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February 4, 1982
File: B-1163-1

Mr. Tom Pearson
IT Enviroscience
2450 Stanwell Drive, Suite 100
Concord, California 94520

Subject: Groundwater Monitoring Well
Installation Report
Alameda Chevron Station
Alameda, California

Dear Mr. Pearson:

The following letter report summarizes work performed by J. H. Kleinfelder & Associates at a Standard Oil service station in Alameda, California, on January 19, 1982. Our investigation was performed to enable IT Corporation to evaluate the limits of gasoline leakage from an underground gasoline storage tank.

Our work consisted of drilling 6 test borings, obtaining 4 soil samples, limited laboratory analysis, and completing the test borings as groundwater monitoring wells. The borings were drilled in the paved area on the perimeter of the service station property and adjacent to the underground storage tanks.

The borings were drilled with a CME-55 truck-mounted drill rig equipped with 6-inch diameter continuous flight hollow stem augers. All borings were made under the supervision of our field engineer who also logged and sampled the soils encountered in the borings. A description of the soils encountered in the borings is presented on the boring logs, Plates 2 through 7. A copy of the Unified Soil Classification System used to identify the site soils is presented on Plate 1.

Limited laboratory analysis was performed on selected samples to determine their moisture content and grain size distribution. The results of these tests are included on the boring logs and Plates 8 through 10. Permeability of the site soils was estimated using Hazen's correlation and the results of grain size distribution. The permeability of the site soils is approximately 1.4×10^{-2} cm/sec to 2.6×10^{-2} cm/sec.

Soils encountered in our borings were predominantly fine to medium grained sands with some traces of clay. These soils are aeolian in nature and generally loose to dense in consistency.

Monitoring wells were installed in each of the borings after completion of the borings. The following table provides the total depth of each boring and the location of the perforated well screen section.

Hole Number	Hole Depth (ft)	Well Screen Location (ft)
1	20	3 - 18
2	20	3 - 18
3	20	3 - 18
4	20	3 - 18
5	20	3 - 18
6	20	3 - 18

All monitoring wells were constructed with 2-inch diameter PVC pipes with 0.010-inch slotted well screen sections. A typical monitoring well profile is presented on Plate 11 of this report.

We trust the information contained herein meets your needs at this time. If there are any questions regarding this report, please contact us.

Very truly yours,

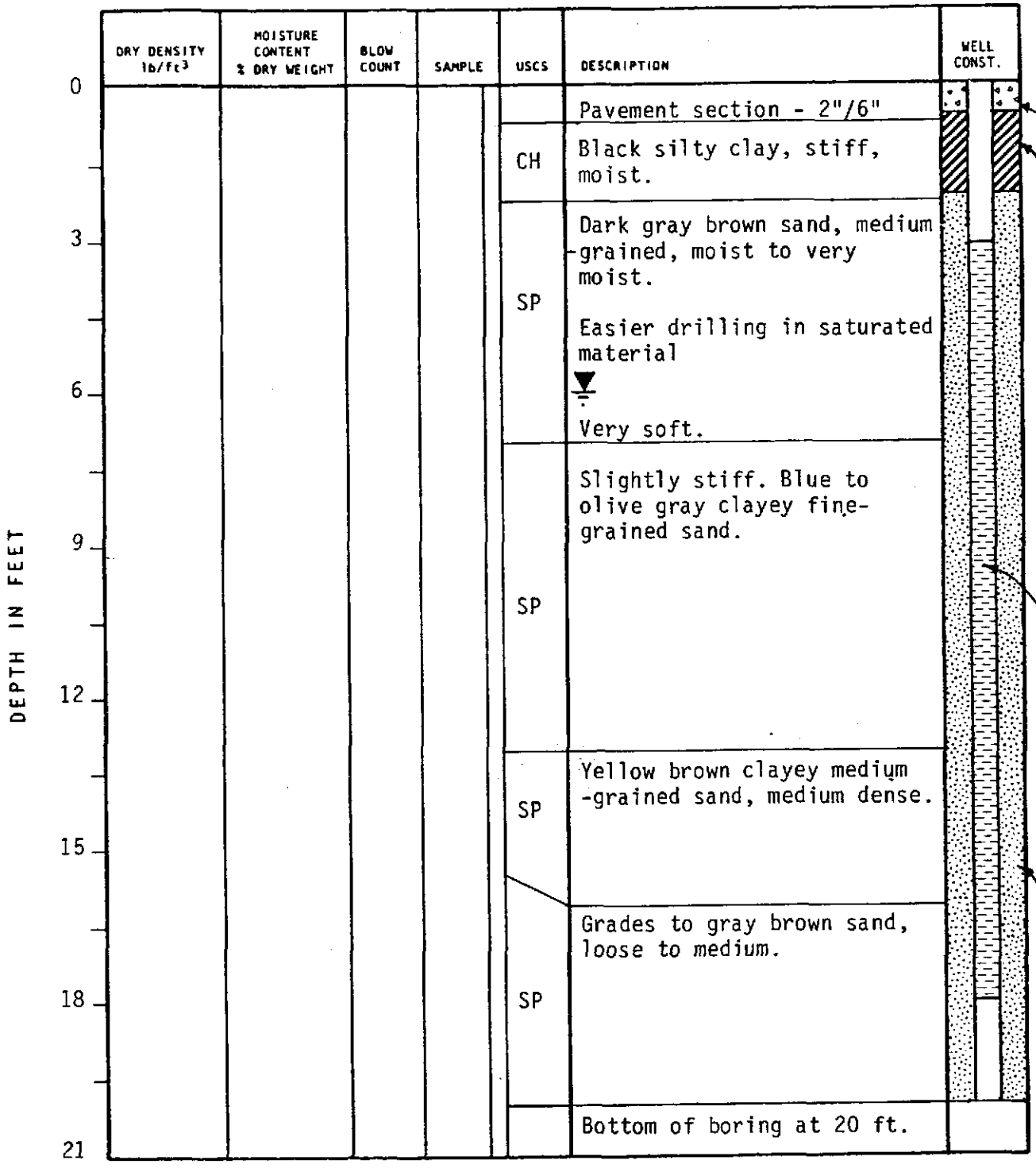
J. H. KLEINFELDER & ASSOCIATES

Christopher R. Nardi

Christopher R. Nardi
Staff Engineer

CRN:pjs

Attachments



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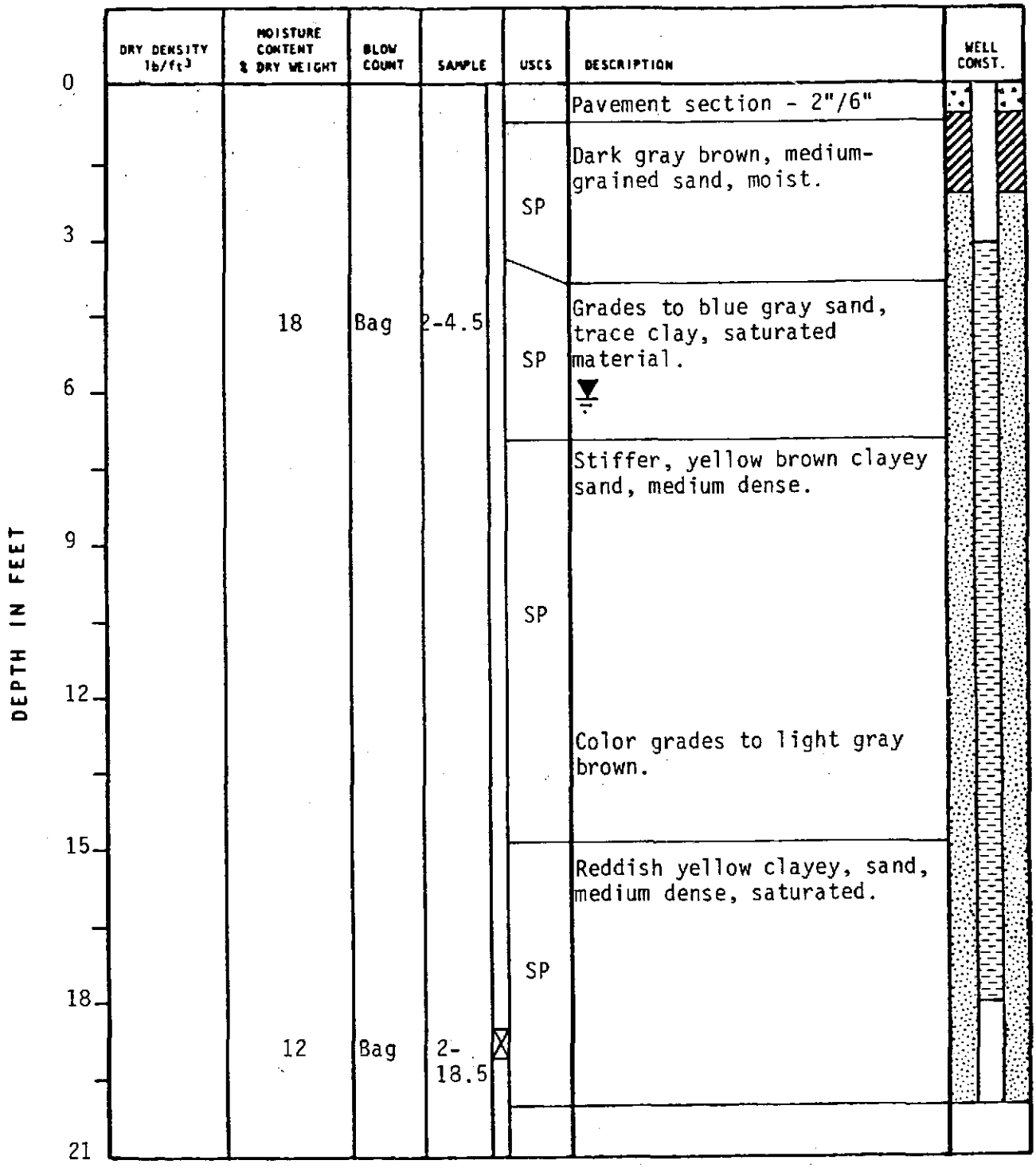
IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-1

PROJECT NO. B-1163-1

PLATE 2



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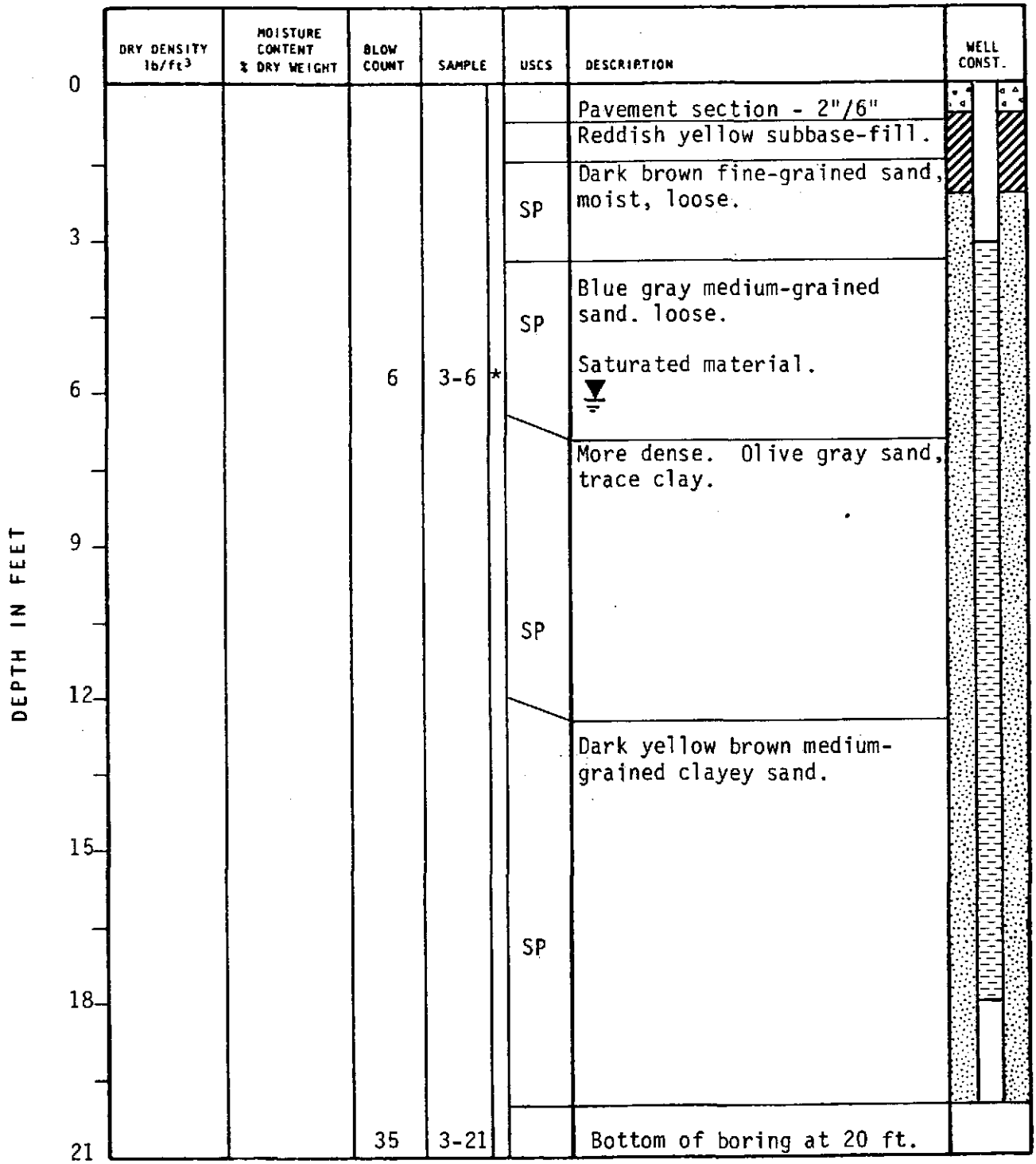
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-2

PROJECT NO. B-1163-1

PLATE 3



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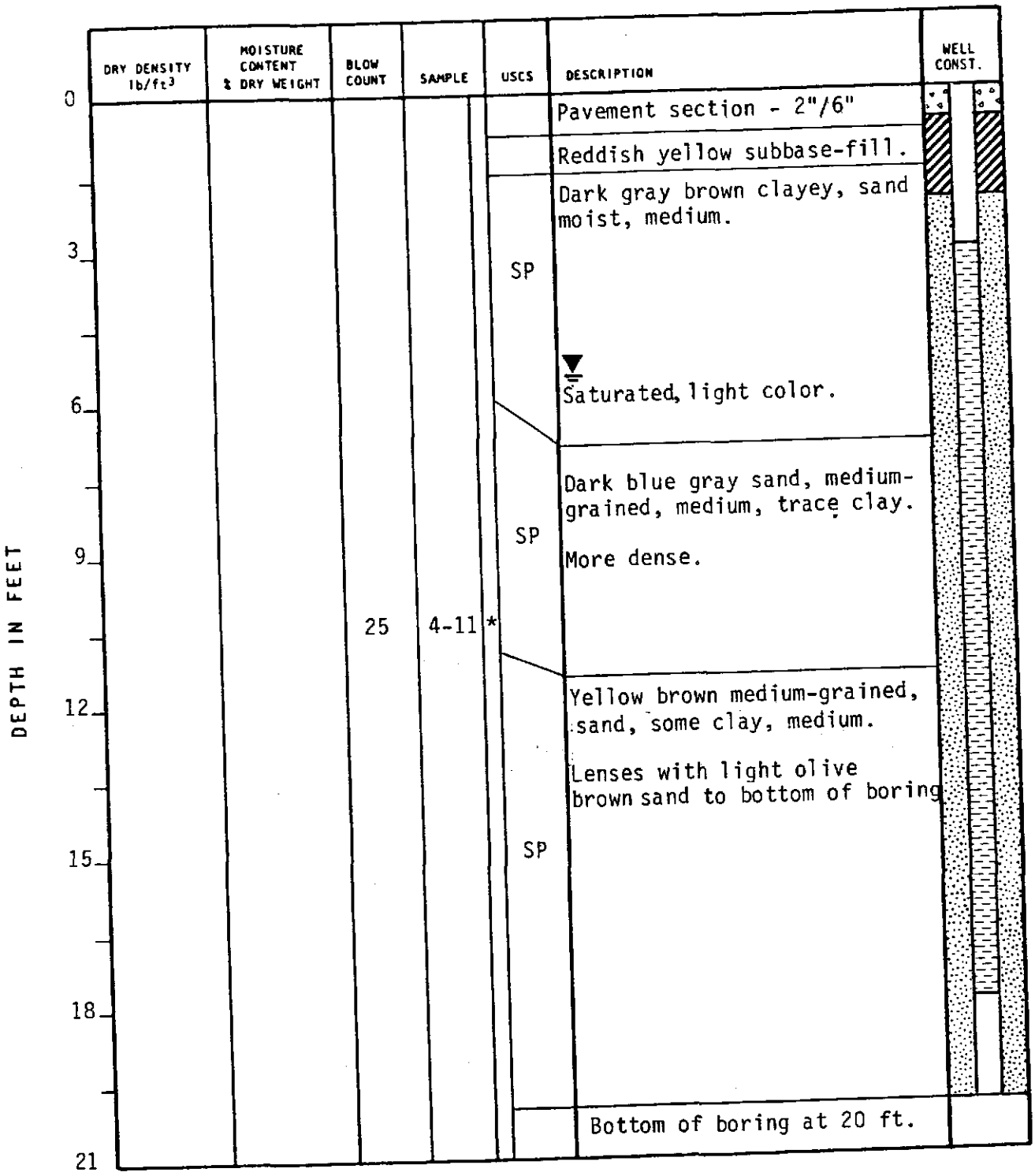
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-3

PROJECT NO. B-1163-1

PLATE

4



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ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-4

PLATE 5

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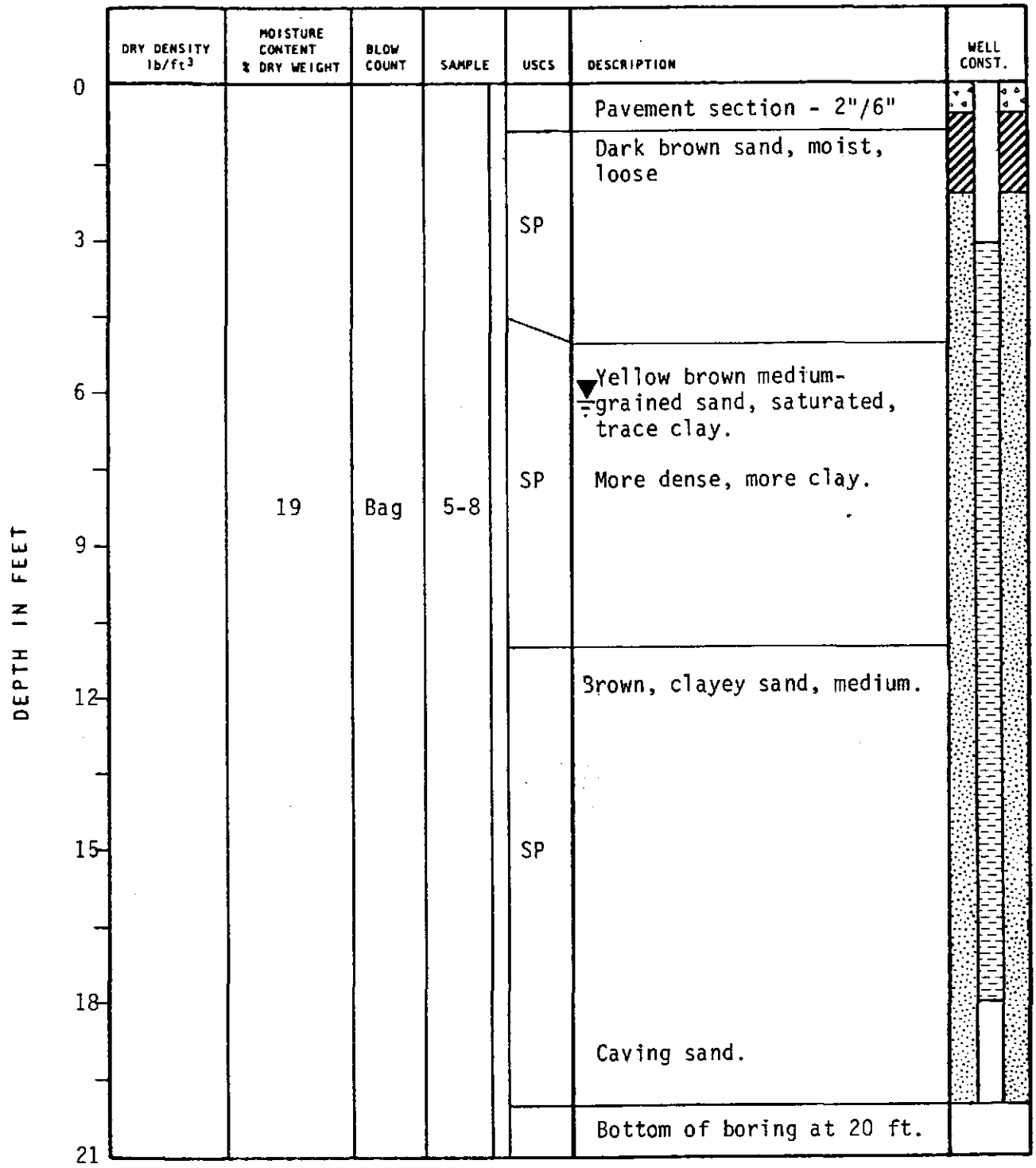

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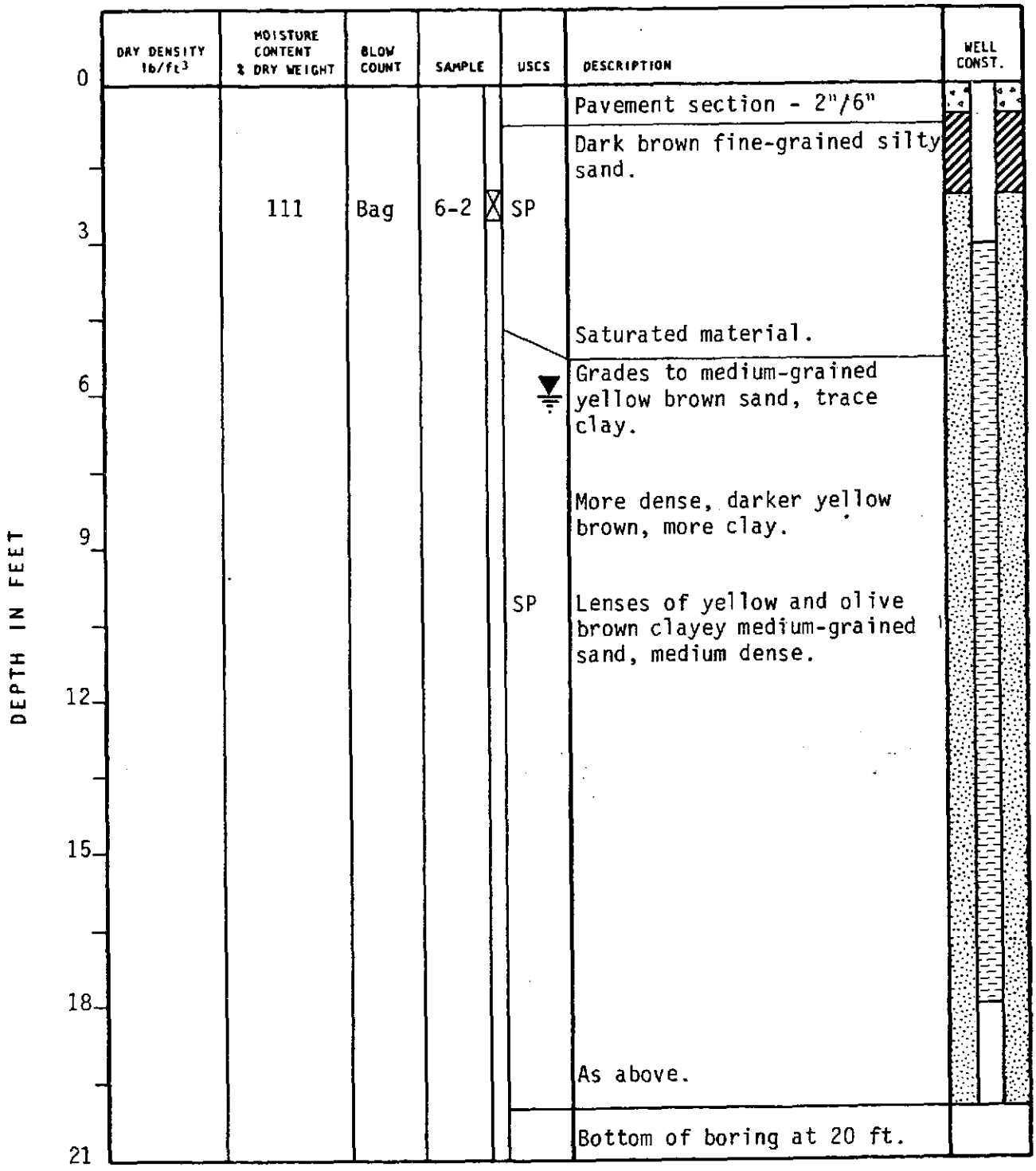
IT/ALAMEDA CHEVRON
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-5

PROJECT NO. B-1163-1

PLATE

6



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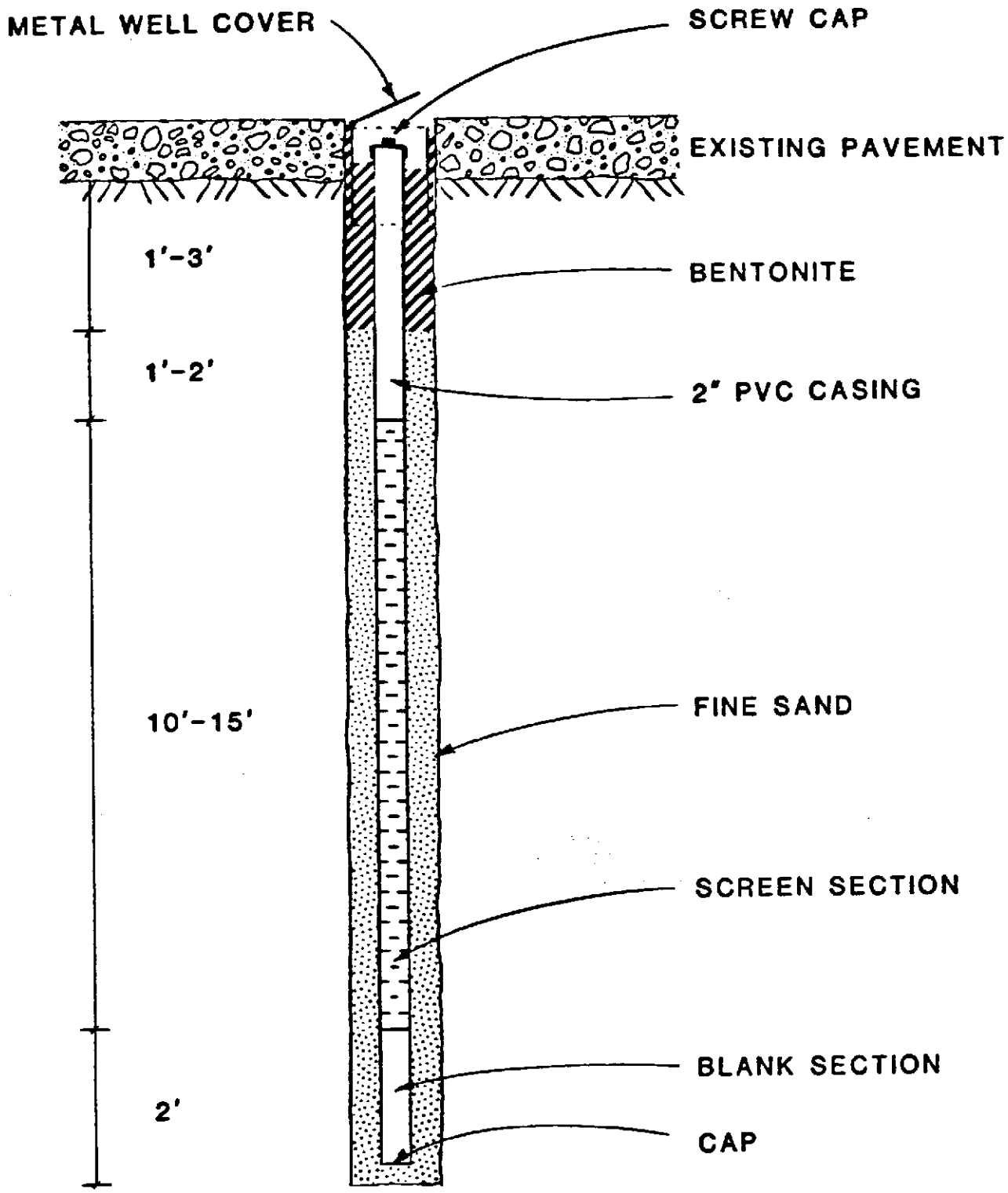
ALAMEDA, CALIFORNIA

LOG OF BORING NO. B-6

PROJECT NO. B-1163-1

PLATE 7



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ALAMEDA, CALIFORNIA

TYPICAL WELL PROFILE

PROJECT NO. B-1163-1

PLATE

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