0076 | % | Calculation | 12/19/25 |
| Soluble Chloride | 0.0015 | % | SM 4500-Cl E | 12/19/25 |
| Total Soluble Salts (Solubility) | 0.061 | % | SM 2540C | 12/19/25 |

CLIENT COMPANY NAME: Ninyo and Moore
 CLIENT PROJECT NAME: **Mercury Bldg 8**
 CLIENT PROJECT NUMBER: 305320003
 VERITAS LAB ORDER ID: V25L258

ANALYTICAL RESULTS

CLIENT SAMPLE ID: **B-8-13 @ 7.5'-9'** DATE/TIME SAMPLED: 11/25/25 0:00
 VERITAS SAMPLE ID: V25L258-05 DATE/TIME RECEIVED: 12/17/25 13:30

Matrix: Soil

Analysis: Soil Solubility/Corrosion Parameters

| PARAMETER | RESULT | UNITS | METHOD | DATE ANALYZED |
|----------------------------------|-----------------|----------|--------------|---------------|
| pH | 8.71 | pH Units | EPA 9045 D | 12/22/25 |
| Redox Potential (ORP) | 204 | mV | SM 2580B | 12/22/25 |
| Resistivity, Saturated (Minimum) | 5100 | Ohm-cm | AASHTO T-288 | 12/19/25 |
| Soluble Sodium | 0.0021 | % | SM 3500-Na B | 12/19/25 |
| Soluble Sulfate | 0.0015 | % | ASTM D516 | 12/19/25 |
| Soluble Sulfide | <0.50 | mg/Kg | SM 4500-S2-D | 12/23/25 |
| Total Soluble Sodium Sulfate | 0.0022 | % | Calculation | 12/19/25 |
| Soluble Chloride | 0.00067 | % | SM 4500-Cl E | 12/19/25 |
| Total Soluble Salts (Solubility) | 0.018 | % | SM 2540C | 12/19/25 |



APPENDIX D

ReMi-MASW Survey Results

APPENDIX D

ReMi-MASW SURVEY RESULTS

Ninyo & Moore performed refraction microtremor (ReMi) and multichannel analysis of surface wave (MASW) surveys to obtain the shear wave velocity profile to a nominal depth of approximately 100 feet at the subject site to evaluate seismic Site Class in general accordance with ASCE 7-10.

Data was collected using a 24-Channel Geometrics Geode exploration seismograph coupled with 24 vertical component 4.5-Hertz geophones that were spaced approximately 10 feet apart in a linear array. The approximate length and orientation of the survey array is indicated on Figure 2.

The ReMi survey included collection of 30-second ambient noise (microtremors) records. Approximately 20 shear-wave velocity structure records were collected from the Rayleigh wavefield that is generated by nearby passive environmental features.

To supplement the passive data, active-source data were collected during the MASW survey. A 25-pound sledgehammer striking a 1-inch-thick metal plate was used as the energy source to generate an impulsive surface wave. Several shot locations were selected on the liner geophone alignment, as well as slightly beyond the extent of the geophones.

The one-dimensional shear wave velocity structure and average shear wave velocity were evaluated using Geometrics' software Pickwin v.7.1.0.1 and WaveEq v.6.1.0.5. The propagated velocities of the MASW data and the dispersion of frequencies obtained during the ReMi survey were used to model a shear-wave velocity chart, which is provided on Figure D-1. The upper portion of the shear-wave velocity chart is generally based on the MASW results where this technique provides better resolution, with the lower portion of the chart generally based on the ReMi method.

The calculated average shear wave velocity to a depth of approximately 100 feet at the location of the geophone array was 2,056 feet per second. Based on the ReMi and MASW surveys, a seismic Site Class C is characteristic for design purposes for the project.

Refraction MicroTremor (ReMi) Survey, R-1

Shear Wave Velocity v. Depth

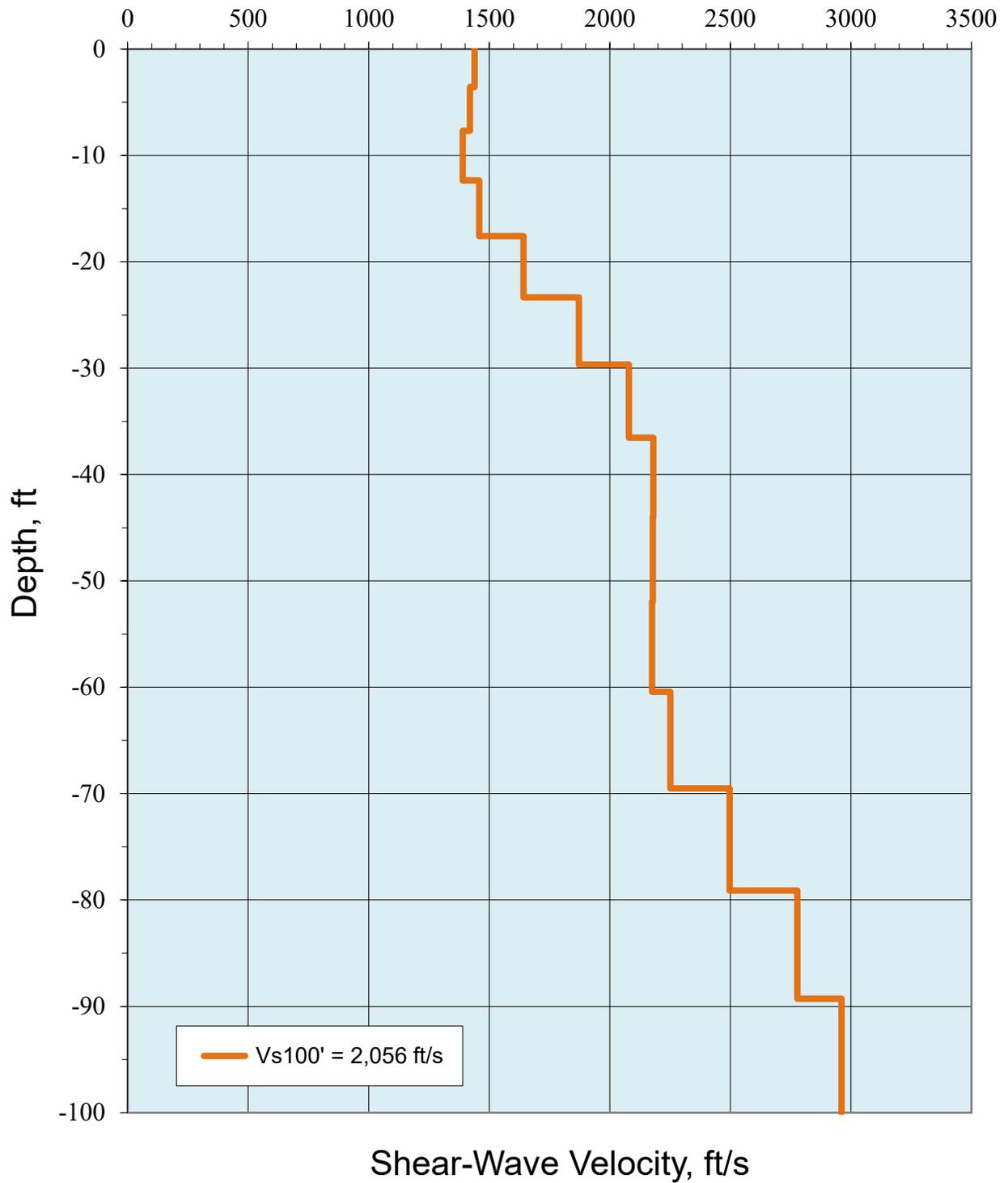


FIGURE D-1

REMI SURVEY RESULTS

MERCURY - BUILDING 8 DATA

NEVADA NATIONAL SECURITY SITE, NYE COUNTY, NEVADA



Ninyo & Moore

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