



**Clean Harbors Environmental Services, LLC
Lone Mountain Facility
Waynoka, Oklahoma**

**RCRA/HSWA
Permit Renewal
Application**

Volume 3

October 1, 2020

VOLUME 3

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APPENDIX 3.1

LINEAMENT ANALYSIS

RESOURCE ANALYSIS and MAPPING

Consultants in Resource Management

150 S. RIDGE RD.

STILLWATER, OK 74074

405-372-5810

MEMORANDUM

Date September 28, 1987

To Mr. Roy Murphy, USPCI

From Mr. Mark Gregory, Resource Analysis and Mapping

Subject Remote Sensing Lineament Analysis for Lone Mountain Facility

Project Site Characterization 3187108

The proper utilization of computer-assisted remote sensing technology can produce computer processed images which reveal subtle surface features of the earth. Surface features such as lineaments, drainage patterns and anomalous soil tones and vegetation patterns often provide information about subsurface geologic phenomena. In that regard, an analysis of Landsat digital data was performed on a study area centered on Township 22 N, Range 15 W, Section 33 in northwest Major County, Oklahoma.

Landsat digital data over the study area was acquired on 1600 bpi magnetic computer tapes from the EROS Data Center in Sioux Falls, South Dakota. The EROS Data Center is a division of NOAA/Department of Commerce. The data was originally gathered by the Landsat Multispectral Scanner (MSS) on September 11, 1979 (scene identification number 82169316293X0). Landsat MSS digital data has a ground resolution of 57 meters by 79 meters or approximately 1.1 acres. The data over the study area had zero percent cloud cover and a good to excellent band quality for all four spectral bands. This particular date of data was utilized for the analysis because of its high spectral quality, cloud-free condition, and time or season of the year. The September date results in a low sun angle which helps to accentuate surface structure and a time of near-dormant vegetation growth (vigorous vegetation conditions can mask surface structure conditions).

Analysis of the digital satellite data was performed at the Center for Applications of Remote Sensing at Oklahoma State University. The NASA developed software ELAS was utilized for the digital analysis while image processing and interpretation was performed on a Comtal image processor. Analysis began with reformatting the EROS format digital tapes into ELAS format data. Geo-reference coordinates were gathered from reference points within the digital data and corresponding locations on USGS 7.5' maps. Of the 42 reference points originally gathered, 34 points were utilized to geo-reference the data to a Universal Transverse Mercator (UTM) coordinate system. These final 34 points resulted in a residual mean square error of 31 meters. In other words, locational error within the geo-referenced data is at a maximum \pm 31 meters (which for MSS data is an excellent/small amount of possible error). During the geo-referencing process, the data was also resampled to a 50 meter spot size. Geo-referencing to a UTM coordinate system allows for accurate referencing of the data to USGS maps and thereby accurate location and mapping of specific points, locations and mapped features.

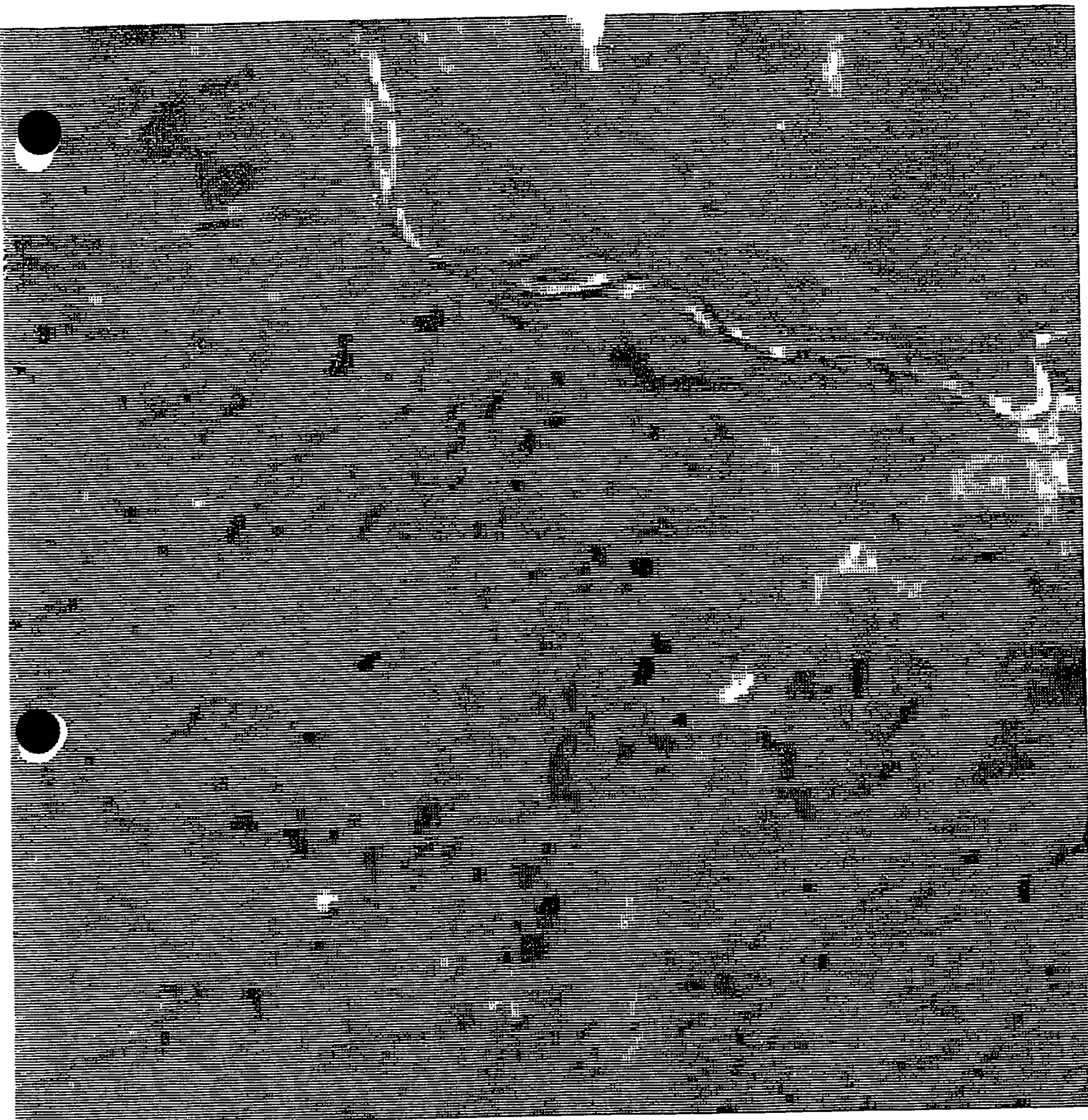
MEMORANDUM

Mr. Roy Murphy, USPCI

Page 2

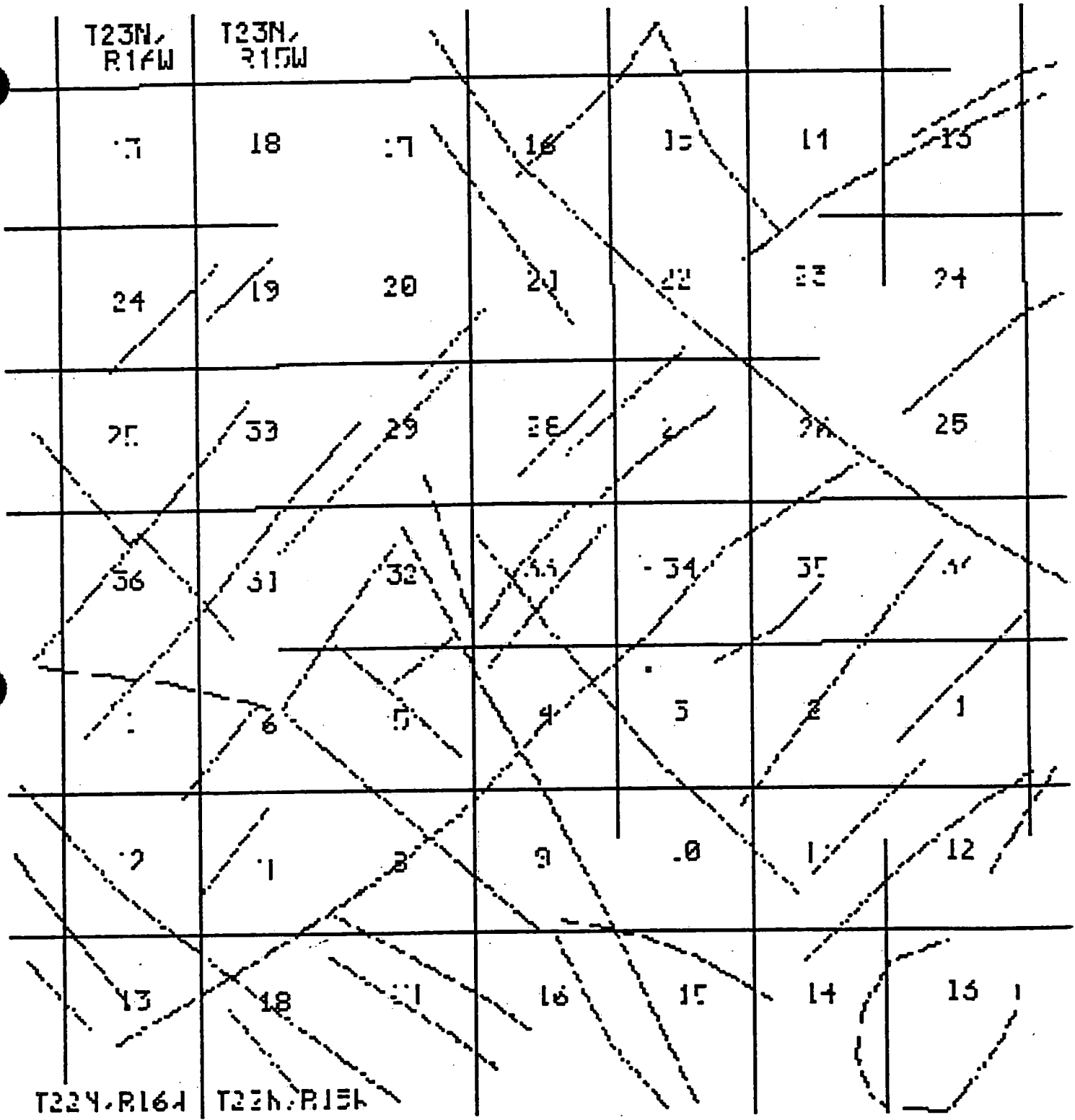
Analyses performed on the referenced data for enhancement of linear features included: 1) ratio of band 5 by band 7; 2) computing the mean of all four spectral bands; and 3) high-pass filter of band 7. These analyses were chosen because of the establishment of these techniques within the scientific literature for enhancement of surface features (such as lineaments) and/or elimination of the effects of vegetation cover within the multispectral data. A non-linear contrast stretch function was applied to the results of the three analyses and the four individual bands to further enhance linear features present in the data. The analyses and the individual bands were then viewed on a Comtal image processor and linear features were mapped directly on the image processor. Finally, black and white electrostatic printer/plots were produced at varying scales with grey-scale patterns to represent the composite result of the analyses.

Enclosed is an invoice for the services rendered in this analysis. I hope that the costs and products delivered meet your expectations. If I can ever be of service to you again, please do not hesitate to contact me.



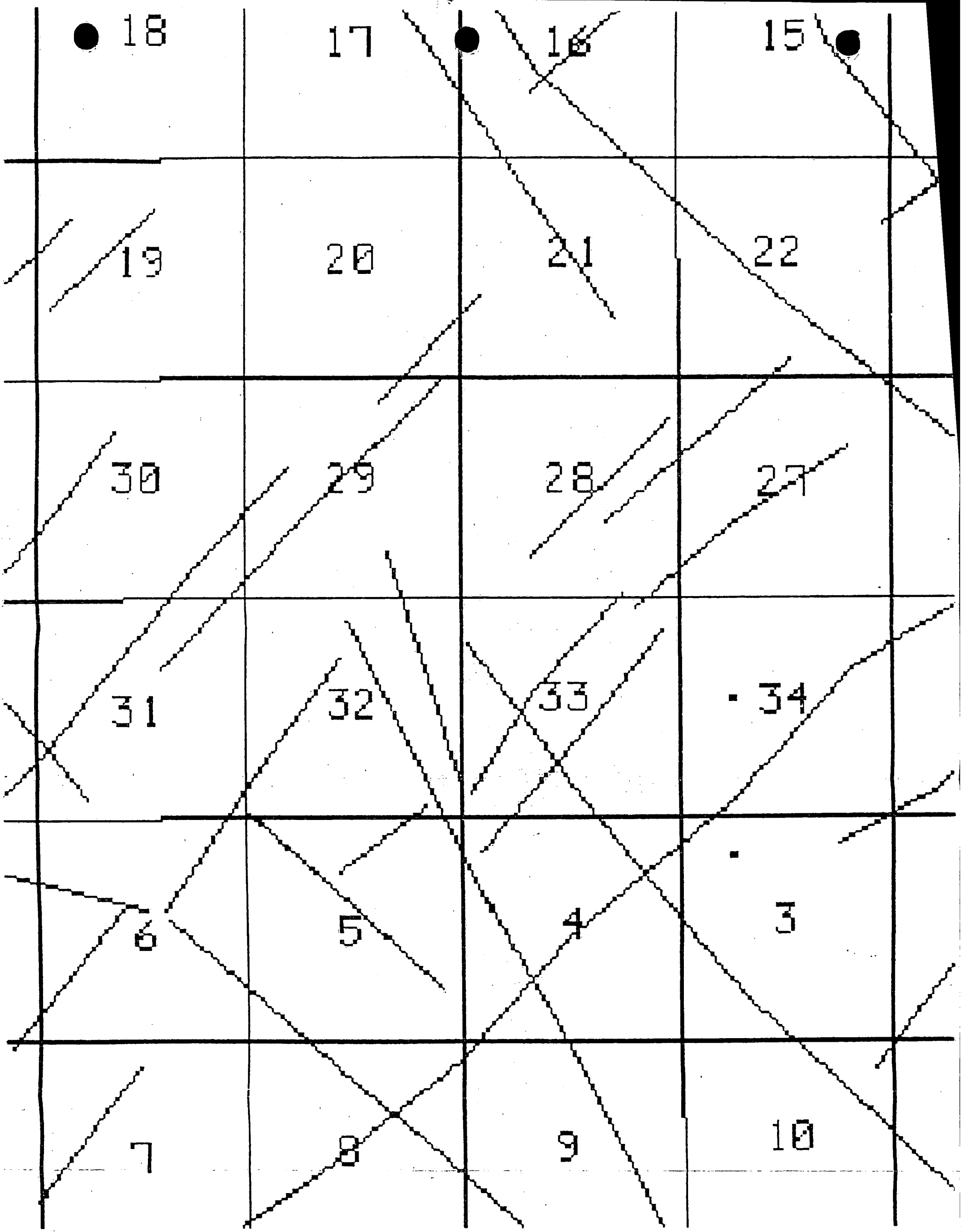
**LINEAMENT ANALYSIS
LANDSAT IMAGE
T23N-R15W**

SCALE 1" = 1 MILE

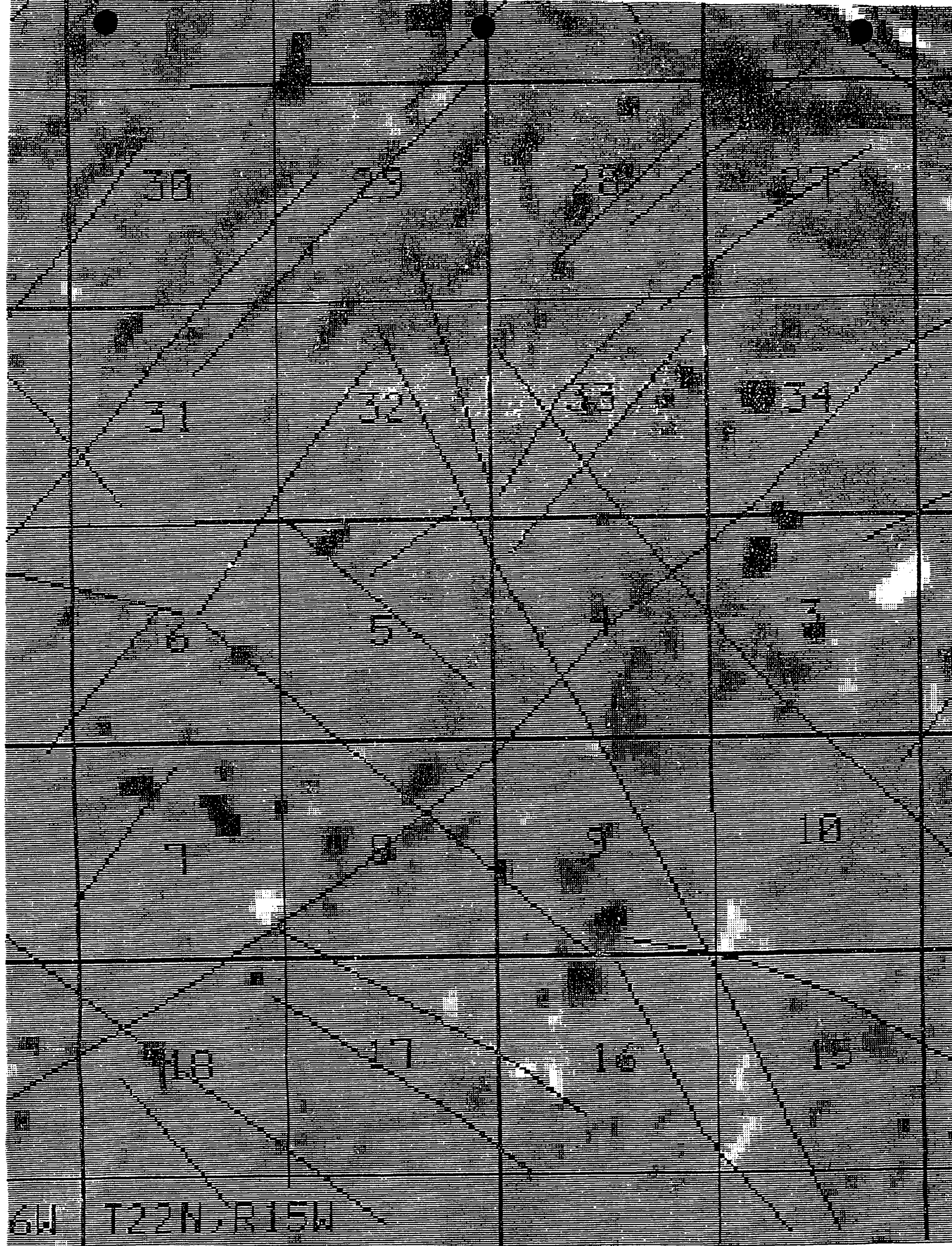


**LINEAMENT ANALYSIS
TOWNSHIP AND RANGE SYSTEM
WITH INTERPRETED LINEAMENTS
T23N-R15W**

SCALE 1" = 1 MILE



LINEAMENT ANALYSIS
TOWNSHIP AND RANGE SYSTEM WITH
INTERPRETED LINEAMENTS
T23N-R15W



LINEAMENT ANALYSIS
LANDSAT IMAGE WITH SUPERIMPOSED LINEAMENTS
T23N-R1W

APPENDIX 3.2

SOIL BORING AND MONITORING WELL GEOLOGIC LOGS

Well Construction Logs

U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: A

DATE DRILLED: 8/14/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 8.3'

DATE: 9/22/87

LOCATION: 9272.0 E - 13947.1 N

SURFACE ELEV.: 1370.8

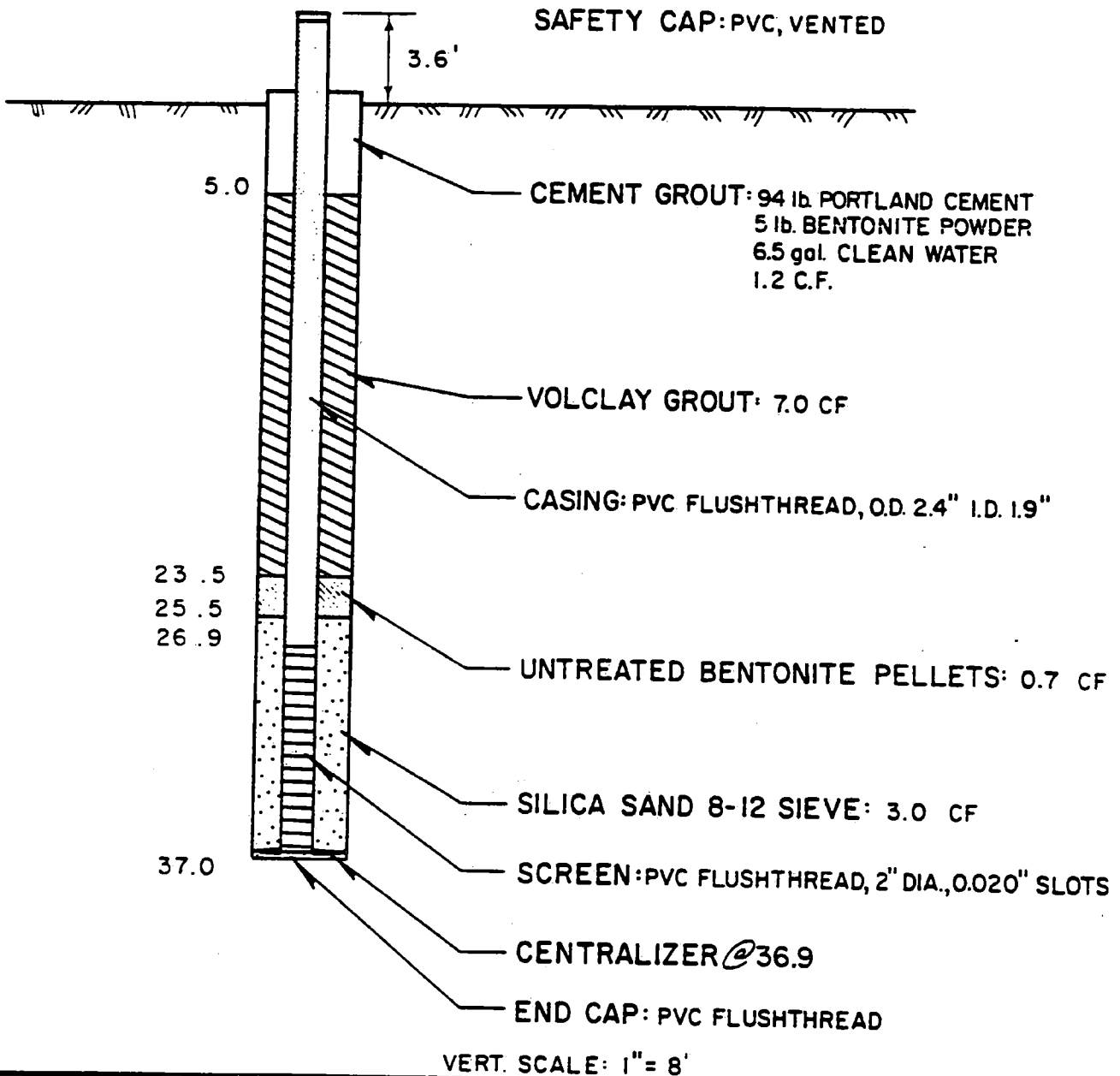
CASING ELEV.: 1373.62

BORING SIZE: 6.25"

BORING DEPTH: 37.0'

CASING DETAILS:

REMARKS: SOURCE WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: A-1

DATE DRILLED: 8/11/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 8.9'

DATE: 9/22/87

LOCATION: 9271.9 E - 13952.1 N

SURFACE ELEV.: 1370.6

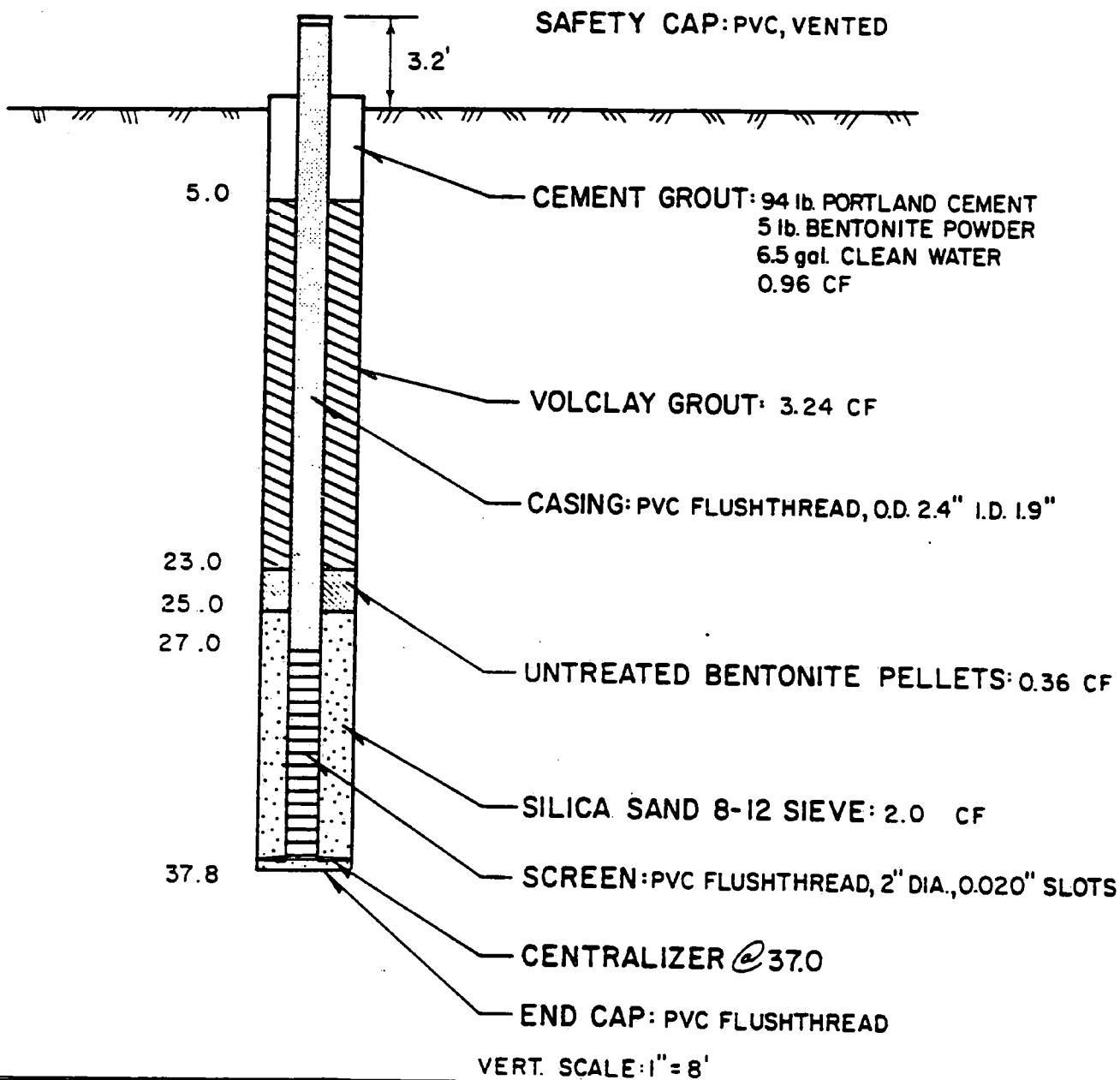
CASING ELEV.: 1373.83

BORING SIZE: 6.25"

BORING DEPTH: 37.8'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: A-2

DATE DRILLED: 8/12/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 10.4'

DATE: 9/22/87

LOCATION: 9275.6E - 13950.5N

SURFACE ELEV.: 1370.6

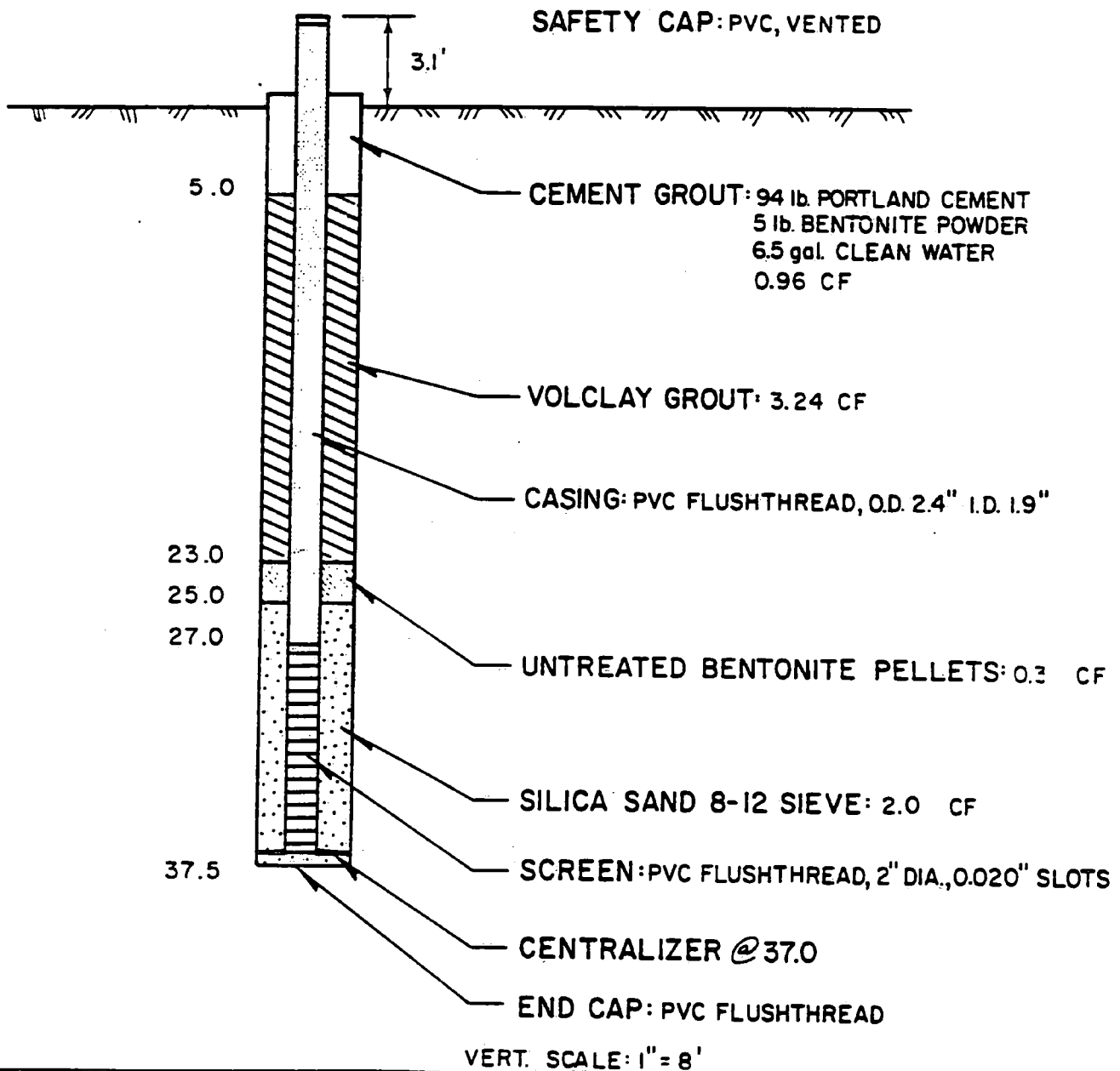
CASING ELEV.: 1373.75

BORING SIZE: 6.25"

BORING DEPTH: 37.5'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: A-3

DATE DRILLED: 8/13/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 14.4'

DATE: 9/22/87

LOCATION: 9276.9E - 13946N

SURFACE ELEV.: 1370.6

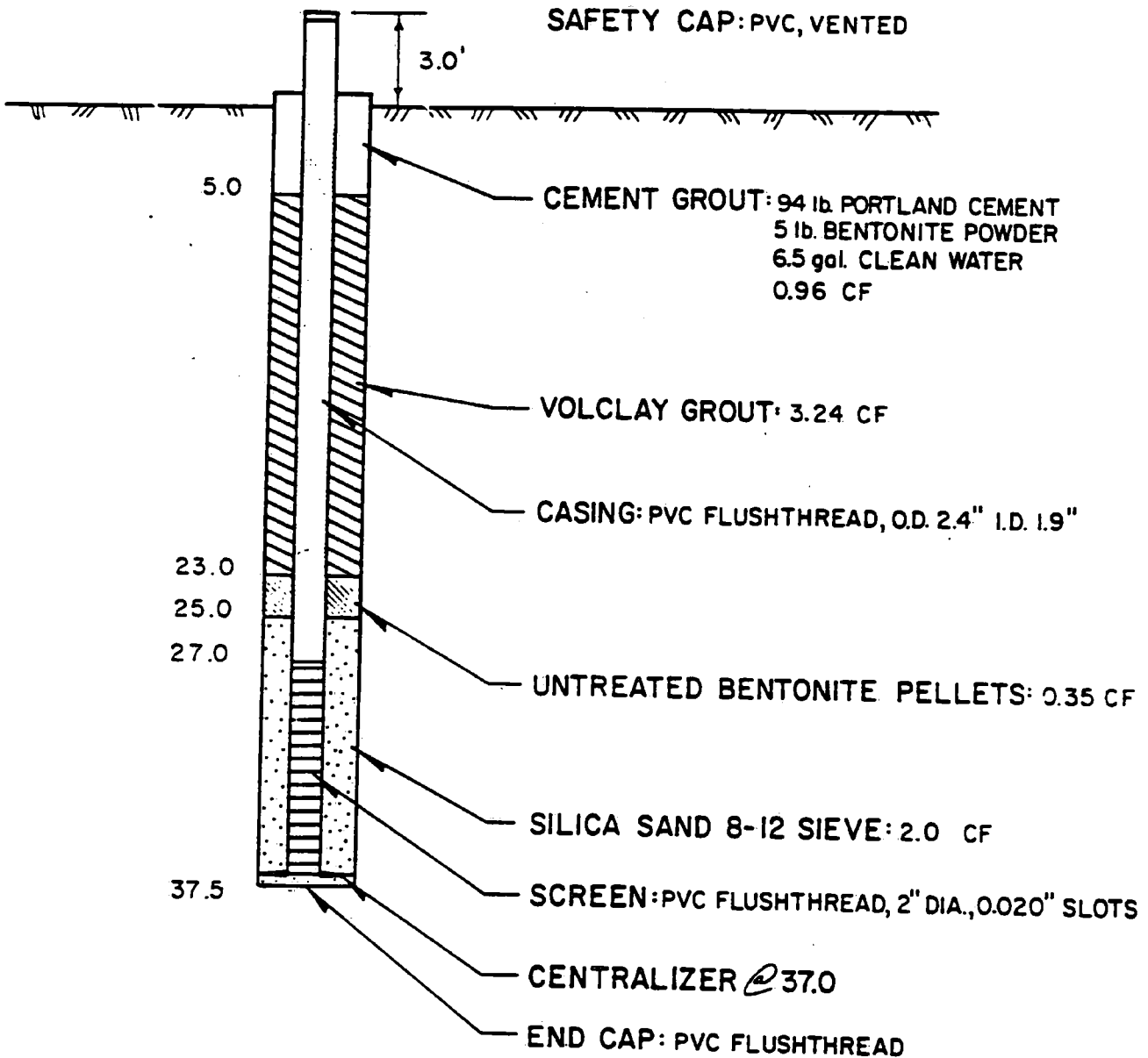
CASING ELEV.: 1373.66

BORING SIZE: 6.25"

BORING DEPTH: 37.5

CASING DETAILS:

REMARKS: RECEPTOR WELL



VERT. SCALE: 1" = 8'

U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: B

DATE DRILLED: 8/19/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 63.4' DATE: 9/22/87

LOCATION: 9297.3 E - 13971.3 N

SURFACE ELEV.: 1370.4

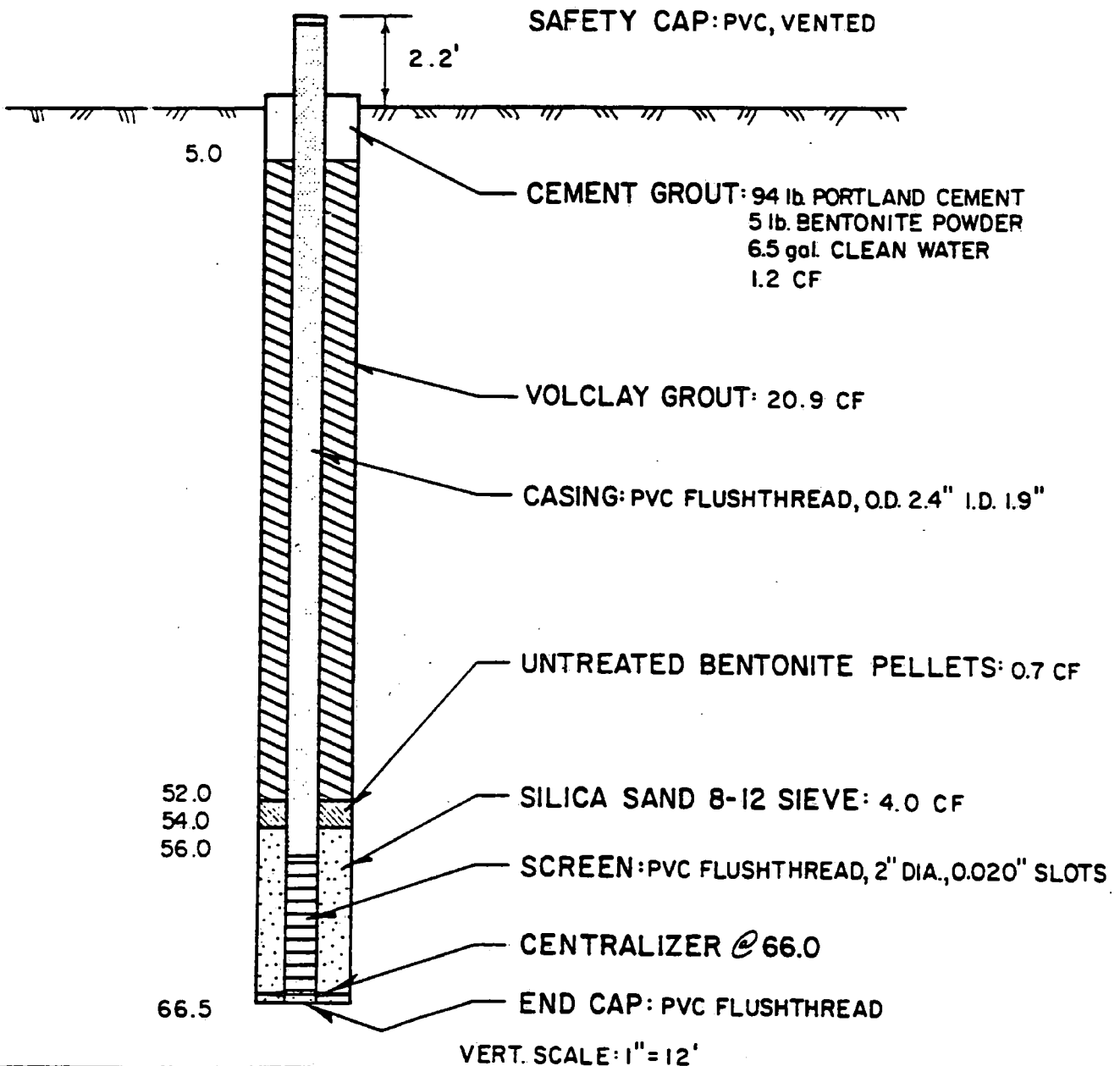
CASING ELEV.: 1372.58

BORING SIZE: 7.25"

BORING DEPTH: 66.5

CASING DETAILS:

REMARKS: SOURCE WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: B-1

DATE DRILLED: 8/6/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 60.6'

DATE: 9/22/87

LOCATION: 9297.4 E - 13976.2 N.

SURFACE ELEV.: 1370.6

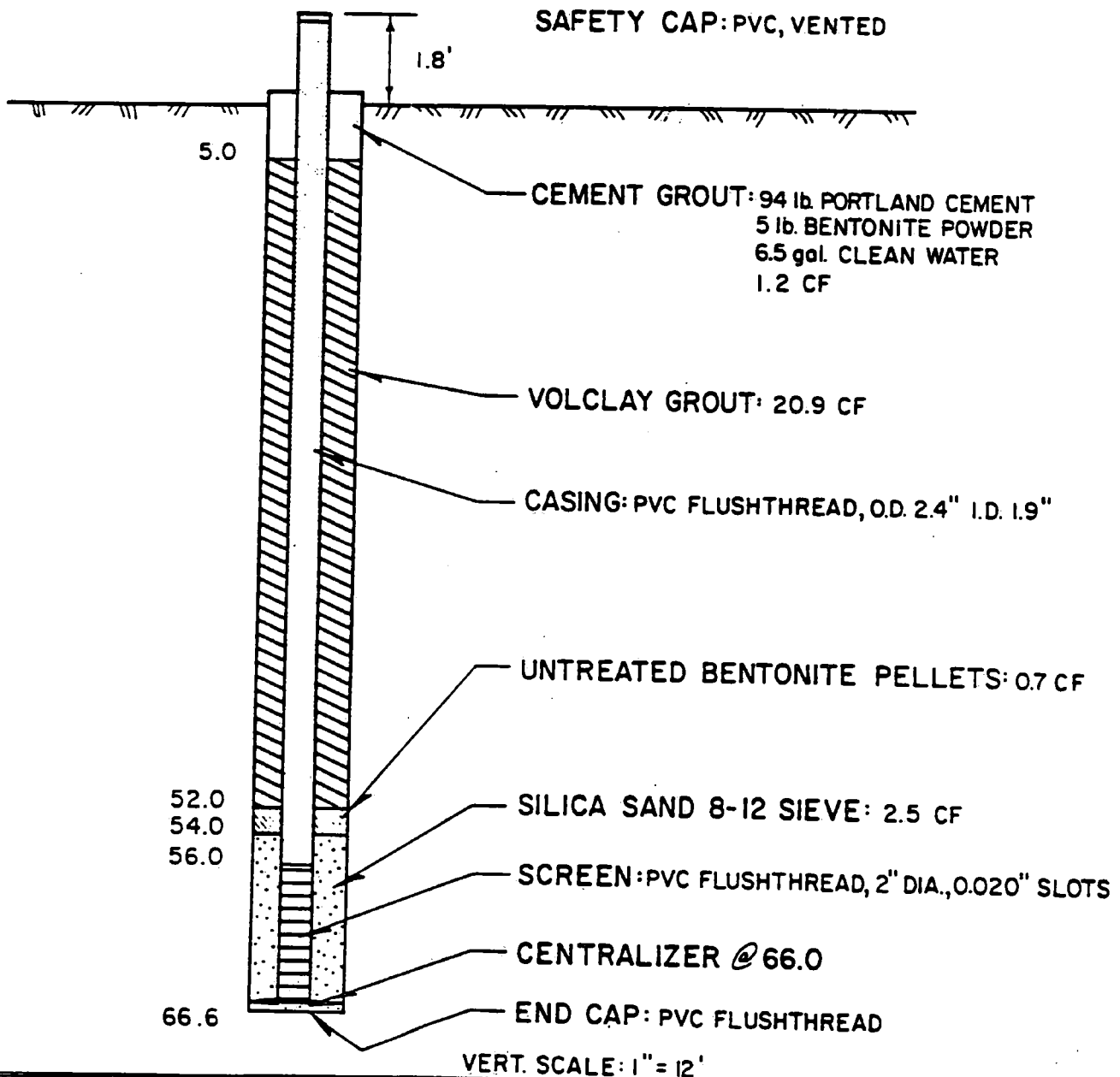
CASING ELEV.: 1372.45

BORING SIZE: 6.25"

BORING DEPTH: 66.6'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: B-2

DATE DRILLED: 8/19/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 60.7'

DATE: 9/22/87

LOCATION: 9300.9 E - 13974.7 N

SURFACE ELEV.: 1370.4

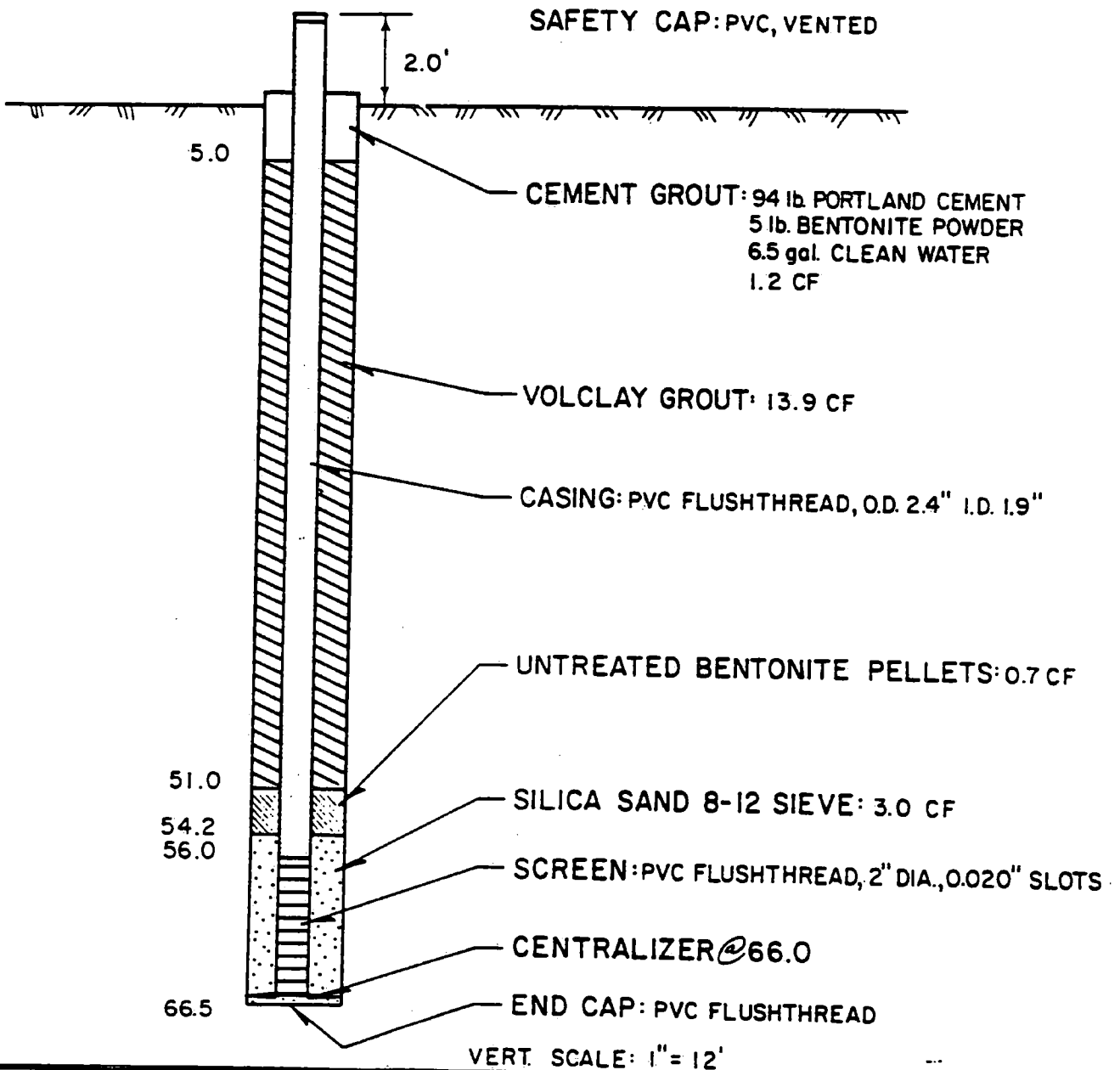
CASING ELEV.: 1372.38

BORING SIZE: 7.25"

BORING DEPTH: 66.5'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

WELL NO.: B-3

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

LOCATION: 9302.5 E - 13970.4 N

SURFACE ELEV.: 1370.5

BORING SIZE: 6.25"

CASING DETAILS:

DATE DRILLED: 8/20/87

WATER ELEV.: 60.8'

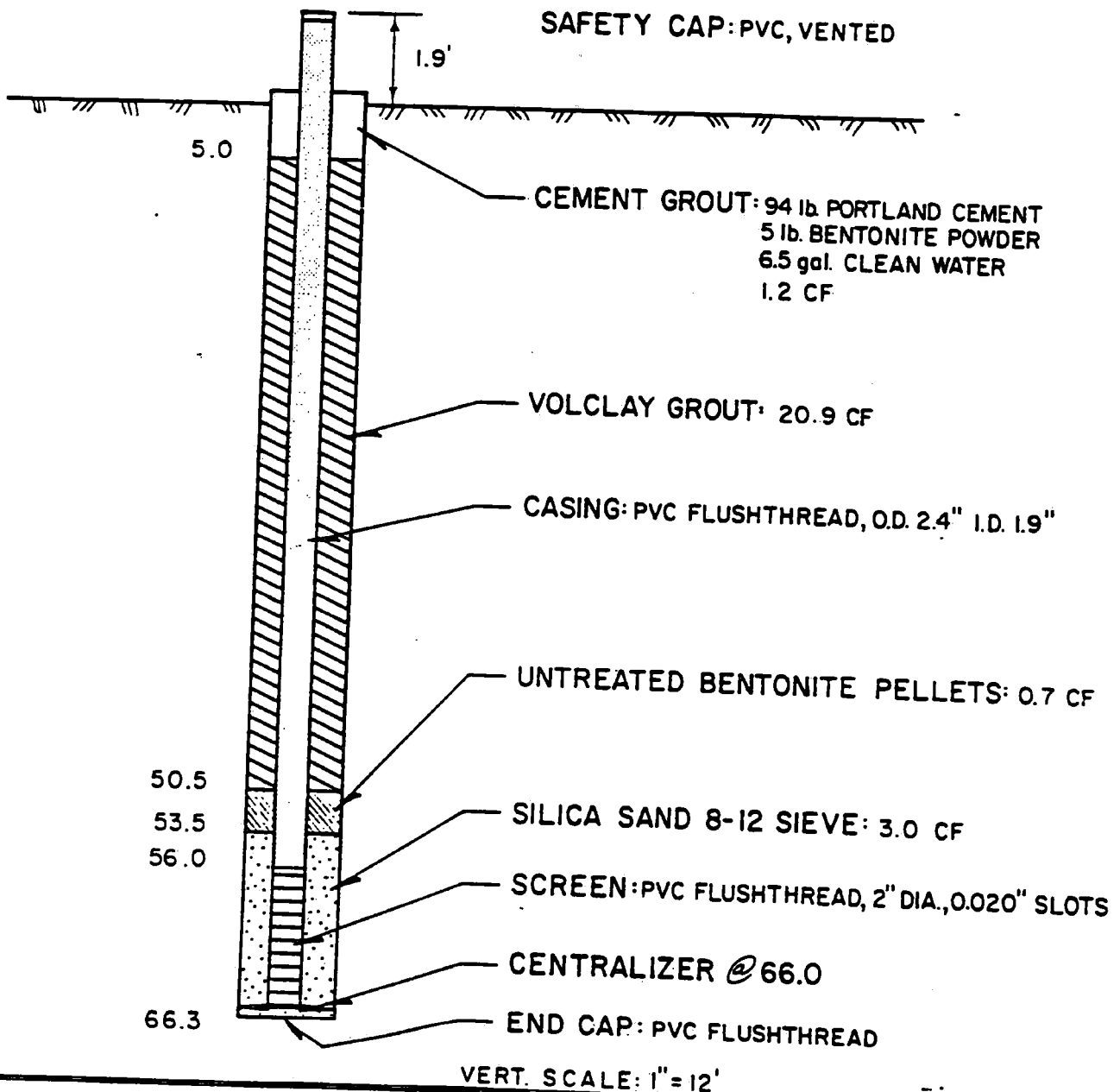
CASING ELEV.: 1372.37

BORING DEPTH: 66.3'

PAGE 1

DATE: 9/22/87

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: C

DATE DRILLED: 8/7/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 9.0'

DATE: 9/22/87

LOCATION: 9315.4 E - 13988.4 N

SURFACE ELEV.: 1370.4

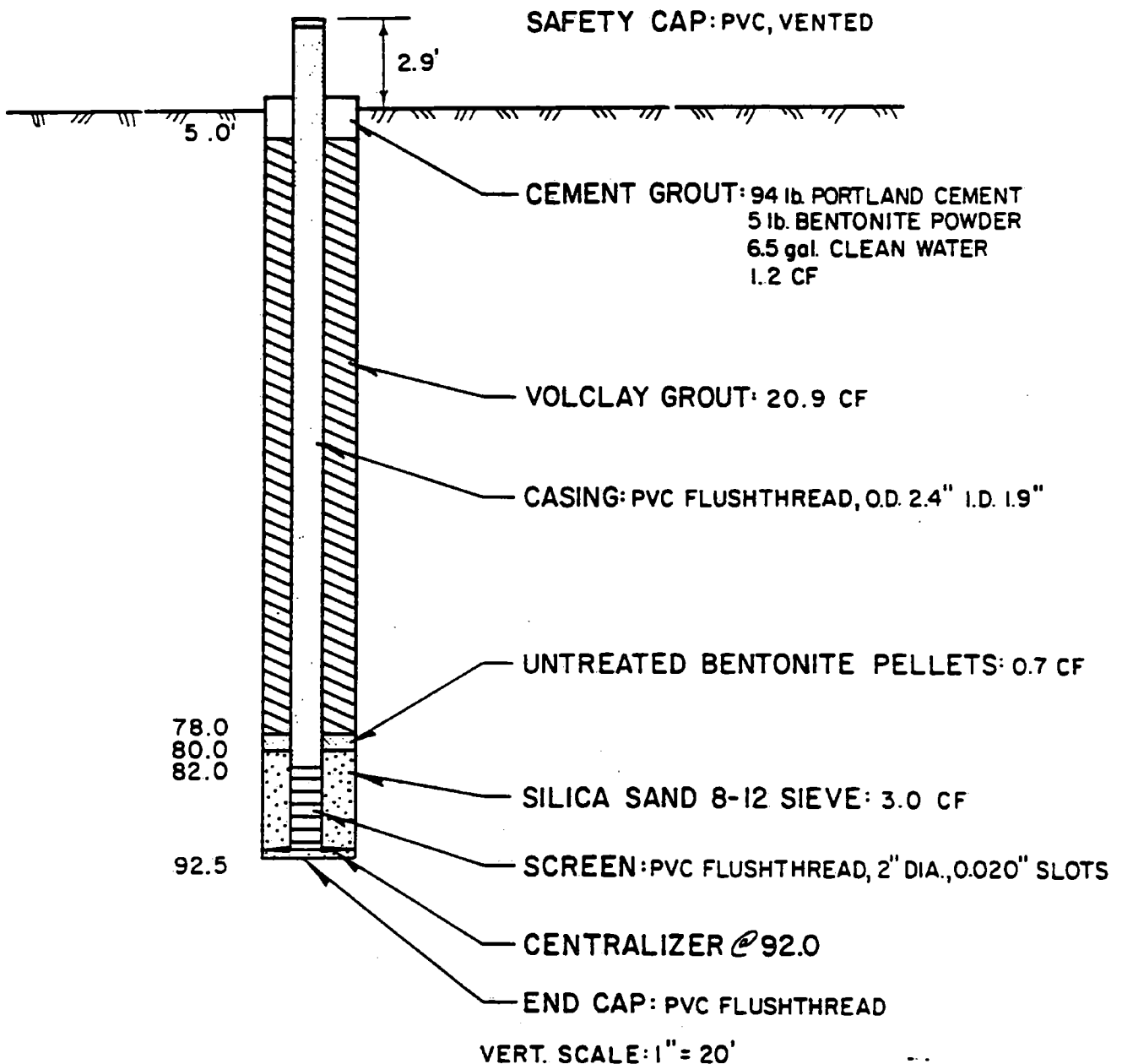
CASING ELEV.: 1373.25

BORING SIZE: 7.25"

BORING DEPTH: 92.5'

CASING DETAILS:

REMARKS: SOURCE WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: C-1

DATE DRILLED: 7/29/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 6.3'

DATE: 9/22/87

LOCATION: 9315.6 E - 13993.4 N

SURFACE ELEV.: 1370.3

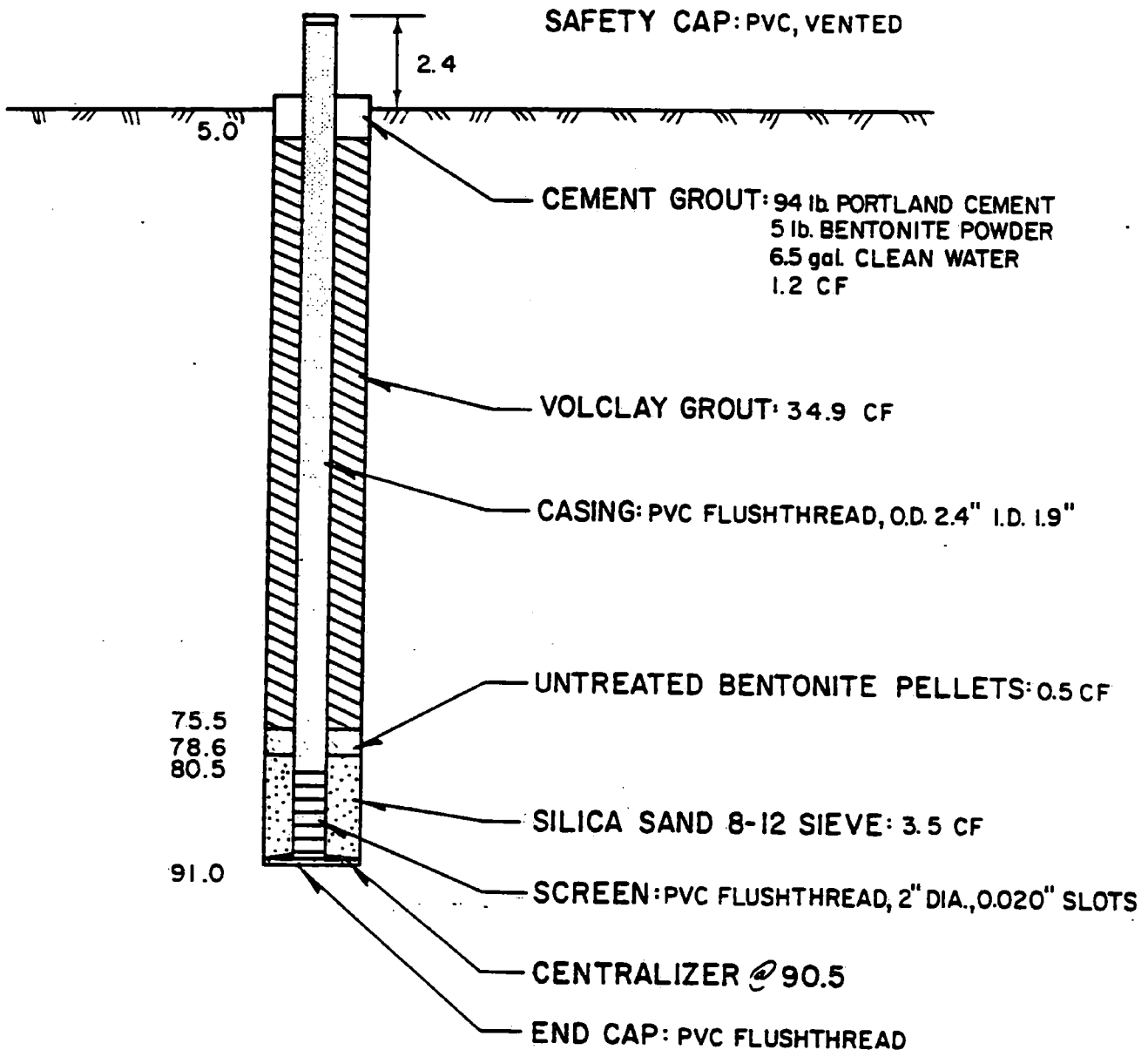
CASING ELEV.: 1372.67

BORING SIZE: 7.25"

BORING DEPTH: 91.0'

CASING DETAILS:

REMARKS: RECEPTOR WELL



VERT. SCALE: 1" = 20'

U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO: 3187108

PAGE 1

WELL NO.: C-2

DATE DRILLED: 8/4/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 5.3'

DATE: 9/22/87

LOCATION: 9319.1E - 13991.6N

SURFACE ELEV.: 1370.2

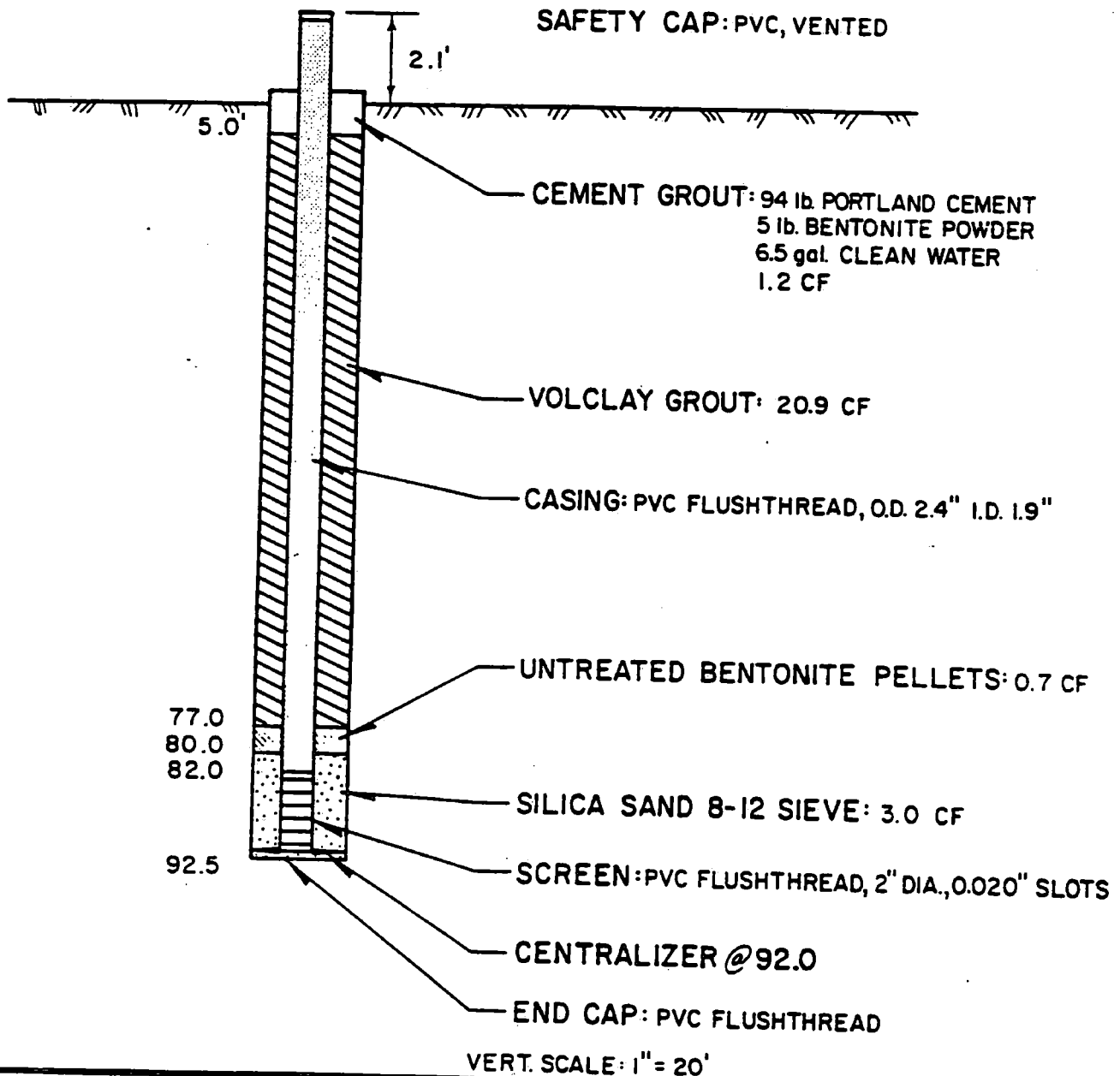
CASING ELEV.: 1372.33

BORING SIZE: 7.25"

BORING DEPTH: 92.5'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: C-3

DATE DRILLED: 8/5/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 7.2'

DATE: 9/22/87

LOCATION: 9320.4 E - 13988.6 N

SURFACE ELEV.: 1370.4

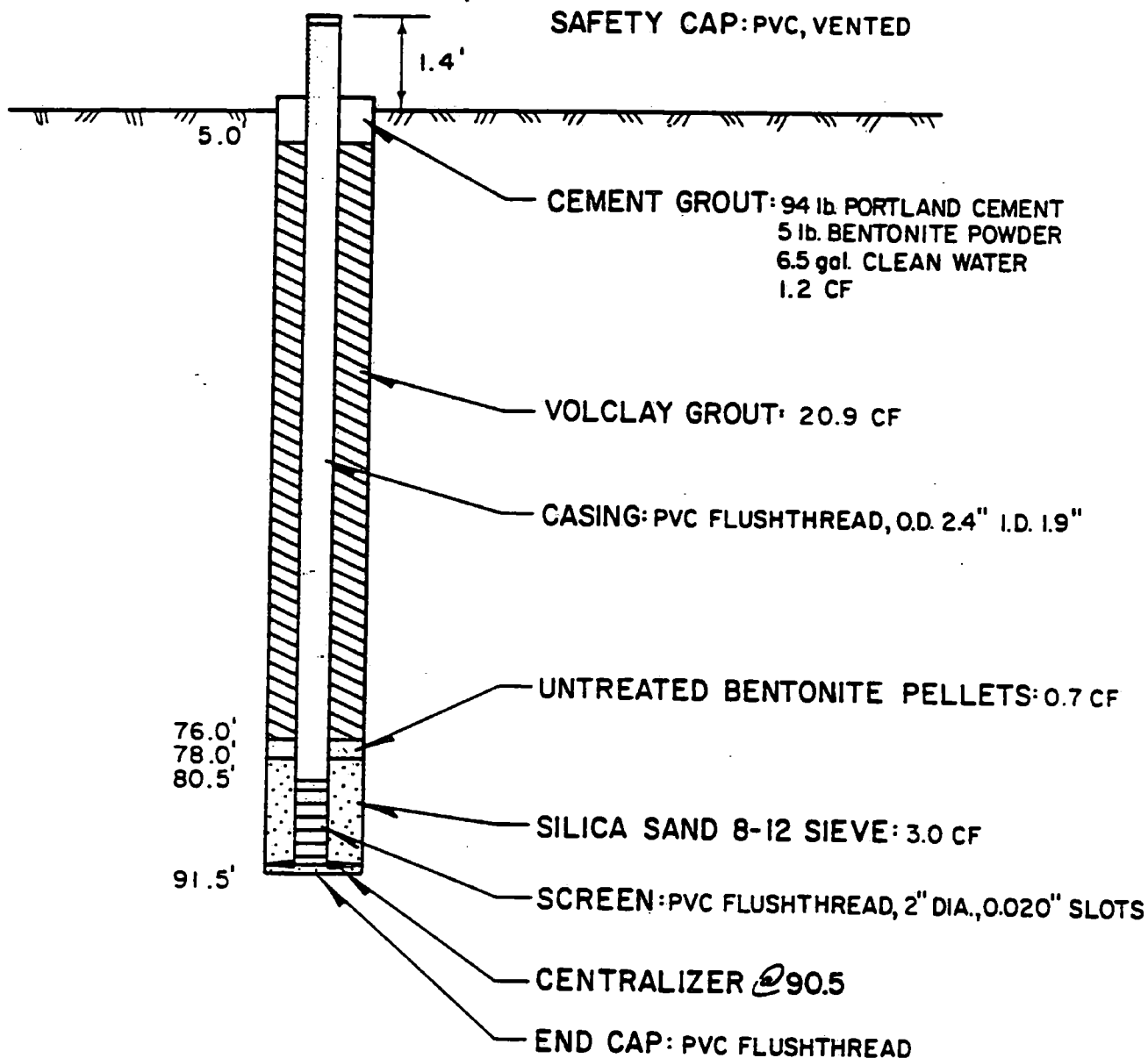
CASING ELEV.: 1371.81

BORING SIZE: 7.25"

BORING DEPTH: 91.0'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: D

DATE DRILLED: 8/11/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 0.1'

DATE: 9/22/87

LOCATION: 9333.5 E - 14005.7 N

SURFACE ELEV.: 1370.1

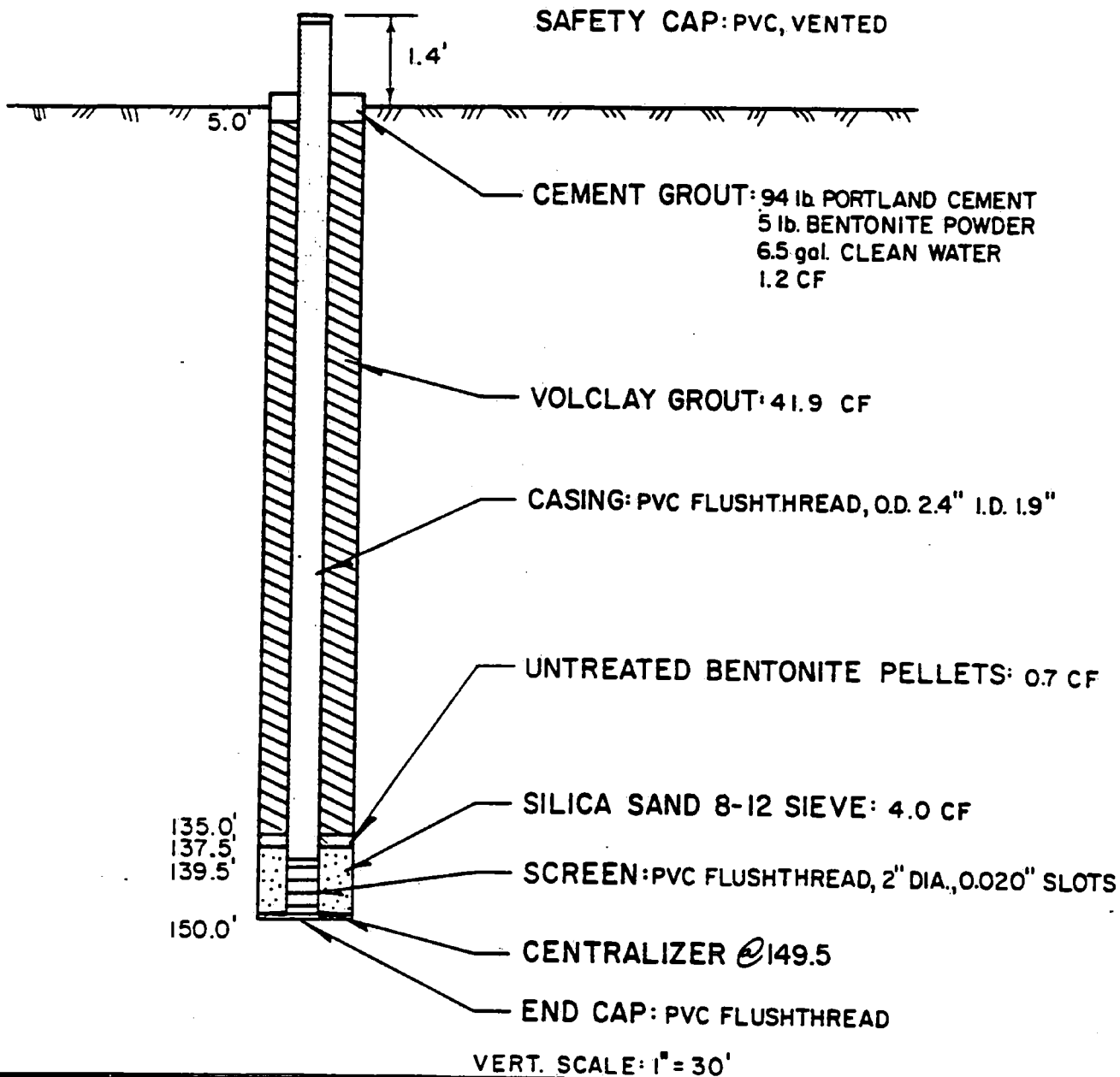
CASING ELEV.: 1371.52

BORING SIZE: 7.25"

BORING DEPTH: 150'

CASING DETAILS:

REMARKS: SOURCE WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: D-1

DATE DRILLED: 7/23/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 3.9'

DATE: 9/22/87

LOCATION: 9333.1 E - 14010.8 N

SURFACE ELEV.: 1369.9

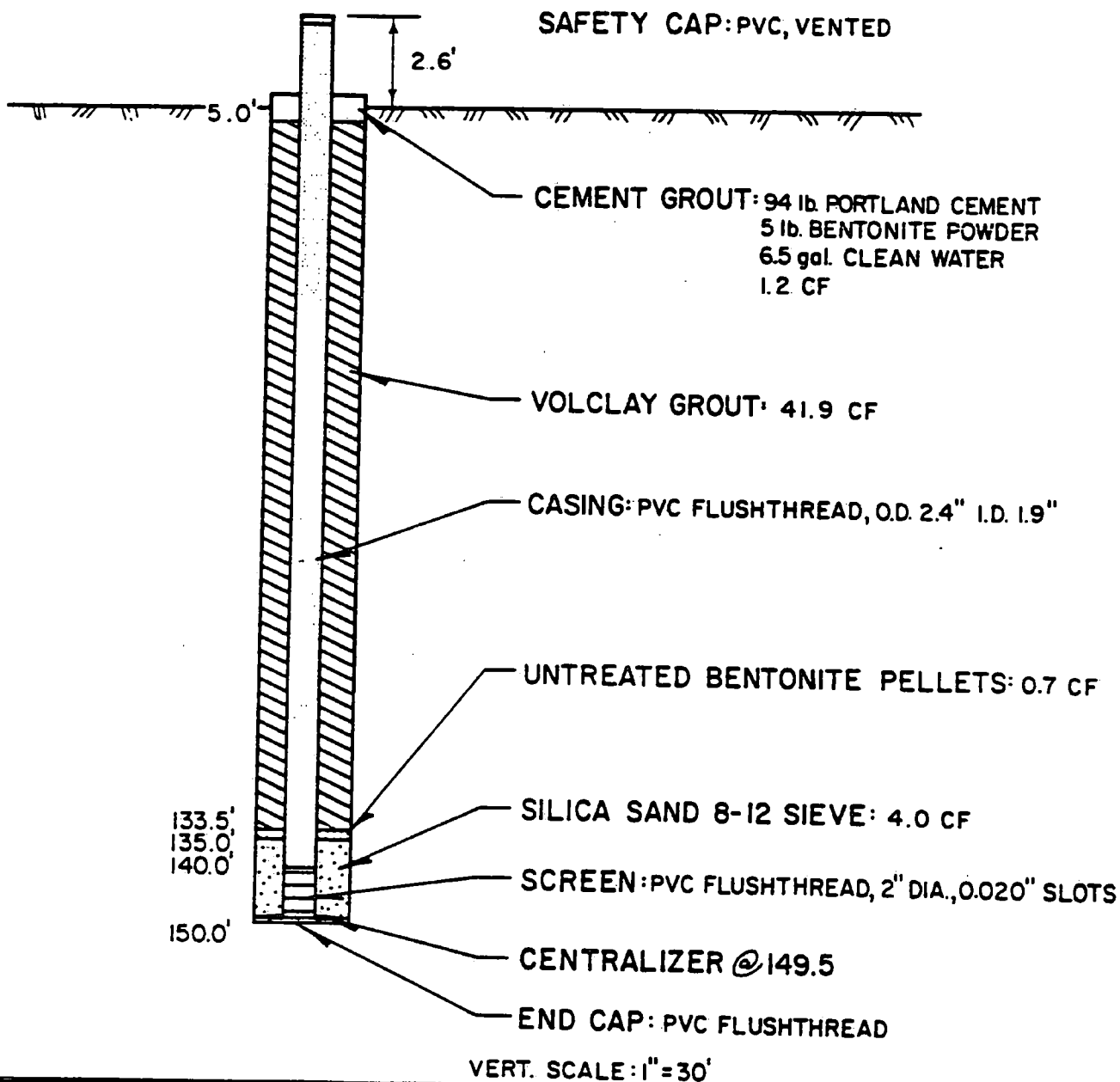
CASING ELEV.: 1372.52

BORING SIZE: 7.25"

BORING DEPTH: 150'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: D-2

DATE DRILLED: 8/13/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 0.1'

DATE: 9/22/87

LOCATION: 9336.9 E - 14009.4 N

SURFACE ELEV.: 1370.2

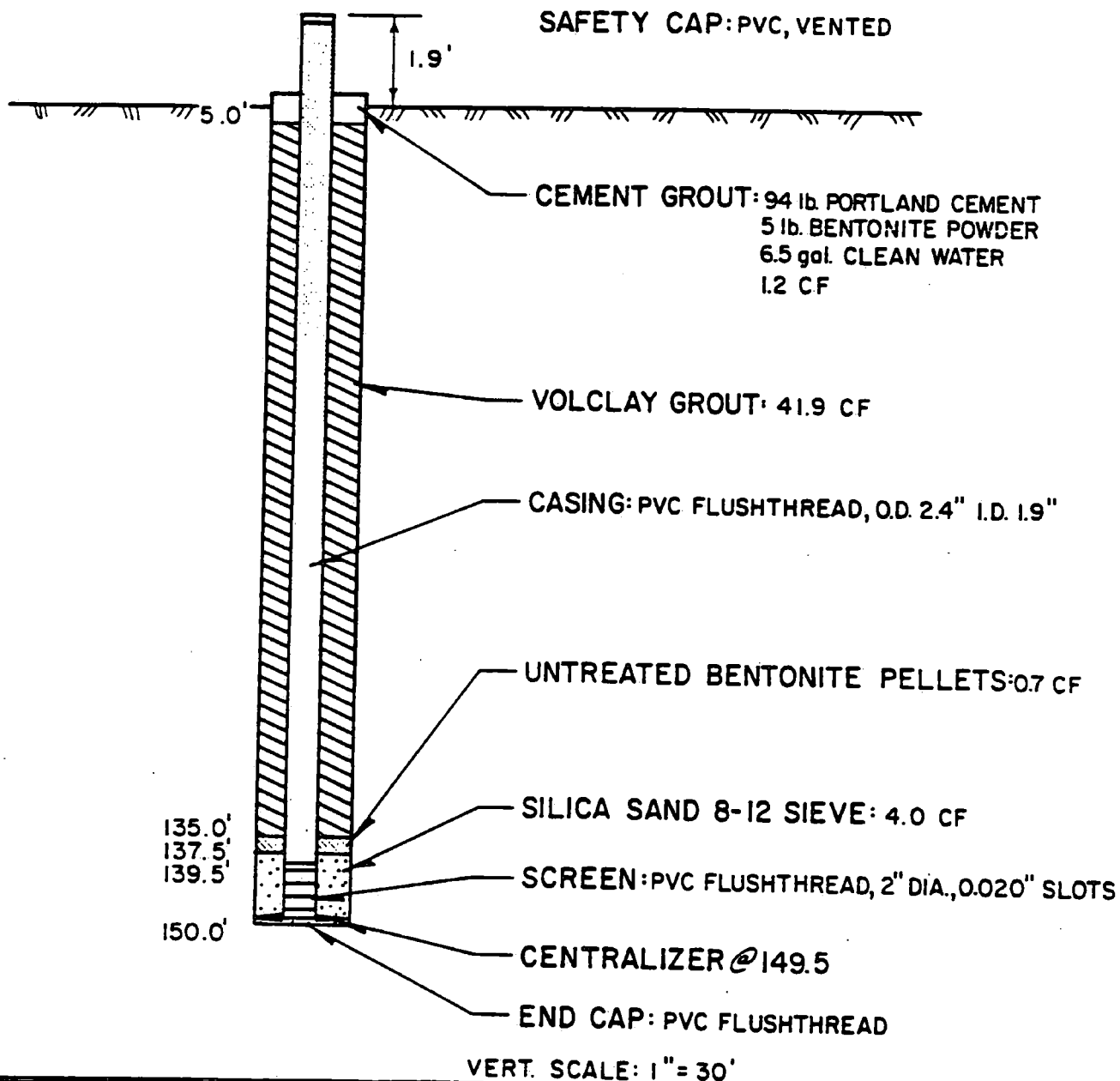
CASING ELEV.: 1372.15

BORING SIZE: 7.25"

BORING DEPTH: 150'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

TRACER WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: D-3

DATE DRILLED: 8/14/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 0.1'

DATE: 9/22/87

LOCATION: 9338.2 E - 14004.9 N

SURFACE ELEV.: 1370.1

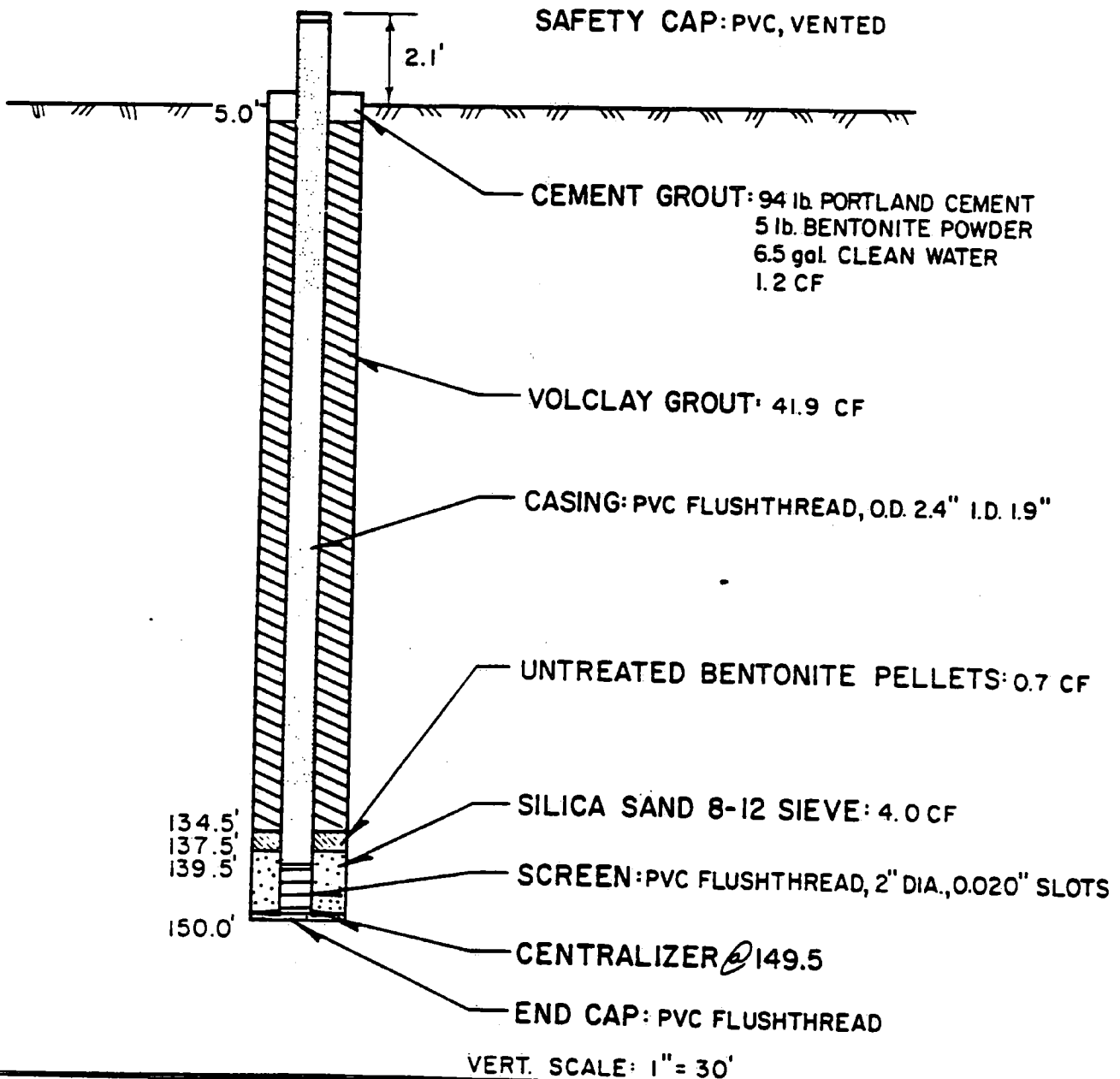
CASING ELEV.: 1372.25

BORING SIZE: 7.25"

BORING DEPTH: 150'

CASING DETAILS:

REMARKS: RECEPTOR WELL



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW CH-D

DATE: 8/26/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 12.58' DATE: 8/29/87

LOCATION: 7312.0 E - 13942.1 N

SURFACE ELEV.: 1392.9'

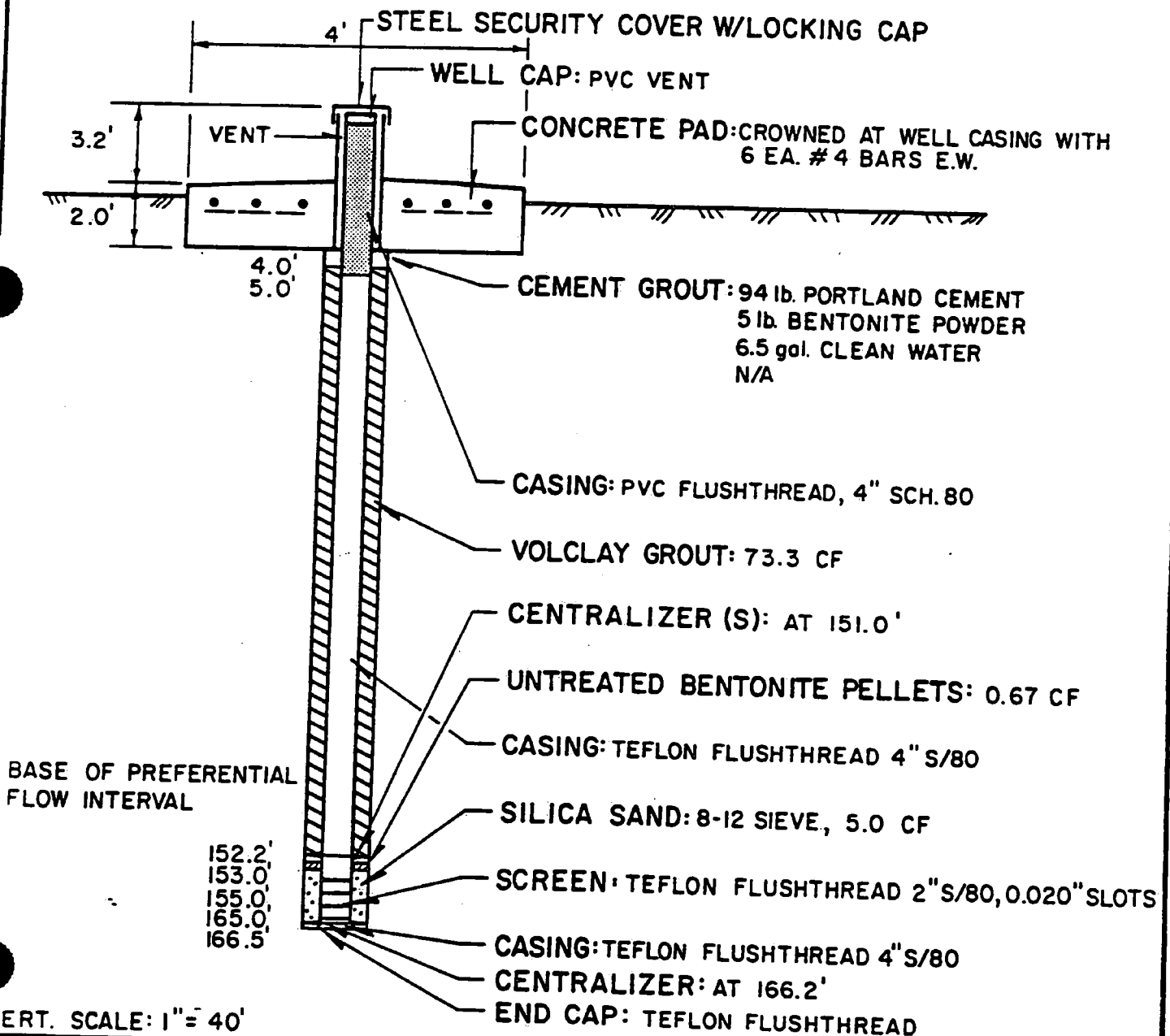
CASING ELEV.: 1396.1'

BORING SIZE: 10" & 12"

BORING DEPTH: 166.5

CASING DETAILS:

REMARKS: WAS ORIGINALLY DRILLED AS MW K-164. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO: 3187108

PAGE 1

WELL NO: MW 1-A

DATE: 7/9/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: +0.89

DATE: 8/29/87

LOCATION: 8716.8 E - 10488.9 N

SURFACE ELEV.: 1451.4'

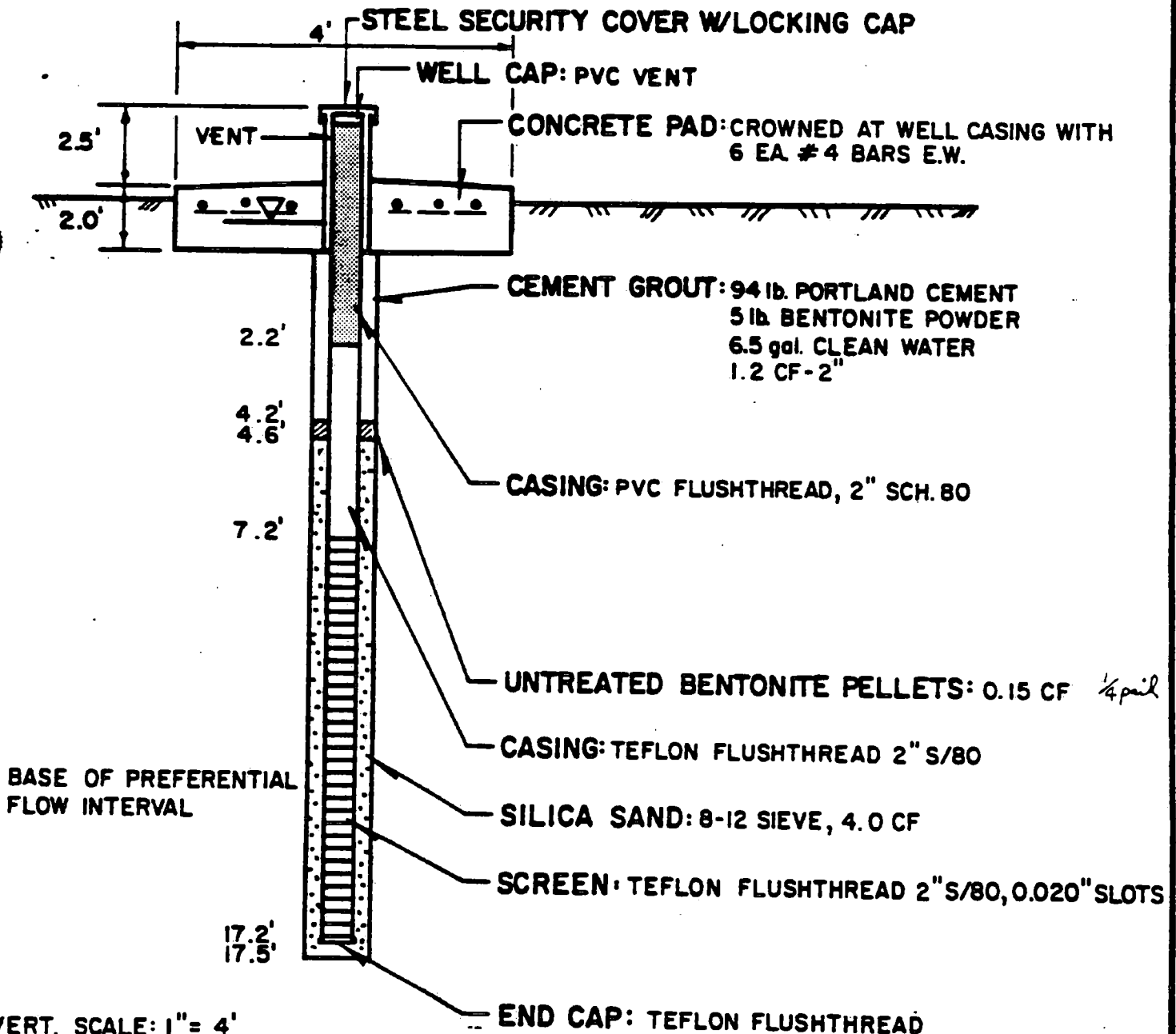
CASING ELEV.: 1453.82'

BORING SIZE: 6.25"

BORING DEPTH: 17.5

CASING DETAILS: Cap, 10' screen TFE, 5' TFE, 5' PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWA-17. BUMPER GUARDS TO BE INSTALLED.
WATER LEVEL MAY CONTAIN DRILLING FLUIDS.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 1-B

DATE: 8/27/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 1.14' DATE: 8/29/87

LOCATION: 8739.2 E - 10482.1 N

SURFACE ELEV.: 1449.3'

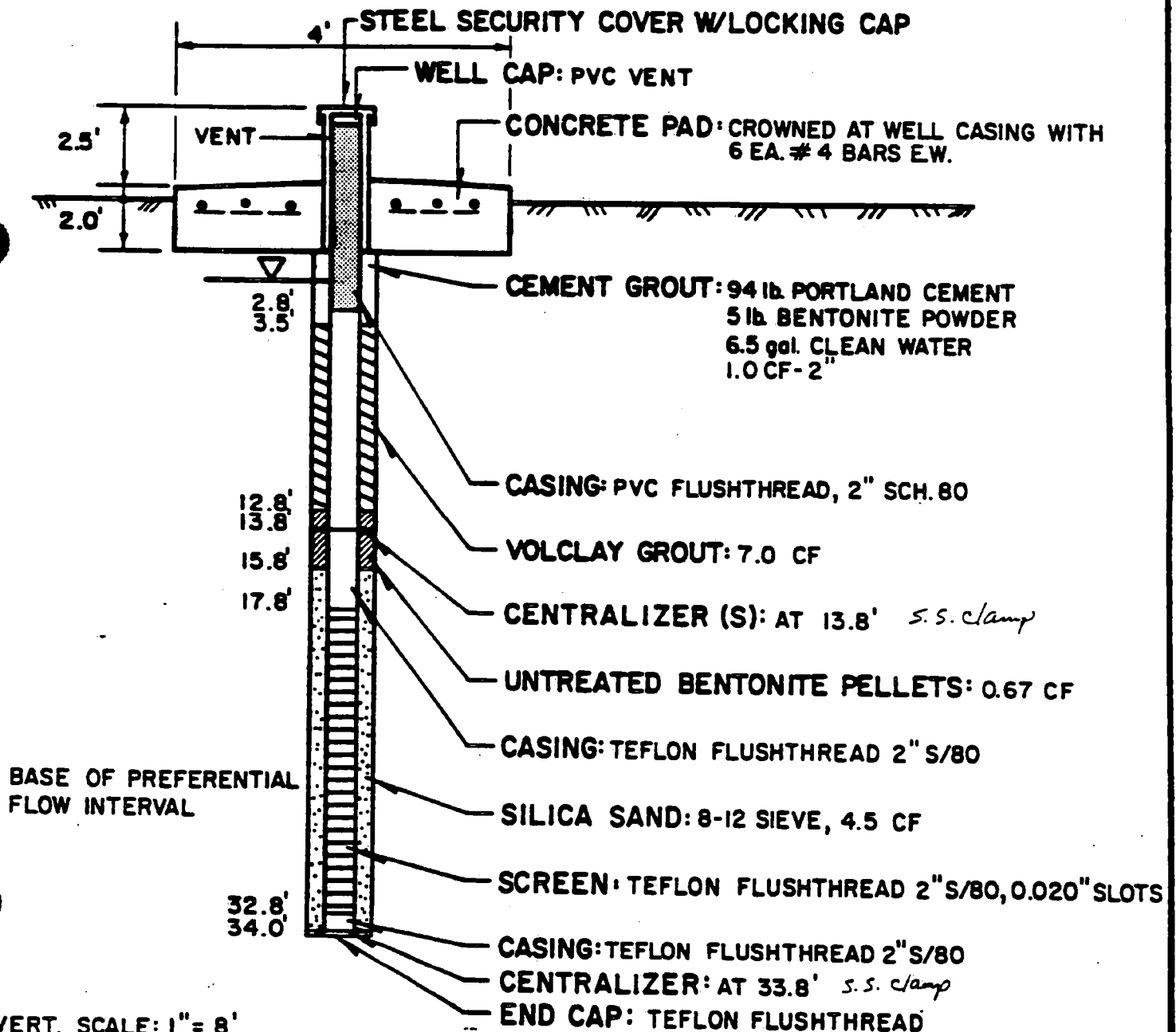
CASING ELEV.: 1452.3'

BORING SIZE: 7.25"

BORING DEPTH: 34.0'

CASING DETAILS: Cap, 1' TFE, 10' screen, 5' screen, 70' TFE, 5' TFE, 5' PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWA-50. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 1-C

DATE: 8/26/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 5.42' DATE: 8/28/87

LOCATION: 8753.8' E - 10481.2' W

SURFACE ELEV.: 1449.1'

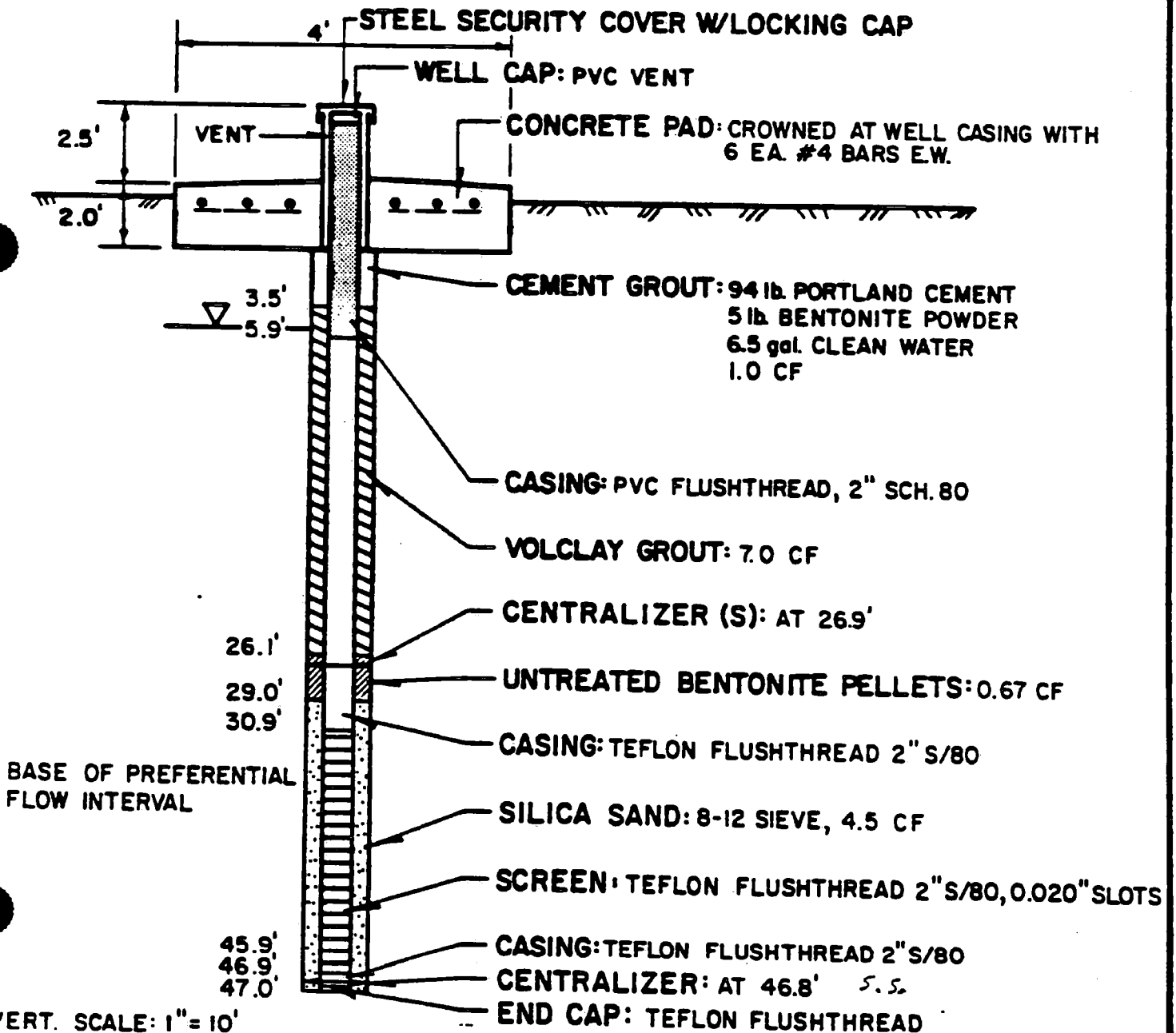
CASING ELEV.: 1451.6'

BORING SIZE: 7.25"

BORING DEPTH: 47.0'

CASING DETAILS: Cap, 1' TFE, 10' screen, 5' screen 2-10' TFE, 5' TFE, PVC

REMARKS: WELL WAS ORIGINALLY DRILLED AS MW A-47. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 2-A

DATE: 7/10/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 12.19' DATE: 8/30/87

LOCATION: 8082.1 E - 11318.9 N

SURFACE ELEV.: 1464.4'

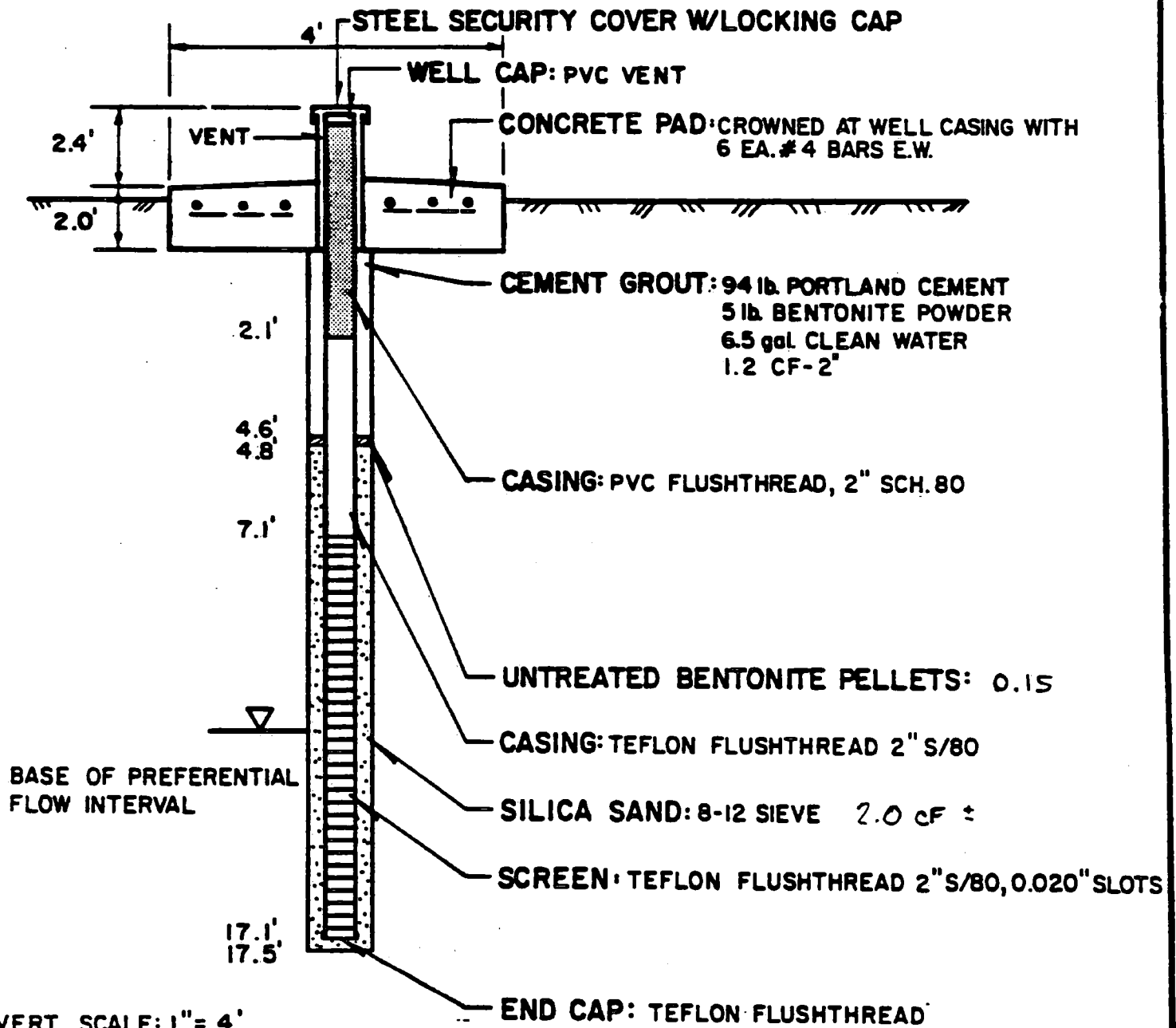
CASING ELEV.: 1466.4'

BORING SIZE: 6.25"

BORING DEPTH: 17.5'

CASING DETAILS: Cap, 10' screen, 5' TFE, 5' PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWB-17. BUMPER GUARDS TO BE INSTALLED.
reinstalled



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW-2-B

DATE: 8/20/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 22.59' DATE: 8/30/87

LOCATION: 8084.6 E - 11303.7 N

SURFACE ELEV.: 1465.3'

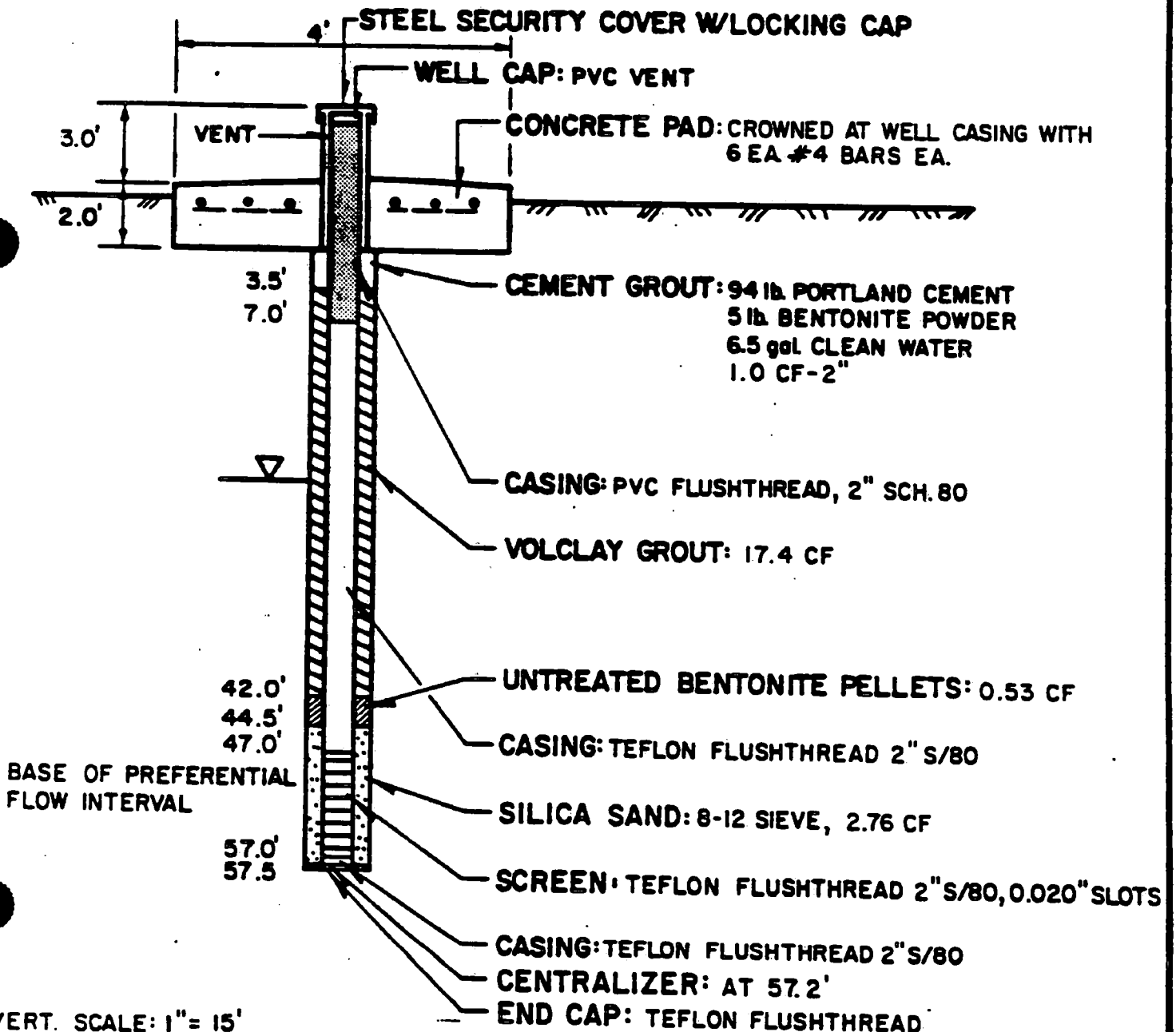
CASING ELEV.: 1468.3'

BORING SIZE: 6.25"

BORING DEPTH: 57.5'

CASING DETAILS: *Cap. 10' screen, 4-10' TFE, 10' PVC ?*

REMARKS: WAS ORIGINALLY DRILLED AS MW B-57. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 2-C

DATE: 8/22/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 8.28' DATE: 8/30/87

LOCATION: 8082.1 E - 11318.9 N

SURFACE ELEV.: 1464.4'

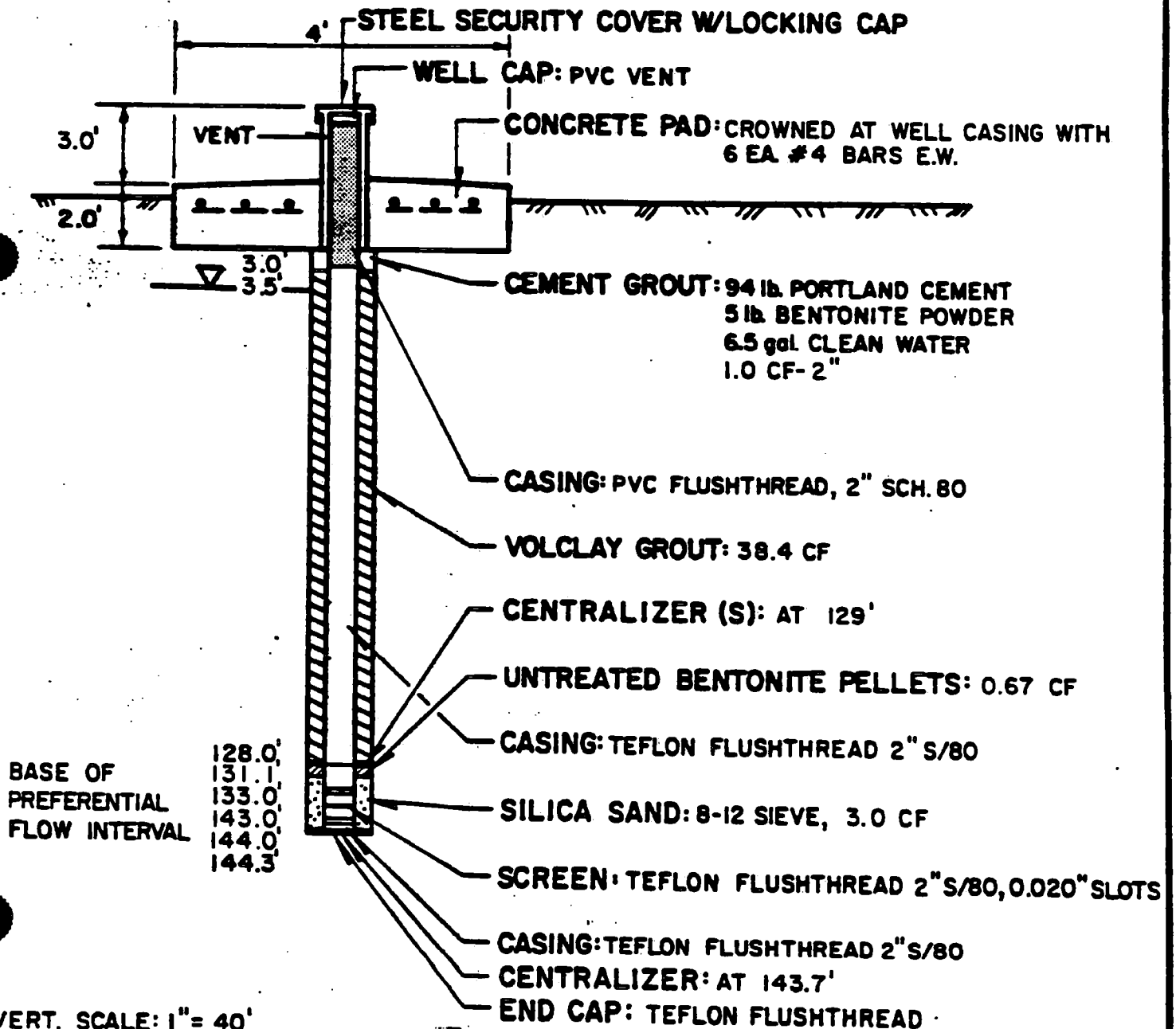
CASING ELEV.: 1467.4'

BORING SIZE: 7.25"

BORING DEPTH: 144.3'

CASING DETAILS: Cap, 1' TFE, 10' screen, 13-10' TFE, 5' PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW-B-144. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 3-A

DATE: 8/22/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 7.69' DATE: 8/30/87

LOCATION: 7781.3 E - 12549.5 N

SURFACE ELEV.: 1414.9'

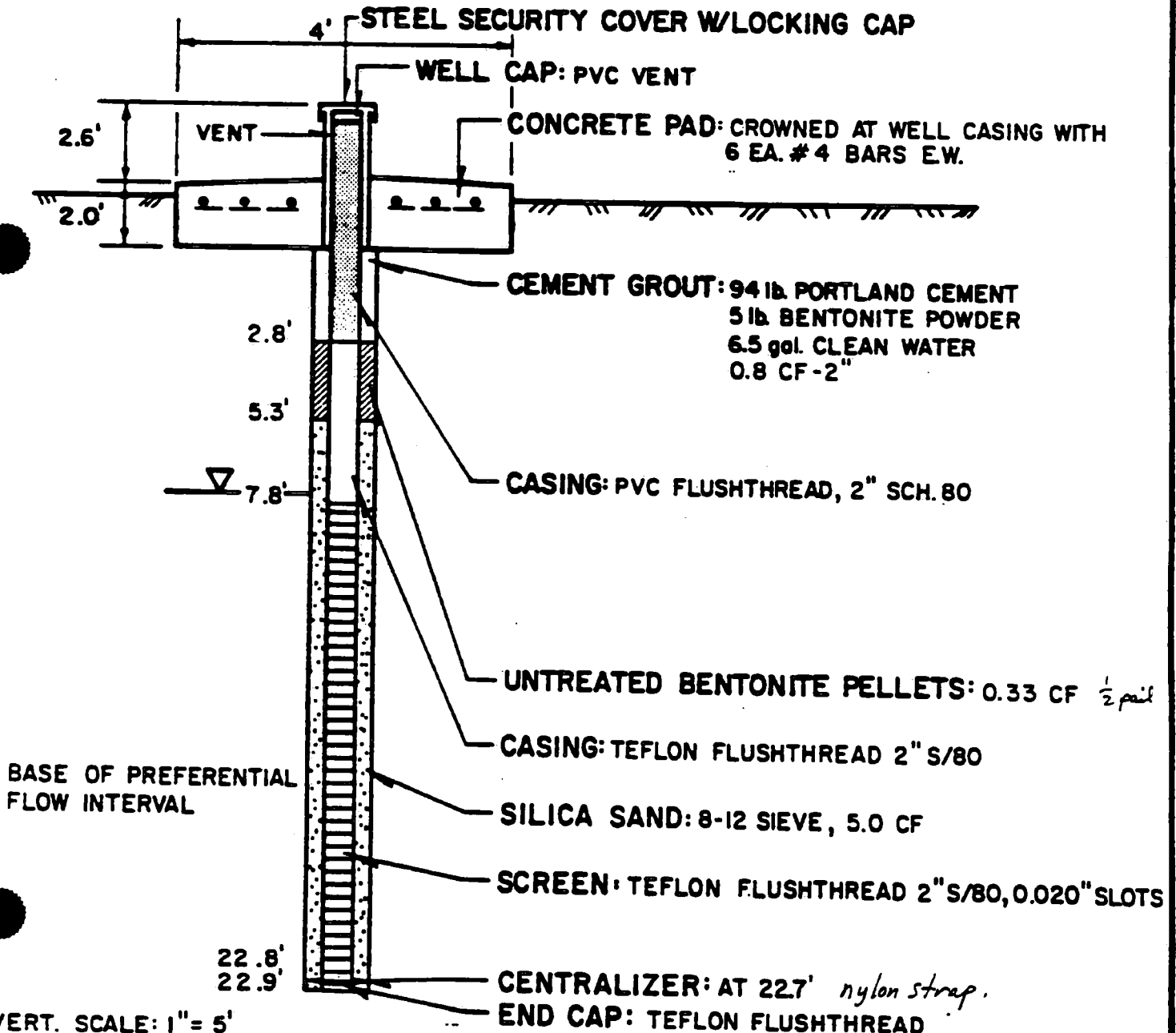
CASING ELEV.: 1417.48'

BORING SIZE: 7.25"

BORING DEPTH: 22.9'

CASING DETAILS: *cap, 10' screen, 5' screen, 5' TFE, 5' PVC*

REMARKS: WAS ORIGINALLY DRILLED AS MW D-23. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 4-B1

DATE: 8/27/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 4.04' DATE: 8/29/87

LOCATION: 9452.2 E - 10735.3 N

SURFACE ELEV.: 1424.8'

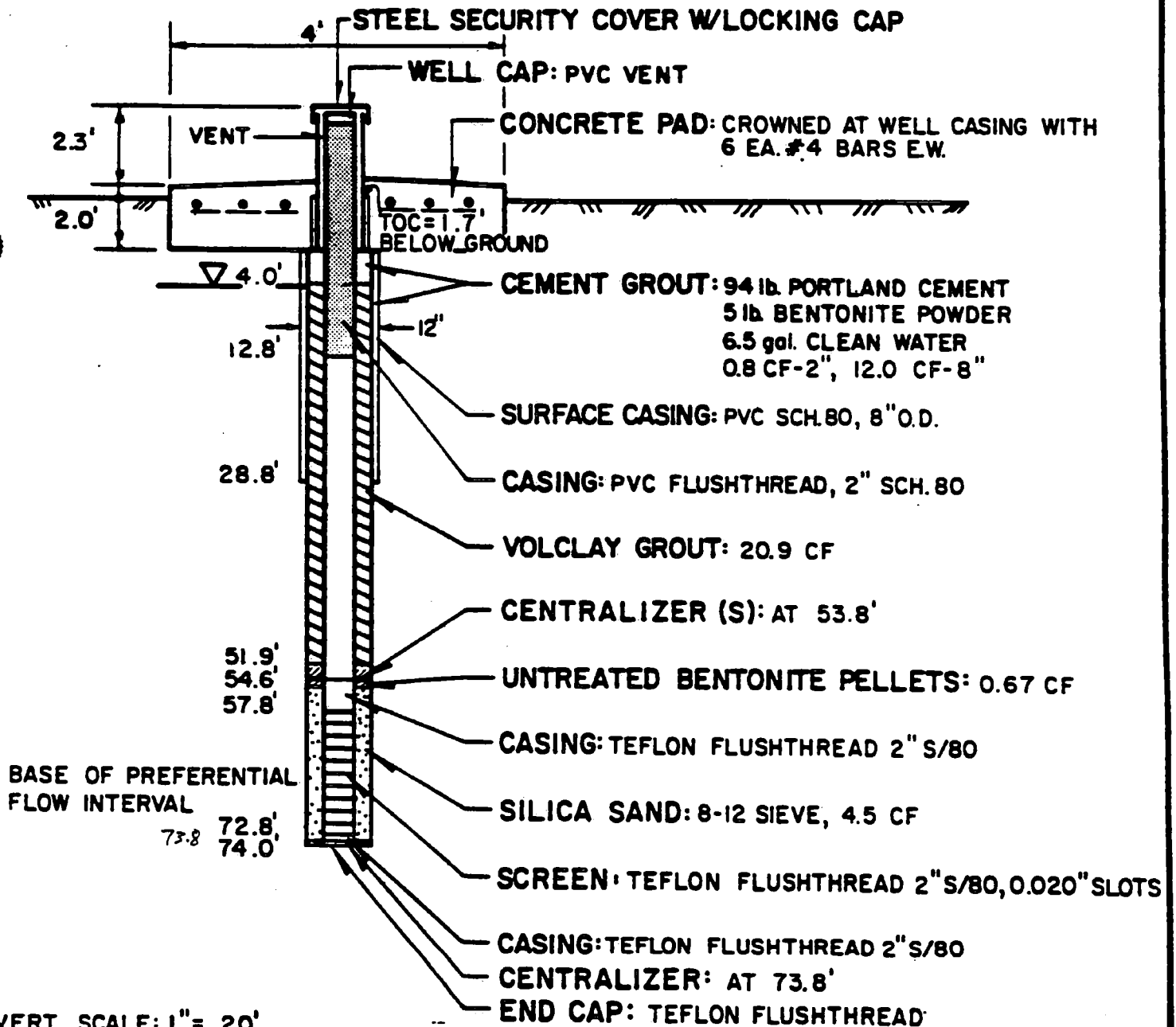
CASING ELEV.: 1427.0'

BORING SIZE: 7.25" & 12"

BORING DEPTH: 74.0'

CASING DETAILS: *c.ay.* 1' TFE, 10' SCR, 5' SCL, 4-10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW E-74. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 5-B2

DATE: 8/25/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 2.37'

LOCATION: 9559.7 E - 11568.3 N

SURFACE ELEV.: 1394.5'

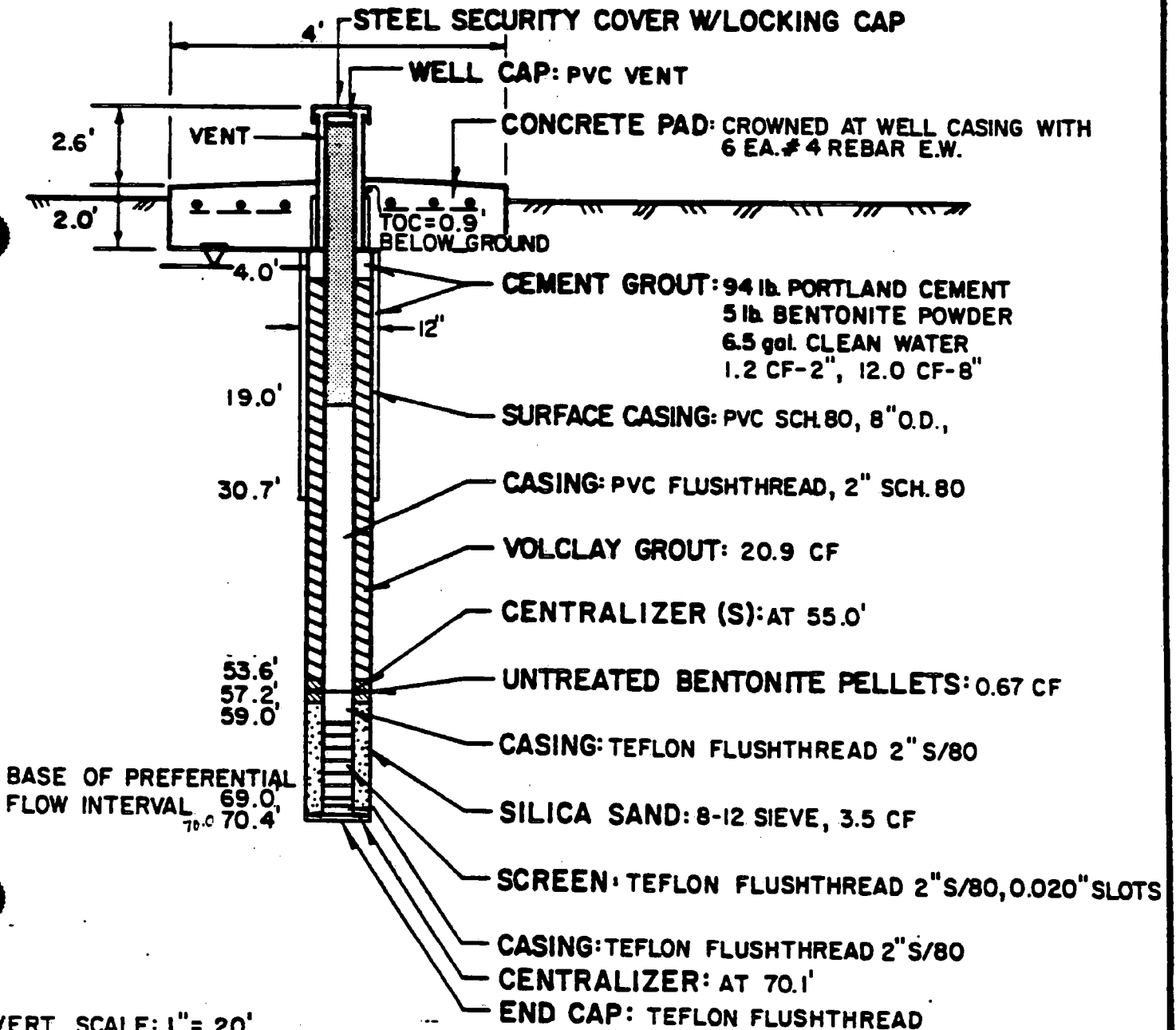
CASING ELEV.: 1397.1'

BORING SIZE: 7.25" & 12"

BORING DEPTH: 70.4'

CASING DETAILS: 1' TFE, 10' SCR., 4-10' TFE, PVC

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW F-70.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO: 3187108

PAGE 1

WELL NO.: MW6-A

DATE: 8/21/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 9.21'

LOCATION: 9456.2 E - 11713.3 N

SURFACE ELEV.: 1394.2'

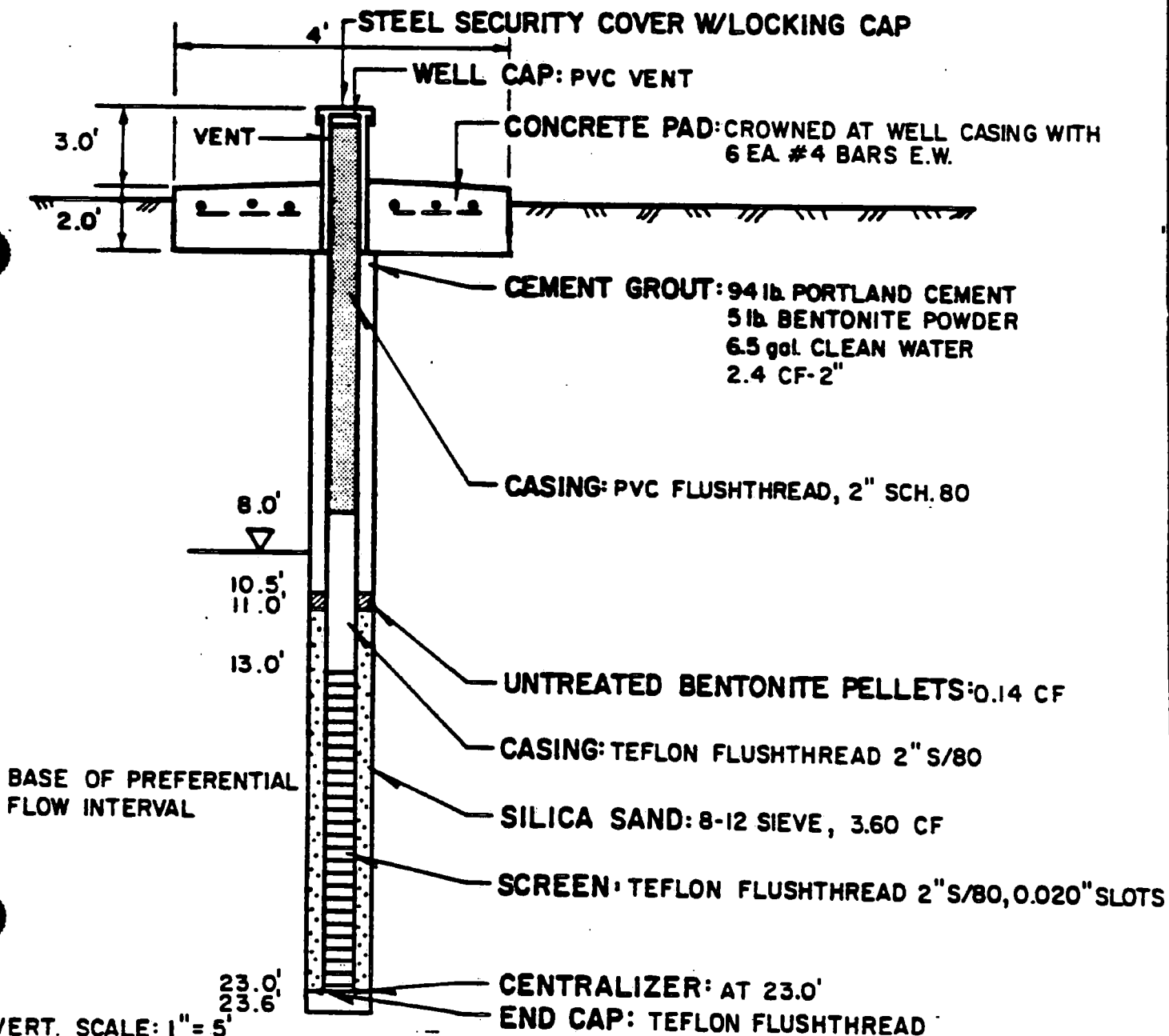
CASING ELEV.: 1397.2'

BORING SIZE: 7.25"

BORING DEPTH: 23.6'

CASING DETAILS: Cap, 10' SCR, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWG-23. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 8-B1

DATE: 8/27/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 2.77'

LOCATION: 9101.8 E - 11774.7 N

SURFACE ELEV.: 1394.1'

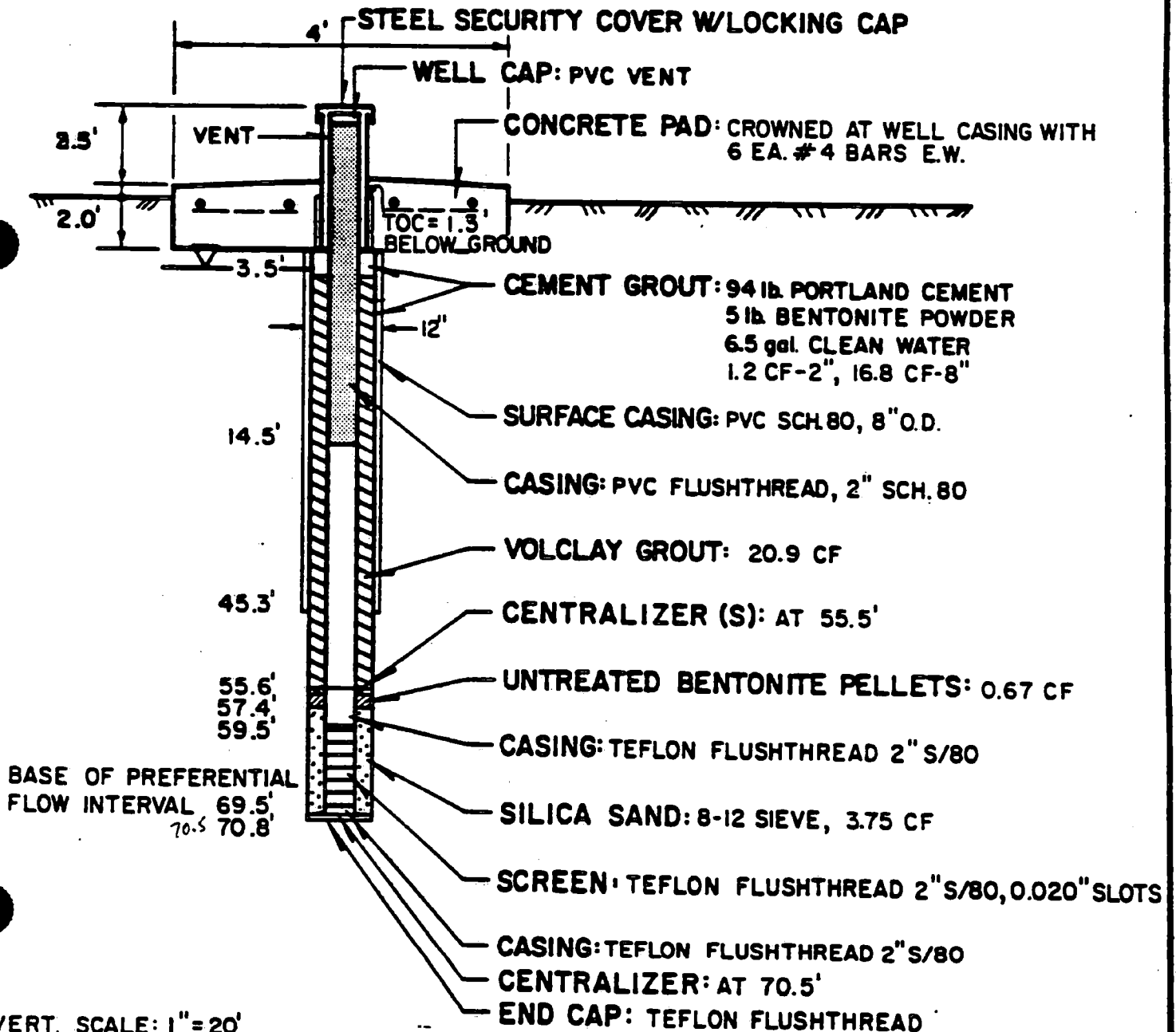
CASING ELEV.: 1397.4'

BORING SIZE: 7.25" & 12"

BORING DEPTH: 70.8'

CASING DETAILS: Cap 1' TFE, 10' SCR, 4-10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW H-71. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 6-C

DATE: 8/26/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: +0.67 DATE: 8/30/87

LOCATION: 9440.2 E-11737.7 N

SURFACE ELEV.: 1394.2'

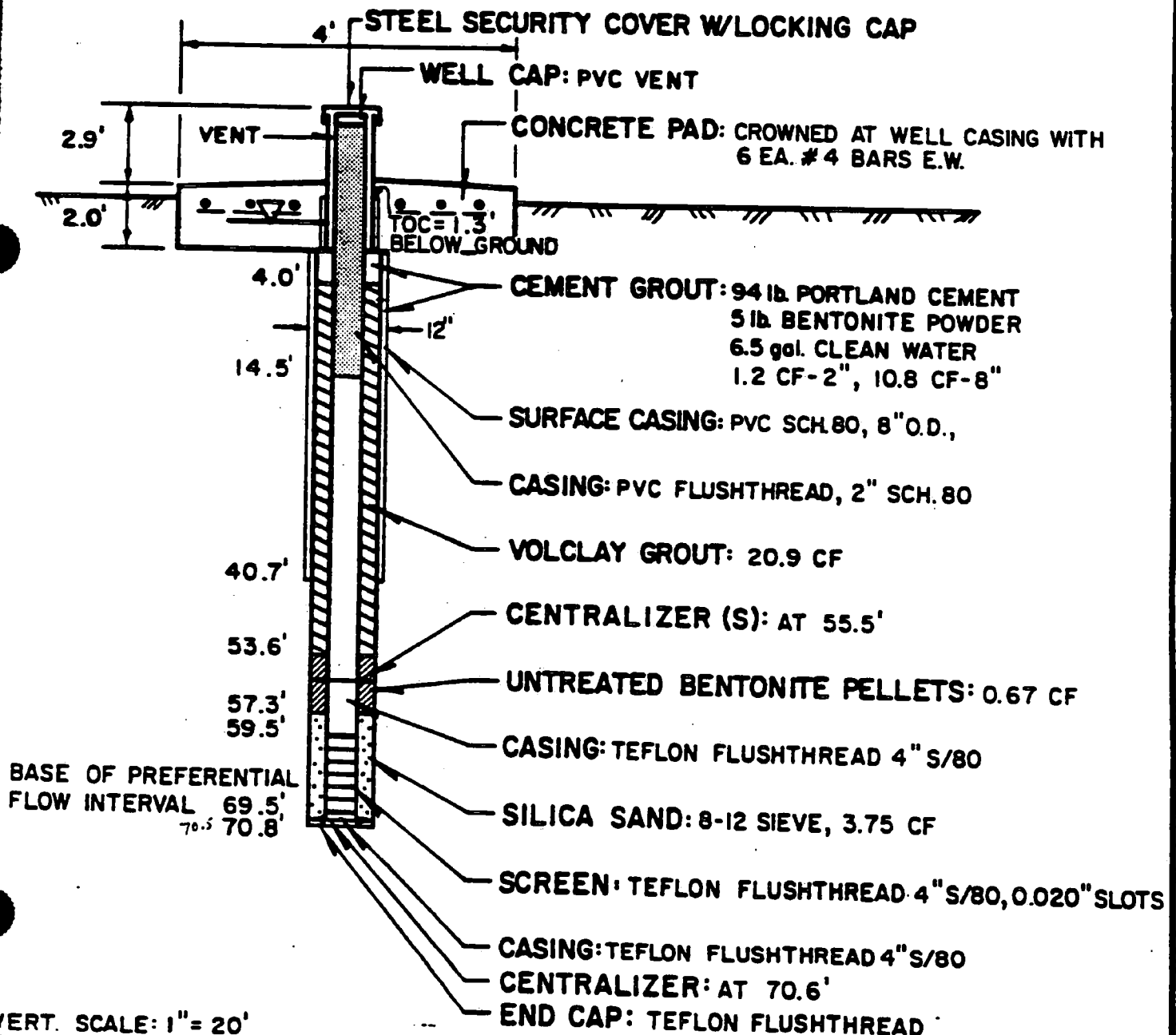
CASING ELEV.: 1397.1'

BORING SIZE: 7.25"

BORING DEPTH: 70.8'

CASING DETAILS: cap. 1' TFE, 10' scr., 4-10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW G-71. BUMPER GUARDS TO BE INSTALLED
WATER LEVEL MAY CONTAIN DRILLING FLUIDS.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 8-A1

DATE: 8/27/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 5.33' DATE: 8/30/87

LOCATION: 9110.8 E - 11759.4 N

SURFACE ELEV.: 1394.5'

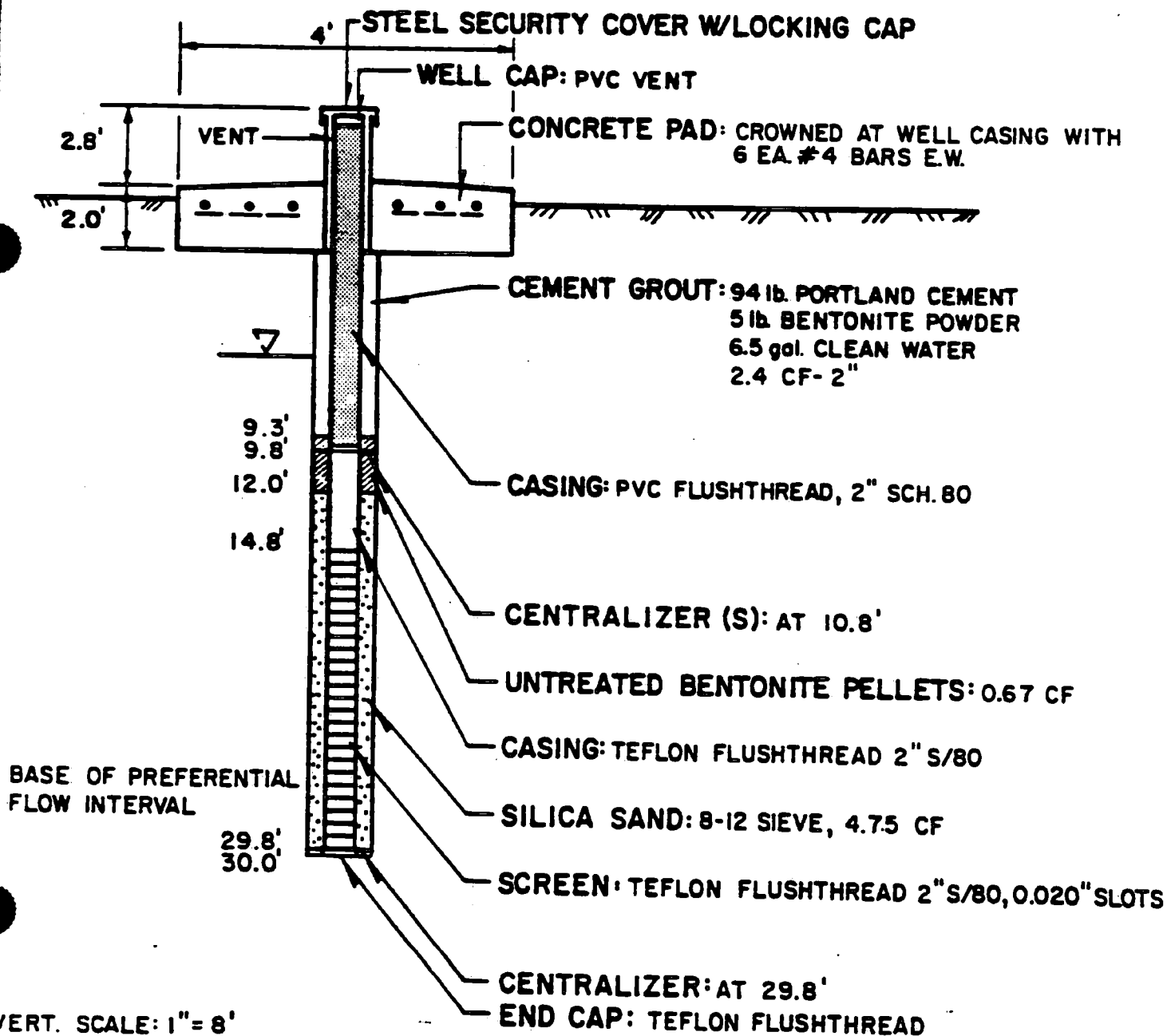
CASING ELEV.: 1397.3'

BORING SIZE: 7.25"

BORING DEPTH: 30.0'

CASING DETAILS: *cap, 10' SCR, 5' SCR, 5' TFE, PVC*

REMARKS: WAS ORIGINALLY DRILLED AS MW H-30. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 10-A

DATE: 8/26/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 7.88 DATE: 8/30/87

LOCATION: 9717.2 E - 14484.3 N

SURFACE ELEV.: 1367.3'

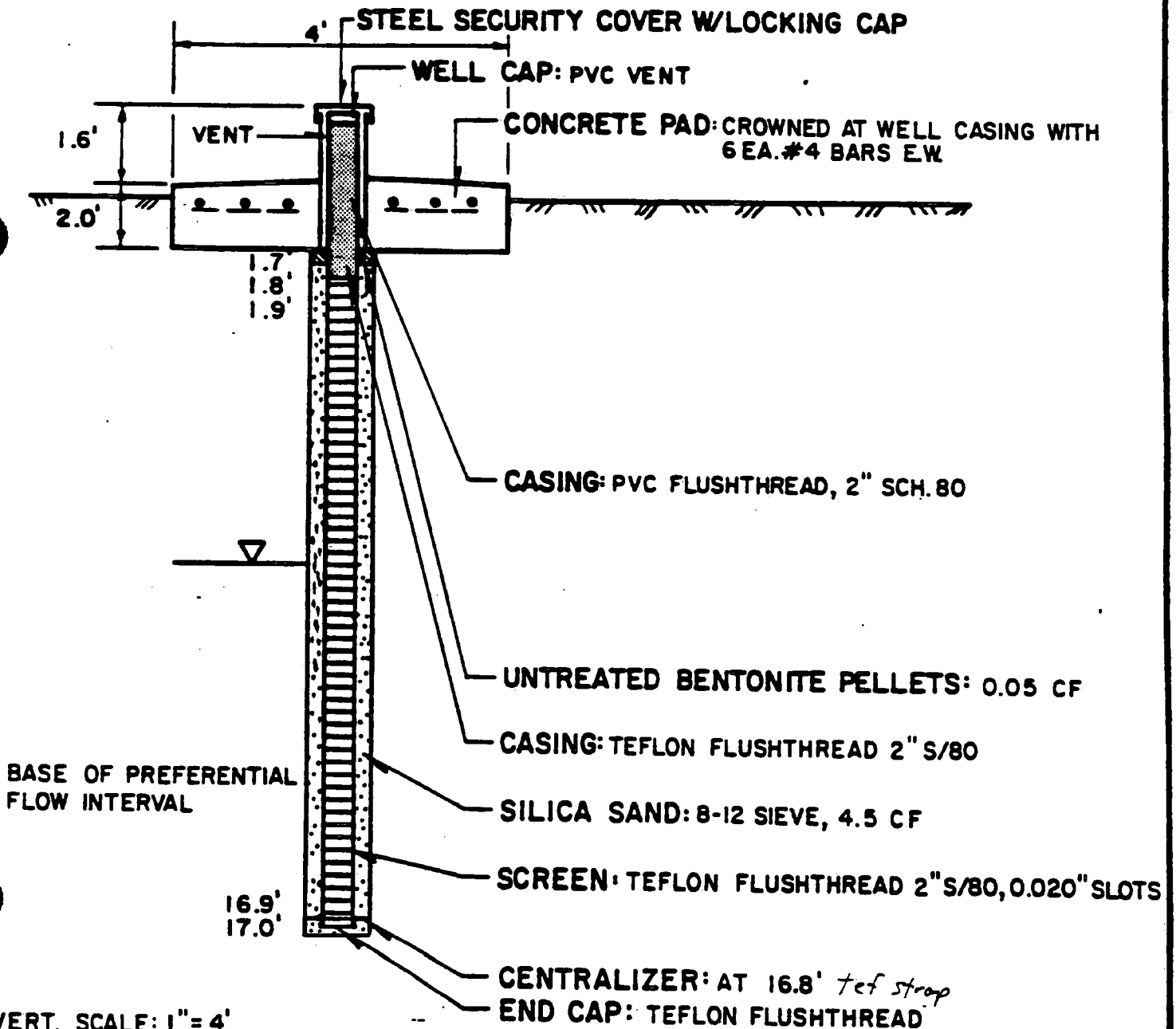
CASING ELEV.: 1368.9'

BORING SIZE: 7.25"

BORING DEPTH: 17.0'

CASING DETAILS: Cap. 10' SCR. 5' SCR. 5' PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW J-17. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 10-B

DATE: 8/22/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 6.60' DATE: 8/30/87

LOCATION: 9716.5 E - 14 499.0' N

SURFACE ELEV.: 1367.3'

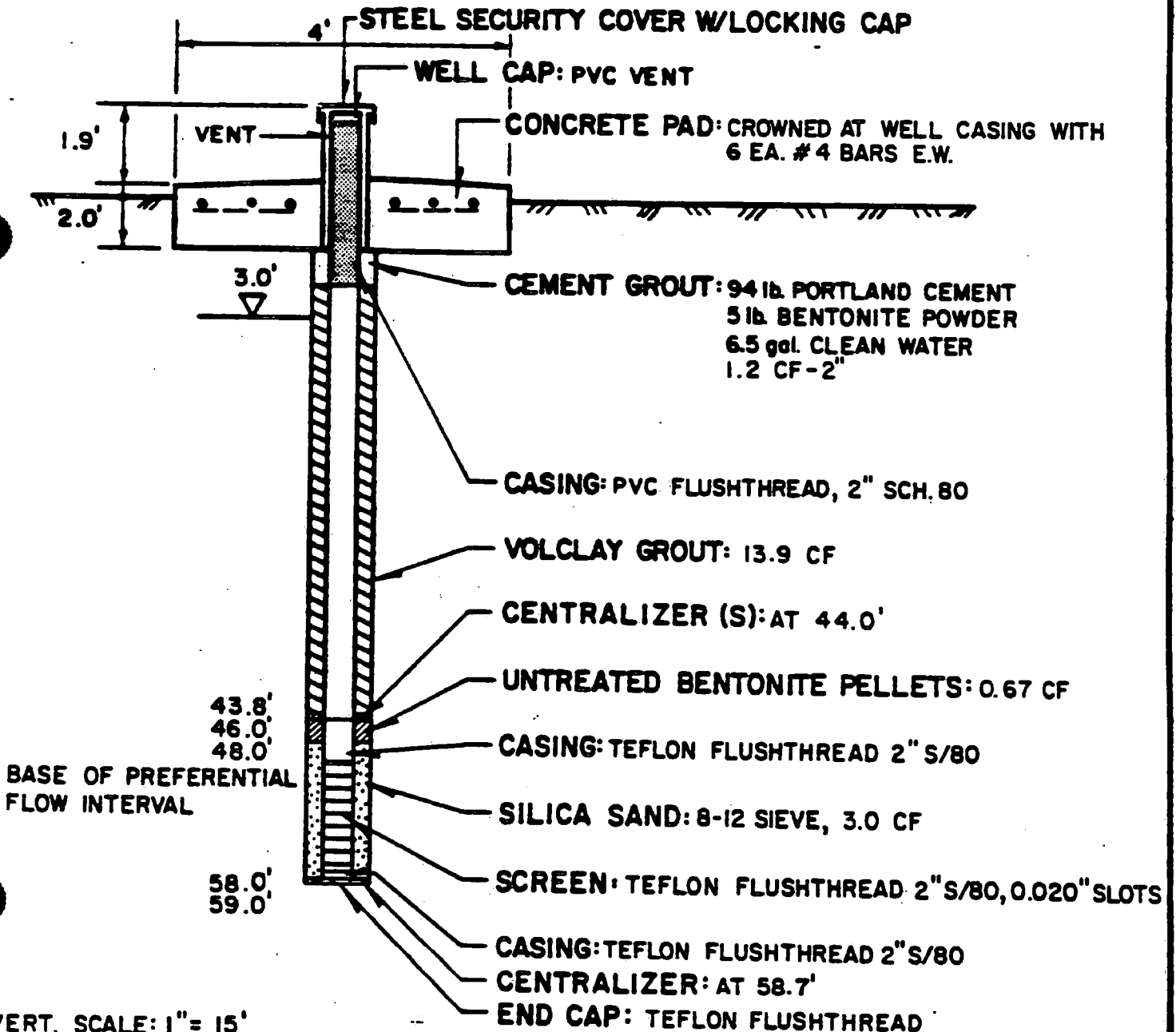
CASING ELEV.: 1369.2'

BORING SIZE: 7.25"

BORING DEPTH: 59.0'

CASING DETAILS: cap - 1' TFE, 10' SUR, 4 - 10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW J-59. BUMPER GUARDS TO BE INSTALLED.



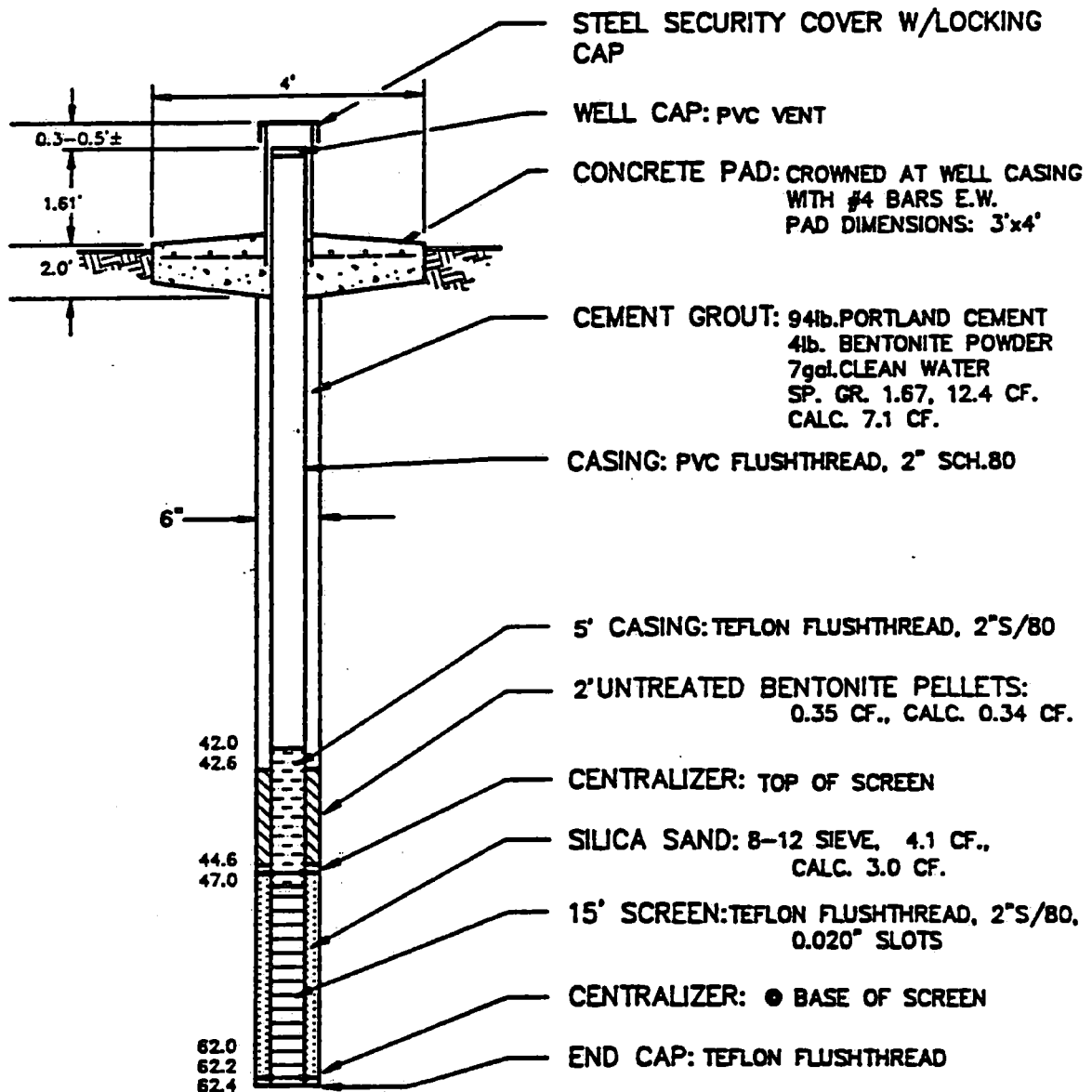
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3189032
 WELL NO.: MW 11-A5
 CONTRACTOR/DRILLER: A.W. POOL
 DRILLING METHOD: AIR CORE & ROTARY
 LOCATION: 9,499.1 E - 12,894.4 N
 SURFACE ELEV.: 1420.73'
 BORING SIZE: 6"

DATE: 6-12-89
 LOGGER: D. ADAMS
 WATER ELEV.: (HAS NOT REACHED STATIC
 LEVEL AS OF 8-21-89)

CASING ELEV.: 1422.34'
 BORING DEPTH: 62.4'

CASING DETAILS: 15' TEFLON SCREEN, 5' TEFLON BLANK, PVC TO SURFACE
 REMARKS: DRY WHEN DRILLED 6-8-89, LET STAND



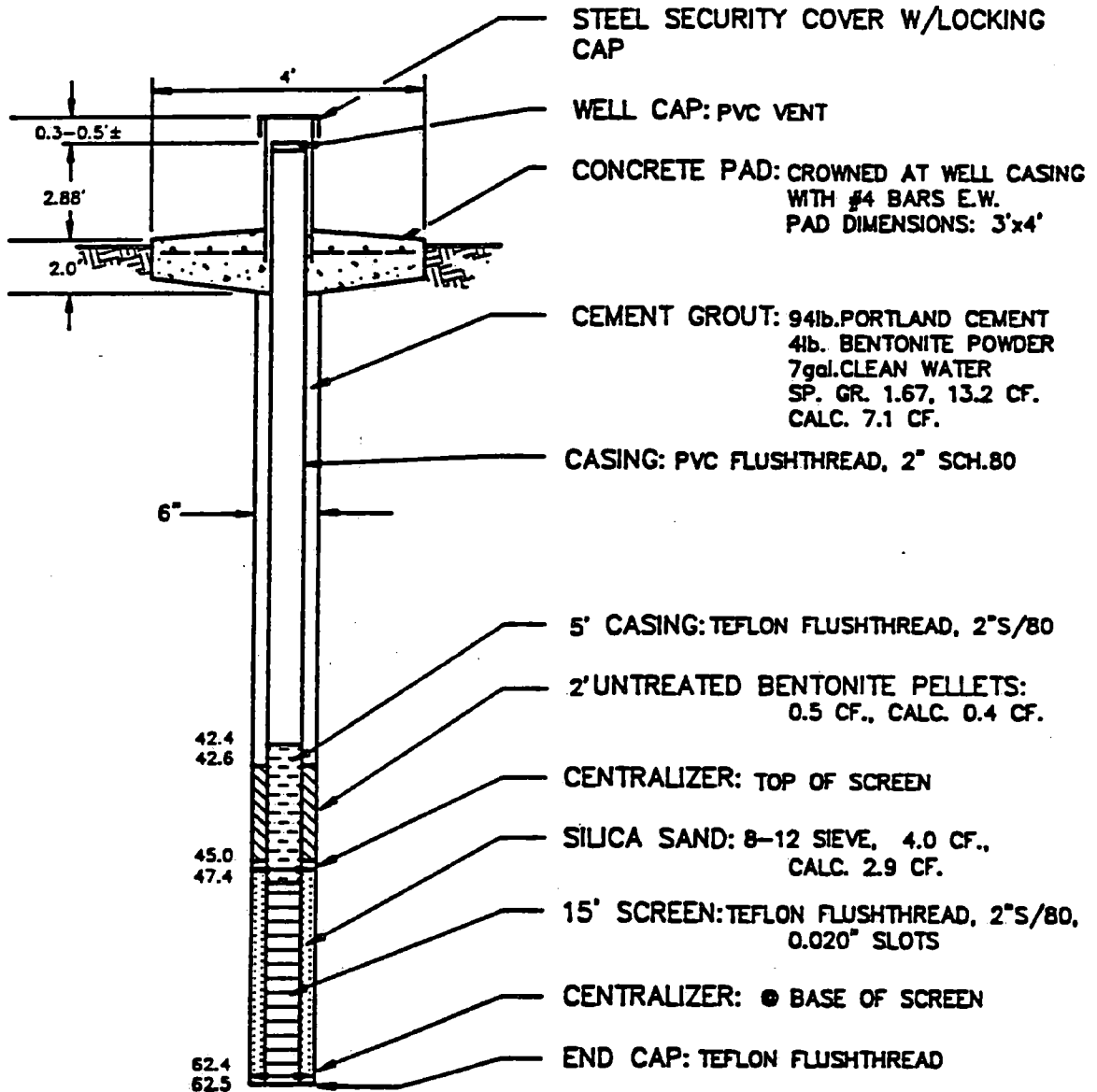
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3189032
 WELL NO.: MW 11-A6
 CONTRACTOR/DRILLER: A.W. POOL
 DRILLING METHOD: AIR CORE & ROTARY
 LOCATION: 9,331.2 E - 12,893.1 N
 SURFACE ELEV.: 1420.90'
 BORING SIZE: CORE 5", REAM TO 6"

DATE: 6-12-89
 LOGGER: D. ADAMS
 WATER ELEV.: (HAS NOT REACHED STATIC
 LEVEL AS OF 8-21-89)

CASING ELEV.: 1423.78'
 BORING DEPTH: 62.5' (63.0')

CASING DETAILS: 15' TEFLON SCREEN, 5' TEFLON BLANK, PVC TO SURFACE
 REMARKS: DRY WHEN DRILLED 6-6-89, LET STAND



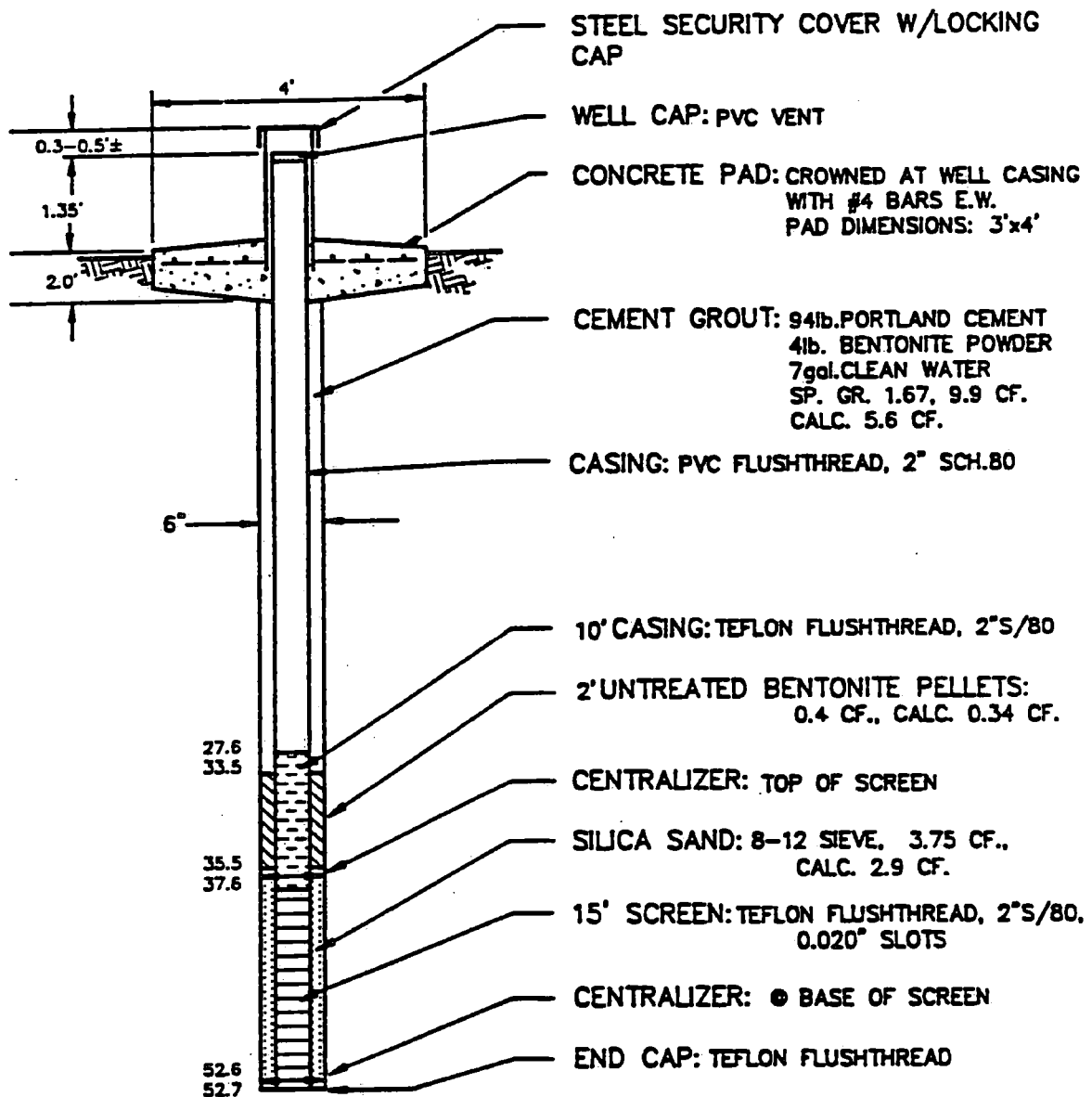
U. S. P. C. I. MONITORING WELL SCHEMATIC

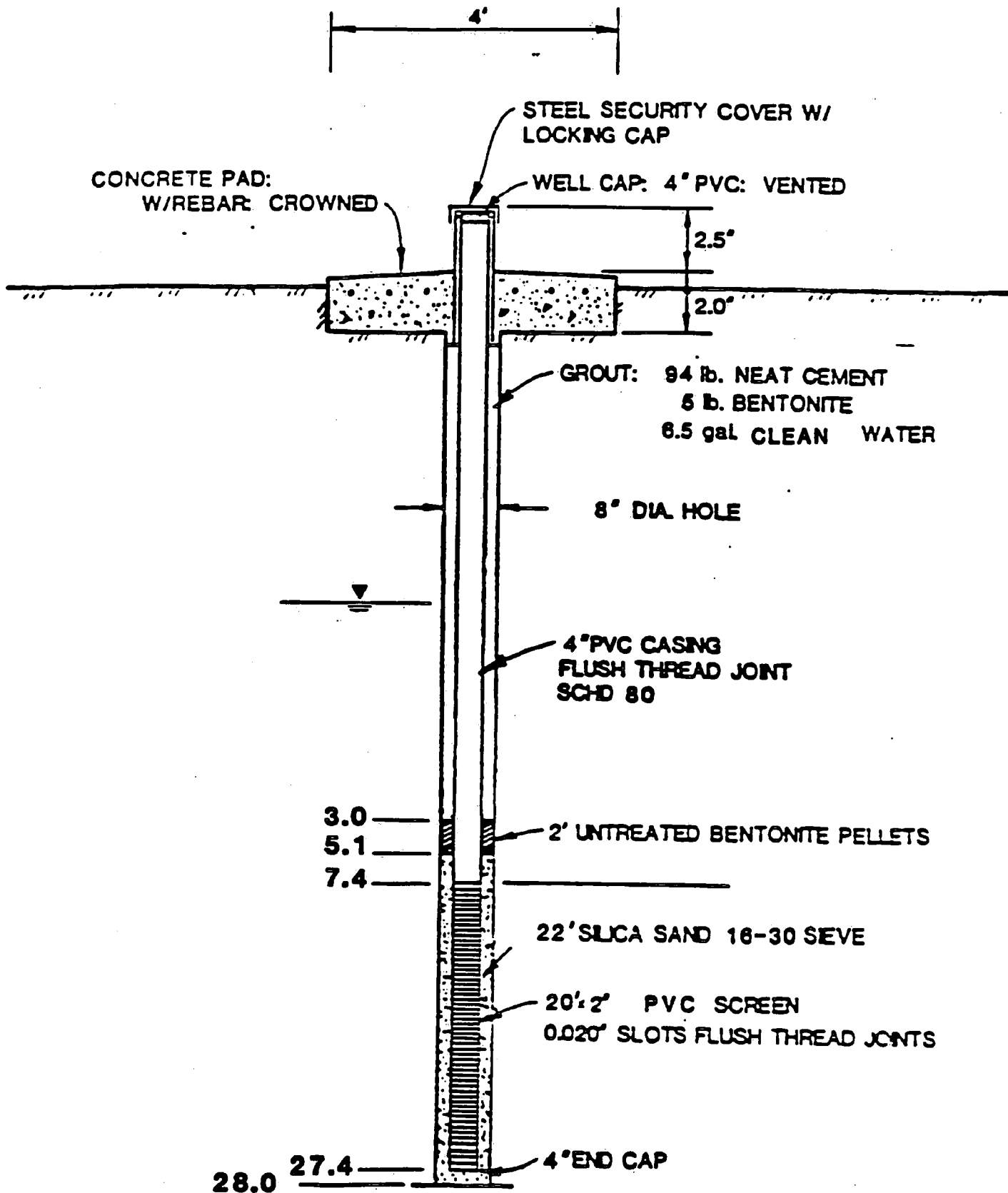
PROJECT NO.: J189032
 WELL NO.: MW 17
 CONTRACTOR/DRILLER: A.W. POOL
 DRILLING METHOD: AIR CORE & ROTARY
 LOCATION: 8,669.9 E - 12,895.8 N
 SURFACE ELEV.: 1420.70'
 BORING SIZE: 6"

DATE: 6-12-89
 LOGGER: D. ADAMS
 WATER ELEV.: (HAS NOT REACHED STATIC LEVEL AS OF 8-21-89)

CASING ELEV.: 1422.05'
 BORING DEPTH: 54.7 (52.7)

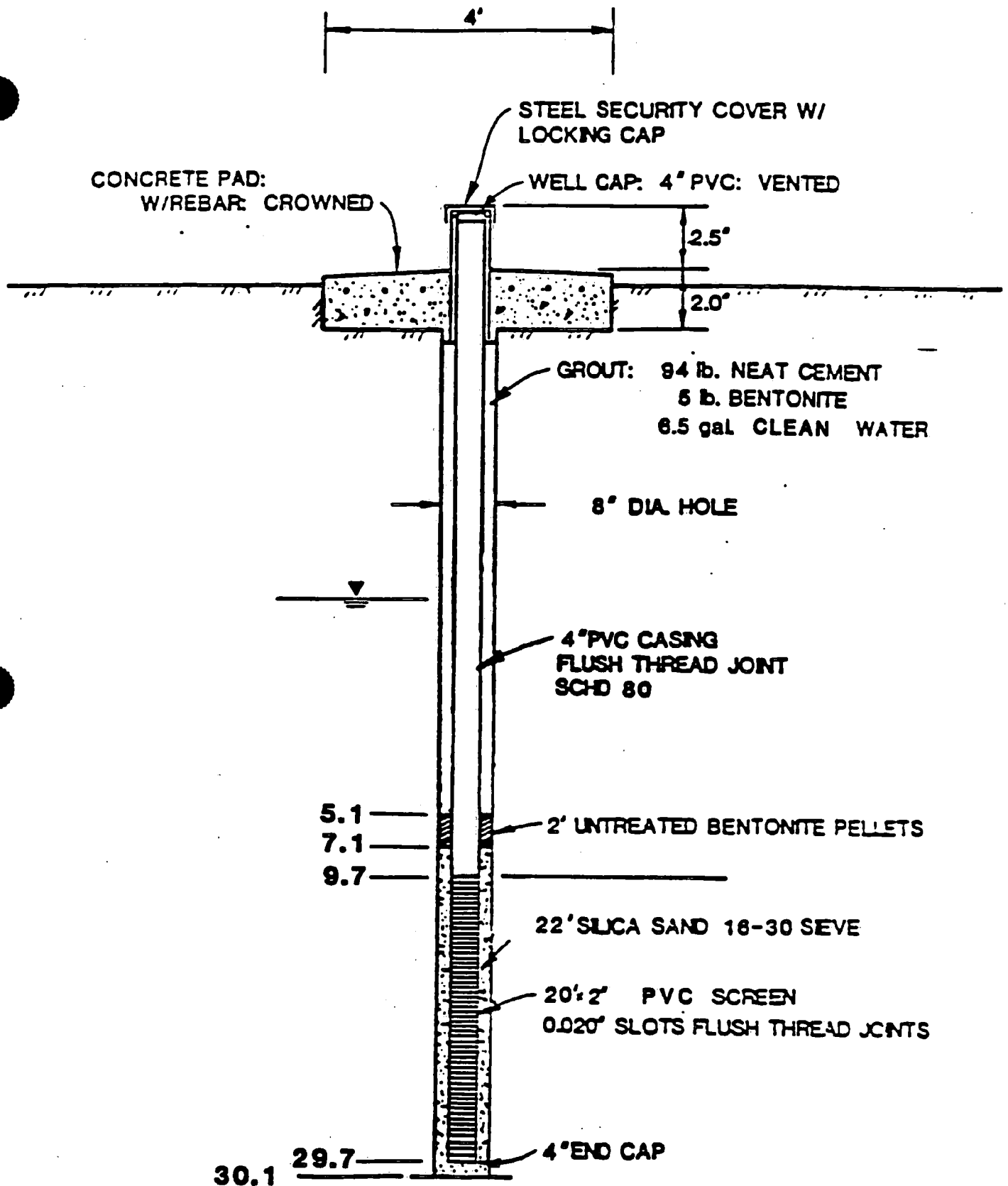
CASING DETAILS: 15' TEFLON SCREEN, 10' TEFLON BLANK, PVC TO SURFACE
 REMARKS: DRY WHEN DRILLED 6-7-89. LET STAND





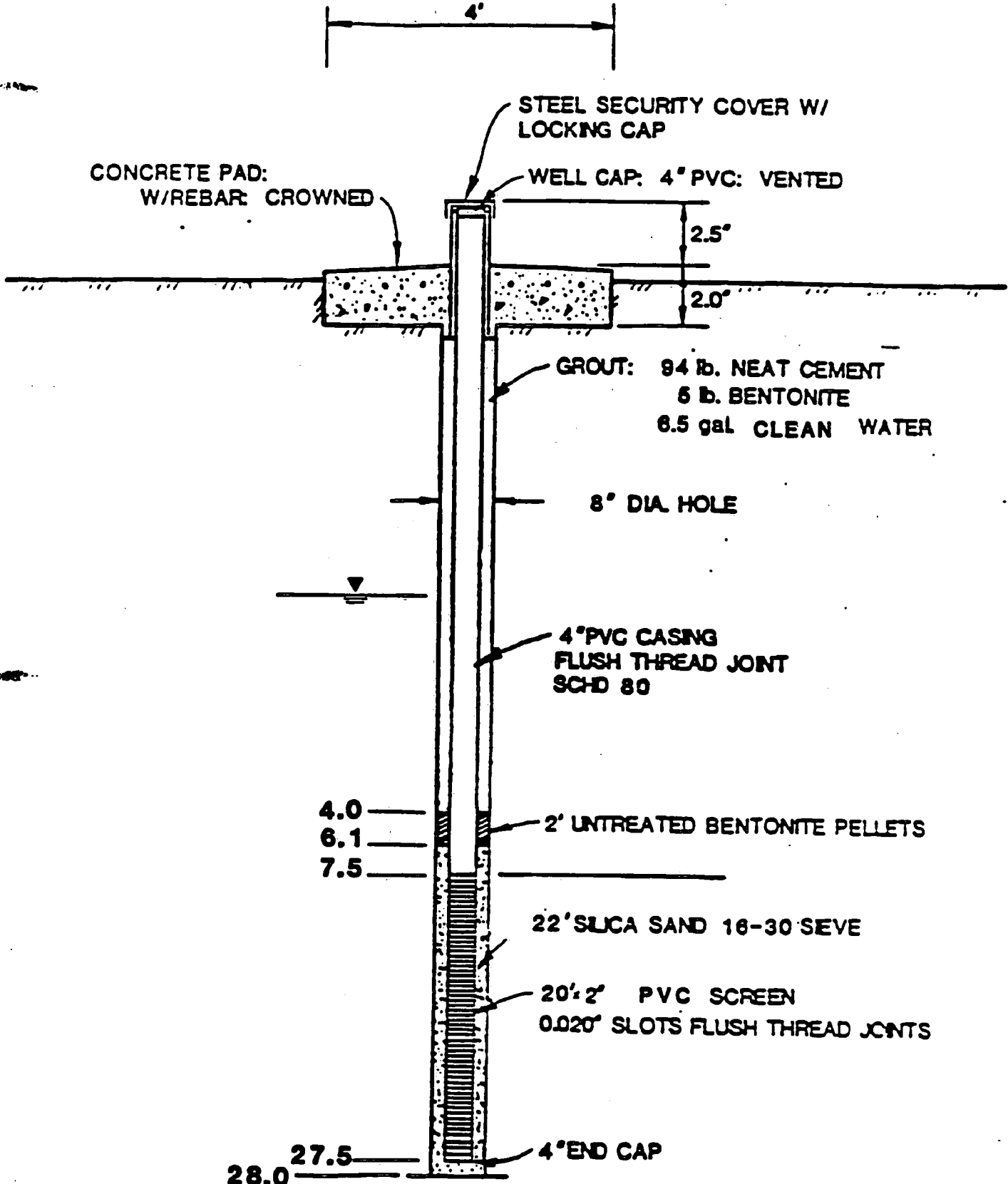
LIW-A 1

MONITORING WELL CONSTRUCTION



LIW-B 2

MONITORING WELL CONSTRUCTION



LIW-Q3

MONITORING WELL CONSTRUCTION

U. S. P. C. I.

LAND IRRIGATION WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: LIW-4

DATE DRILLED: 5/19/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 4.21'

DATE: 6/2/87

LOCATION: 7537.7 E - 15851.9 N

SURFACE ELEV.: 1396.59'

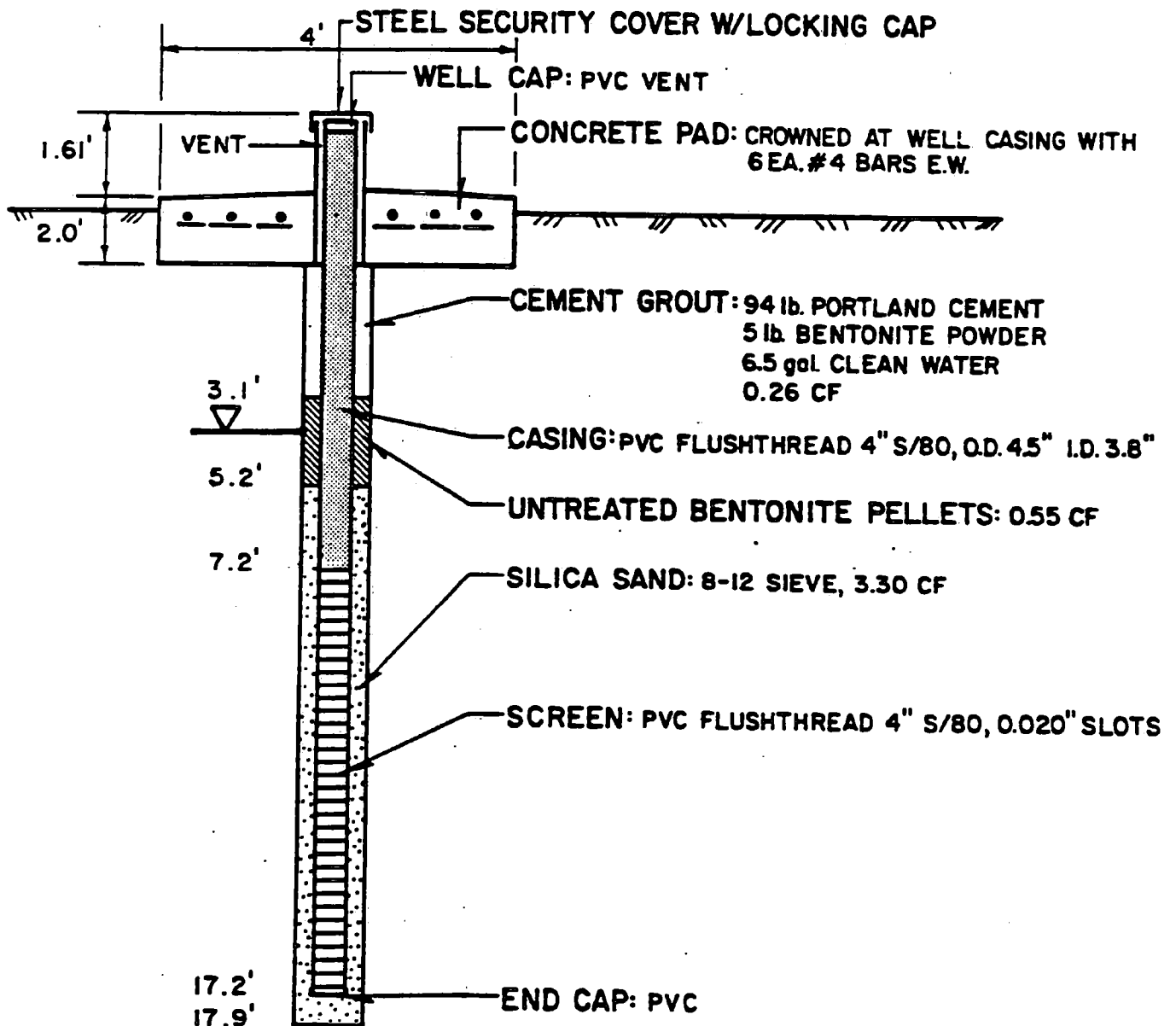
CASING ELEV.: 1398.20'

BORING SIZE: 8.25"

BORING DEPTH: 17.9'

CASING DETAILS:

REMARKS: BUMPERS GUARDS TO BE INSTALLED.



VERT. SCALE: 1" = 4'

U. S. P. C. I.

LAND IRRIGATION WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: LIW-5

DATE DRILLED: 5/20/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 5.66'

DATE: 8/30/87

LOCATION: 8607.6 E - 15871.9 N

SURFACE ELEV.: 1371.29'

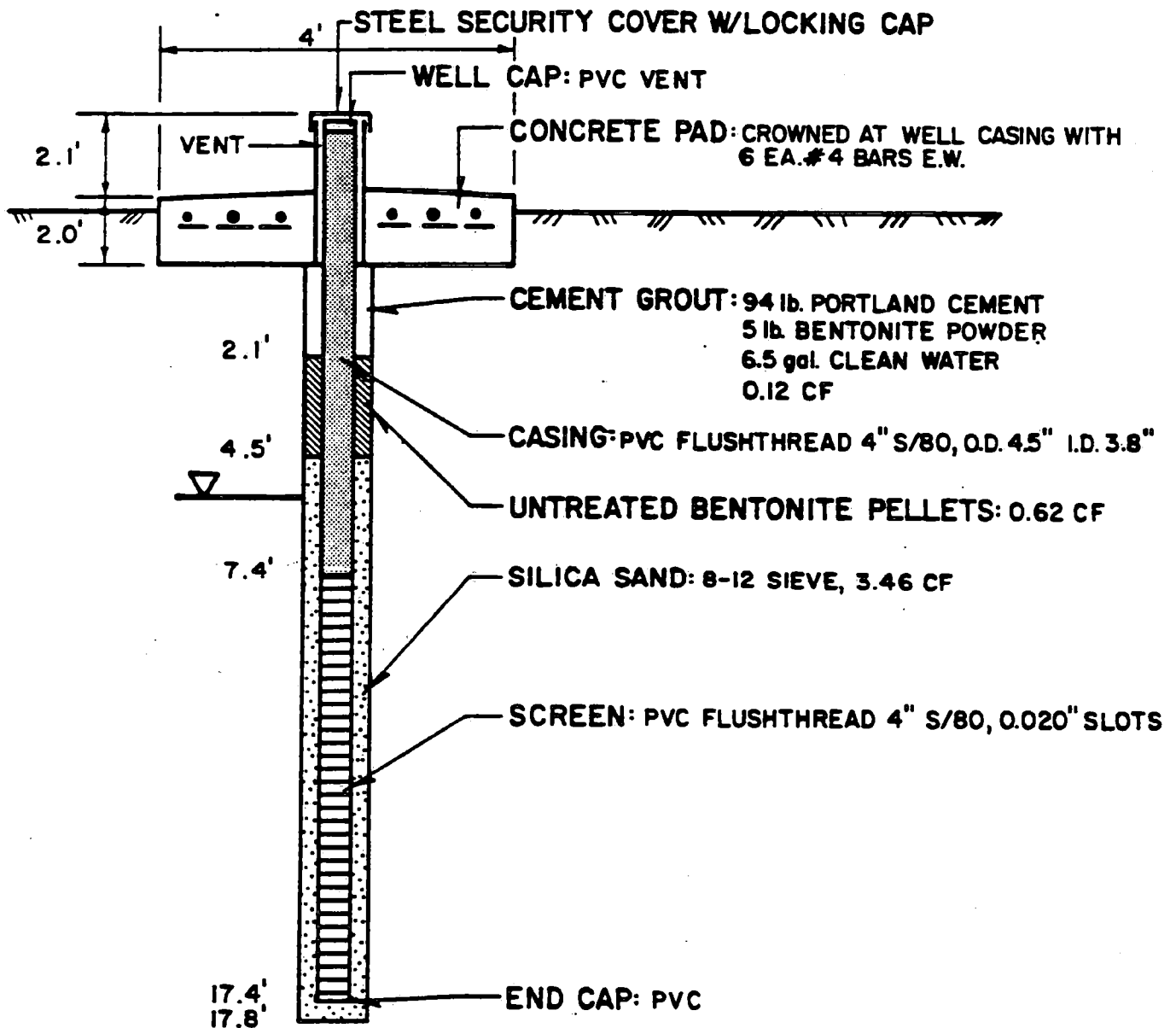
CASING ELEV.: 1373.37'

BORING SIZE: 8.25"

BORING DEPTH: 17.8'

CASING DETAILS:

REMARKS: BUMPER GUARDS TO BE INSTALLED.



VERT. SCALE: 1" = 4'

U. S. P. C. I.

LAND IRRIGATION WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: LIW-6

DATE DRILLED: 5/20/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 1.0'

DATE: 6/2/87

LOCATION: 8495.8 E - 14717.3 N

SURFACE ELEV.: 1380.60'

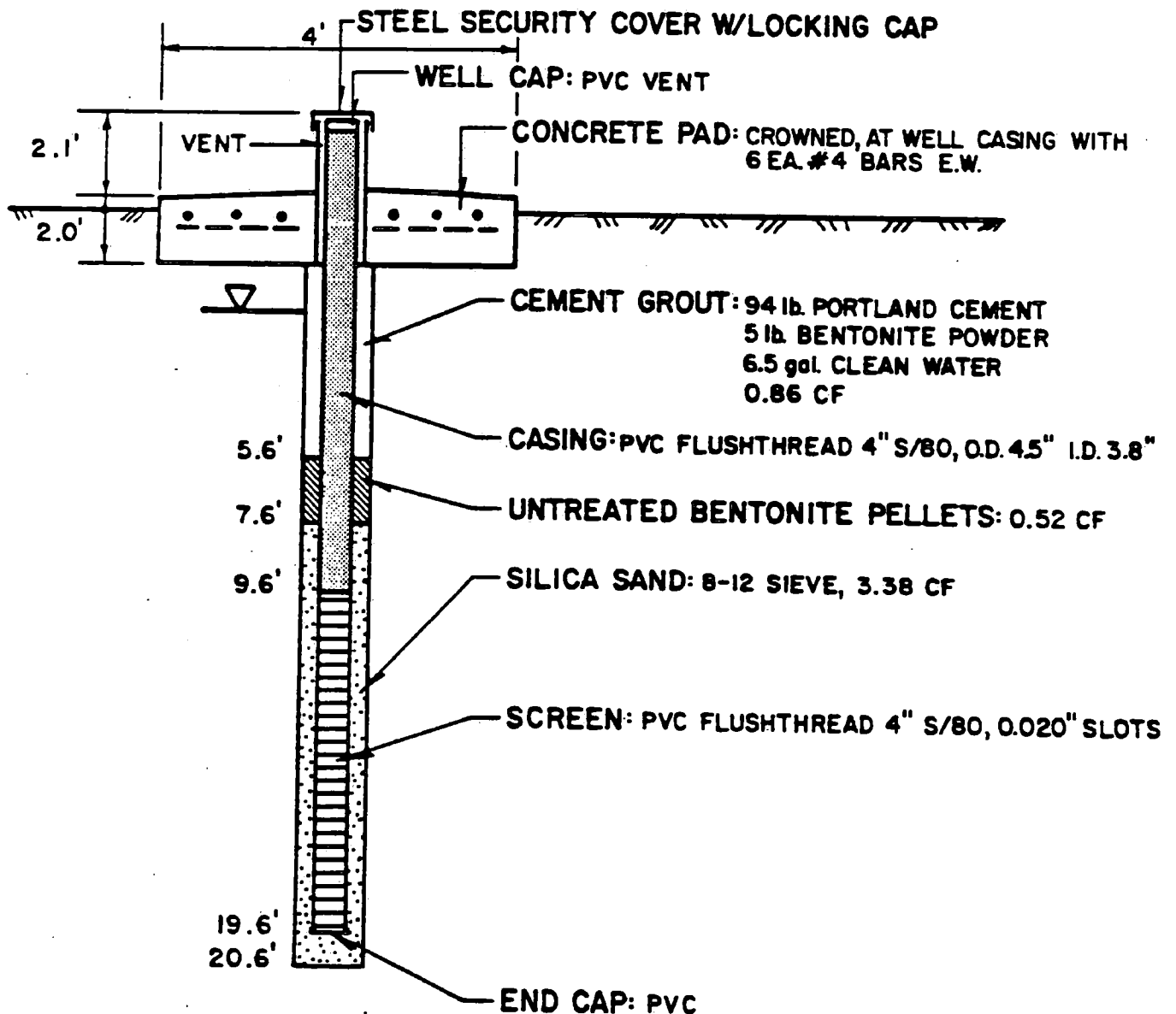
CASING ELEV.: 1382.73'

BORING SIZE: 8.25"

BORING DEPTH: 20.6'

CASING DETAILS:

REMARKS: BUMPER GUARDS TO BE INSTALLED.



VERT. SCALE: 1" = 4'

U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW CH-A

DATE: 9/02/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 2.83 DATE: 9/23/87

LOCATION: 7305.6 E - 13,936.6 N

SURFACE ELEV.: 1394.8'

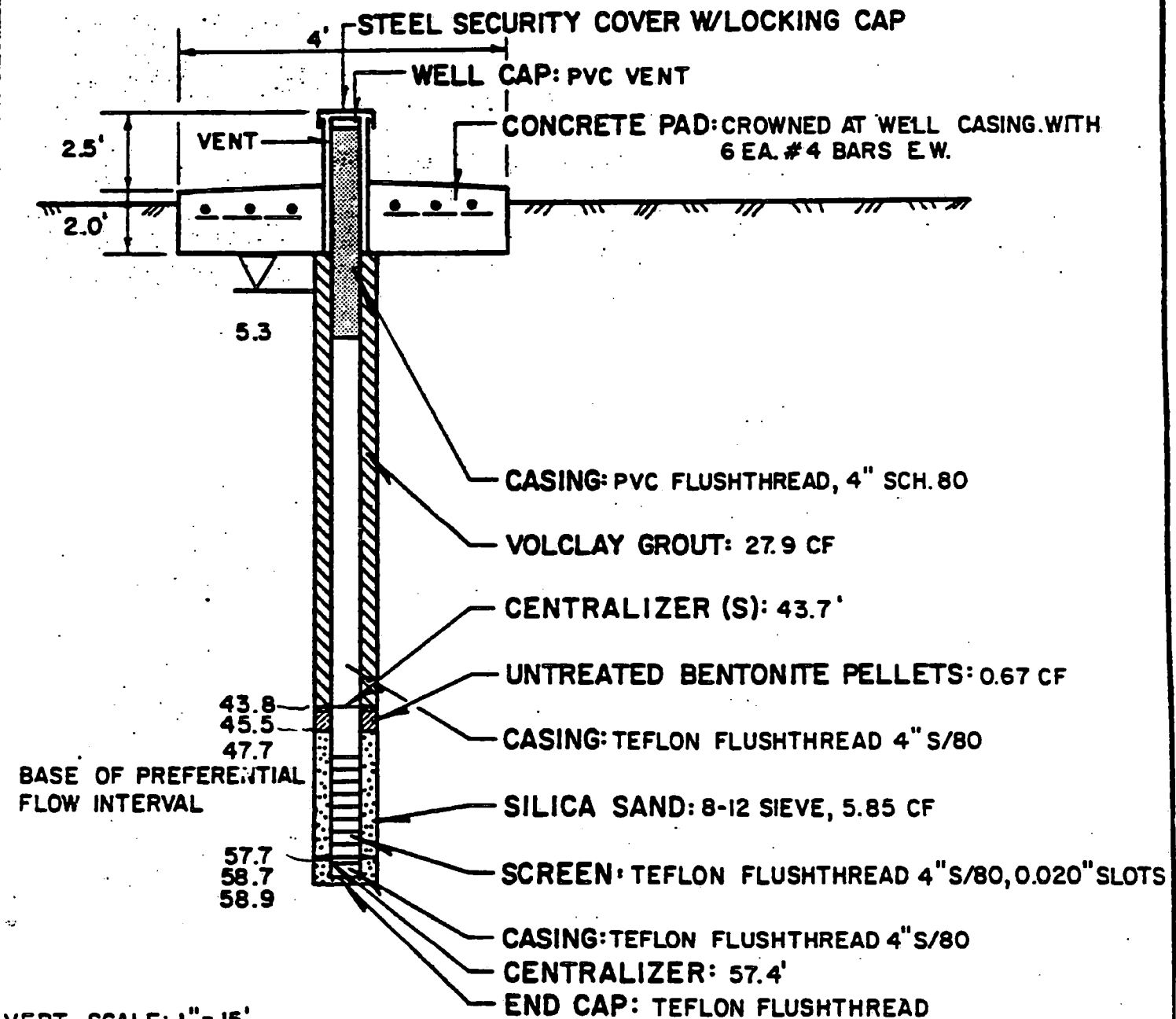
CASING ELEV.: 1395.9'

BORING SIZE: 10"

BORING DEPTH: 58.9'

CASING DETAILS:

REMARKS: WAS ORIGINALLY DRILLED AS MW K-59. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW CH-B

DATE: 9/3/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 2.19 DATE: 9/23/87

LOCATION: 7310.8 E - 13,936.3 N

SURFACE ELEV.: 1394.9'

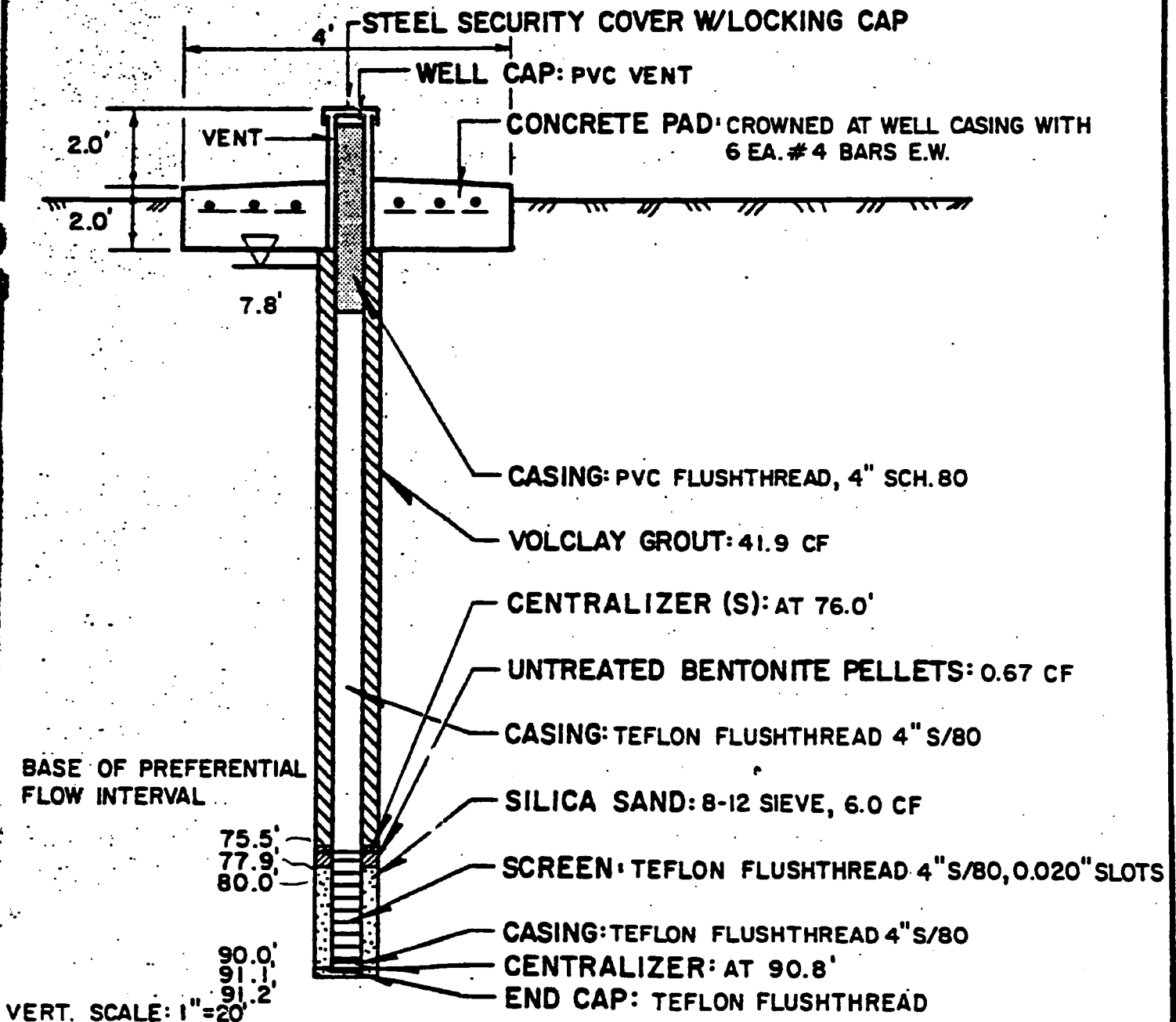
CASING ELEV.: 1396.0'

BORING SIZE: 10"

BORING DEPTH: 91.2

CASING DETAILS:

REMARKS: WAS ORIGINALLY DRILLED AS MW K-91. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW CH-C

DATE: 9/1/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 3.60 DATE: 9/23/87

LOCATION: 7305.9 E - 13,942.2 N

SURFACE ELEV.: 1394.1'

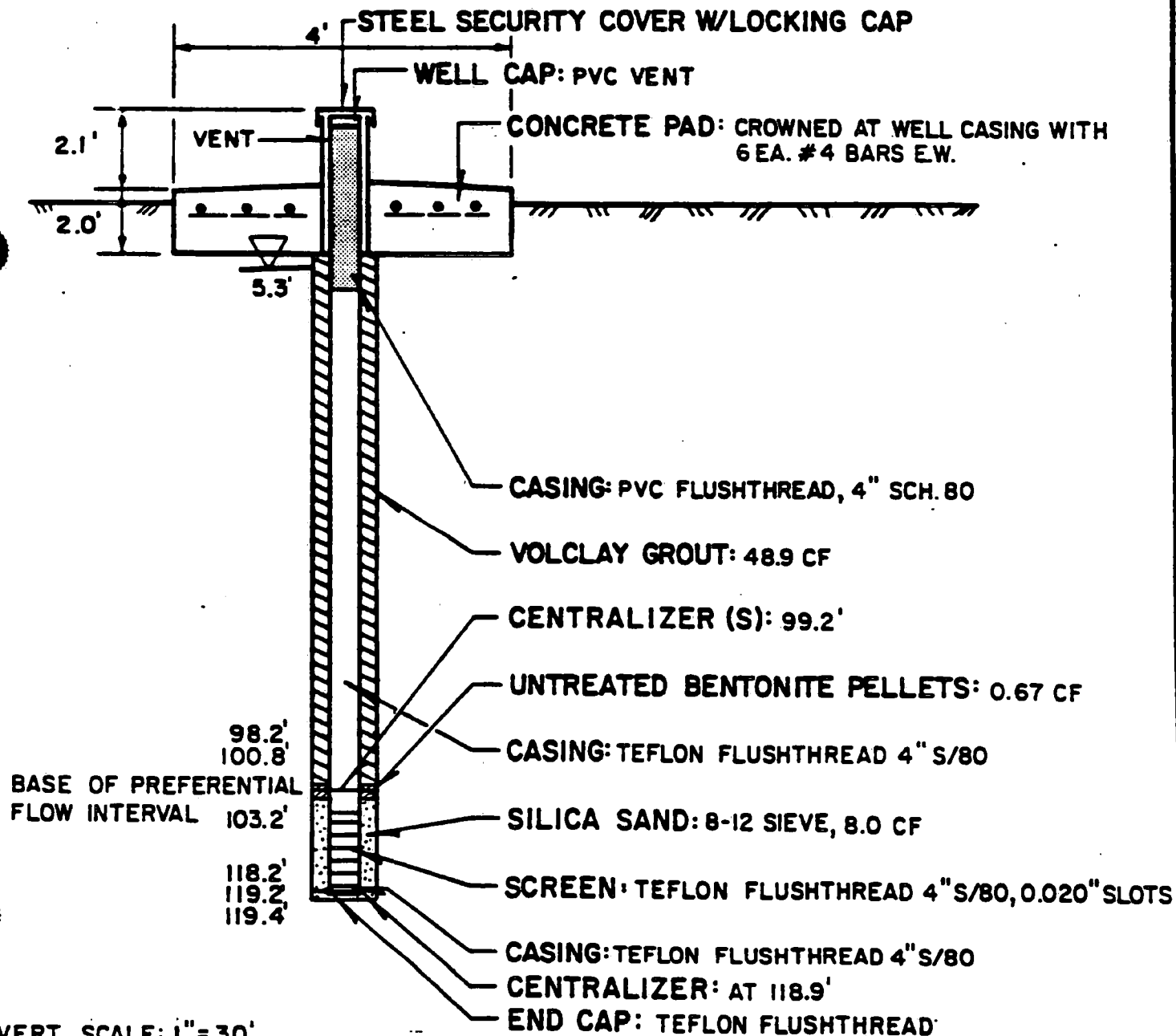
CASING ELEV.: 1395.1'

BORING SIZE: 10"

BORING DEPTH: 119.1'

CASING DETAILS:

REMARKS: WAS ORIGINALLY DRILLED AS MW K-119'. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

WELL NO.: MW CH-E

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

LOCATION: 7323.6 E - 1393.5 N

SURFACE ELEV.: 1394.7'

BORING SIZE: 9" & 16"

CASING DETAILS:

PAGE 1

DATE: 10/13/87

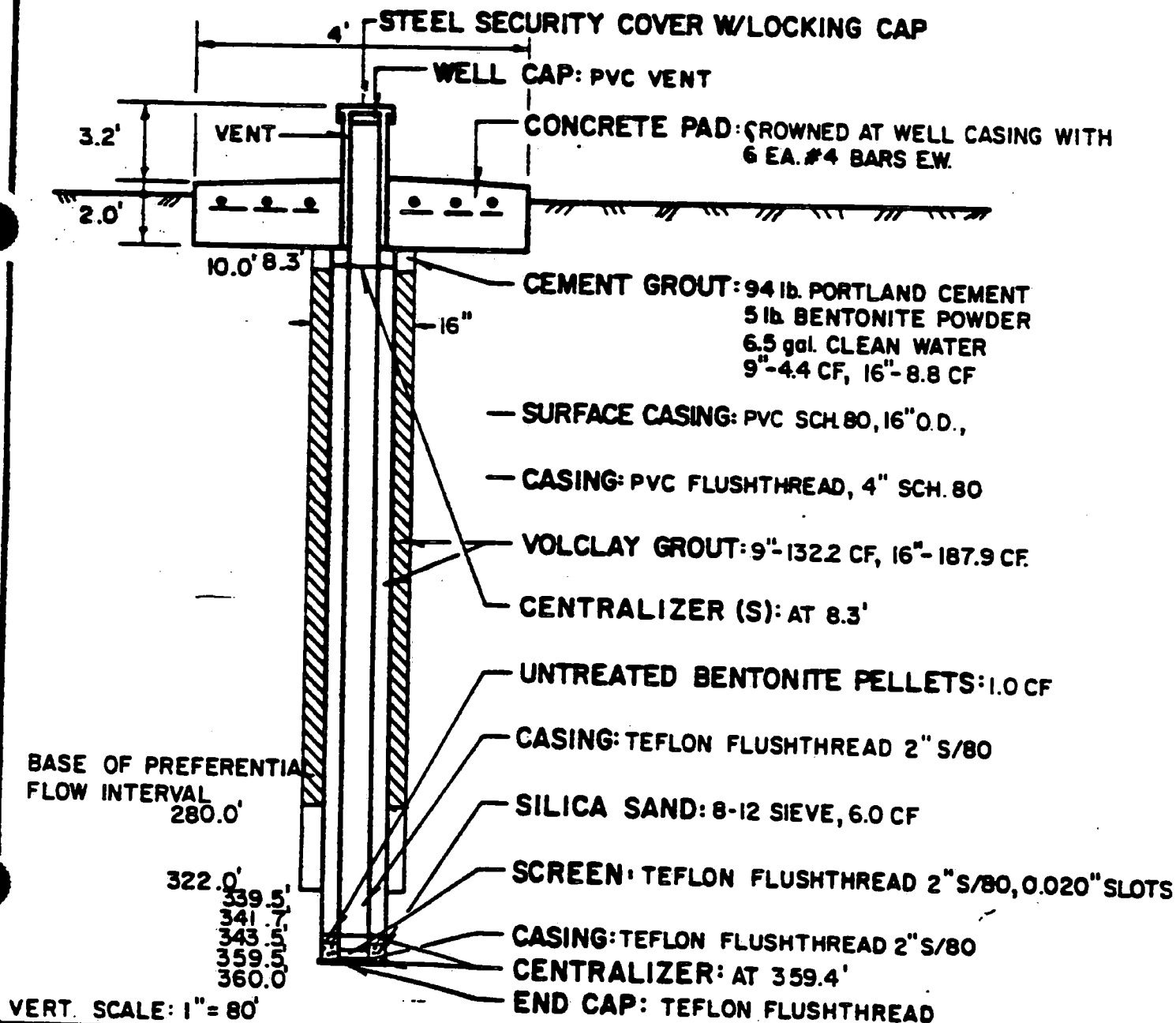
LOGGER: PETER BAYLEY

WATER ELEV.: N/A. WELLS WERE WATER ROTARY
DRILLED AND NOT DEVELOPED TO DATE

CASING ELEV.: 1397.9'

BORING DEPTH: 360.0'

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW 353.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW CH-F

DATE: 2/8/88

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: N/A WELLS WERE WATER ROTARY DRILLED AND NOT DEVELOPED TO DATE.

LOCATION: TO BE SURVEYED

SURFACE ELEV.:

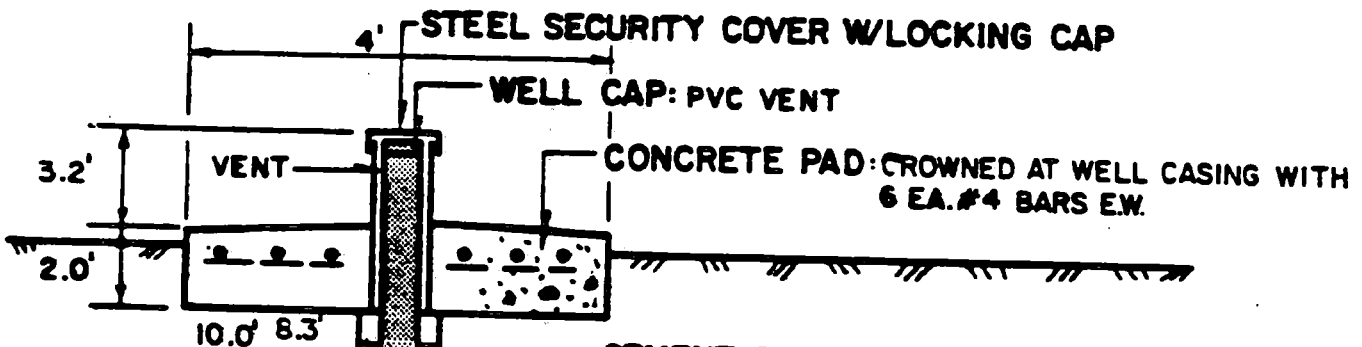
CASING ELEV.:

BORING SIZE: 12" & 9 3/4"

BORING DEPTH: 359.5' (364.2')

CASING DETAILS: PLACED 10" CASING TO ALLOW CONSTRUCTION OF WELL. 10" CASING REMOVED AS VOLCLAY ADDED TO ANNULUS.

REMARKS: BUMPER GUARDS TO BE INSTALLED AFTER CONCRETE PAD



- CEMENT GROUT: 94 lb. PORTLAND CEMENT
5 lb. BENTONITE POWDER
6.5 gal. CLEAN WATER
9"-4.4 CF, 12"-8.8 CF
- SURFACE CASING: PVC SCH. 80, 8" O.D.,
- CASING: PVC FLUSHTHREAD, 4 1/2" SCH. 40
- VOLCLAY GROUT: 9"-132.2 CF, 12"-187.9 CF
- CENTRALIZER (S): AT 336'
- UNTREATED BENTONITE PELLETS: 1.34 CF
- SILICA SAND: 8-12 SIEVE, 13.0 CF
- SCREEN: PVC 4 1/2" S/40, 0.020" SLOTS
- CASING: PVC FLUSHTHREAD 4 1/2" S/40
- CENTRALIZER: AT 358.8"
- END CAP: TEFLON FLUSHTHREAD

BASE OF PREFERENTIAL
FLOW INTERVAL

TOP/BENTONITE	337.7'
TOP/SAND	340.7'
TOP/SCREEN	343.0'
BOT/SCREEN	358.0'
CAP	359.0'
TD	359.5'

VERT. SCALE: 1" = 80'

U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MWI-D, Reinstalled

DATE: 9/17/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 8.58' DATE: 10/7/87

LOCATION: 8769.4 E-10488.6 N

SURFACE ELEV.: 1451.5'

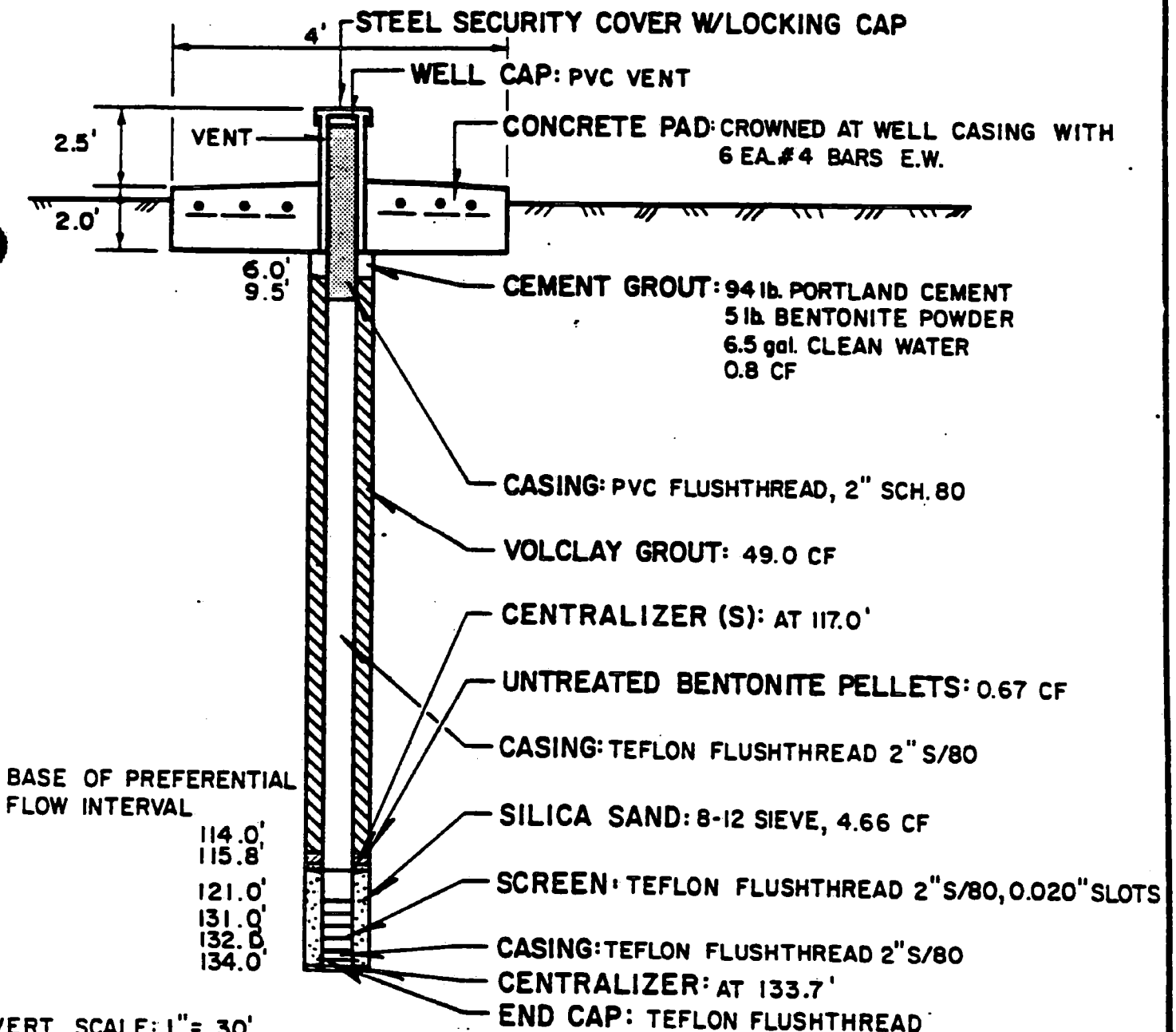
CASING ELEV.: 1453.9'

BORING SIZE: 7.25"

BORING DEPTH: 134.0'

CASING DETAILS: Cap, 1' TFE, 10' screen, 12-10' TFE, 5' TFE

REMARKS: BUMPER GUARDS, TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW A-132.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 3-B

DATE: 8/29/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 9.15' DATE: 8/30/87

LOCATION: 7793.5 E - 12558.1 N

SURFACE ELEV.: 1414.3'

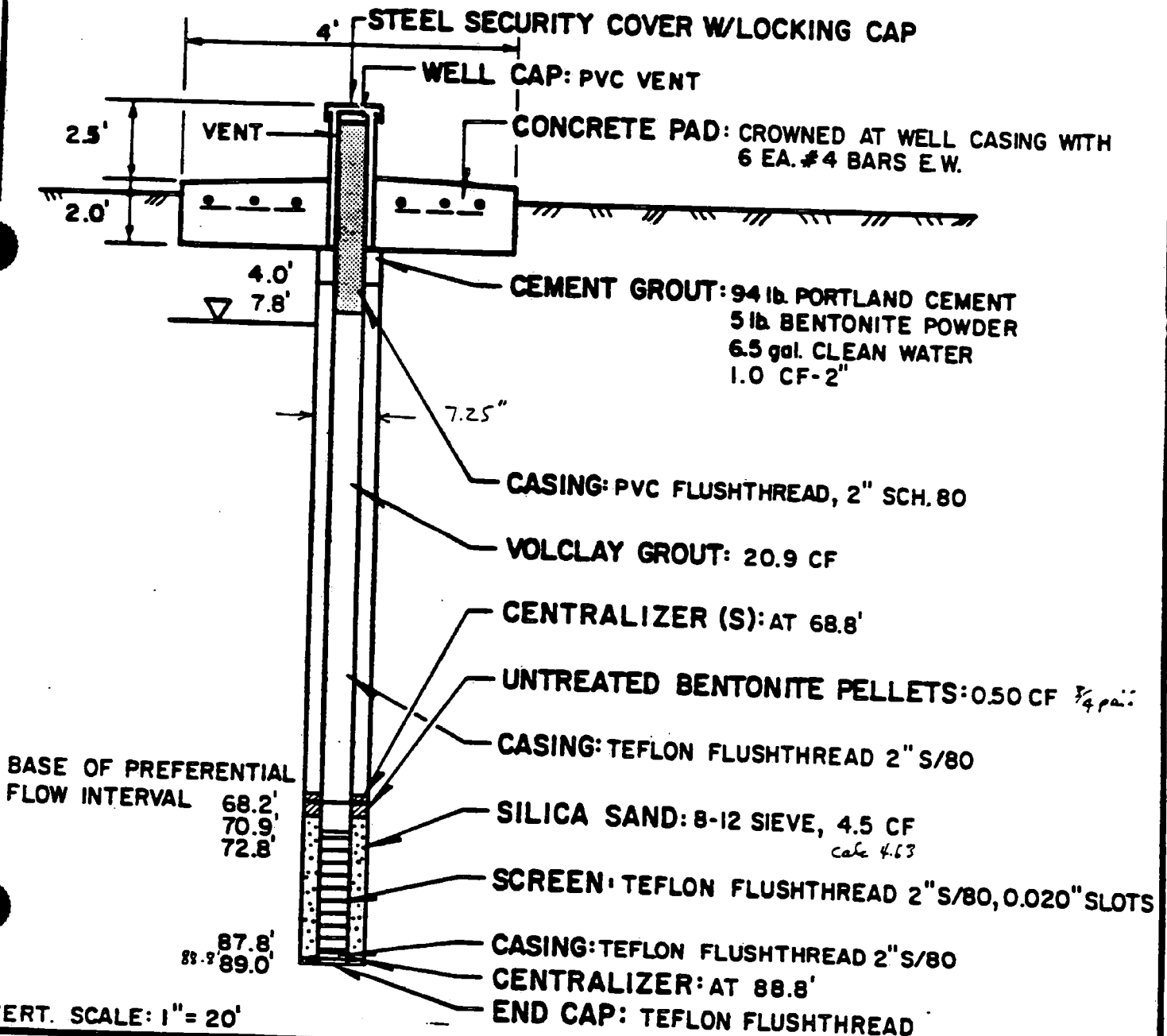
CASING ELEV.: 1416.4'

BORING SIZE: 7.25"

BORING DEPTH: 89.0'

CASING DETAILS: cap, 1' TFE, 10' SCR, 5' SCR, 6-10' TFE, 5' TFE, 10' PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWD-89. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 3-C

DATE: 8/29/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 3.09' DATE: 8/30/87

LOCATION: 7806.2 E - 12565.4 N

SURFACE ELEV.: 1413.6'

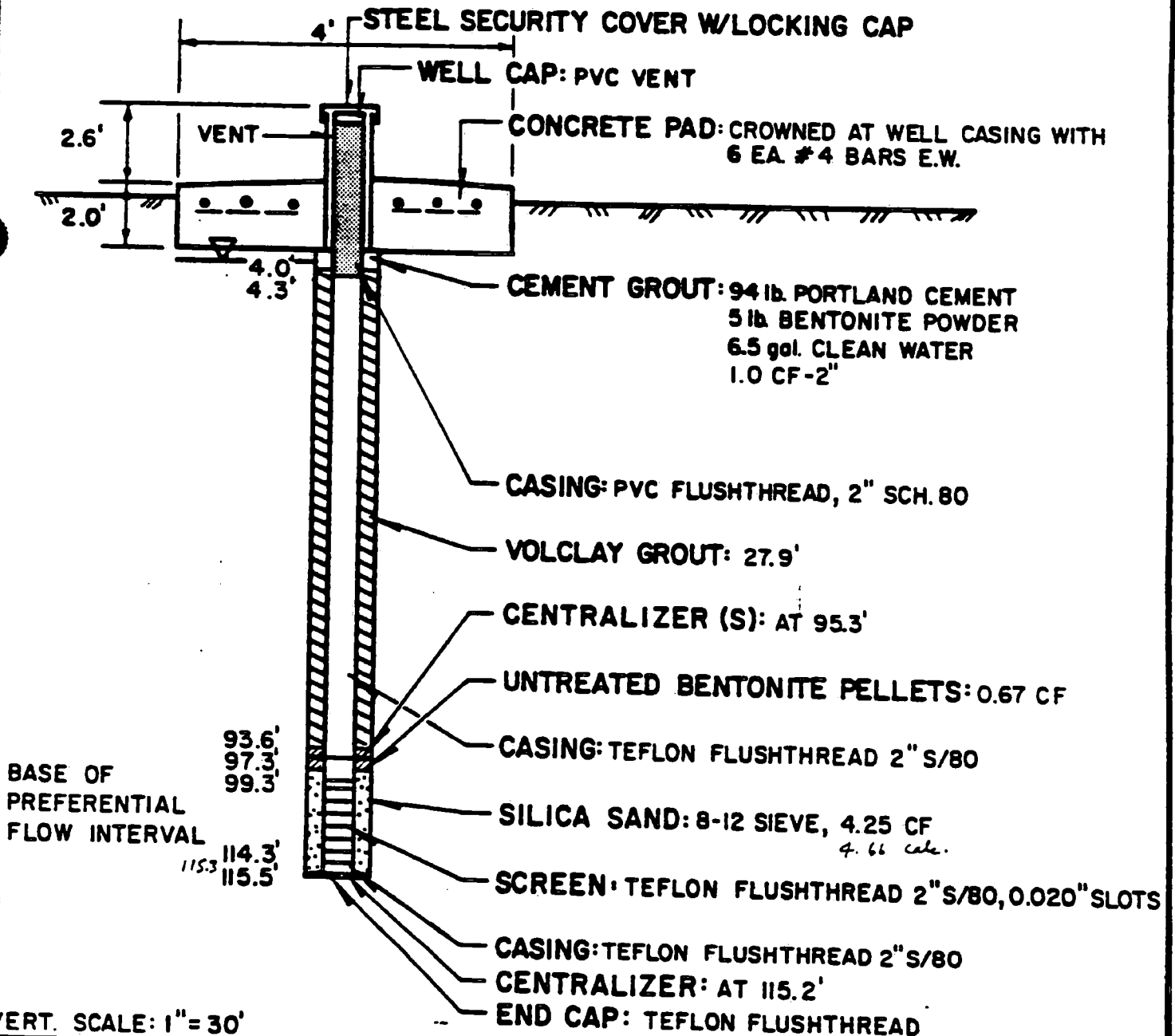
CASING ELEV.: 1416.2'

BORING SIZE: 7.25"

BORING DEPTH: 115.5'

CASING DETAILS: Cap, 1' TFE, 10' SCR, 5' SCR, 9-10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW D-116. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 4-A1

DATE: 8/28/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 4.96' DATE: 8/29/87

LOCATION: 9463.2 E - 10726.4 N

SURFACE ELEV.: ~~1423.6~~

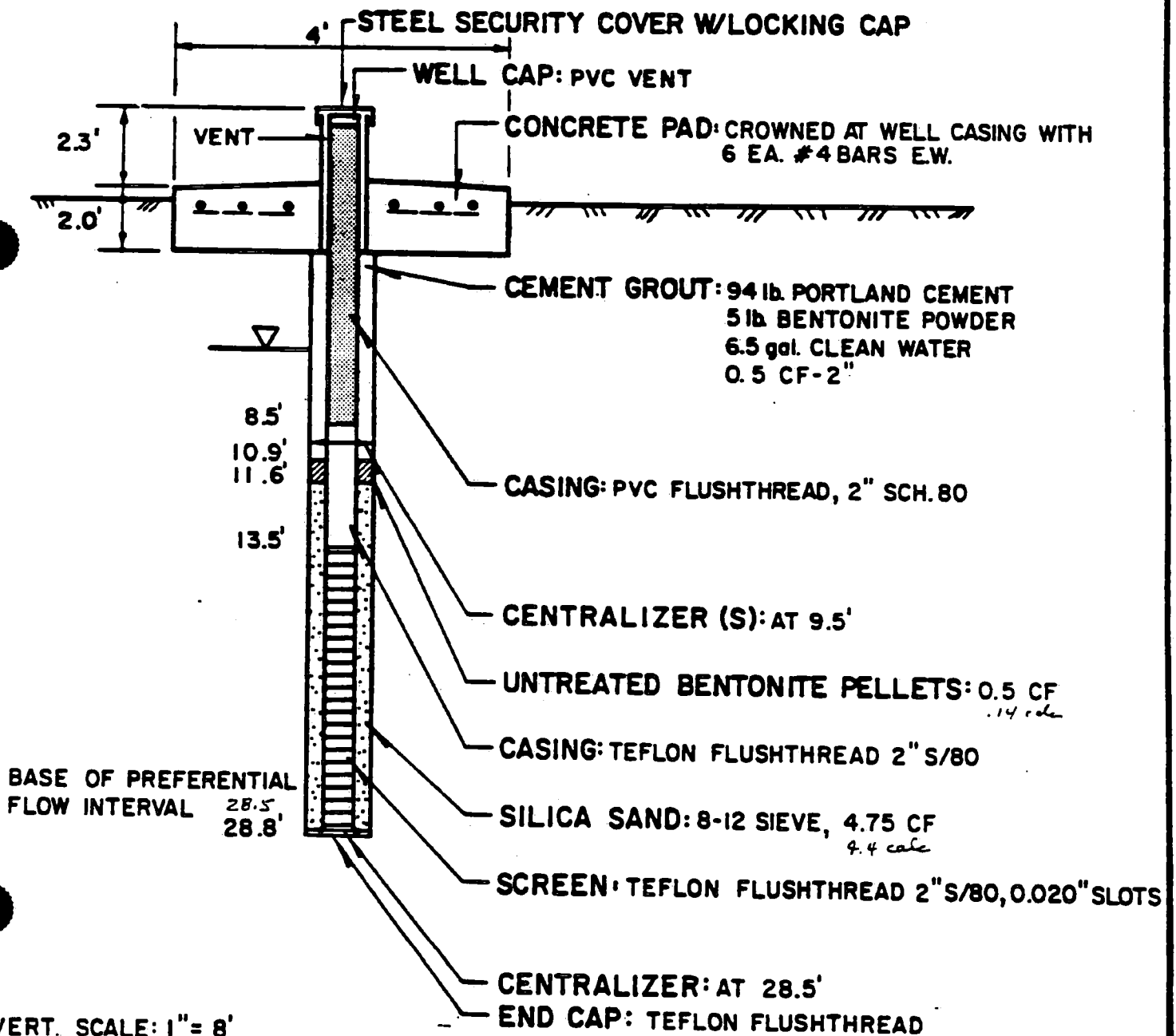
CASING ELEV.: ~~1425.89~~

BORING SIZE: 7.25"

BORING DEPTH: 28.8'

CASING DETAILS: *cap. 70' scs, 5' scs, 5' TFE, 10' PVC*

REMARKS: WAS ORIGINALLY DRILLED AS MW E-29. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

WELL NO.: MW 4A-2

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

LOCATION: 9336.2 E - 10834.0 N

SURFACE ELEV.: 1420.9'

BORING SIZE: 10.0" & 7.25"

CASING DETAILS: 8" SURFACE CASING DURING INSTALLATION, THEN PULLED.

reinstall. Cap, 10' SCR, 5' SCR 5' TFE, PVC

DATE: 11/13/87

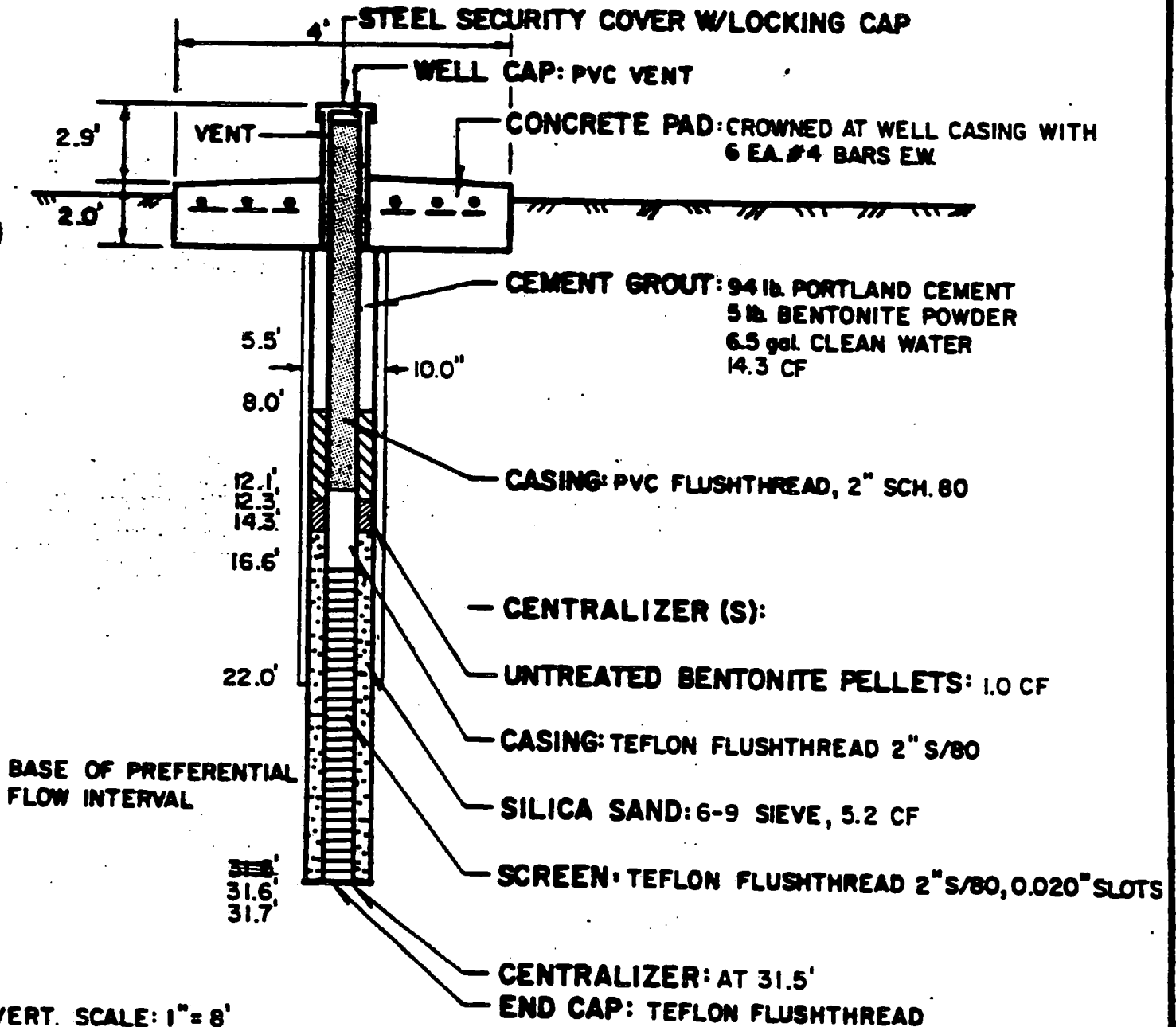
LOGGER: PETER BAYLEY

WATER ELEV.: N/A. WELLS WERE WATER ROTARY DRILLED AND NOT DEVELOPED TO DATE.

CASING ELEV.: 1423.8'

BORING DEPTH: 31.7

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW Eo-30.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 4A-3

DATE: 11/17/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: NA. WELLS WERE WATER ROTARY
DRILLED AND NOT DEVELOPED TO DATE.

LOCATION: 9444.2 E - 10528.0 N

SURFACE ELEV.: 1427.1'

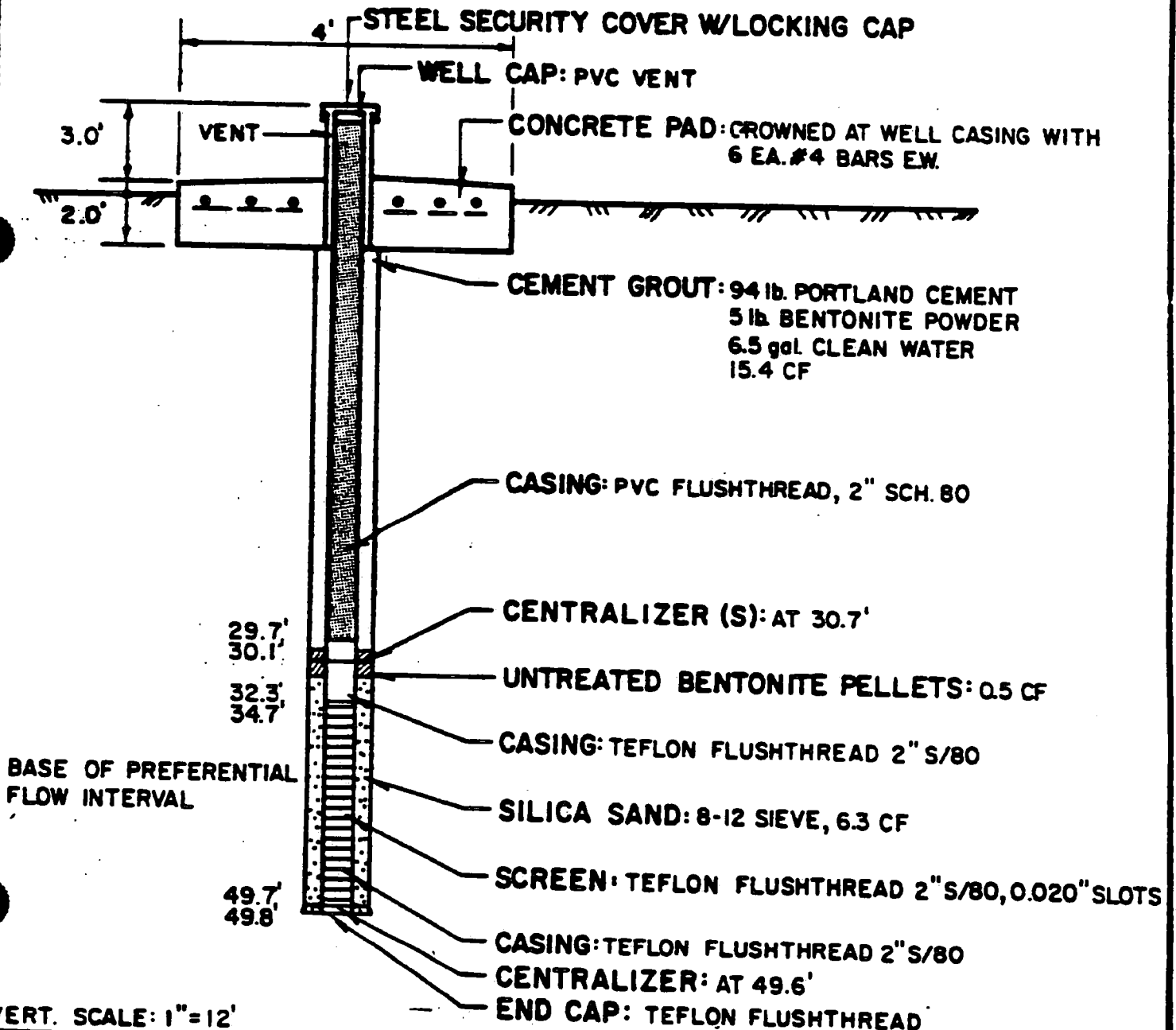
CASING ELEV.: 1430.1'

BORING SIZE: 7.25"

BORING DEPTH: 49.8'

CASING DETAILS: *cap, 10' SCR, 5' SCR, 5' TFE, PVC*

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW E_g-50.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 4B-2

DATE: 10/15/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: N/A. WELLS WERE WATER ROTARY

LOCATION: 9363.9 E-10807.3 N

DRILLED AND NOT DEVELOPED TO DATE.

SURFACE ELEV.: 1417.8'

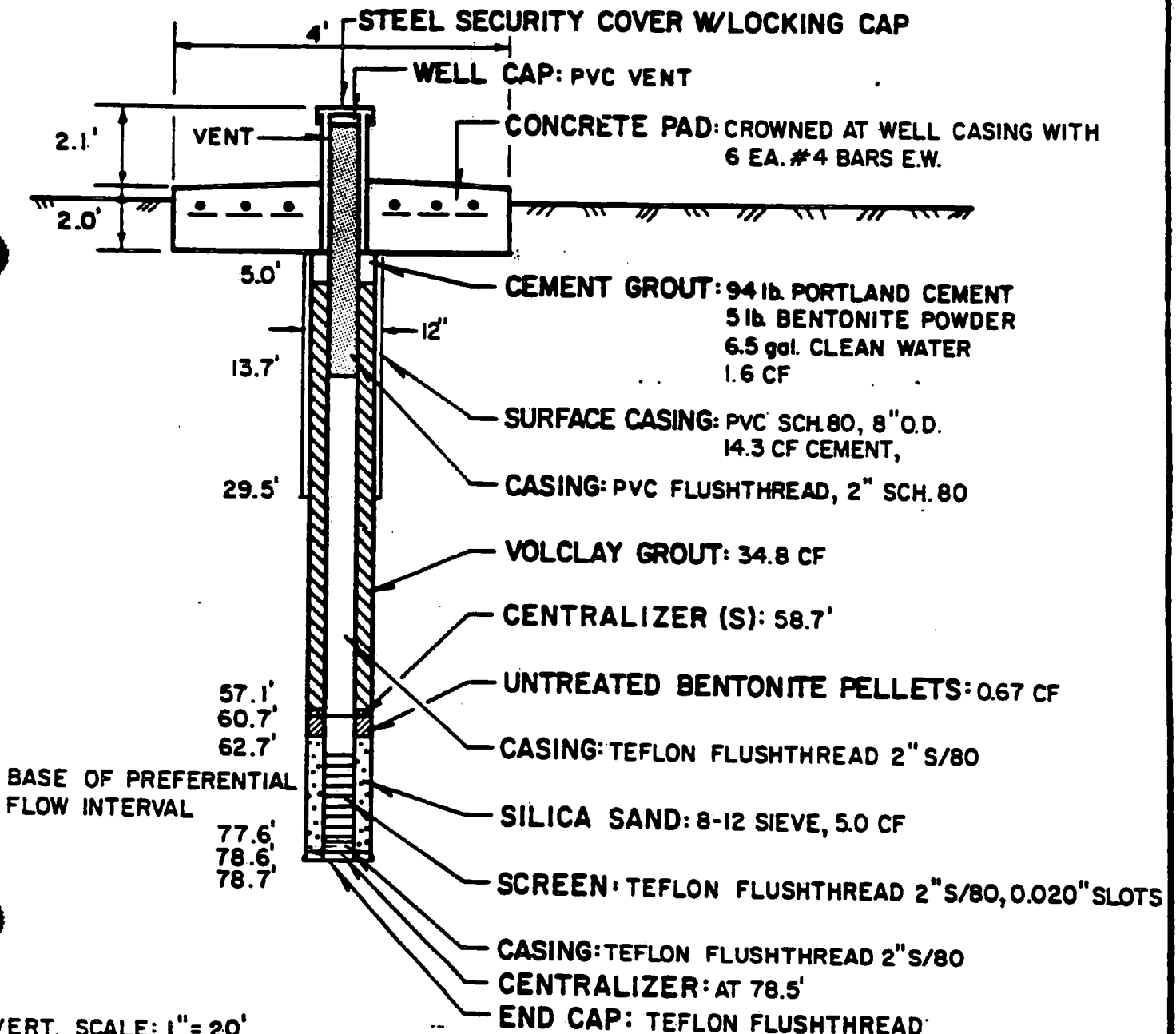
CASING ELEV.: 1420.9'

BORING SIZE: 12" & 7.25"

BORING DEPTH: 78.7'

CASING DETAILS:

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW Ea-79.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW4-C

DATE: 8/29/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 0.73' DATE: 8/30/87

LOCATION: 9438.9 E - 10741.9 N

SURFACE ELEV.: 1423.9'

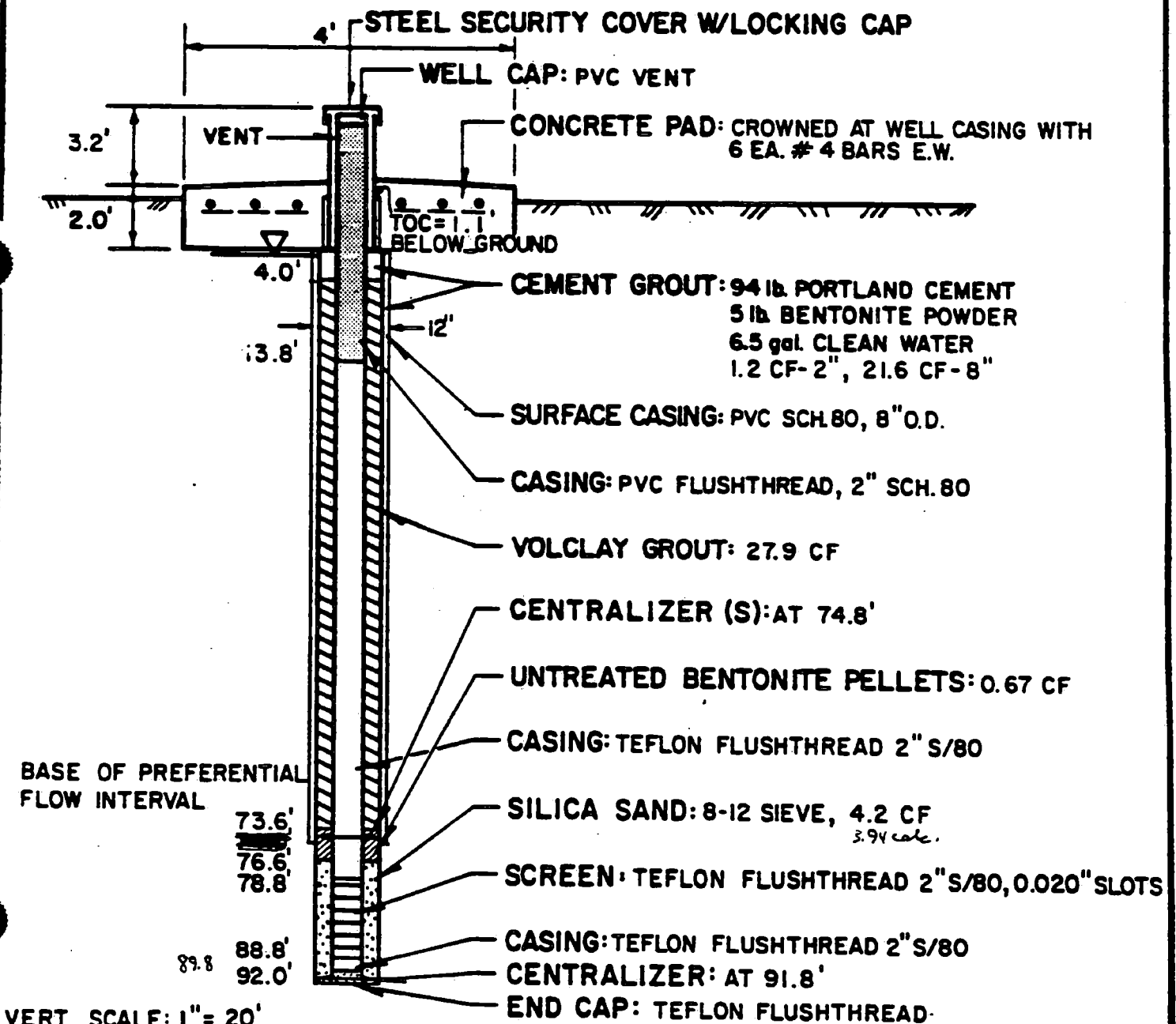
CASING ELEV.: 1427.1'

BORING SIZE: 7.25"

BORING DEPTH: 92.0'

CASING DETAILS: 1' TFE, 10' SCR, 6' 10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWE-92. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO: 3187108

PAGE 1

WELL NO: MW 5A-1

DATE: 11/5/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: N/A. WELLS WERE WATER ROTARY
DRILLED AND NOT DEVELOPED TO DATE.

LOCATION: 9694.2 E - 11390.8 N

SURFACE ELEV.: 1394.6'

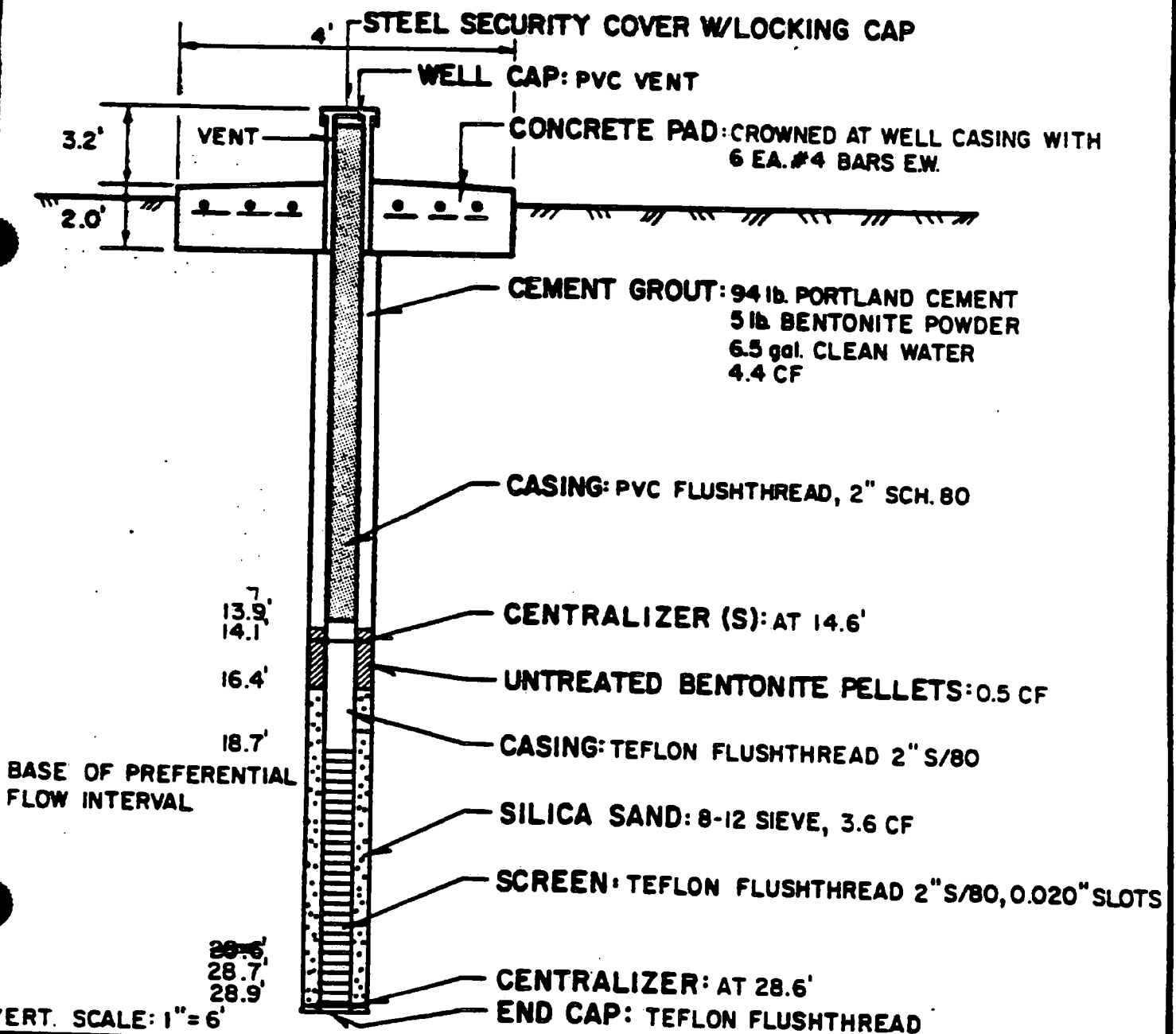
CASING ELEV.: 1397.8'

BORING SIZE: 7.25"

BORING DEPTH: 28.9'

CASING DETAILS:

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW F0-30.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW5-A2

DATE: 8/19/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 9.77' DATE: 8/29/87

LOCATION: 9569.4 E - 11555.4 N

SURFACE ELEV.: 1395.2'

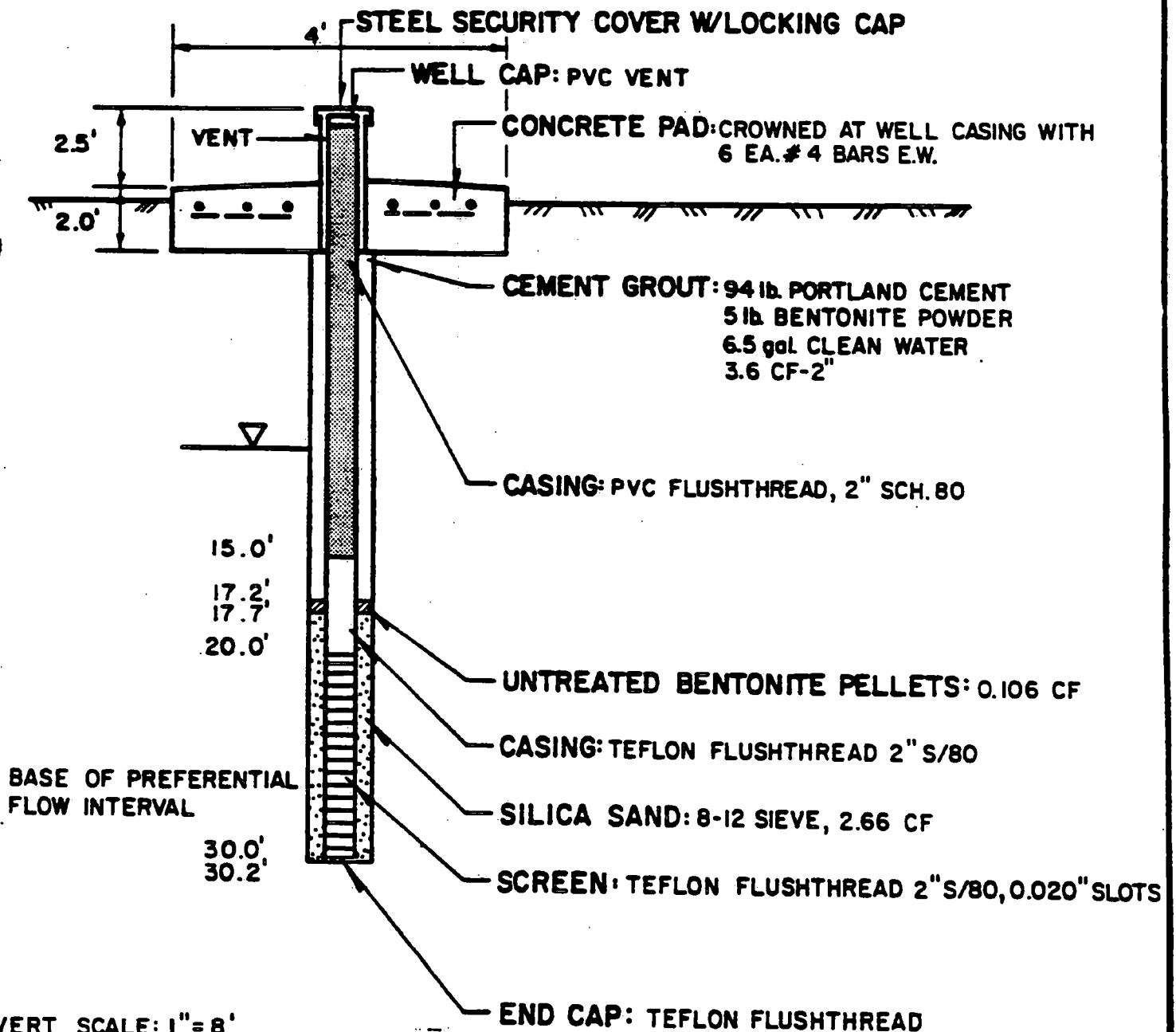
CASING ELEV.: 1397.7'

BORING SIZE: 6.25"

BORING DEPTH: 30.2'

CASING DETAILS: cap. 10' SCR, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MW F-30. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO: 3187108

PAGE 1

WELL NO.: MW 5B-1

DATE: 10/15/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: N.A. WELLS WERE WATER ROTARY
DRILLED AND NOT DEVELOPED TO DATE.

LOCATION: 9664.4 E - 11431.1 N

CASING ELEV.: 1397.9'

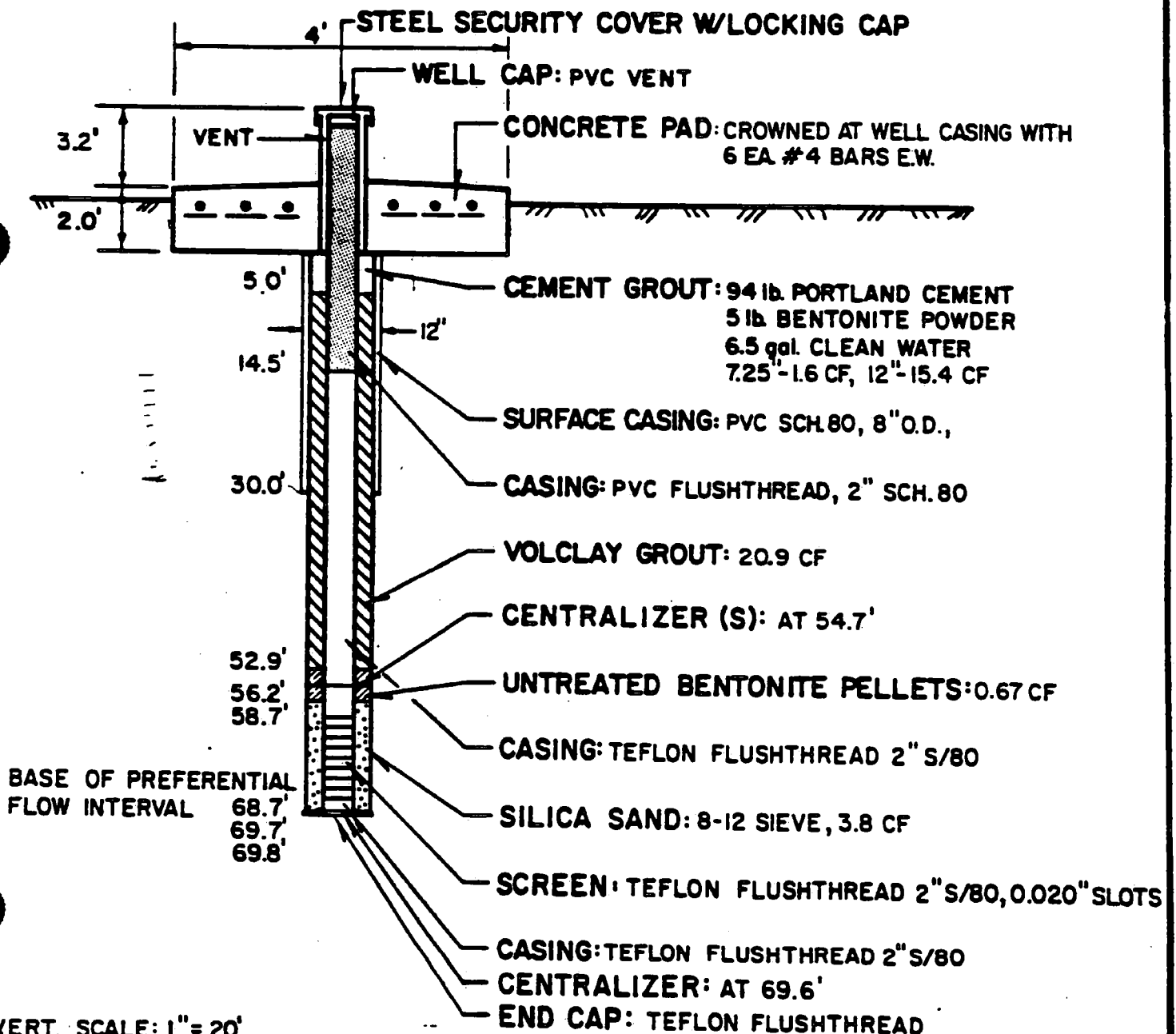
SURFACE ELEV.: 1394.7'

BORING DEPTH: 69.8'

BORING SIZE: 7.25" & 12"

CASING DETAILS:

REMARKS: BUMPERS GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW Fg-71.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 6-B1

DATE: 8/29/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 1.49'

LOCATION: 9448.4 E - 11724.6 N

SURFACE ELEV.: 1394.3'

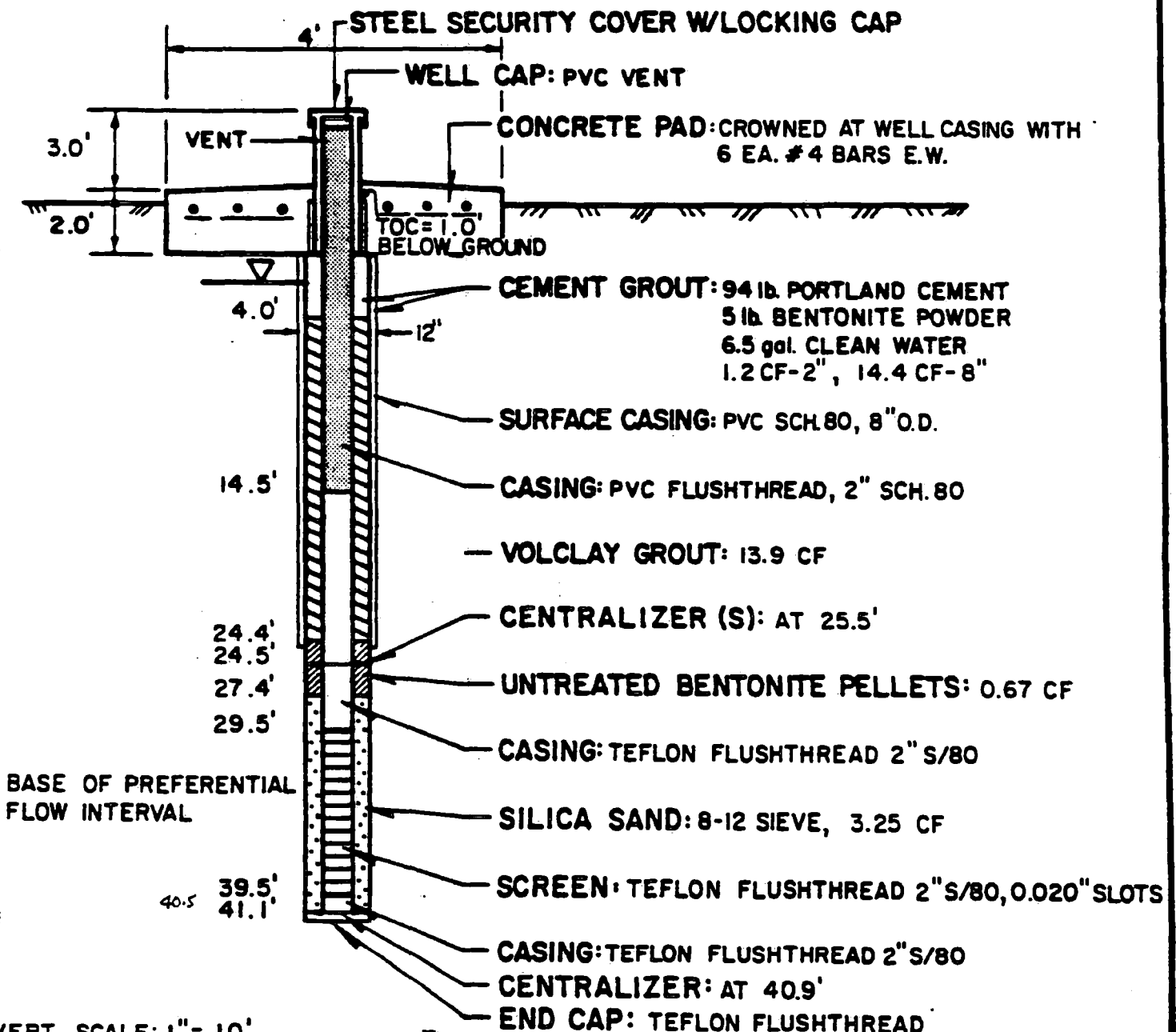
CASING ELEV.: 1397.3'

BORING SIZE: 7.25" & 12"

BORING DEPTH: 41.1'

CASING DETAILS: Cap. 1' TFE, 10' SCR, 10' TFE, 5' TFE, PVC

REMARKS: WAS ORIGINALLY DRILLED AS MWG-41. BUMPER GUARDS TO BE INSTALLED.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

WELL NO.: MW 8A-2

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

LOCATION: 9006.9 E - 11921.6 N

SURFACE ELEV.: 1396.2'

BORING SIZE: 7.25"

CASING DETAILS:

DATE: 11/4/87

LOGGER: PETER BAYLEY

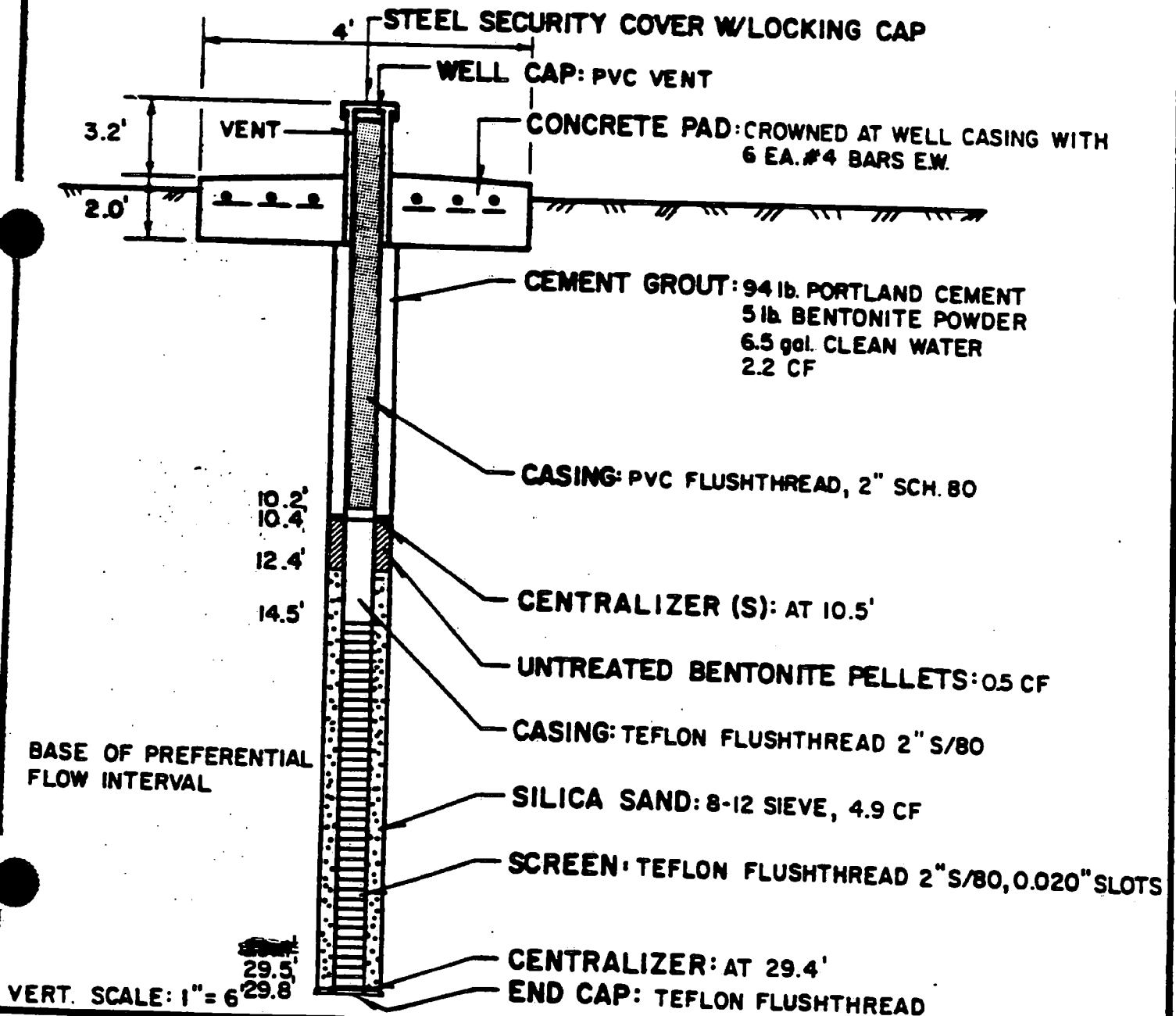
WATER ELEV.: N/A. WELLS WERE WATER ROTARY
DRILLED AND NOT DEVELOPED TO DATE.

CASING ELEV.: 1399.4'

BORING DEPTH: 29.8'

PAGE 1

REMARKS: BUMPER GUARDS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW Ho-30.



U. S. P. C. I.

MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: MW 8B-2

DATE: 10/16/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: N/A. WELLS WERE WATER

LOCATION: 9034.1 E - 11879.9 N

ROTARY DRILLED AND NOT DEVELOPED TO DATE.

SURFACE ELEV.: 1395.7'

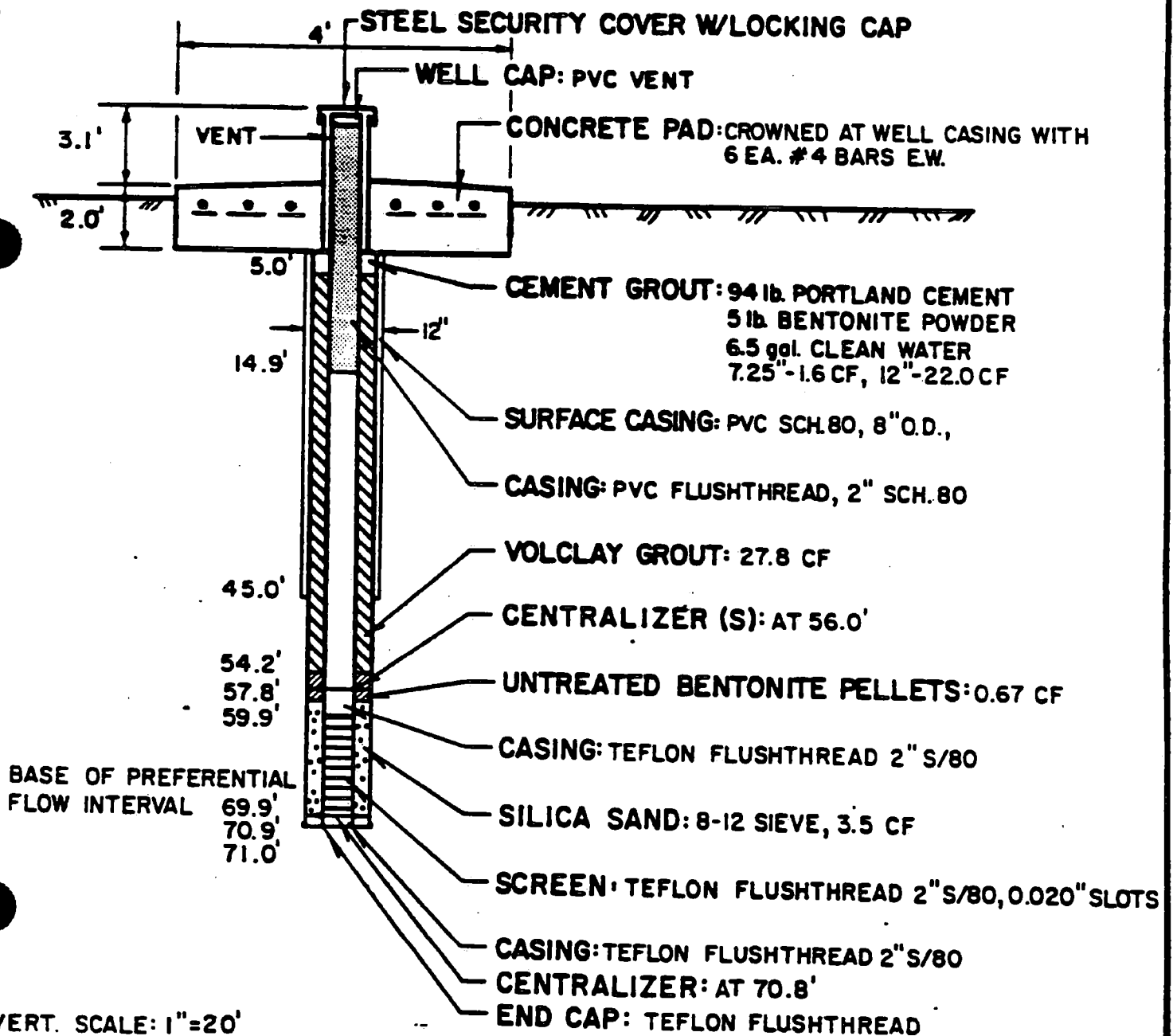
CASING ELEV.: 1398.8'

BORING SIZE: 12" & 7.25"

BORING DEPTH: 71.0'

CASING DETAILS:

REMARKS: BUMPERS TO BE INSTALLED. WAS ORIGINALLY DRILLED AS MW Hg-71.



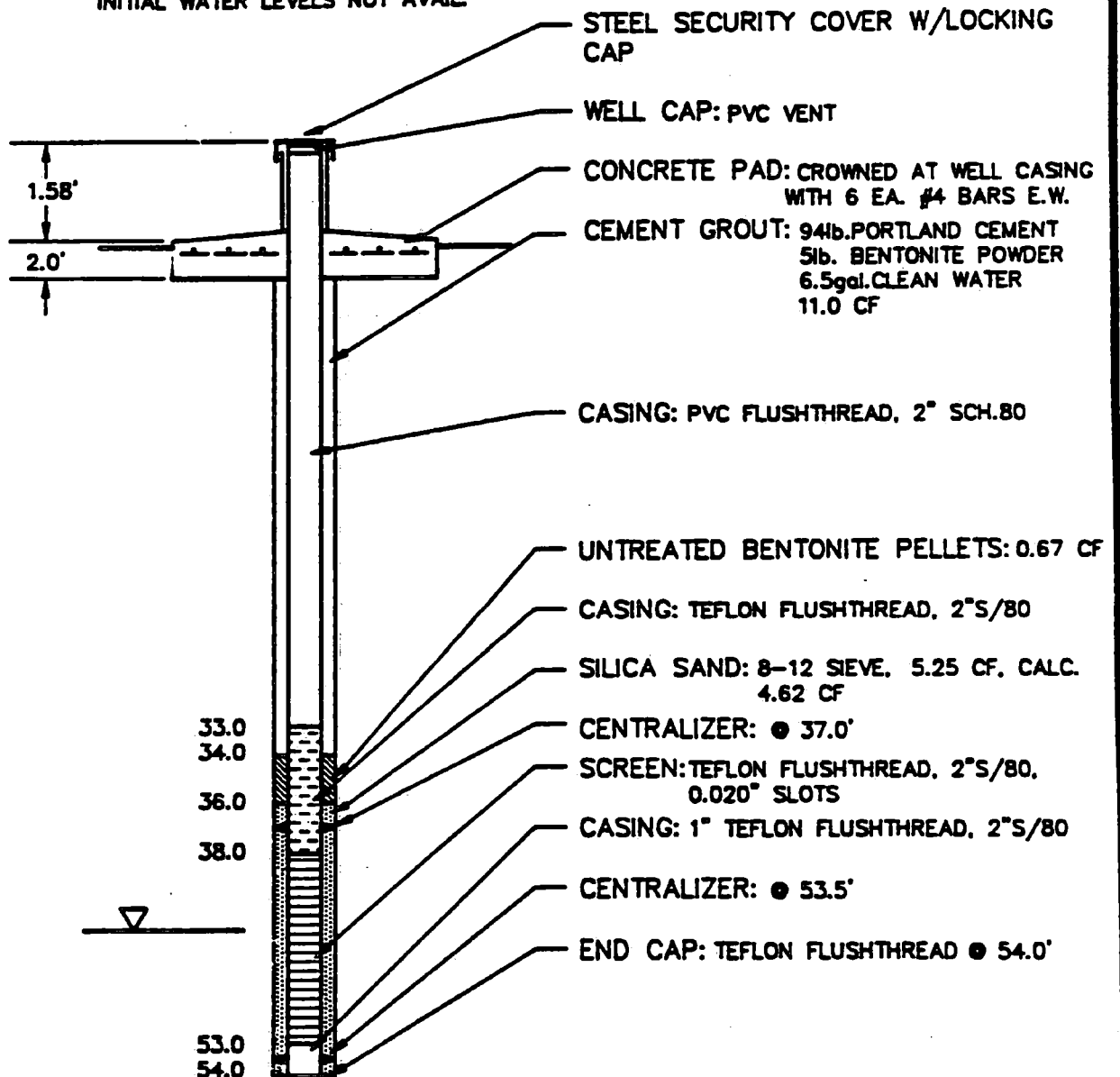
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3178108
 WELL NO.: MW 11-A1
 CONTRACTOR/DRILLER BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9606.8 E - 12280.7 N
 SURFACE ELEV.: 1420.36'
 BORING SIZE: 7.25"
 CASING DETAILS:

DATE: 5/10/88
 LOGGER: Y. BIYIKOGLU
 WATER ELEV.: 44.79 DATE: 6/3/88

CASING ELEV.: 1421.94'
 BORING DEPTH: 54'

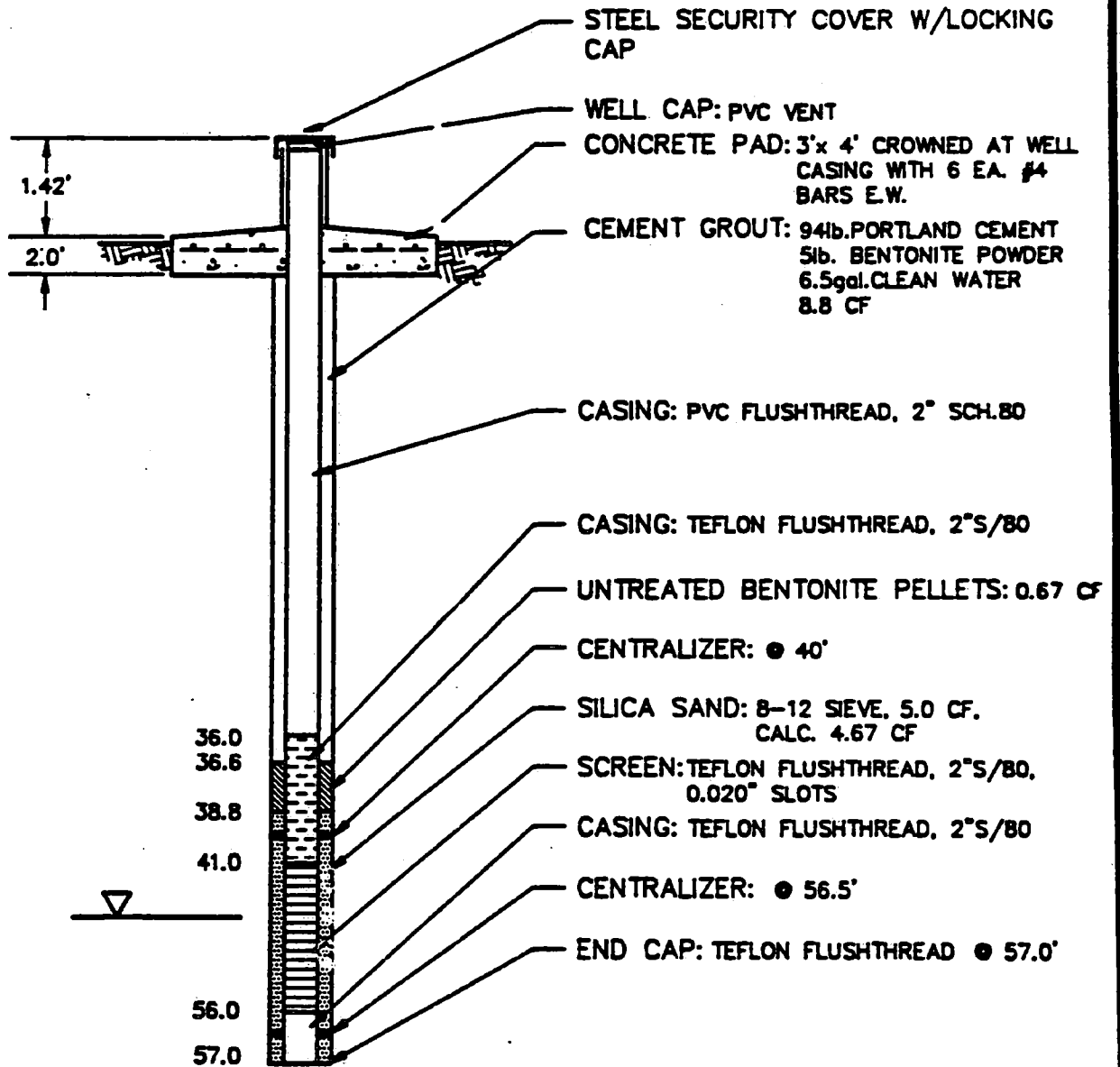
REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAIL



U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108
 WELL NO.: MW 11-A2
 CONTRACTOR/DRILLER: BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9606.9 E - 12467.2 N
 SURFACE ELEV.: 1420.61
 BORING SIZE: 7.25"
 CASING DETAILS: SHOWN BELOW ON SCHEMATIC
 REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAILABLE.

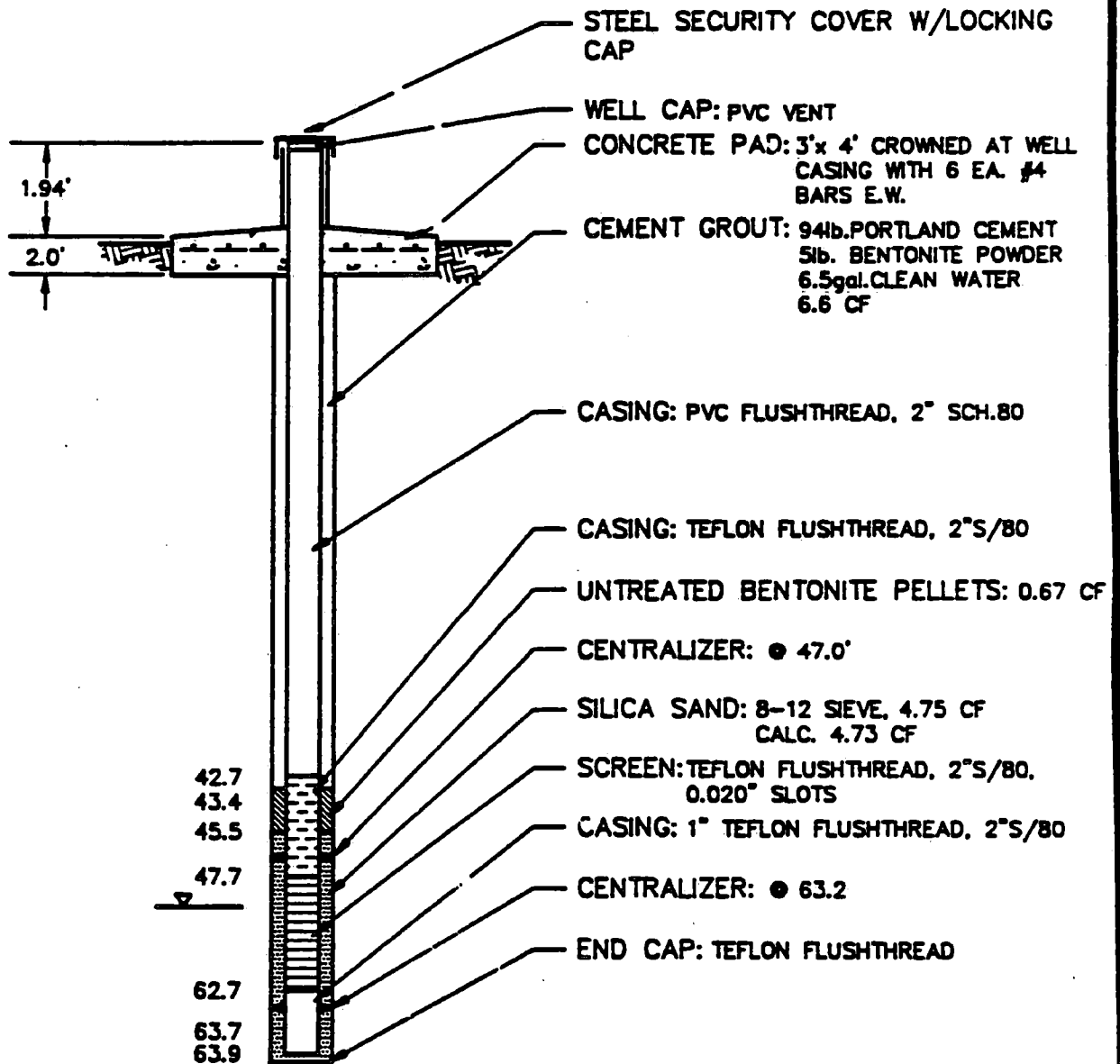
DATE: 5/11/88
 LOGGER: Y. BIYKOGLU
 WATER ELEV.: 47.78 DATE: 6/3/88
 CASING ELEV.: 1422.03
 BORING DEPTH: 57.0



U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108
 WELL NO.: MW 11-A3
 CONTRACTOR/DRILLER: BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9606.8 E - 12600.5 N
 SURFACE ELEV.: 1420.50
 BORING SIZE: 7.25"
 CASING DETAILS: SHOWN BELOW ON SCHEMATIC
 REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAILABLE

DATE: 4/21/88
 LOGGER: R. DWIVEDI
 WATER ELEV.: 49.34 DATE: 6/3/88
 CASING ELEV.: 1422.44
 BORING DEPTH: 63.9



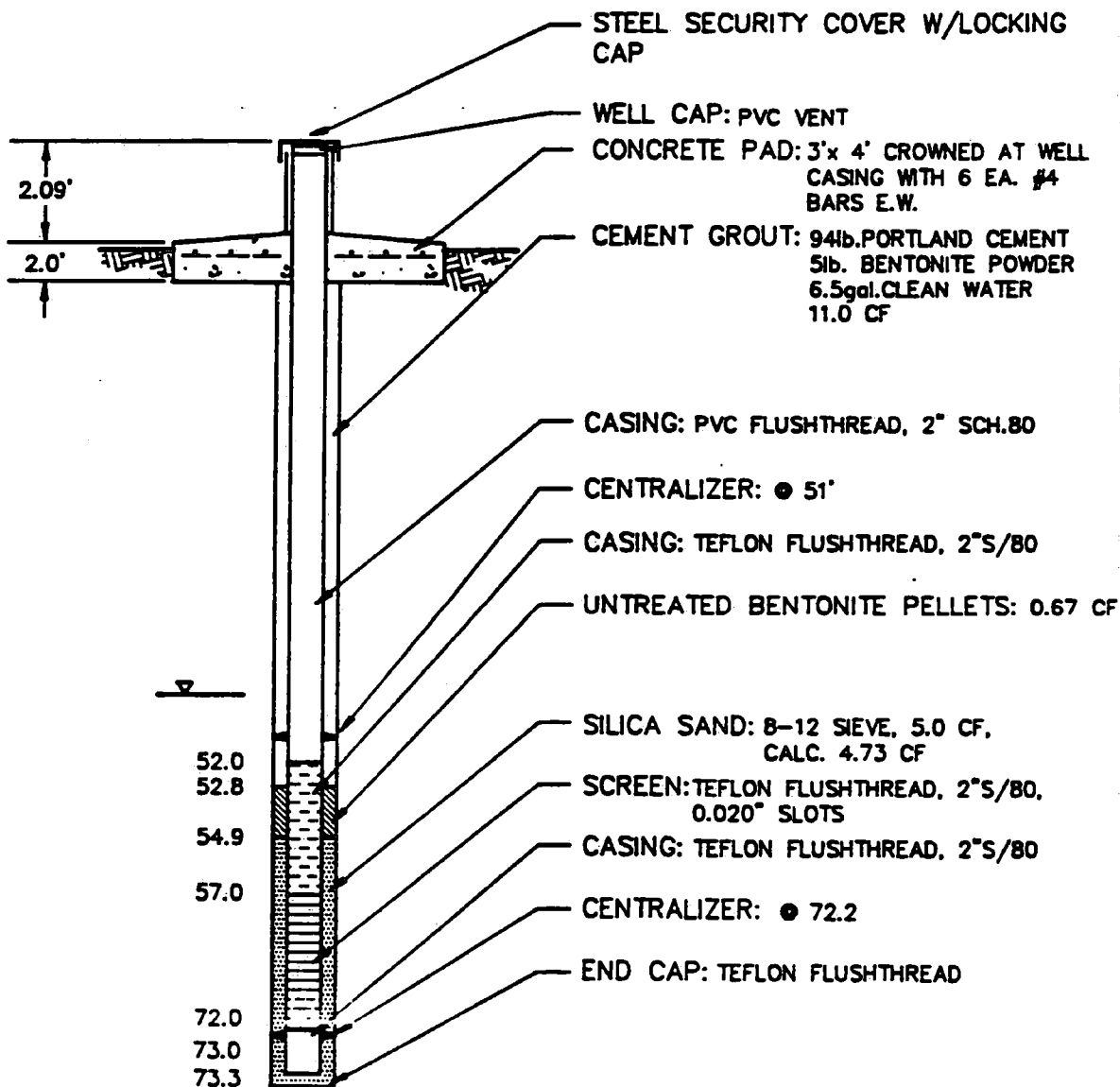
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108
 WELL NO.: MW 11-A4
 CONTRACTOR/DRILLER: BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9606.8 E - 12801.9 N
 SURFACE ELEV.: 1420.28
 BORING SIZE: 7.25"
 CASING DETAILS: SHOWN BELOW ON SCHEMATIC

DATE: 4/13/88
 LOGGER: R. DWIVEDI
 WATER ELEV.: 48.03 DATE: 6/3/88

CASING ELEV.: 1422.37
 BORING DEPTH: 73.3'

REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAILABLE.

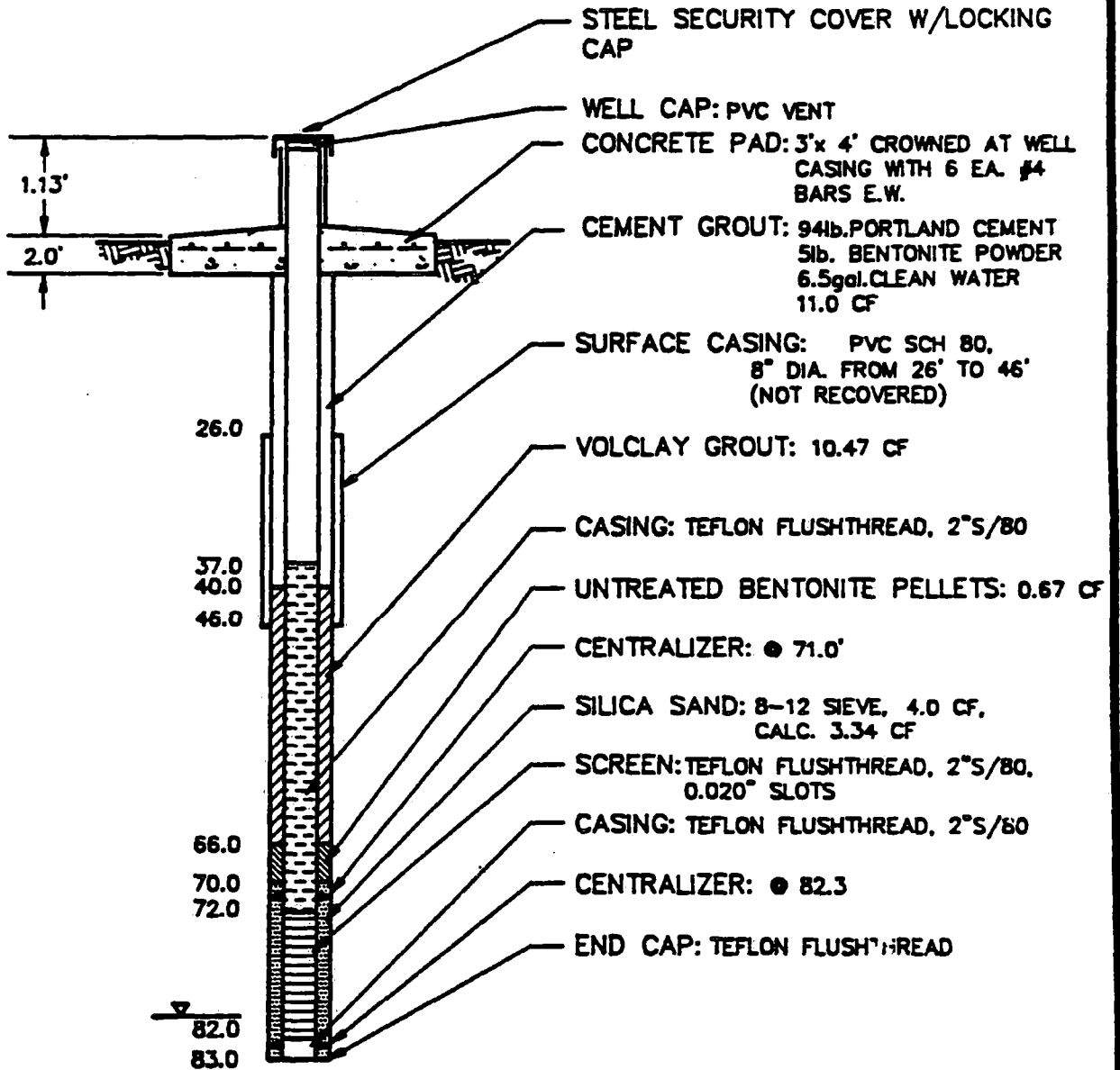


U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108
 WELL NO.: MW 11-B1
 CONTRACTOR/DRILLER: BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9607.3 E - 12350.9 N
 SURFACE ELEV.: 1420.78'
 BORING SIZE: 7.25"
 CASING DETAILS: SHOWN BELOW ON SCHEMATIC
 REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAILABLE.

DATE: 5/6/88
 LOGGER: Y. BIYIKOGLU
 WATER ELEV.: 81.69' DATE: 6/3/88

CASING ELEV.: 1421.91
 BORING DEPTH: 83.0



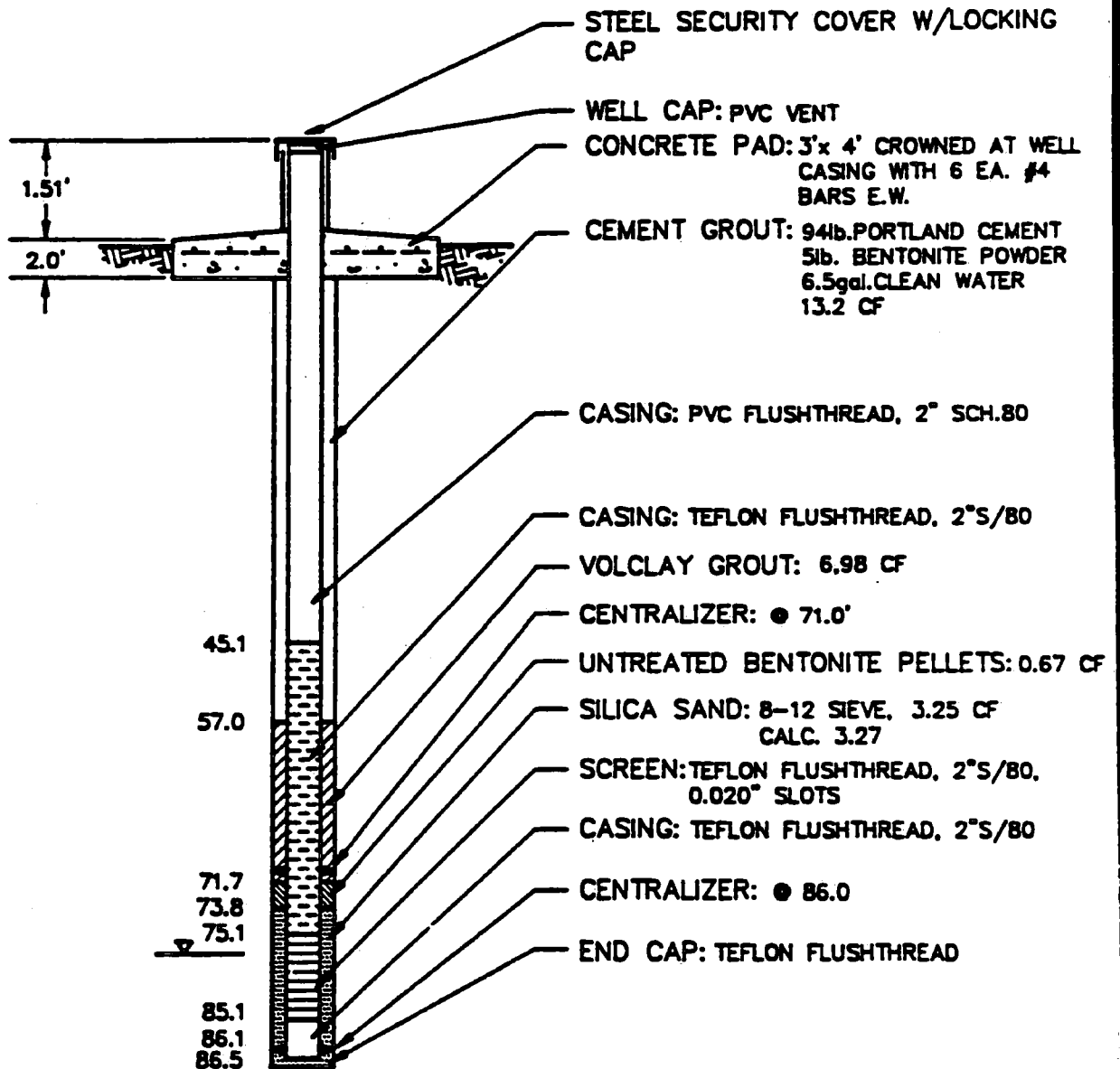
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108
 WELL NO.: MW 11-B2
 CONTRACTOR/DRILLER: BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9607.2 E -12731.7 N
 SURFACE ELEV.: 1420.65
 BORING SIZE: 7.25"
 CASING DETAILS: SHOWN BELOW ON SCHEMATIC

DATE: 4/20/88
 LOGGER: R. DWIVEDI
 WATER ELEV.: 77.27 DATE: 6/3/88

CASING ELEV.: 1422.16
 BORING DEPTH: 86.5'

REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAILABLE.

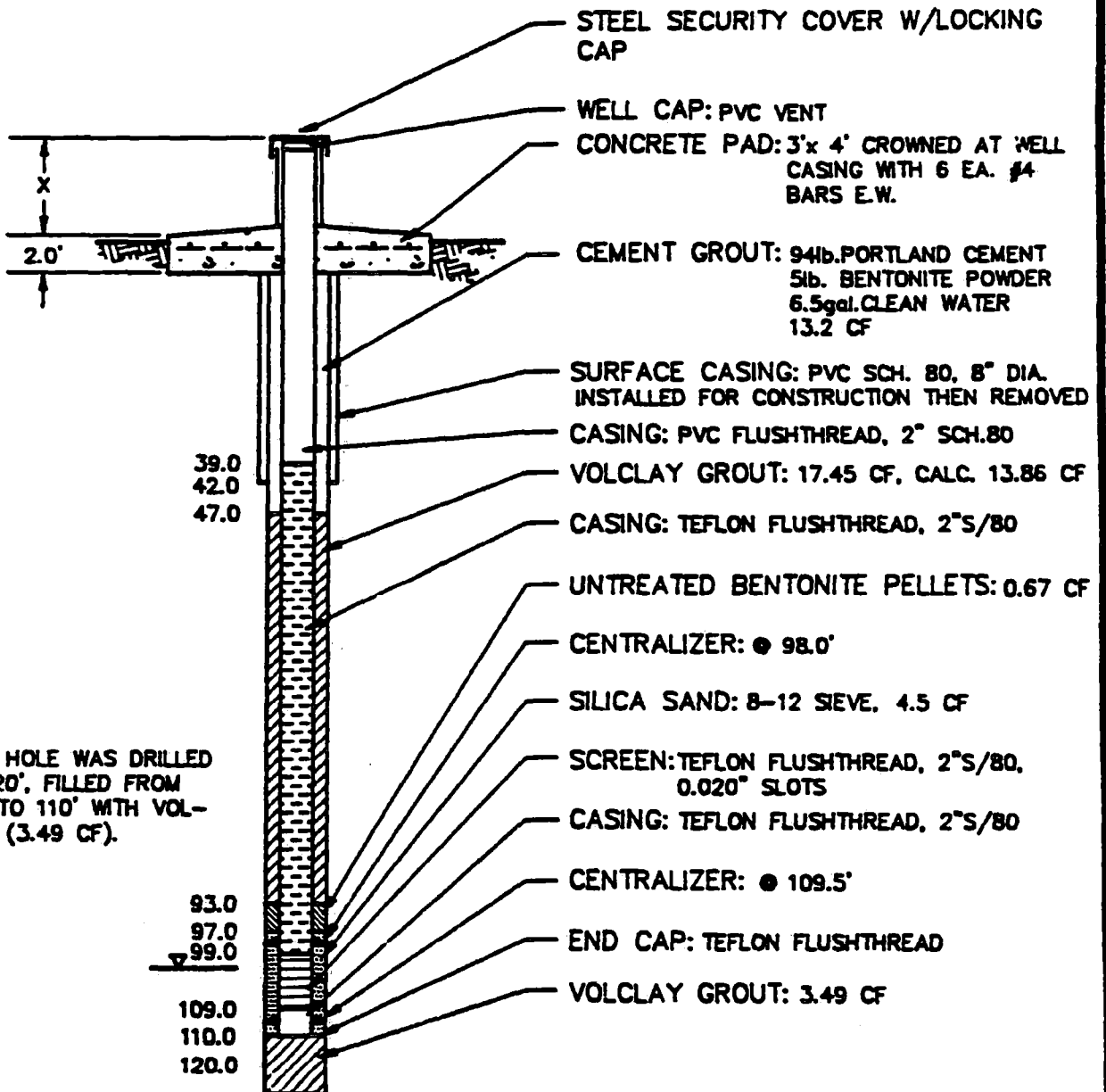


U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187108
 WELL NO.: MW 11-C
 CONTRACTOR/DRILLER: BOYLES BROS.
 DRILLING METHOD: WATER ROTARY
 LOCATION: 9606.5 E - 12527.1 N
 SURFACE ELEV.: 1420.51
 BORING SIZE: 7.25"
 CASING DETAILS: SHOWN BELOW ON SCHEMATIC
 REMARKS: DRILLED WITH WATER ROTARY.
 INITIAL WATER LEVELS NOT AVAILABLE.

DATE: 5/3/88
 LOGGER: R. BIYIKOGLU
 WATER ELEV.: 108.75 DATE: 6/3/88

CASING ELEV.: 1422.0
 BORING DEPTH: 120.0'



NOTE: HOLE WAS DRILLED TO 120', FILLED FROM 120' TO 110' WITH VOL-CLAY (3.49 CF).

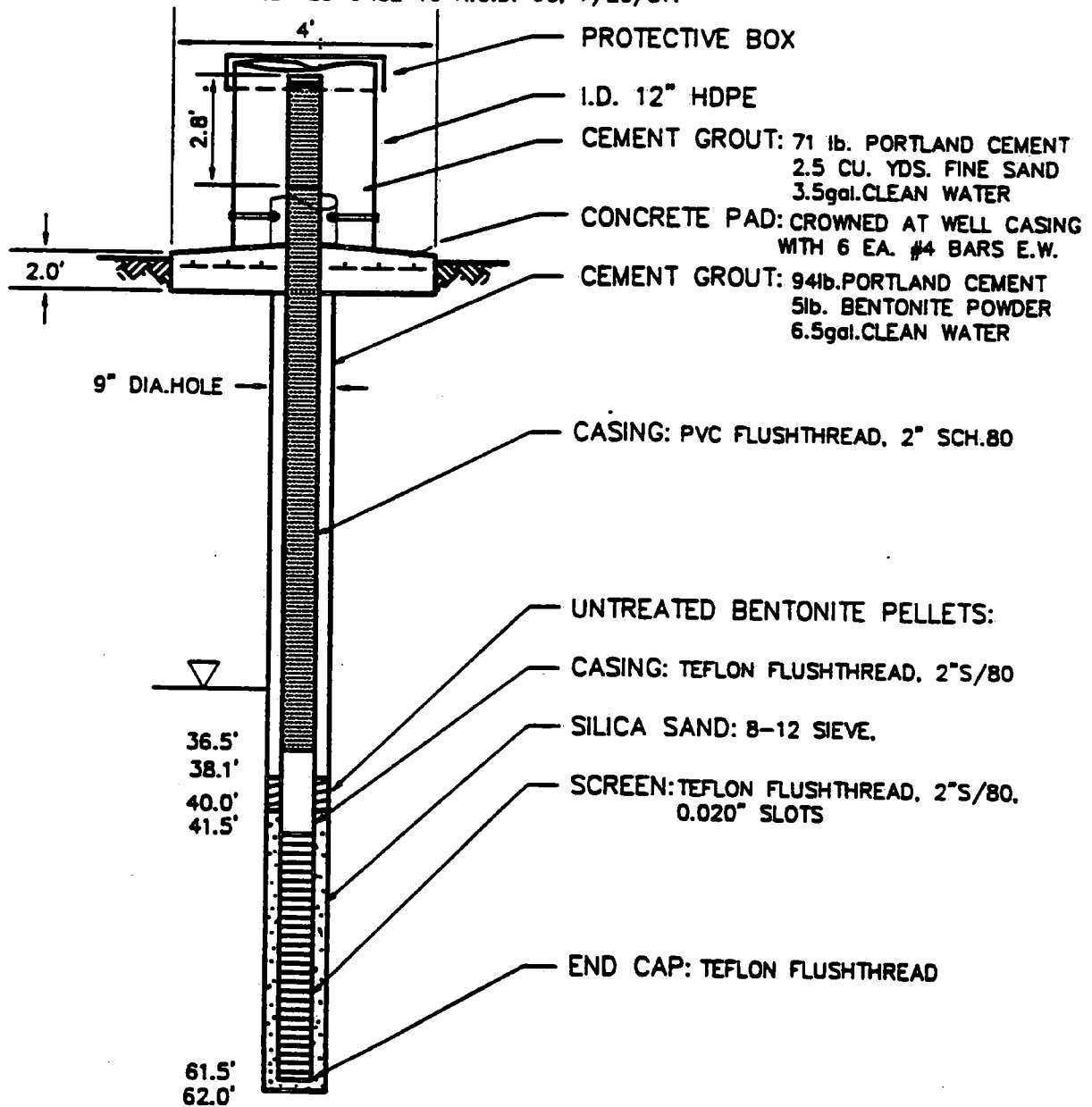
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187110
 WELL NO.: MW-18
 CONTRACTOR/DRILLER *STEWART-WHITE*
 DRILLING METHOD: AUGER
 LOCATION: 8764.7 E -12856.8 N
 ORIG. SURFACE ELEV.: 1412.9'
 BORING SIZE: 9"
 CASING DETAILS: *cap. 2-10'SCR. 5'TFE, PVC*

DATE: 8/86
 LOGGER: PETER BAYLEY
 WATER ELEV.: 33.06' 12/29/86

PRESENT HDPE ELEV.: 1419.0'
 PRESENT PVC ELEV.: 1418.47'
 BORING DEPTH: 62.0'

REMARKS: WELLS RAISED TO STATED HEIGHT AND WILL BE RAISED TO A FINAL WELL HEAD HEIGHT OF 1428.0'. SEE RESPONSE TO N.O.D. 6C, 7/20/87.



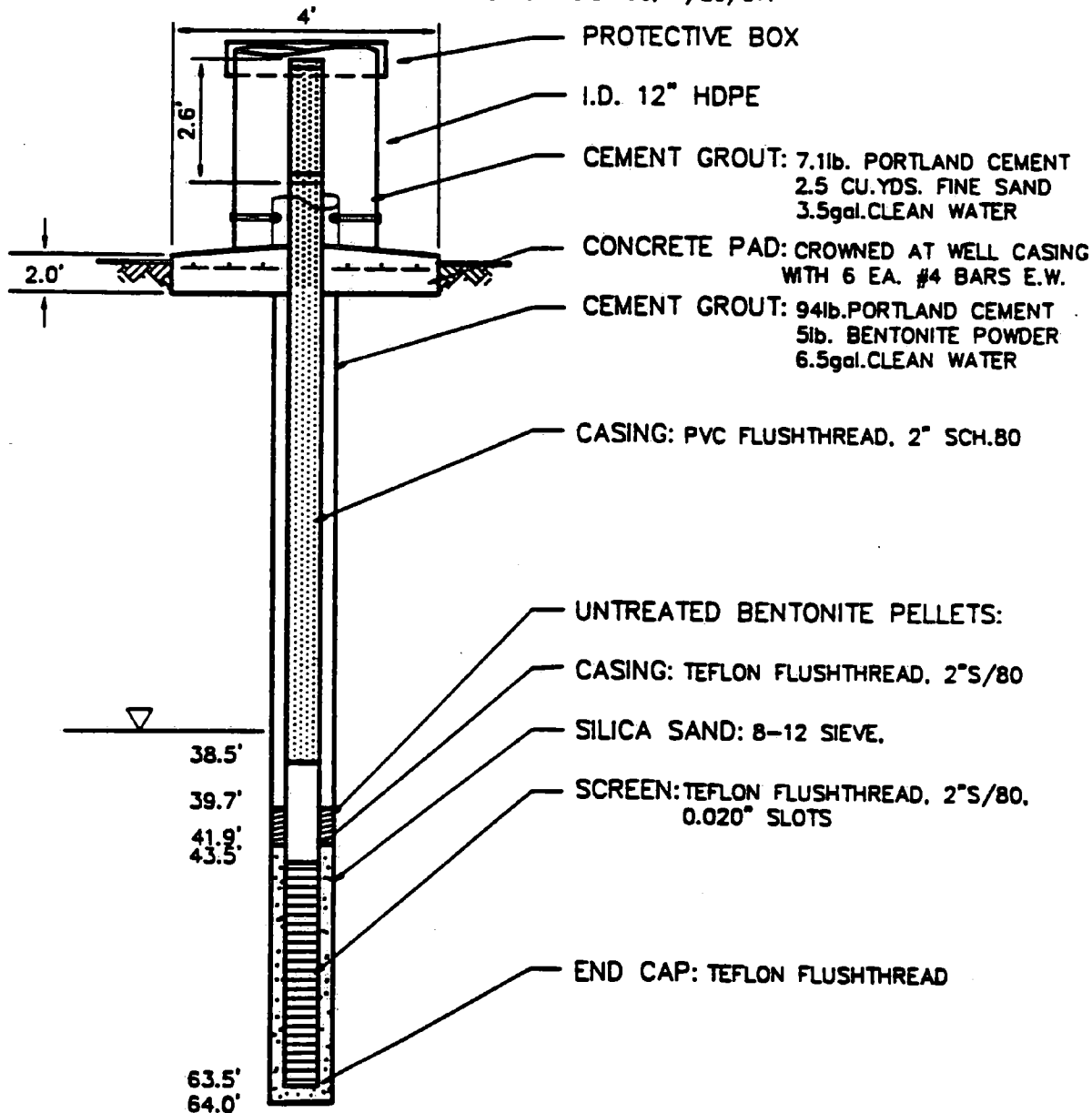
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187110
 WELL NO.: MW-19
 CONTRACTOR/DRILLER *STEWART WHITE*
 DRILLING METHOD: AUGER
 LOCATION: 8916.4 E -12861.3 N
 ORIG. SURFACE ELEV.: 1412.7'
 BORING SIZE: 9"
 CASING DETAILS: *Cap. 2-10'SCR. 5'TFE, PVC*

DATE: 8/86
 LOGGER: PETER BAYLEY
 WATER ELEV.: 36.4' 12/29/86

PRESENT HDPE ELEV.: 1419.0'
 PRESENT CVC ELEV.: 1418.36'
 BORING DEPTH: 64.0'

REMARKS: WELLS RAISED TO STATED HEIGHT AND WILL BE RAISED TO A FINAL WELL HEAD HEIGHT OF 1428.0'. SEE RESPONSE TO N.O.D. 6C, 7/20/87.



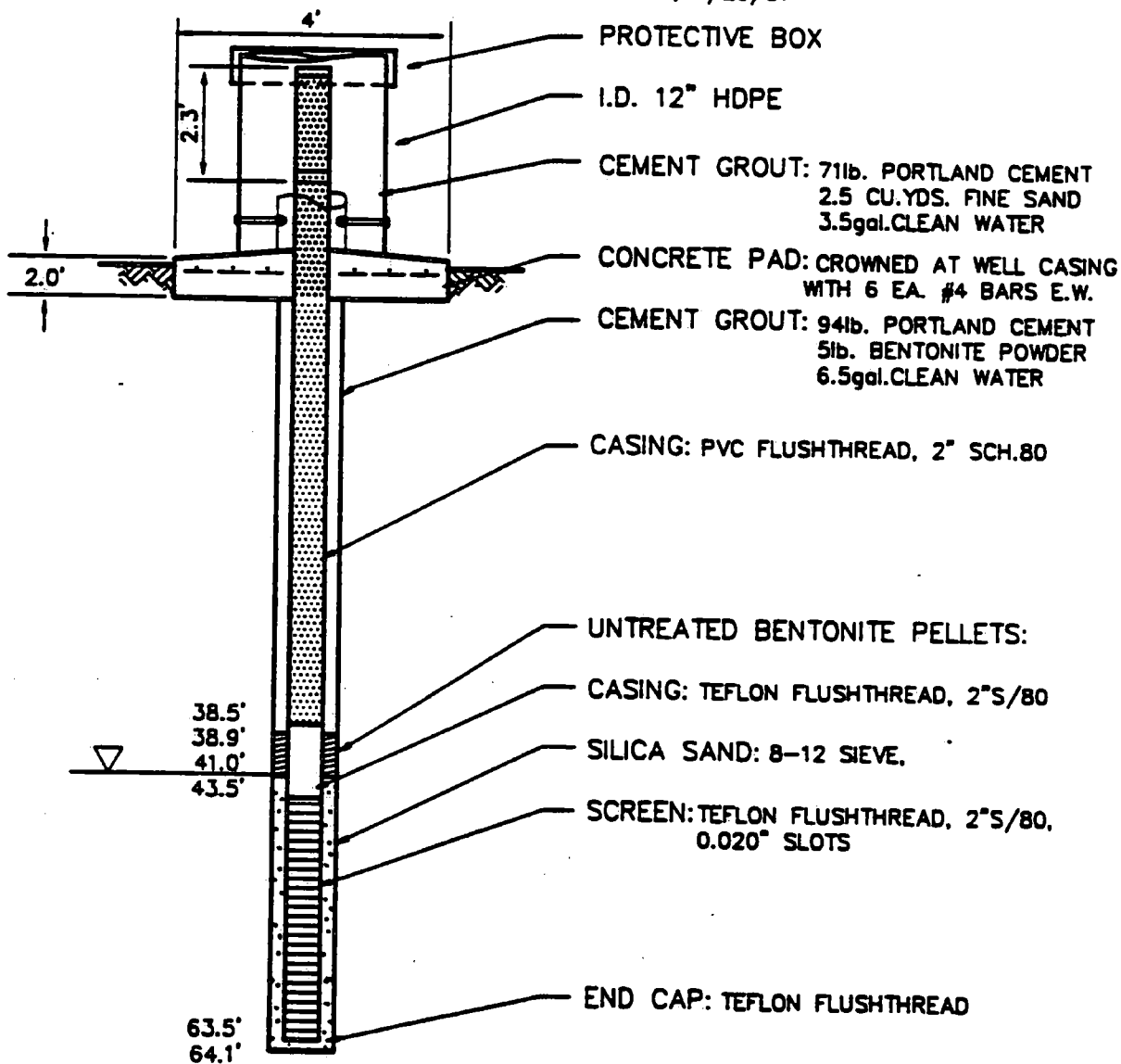
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187110
 WELL NO.: MW-20
 CONTRACTOR/DRILLER *STEWART WHITE*
 DRILLING METHOD: AUGER
 LOCATION: 8920.7 E -12695.5 N
 ORIG. SURFACE ELEV.: 1413.5'
 BORING SIZE: 9"
 CASING DETAILS: *cap. 2-10' SEC. 5' TFE, PVC*

DATE: 8/86
 LOGGER: PETER BAYLEY
 WATER ELEV.: 40.6' 12/29/86

PRESENT HDPE ELEV.: 1419'
 PRESENT PVC ELEV.: 1418.44'
 BORING DEPTH: 64.1'

REMARKS: WELLS RAISED TO STATED HEIGHT AND WILL BE RAISED TO A FINAL WELL HEAD HEIGHT OF 1428.0'. SEE RESPONSE TO N.O.D. 6C, 7/20/87



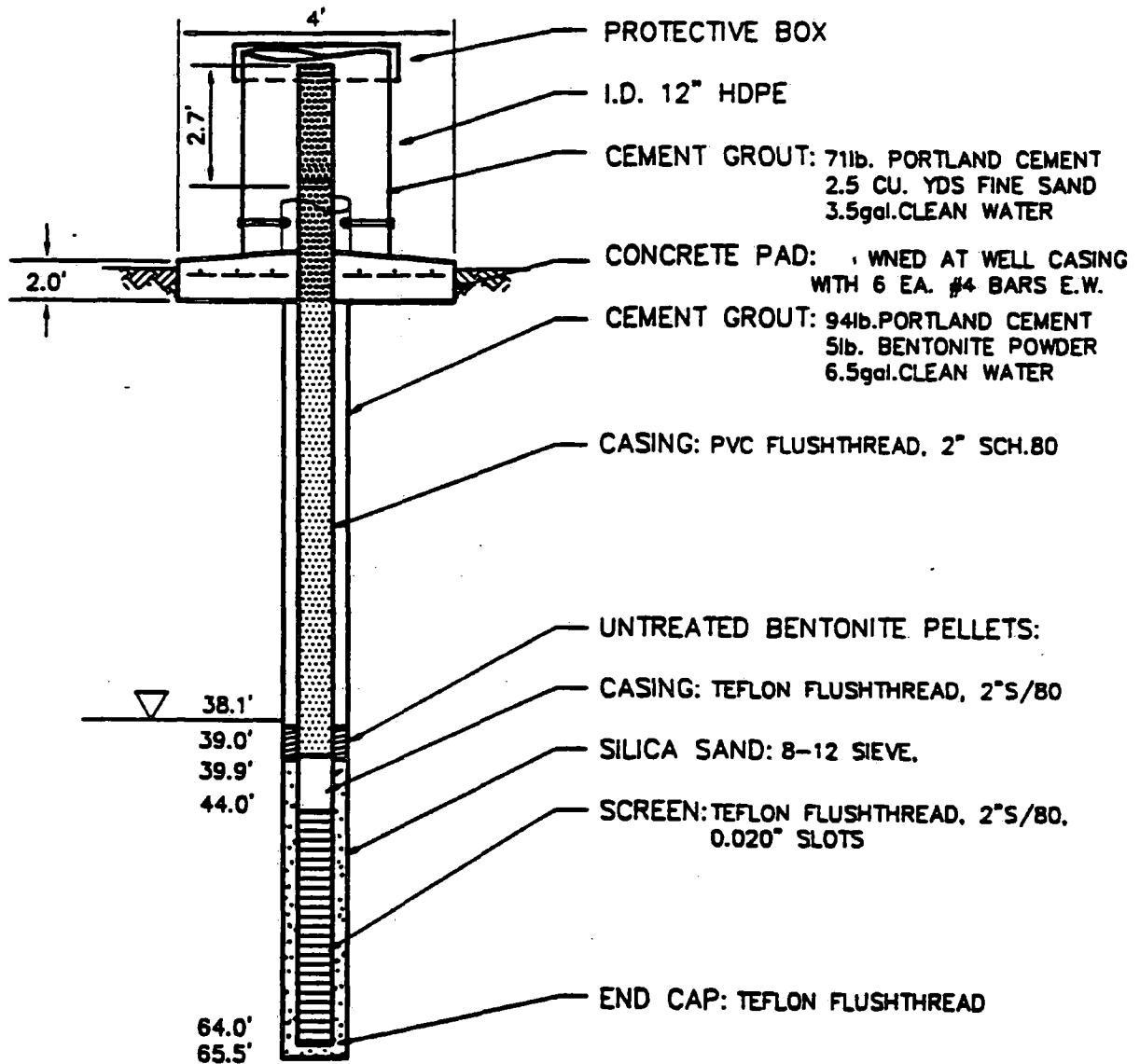
U. S. P. C. I. MONITORING WELL SCHEMATIC

PROJECT NO.: 3187110
 WELL NO.: MW-21
 CONTRACTOR/DRILLER: STEWART - W.H. TC
 DRILLING METHOD: AUGER
 LOCATION: 8921.2 E - 12525.9 N
 ORIG. SURFACE ELEV.: 1413.2'
 BORING SIZE: 9"
 CASING DETAILS: cap. 2-10' SCR. 5' TFE PVC

DATE: 8/86
 LOGGER: PETER BAYLEY
 WATER ELEV.: 38.0' 12/29/86

PRESENT HDPE ELEV.: 1419.0'
 PRESENT PVC ELEV.: 1418.45'
 BORING DEPTH: 65.5'

REMARKS: WELLS RAISED TO STATED HEIGHT AND WILL BE RAISED TO A FINAL WELL HEAD HEIGHT OF 1428.0'. SEE RESPONSE TO N.O.D. 6C, 7/20/87



U. S. P. C. I.

OBSERVATION WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: OW-1

DATE: 9/24/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV.: 117.6' DATE: 12/11/87

LOCATION: 8305.9 E - 10292.7 N

SURFACE ELEV.: 1616.8'

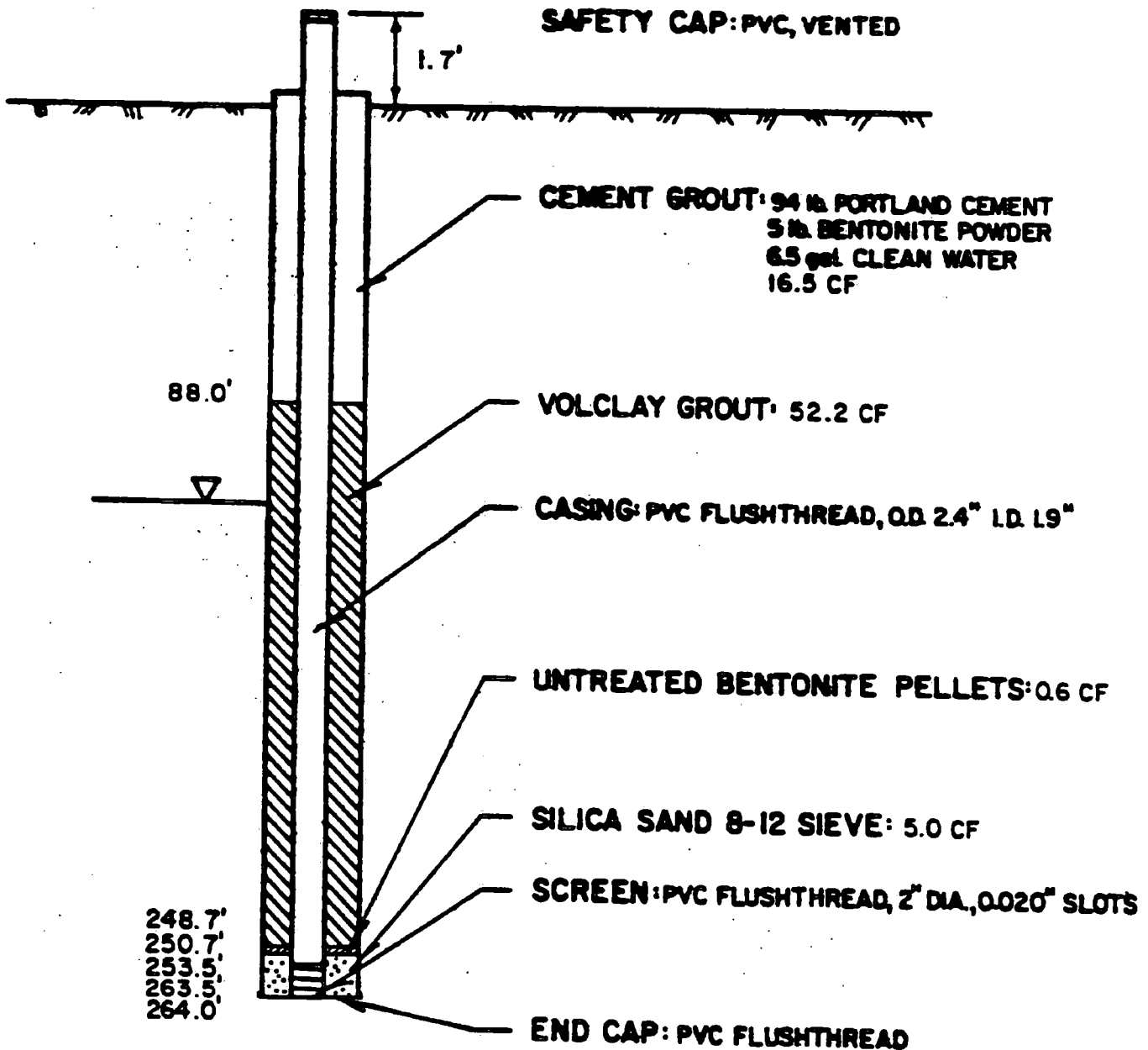
CASING ELEV.: 1618.5'

BORING SIZE: 8.25"

BORING DEPTH: 264.0'

CASING DETAILS:

REMARKS:



SCALE: 1" = 50'

U. S. P. C. I.

OBSERVATION WELL SCHEMATIC

PROJECT NO: 3187108

PAGE 1

WELL NO.: OW-2

DATE: 10/2/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: WATER ROTARY

WATER ELEV: 130.5' DATE: 12/11/87

LOCATION: 7775.5 E - 11217.3 N

SURFACE ELEV.: 1607.4'

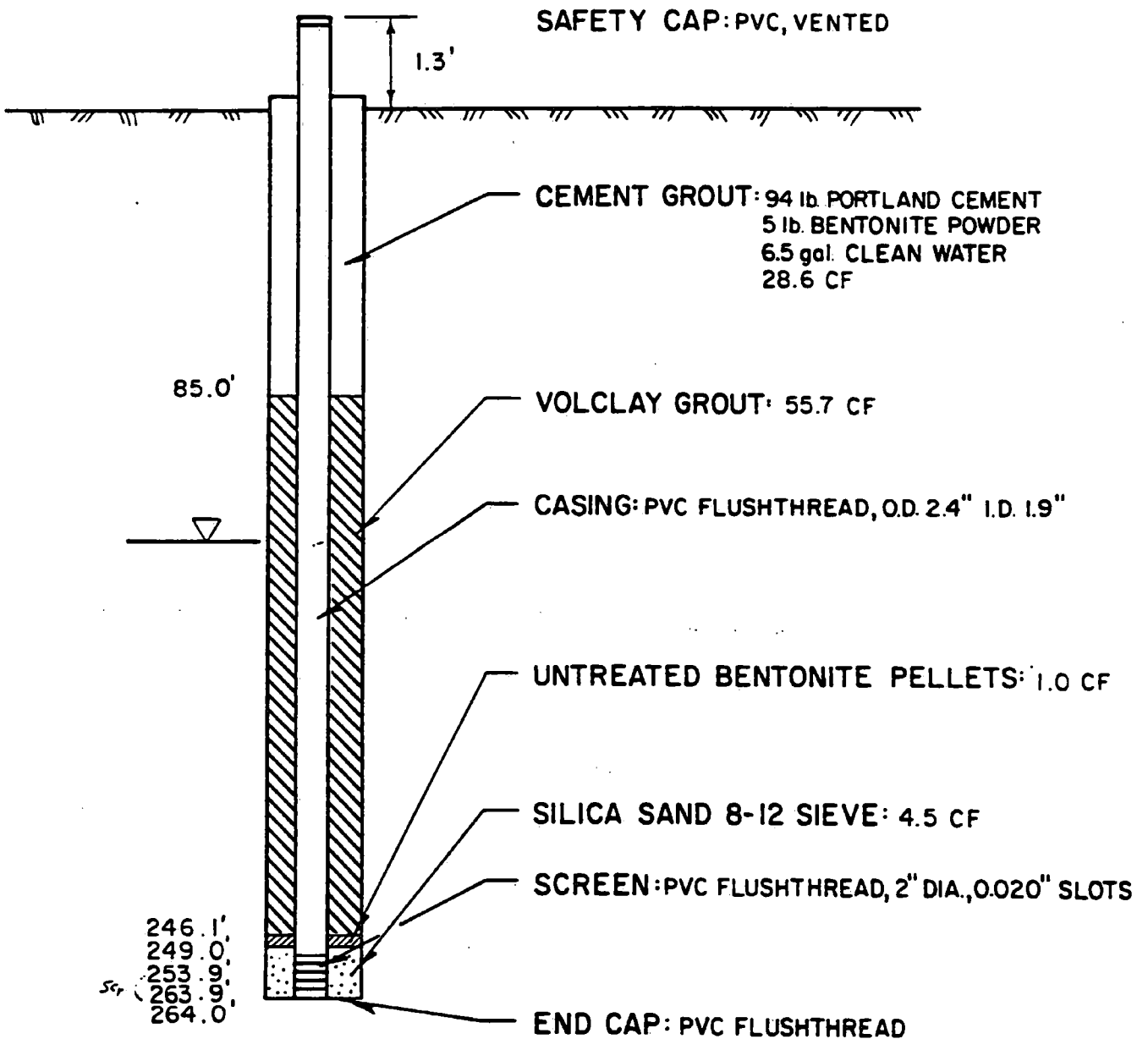
CASING ELEV.: 1608.7'

BORING SIZE: 8.25"

BORING DEPTH: 264.0'

CASING DETAILS:

REMARKS:



SCALE: 1" = 50'

U. S. P. C. I.

OBSERVATION WELL SCHEMATIC

PROJECT NO.: 3187108

WELL NO.: OW-6 (MW-22)

CONTRACTOR/DRILLER: STEWART, WHITE

DRILLING METHOD: AIR ROTARY

LOCATION: 8188.4E-12602.1 N

SURFACE ELEV.: 1392.35

BORING SIZE: 9"

CASING DETAILS:

REMARKS: WELL RECENTLY RAISED

DATE: 8/86

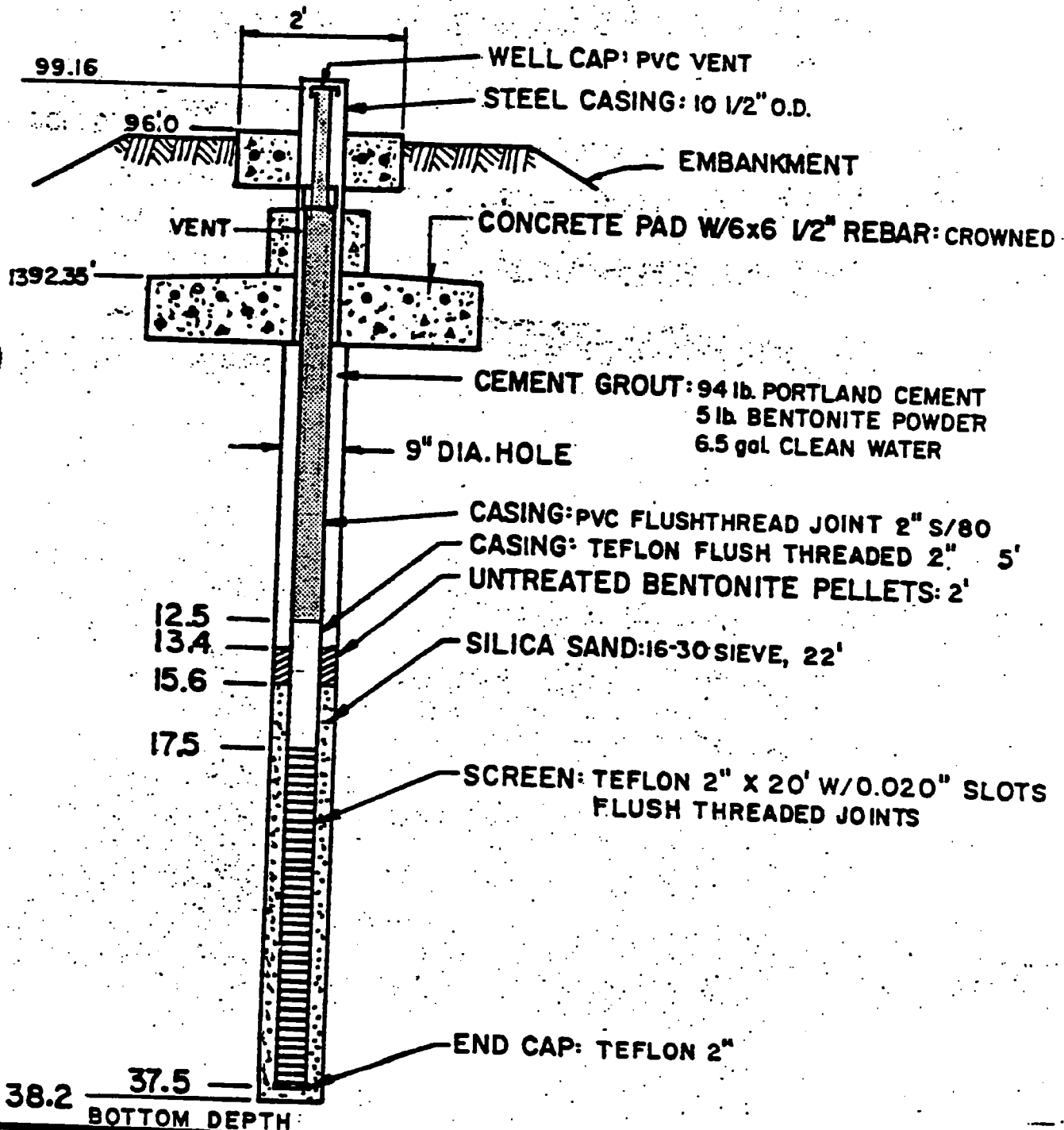
LOGGER: PETER BAYLEY

WATER ELEV.:

CASING ELEV.: 1399.16

BORING DEPTH: 38.2

PAGE 1



U. S. P. C. I.

OBSERVATION WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: OW-7

DATE DRILLED: 7/11/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 189.8'

DATE: 9/2/87

LOCATION: 7334.2 E - 13922.9 N

SURFACE ELEV.: 1394.1'

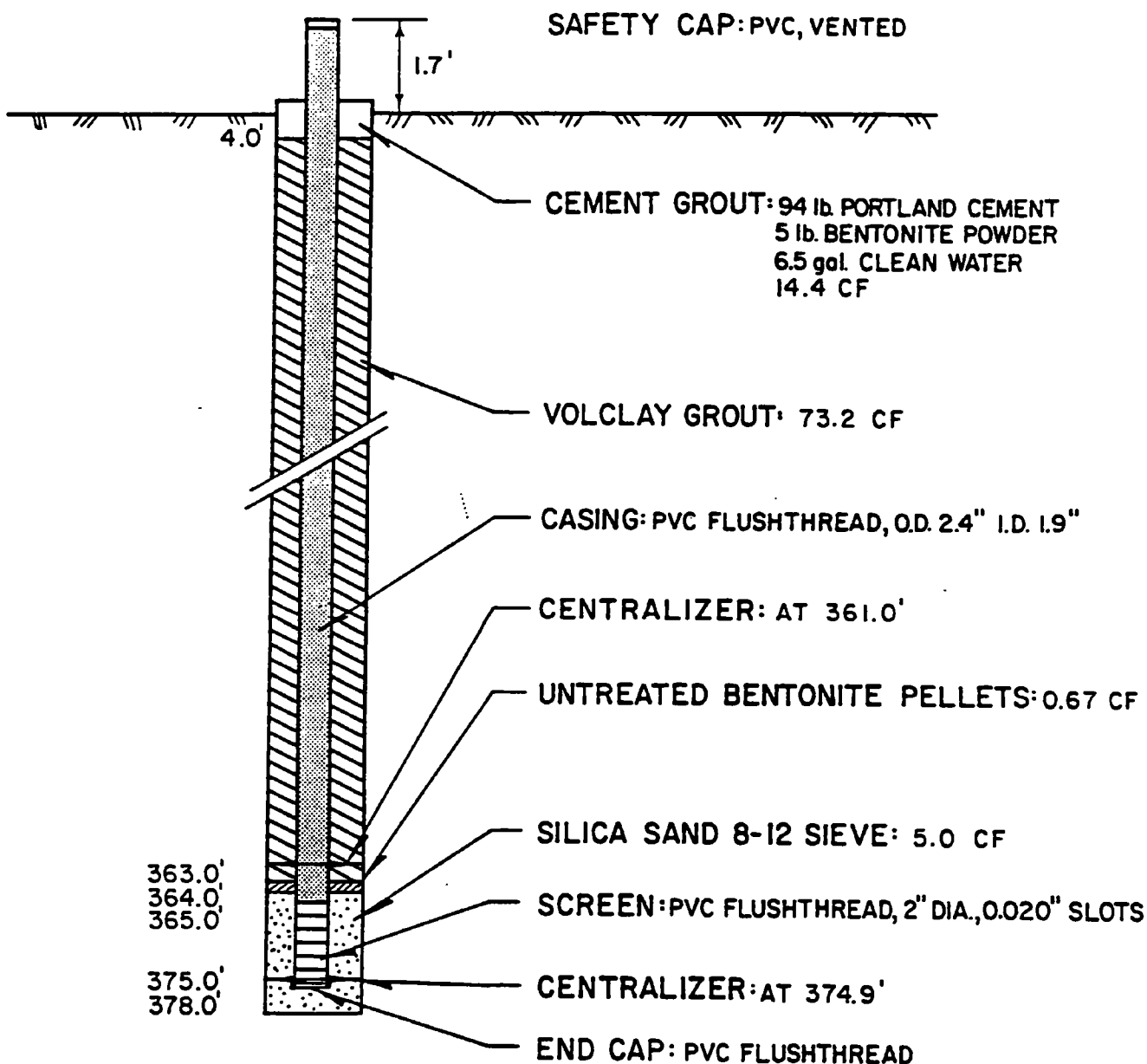
CASING ELEV.: 1395.8'

BORING SIZE: 8.25"

BORING DEPTH: 378.0'

CASING DETAILS:

REMARKS:



VERT. SCALE: 1" = 20'

U. S. P. C. I.

OBSERVATION WELL SCHEMATIC

PROJECT NO: 3187108

WELL NO: OW-8

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: WATER ROTARY

LOCATION: 9572.5 E - 11130.0 N

SURFACE ELEV.: 1395.7'

BORING SIZE: 7.25"

CASING DETAILS:

PAGE 1

DATE: 11/18/87

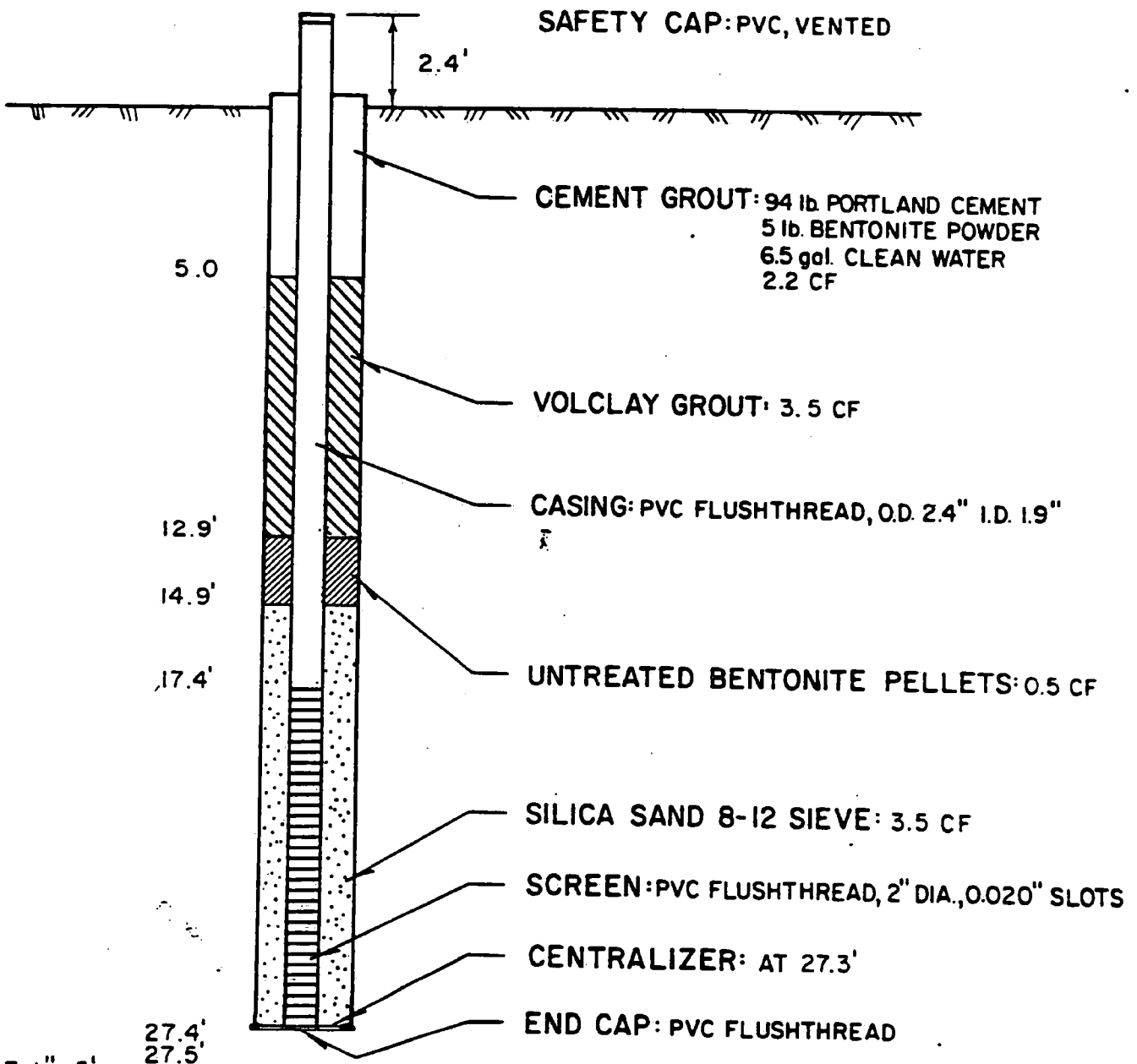
LOGGER: PETER BAYLEY

WATER ELEV.: WELLS WERE WATER ROTARY
DRILLED AND NOT DEVELOPED TO DATE.

CASING ELEV.: 1398.1

BORING DEPTH: 27.5'

REMARKS:



U. S. P. C. I.

RECONNAISSANCE WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: RW-3

DATE DRILLED: 5/12/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 4.45'

DATE: 8/20/87

LOCATION: 9578 E - 13546 N

SURFACE ELEV.: 1372.02'

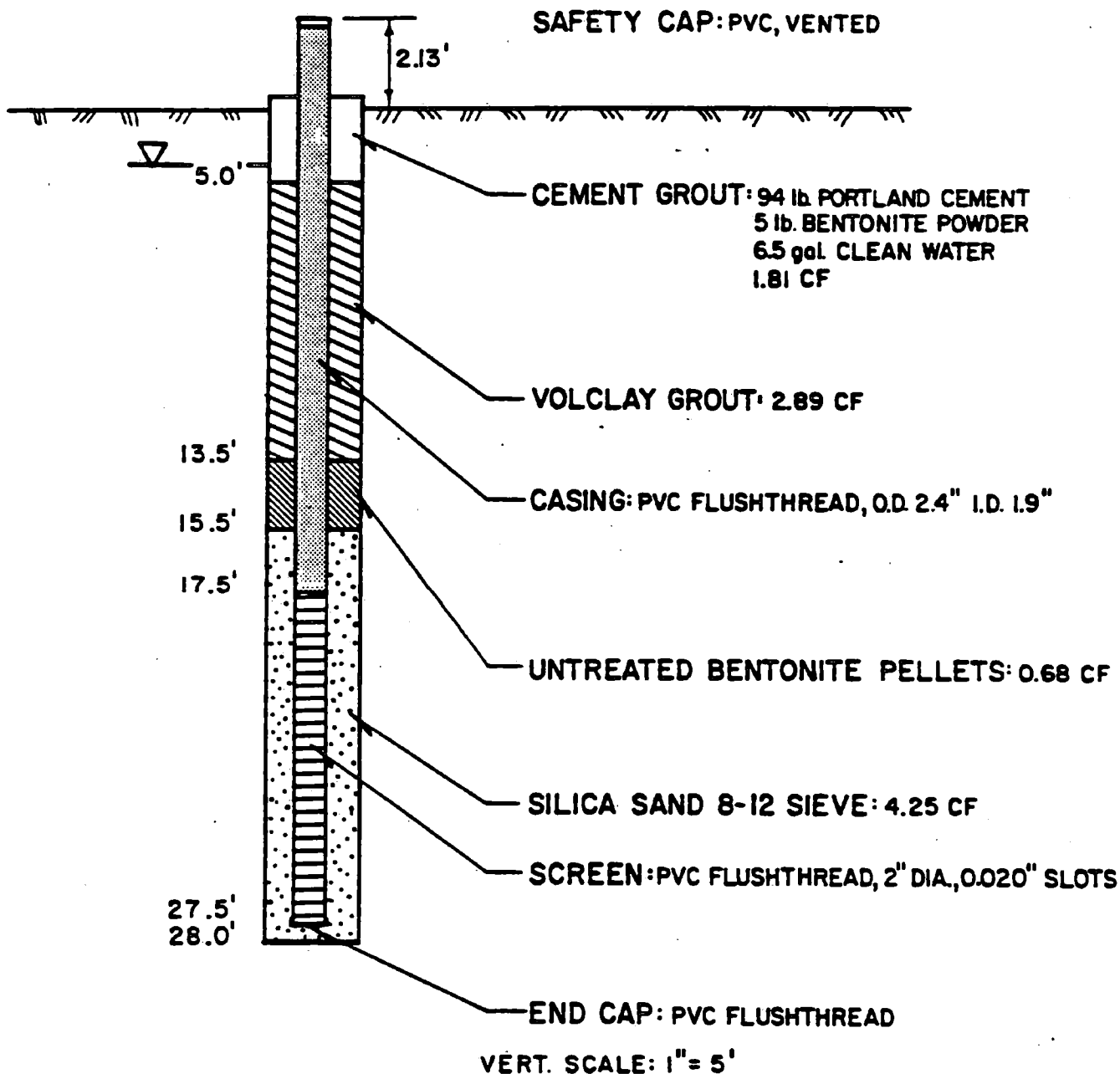
CASING ELEV.: 1374.15'

BORING SIZE: 8.25"

BORING DEPTH: 28.0'

CASING DETAILS:

REMARKS: TEMPORARY PENDING CONSTRUCTION CELLS 12, 13, 14 & 15



U. S. P. C. I.

RECONNAISSANCE WELL SCHEMATIC

PROJECT NO.: 3187108

WELL NO.: RW-4

CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: AIR ROTARY

LOCATION: 9571 E - 13993 N

SURFACE ELEV.: 1367.94'

BORING SIZE: 8.25"

CASING DETAILS:

DATE DRILLED: 7/7/87

LOGGER: PETER BAYLEY

WATER ELEV.: 2.66'

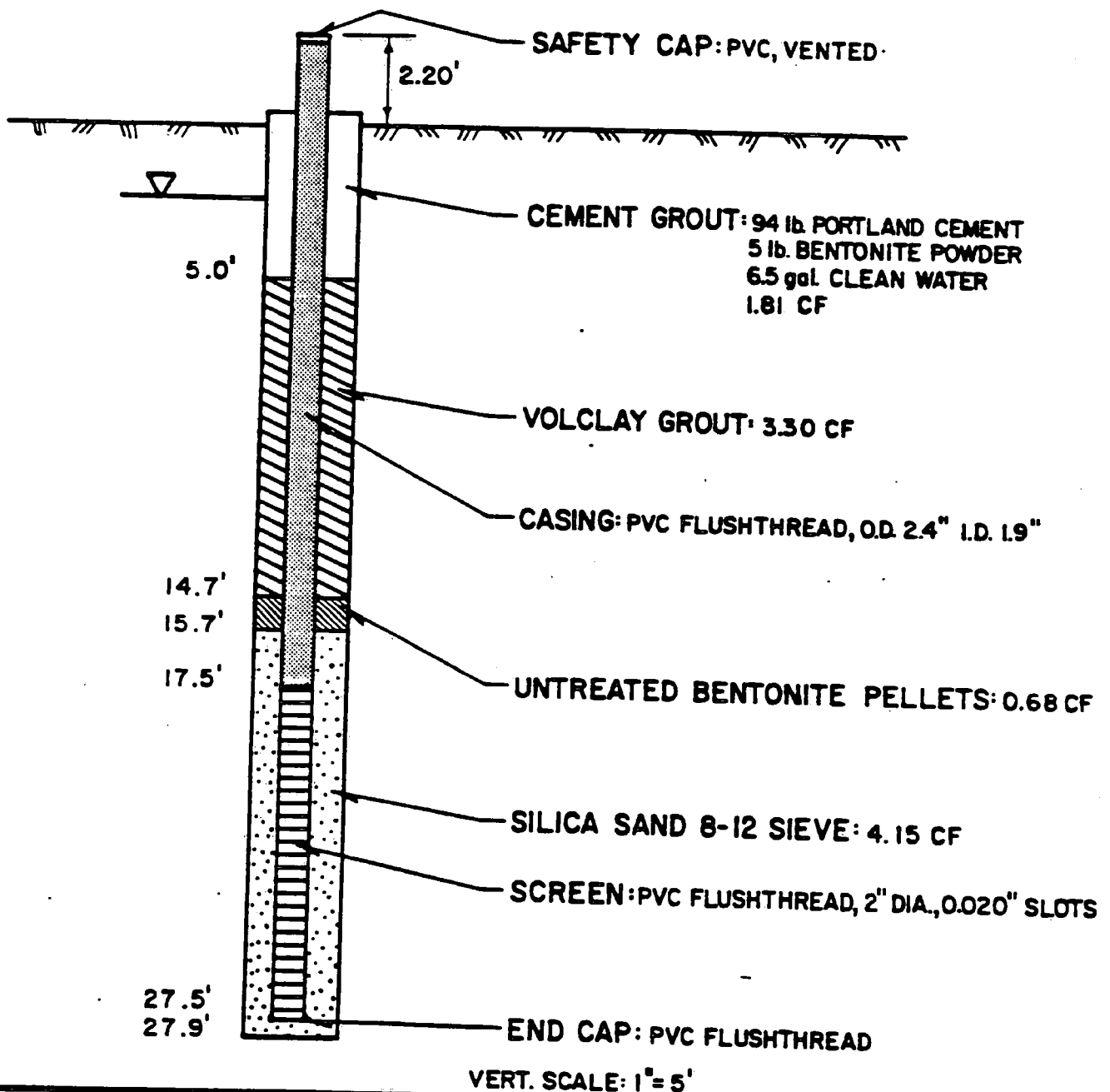
DATE: 8/20/87

CASING ELEV.: 1370.14'

BORING DEPTH: 27.9'

PAGE 1

REMARKS: TEMPORARY PENDING CONSTRUCTION CELLS 12, 13, 14 & 15



U. S. P. C. I.

RECONNAISSANCE WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: RW-5

DATE DRILLED: 5/20/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 2.70'

DATE: 8/20/87

LOCATION: 8968 E-13306 N

SURFACE ELEV.: 1378.95'

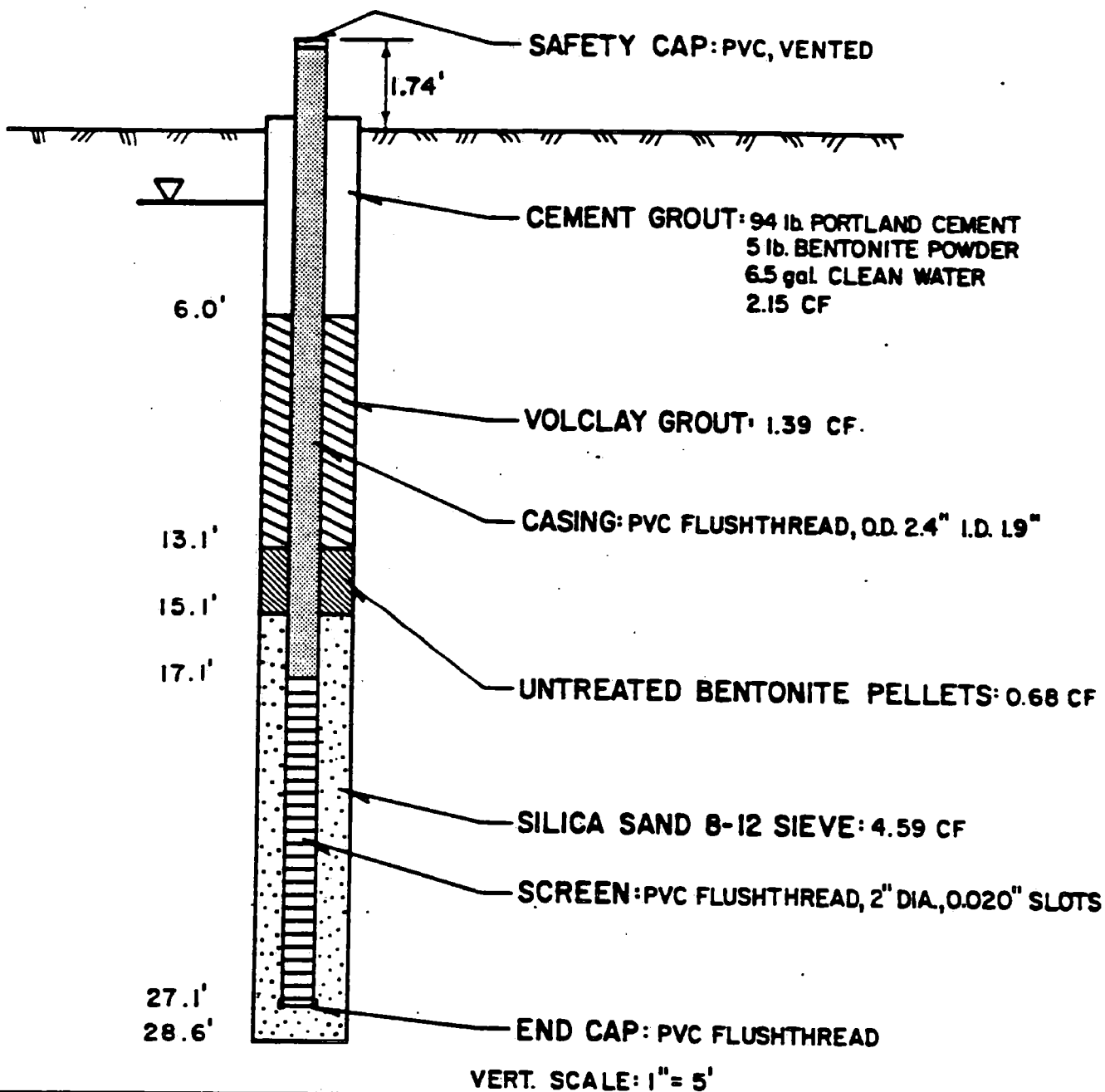
CASING ELEV.: 1380.69'

BORING SIZE: 8.25"

BORING DEPTH: 28.6'

CASING DETAILS:

REMARKS: TEMPORARY PENDING CONSTRUCTION CELLS 12, 13, 14 & 15



U. S. P. C. I.

RECONNAISSANCE WELL SCHEMATIC

PROJECT NO.: 3187108

PAGE 1

WELL NO.: RW-6

DATE DRILLED: 6/1/87

CONTRACTOR/DRILLER: BOYLES BROTHERS

LOGGER: PETER BAYLEY

DRILLING METHOD: AIR ROTARY

WATER ELEV.: 0.72'

DATE: 8/20/87

LOCATION: 8974 E- 14031 N

SURFACE ELEV.: 1372.60'

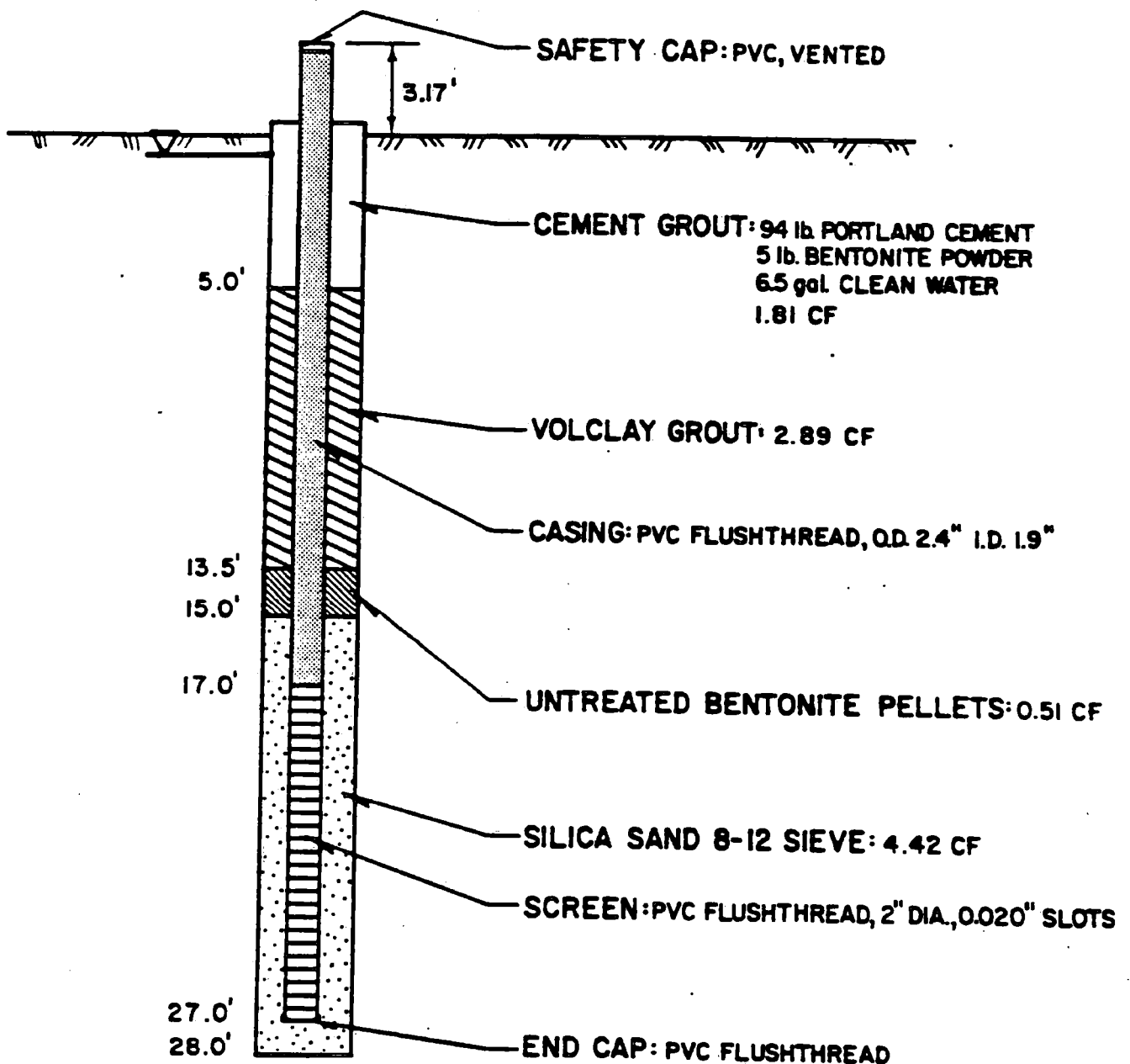
CASING ELEV.: 1375.77'

BORING SIZE: 8.25"

BORING DEPTH: 28.0'

CASING DETAILS:

REMARKS: TEMPORARY PENDING CONSTRUCTION CELLS 12, 13, 14 & 15



VERT. SCALE: 1" = 5'

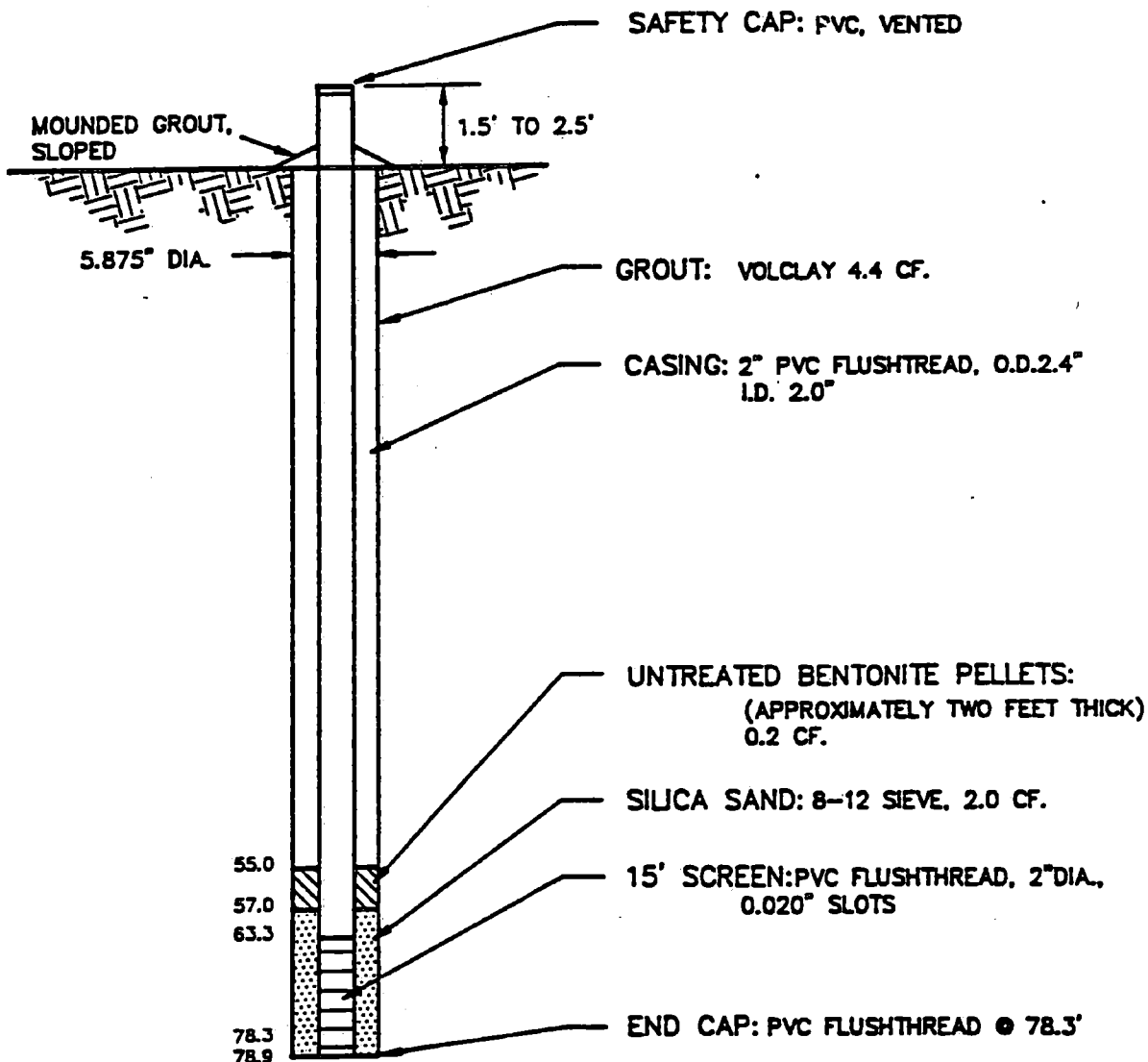
U. S. P. C. I.
PIEZOMETER SCHEMATIC

PROJECT NO.: 3189032
 WELL NO.: TP 1
 CONTRACTOR/DRILLER A.W. POOL
 DRILLING METHOD: AIR ROTARY & CORE
 LOCATION: 8,574.5 E - 12,384.4 N
 SURFACE ELEV.: NOT MEASURED
 BORING SIZE: 5.875"
 CASING DETAILS: ALL PVC

DATE: 6-12-89
 LOGGER: D. ADAMS
 WATER ELEV.: NONE WHEN DRILLED

CASING ELEV.: 1397.17
 BORING DEPTH: 78.9' (100.0')

REMARKS: CONSTRUCTION DATA FOR INFORMATION ONLY.





U. S. P. C. I.

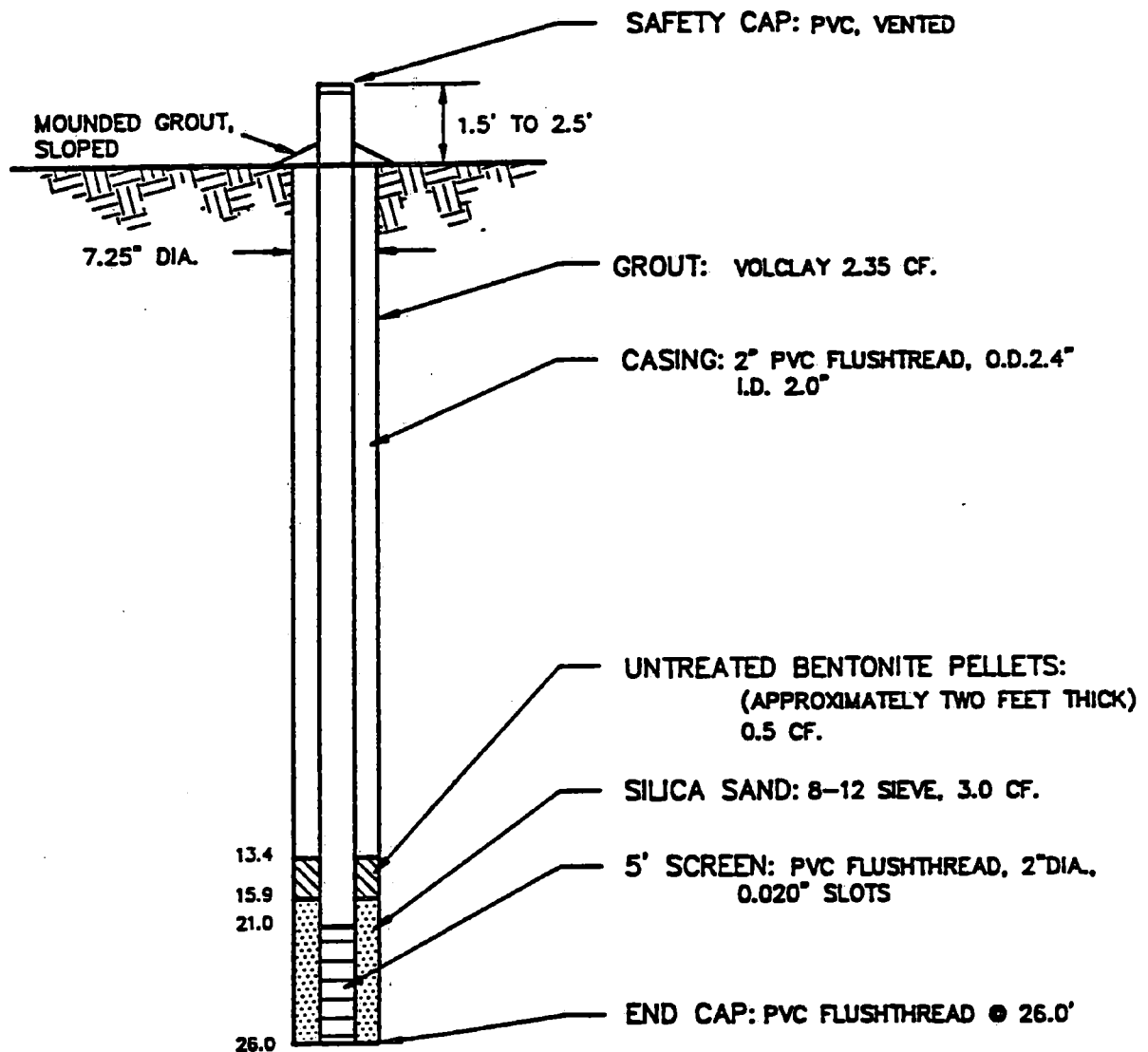
PIEZOMETER SCHEMATIC

PROJECT NO.: 3189032
WELL NO.: TP 2
CONTRACTOR/DRILLER A.W. POOL
DRILLING METHOD: HOLLOW STEM AUGER
LOCATION: 8,474.5 E - 12,238.9 N
SURFACE ELEV.: NOT MEASURED
BORING SIZE: 7.25"
CASING DETAILS: ALL PVC

DATE: 5-31-89
LOGGER: D. ADAMS
WATER ELEV.: NONE WHEN DRILLED

CASING ELEV.: 1394.31'
BORING DEPTH: 26.0'

REMARKS: CONSTRUCTION DATA FOR INFORMATION ONLY.



U. S. P. C. I.

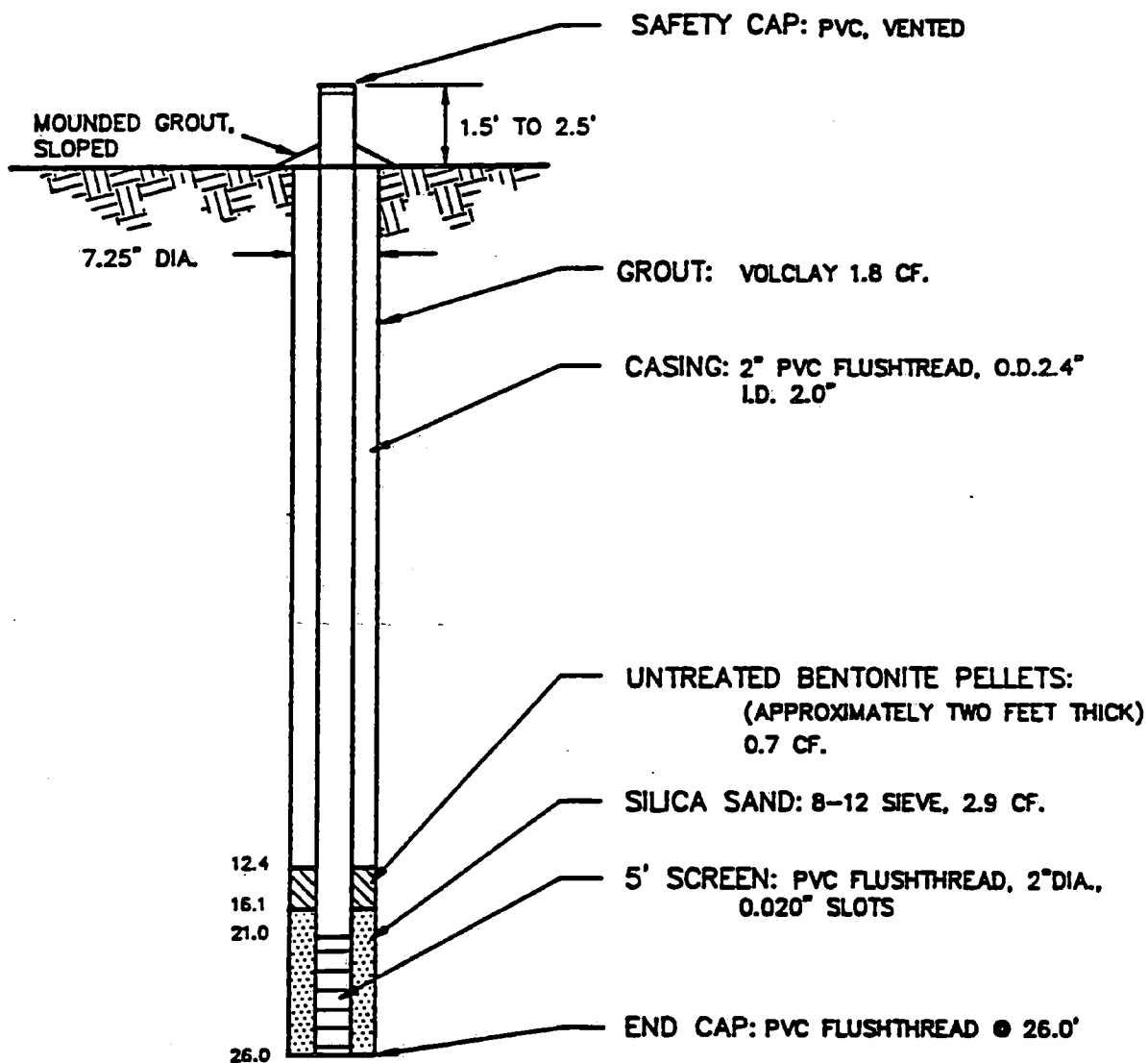
PIEZOMETER SCHEMATIC


PROJECT NO.: 3189032
 WELL NO.: TP 3
 CONTRACTOR/DRILLER A.W. POOL
 DRILLING METHOD: HOLLOW STEM AUGER
 LOCATION: 8,420.2 E - 12,159.6 N
 SURFACE ELEV.: NOT MEASURED
 BORING SIZE: 7.25"
 CASING DETAILS: ALL PVC

DATE: 5-31-89
 LOGGER: D. ADAMS
 WATER ELEV.: NONE WHEN DRILLED

CASING ELEV.: 1401.24"
 BORING DEPTH: 26.0'

REMARKS: CONSTRUCTION DATA FOR INFORMATION ONLY.



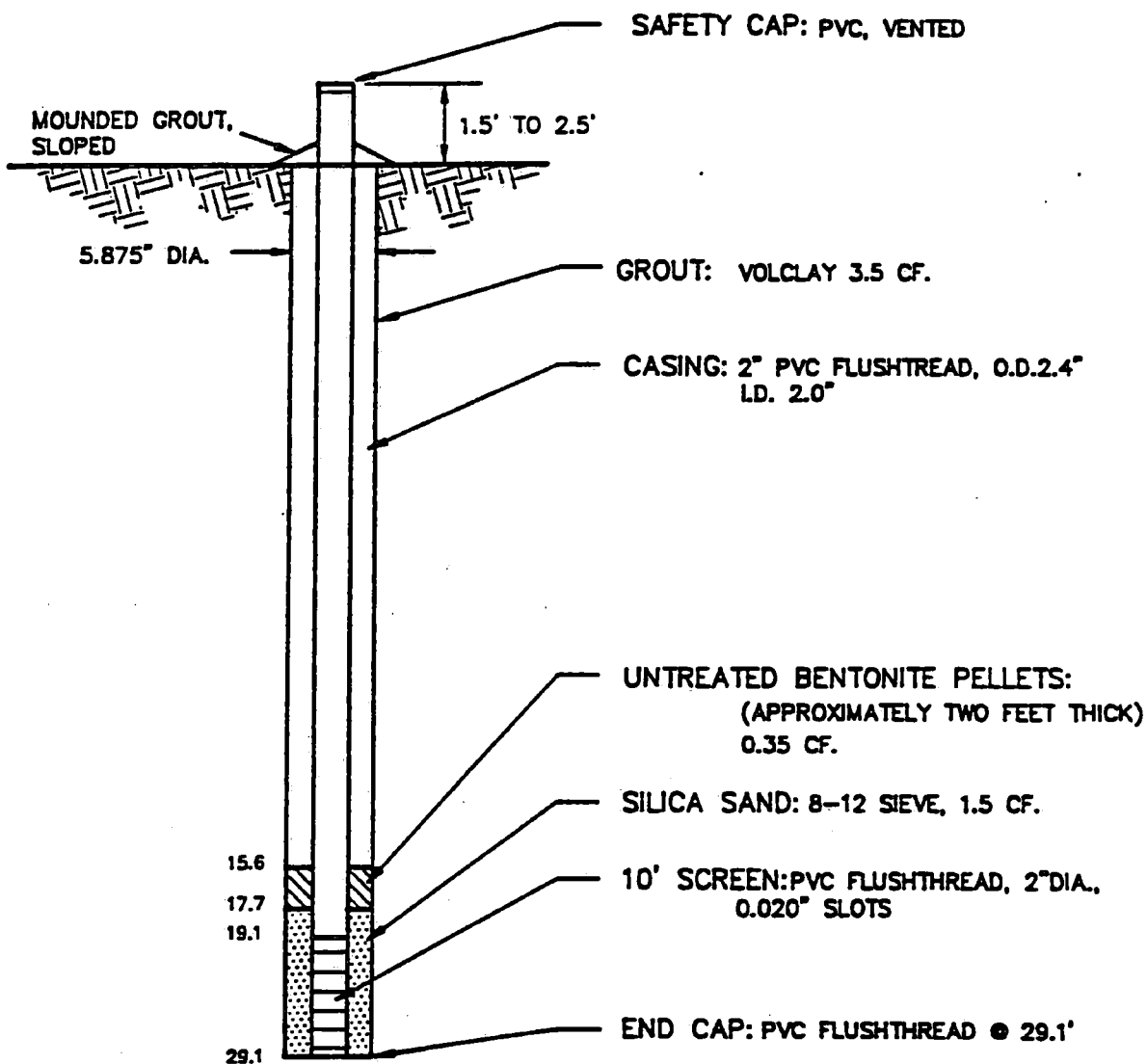

U. S. P. C. I.
PIEZOMETER SCHEMATIC

PROJECT NO.: 3189032
 WELL NO.: TP-4
 CONTRACTOR/DRILLER A.W. POOL
 DRILLING METHOD: AIR ROTARY & CORE
 LOCATION: 8,084.7 E - 12,479.9 N
 SURFACE ELEV.: NOT MEASURED
 BORING SIZE: 5.875"
 CASING DETAILS: ALL PVC

DATE: 6-6-89
 LOGGER: D. ADAMS
 WATER ELEV.: NONE WHEN DRILLED

CASING ELEV.: 1401.64'
 BORING DEPTH: 29.1'

REMARKS: CONSTRUCTION DATA FOR INFORMATION ONLY.





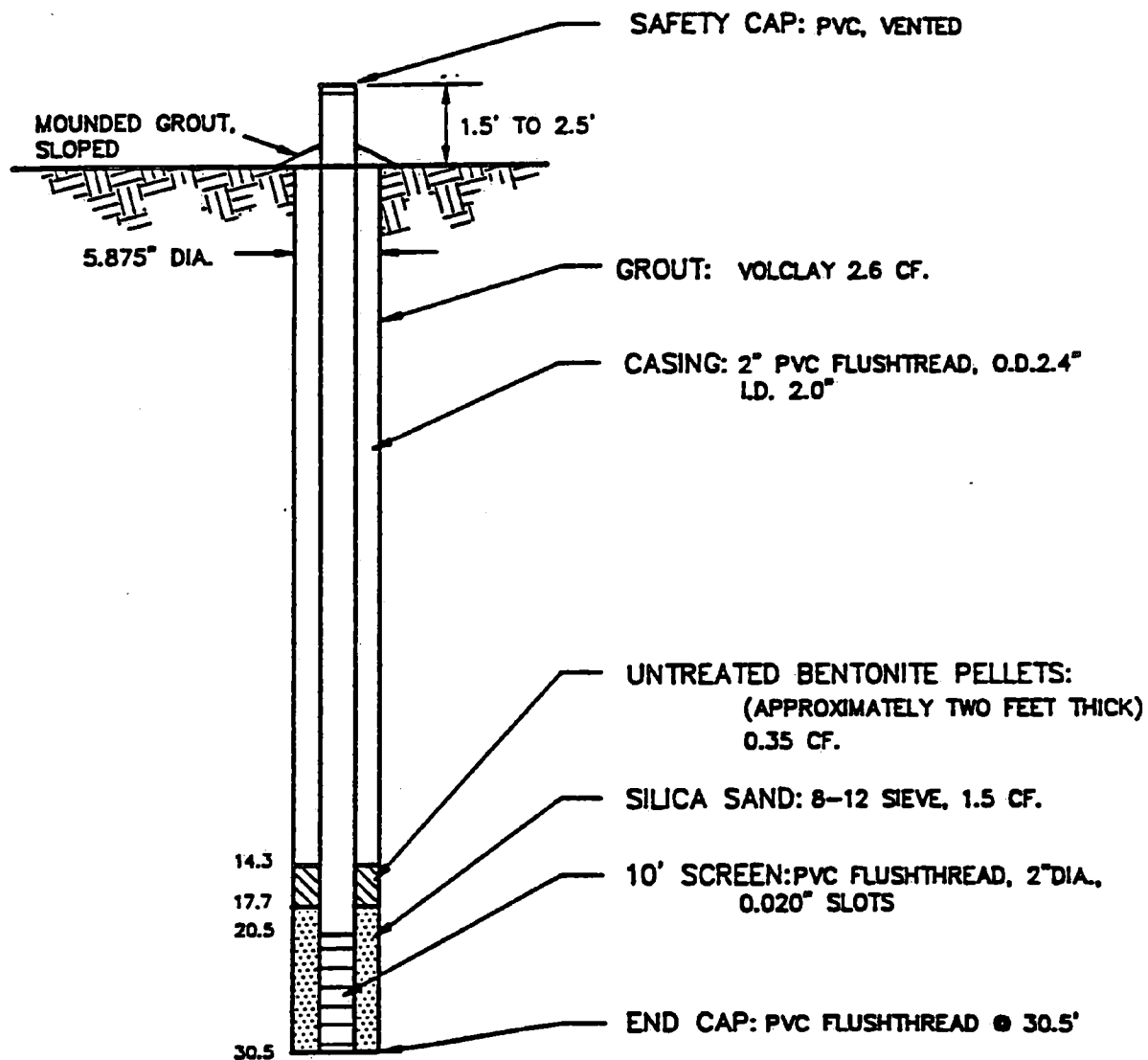
U. S. P. C. I. PIEZOMETER SCHEMATIC

PROJECT NO.: 3189032
WELL NO.: TP 5
CONTRACTOR/DRILLER A.W. POOL
DRILLING METHOD: AIR ROTARY & CORE
LOCATION: 8,163.7 E - 12,515.1 N
SURFACE ELEV.: NOT MEASURED
BORING SIZE: 5.875"
CASING DETAILS: ALL PVC

DATE: 6-6-89
LOGGER: D. ADAMS
WATER ELEV.: NONE WHEN DRILLED

CASING ELEV.: 1393.78'
BORING DEPTH: 30.5'

REMARKS: CONSTRUCTION DATA FOR INFORMATION ONLY.



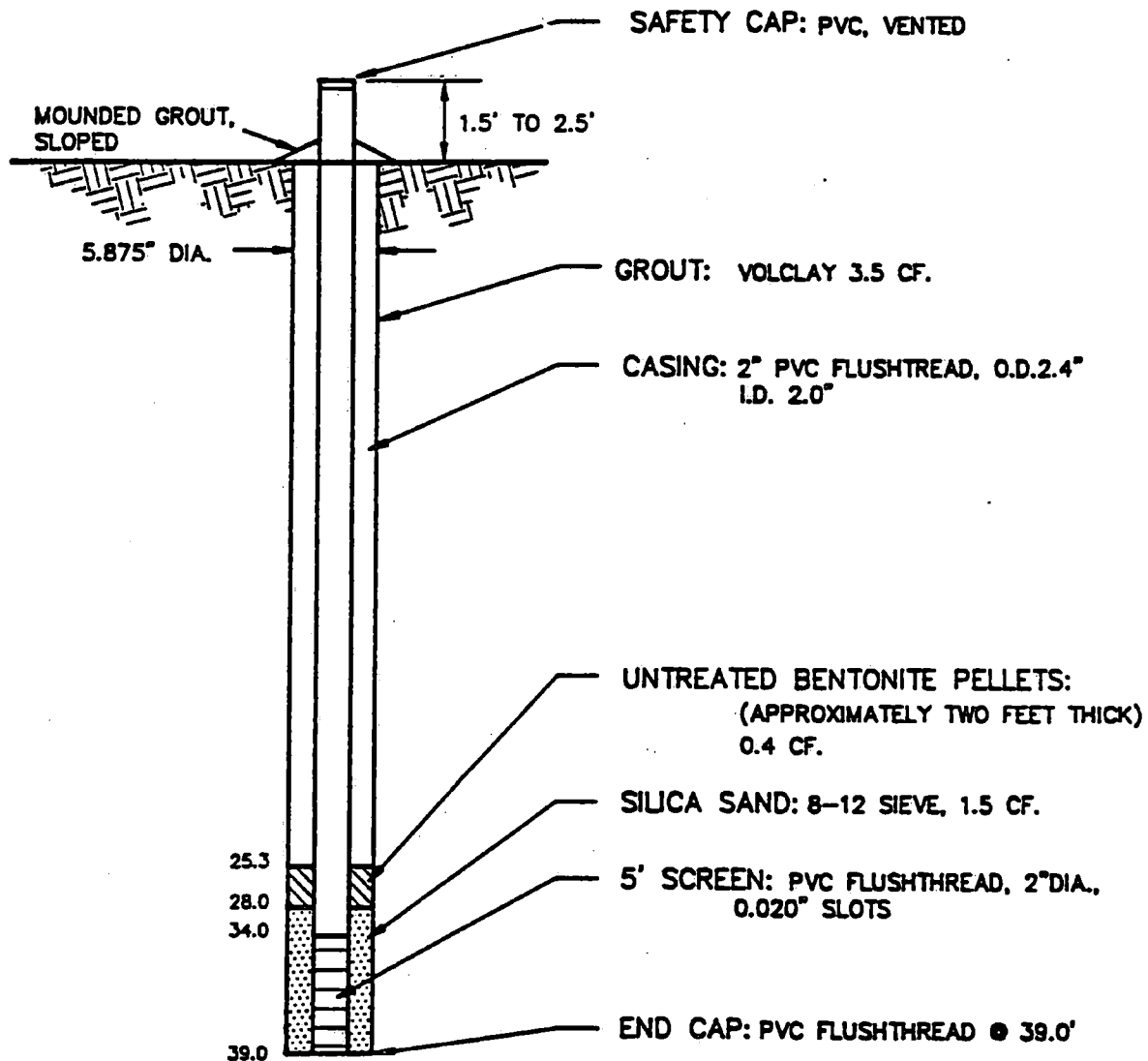

U. S. P. C. I.
PIEZOMETER SCHEMATIC

PROJECT NO.: 3189032
 WELL NO.: TP 6
 CONTRACTOR/DRILLER A.W. POOL
 DRILLING METHOD: AIR ROTARY & WATER INJECTED
 LOCATION: 8.265.3 E - 12.684.1 N
 SURFACE ELEV.: NOT MEASURED
 BORING SIZE: 5.875"
 CASING DETAILS: ALL PVC

DATE: 6-6-89
 LOGGER: D. ADAMS
 WATER ELEV.: NONE WHEN DRILLED

CASING ELEV.: 1396.43'
 BORING DEPTH: 39.0'

REMARKS: CONSTRUCTION DATA FOR INFORMATION ONLY.

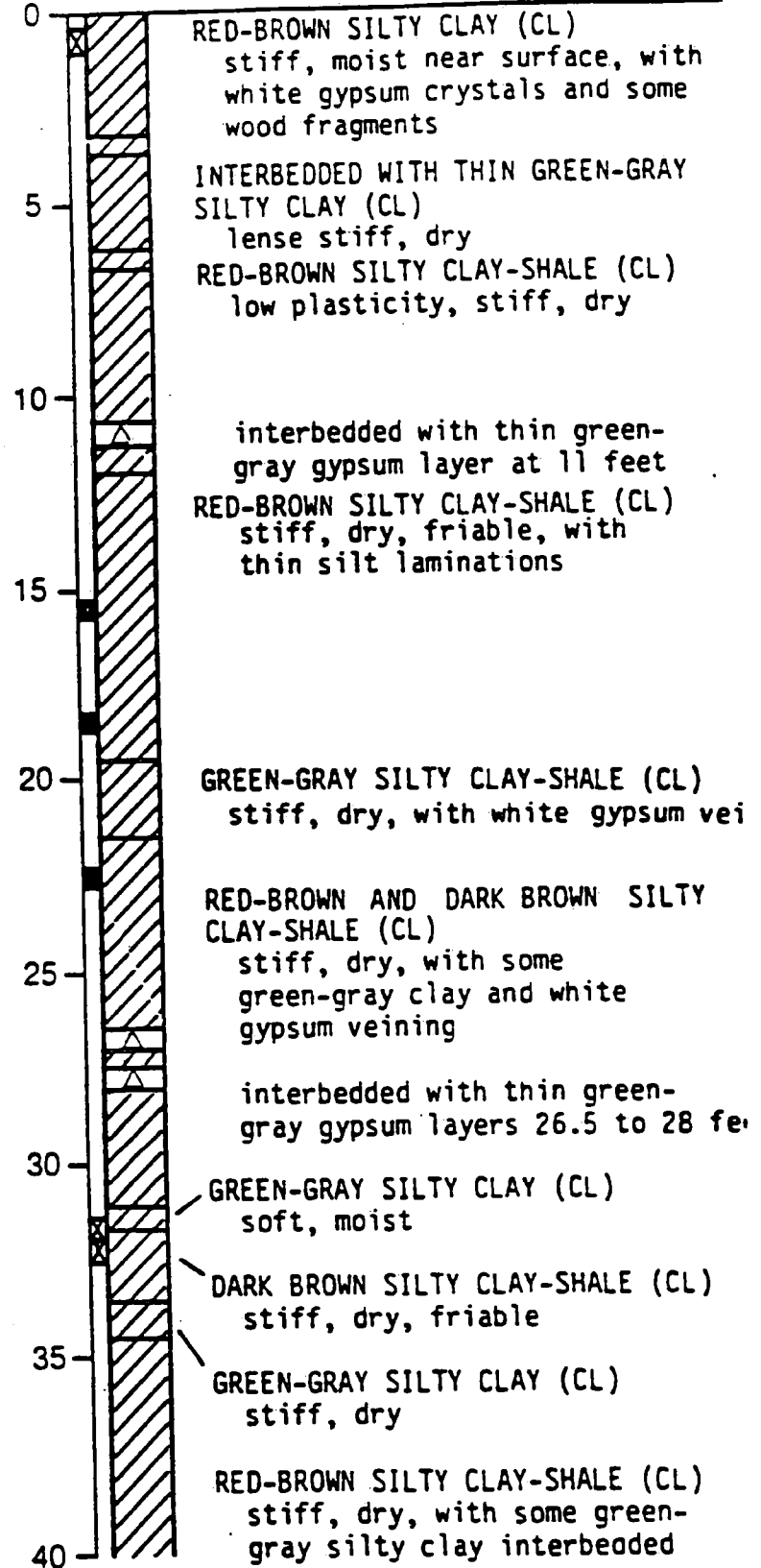
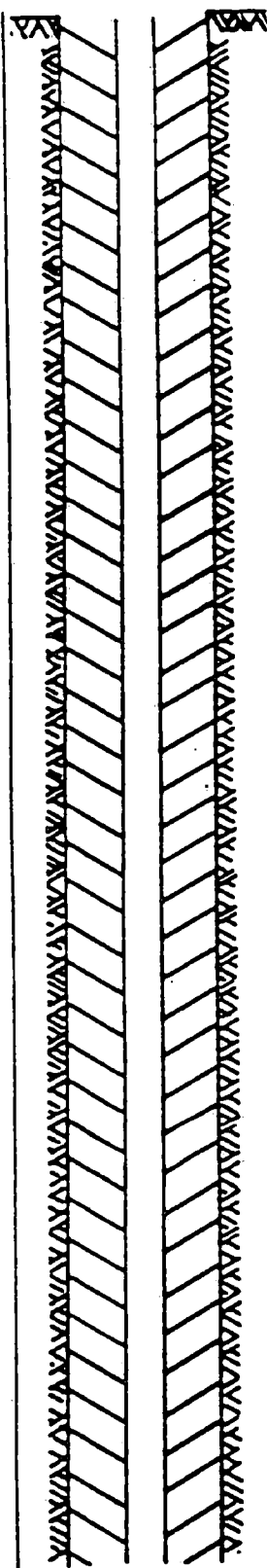


Soil Boring Logs

WELL CONSTRUCTION
HLB-1

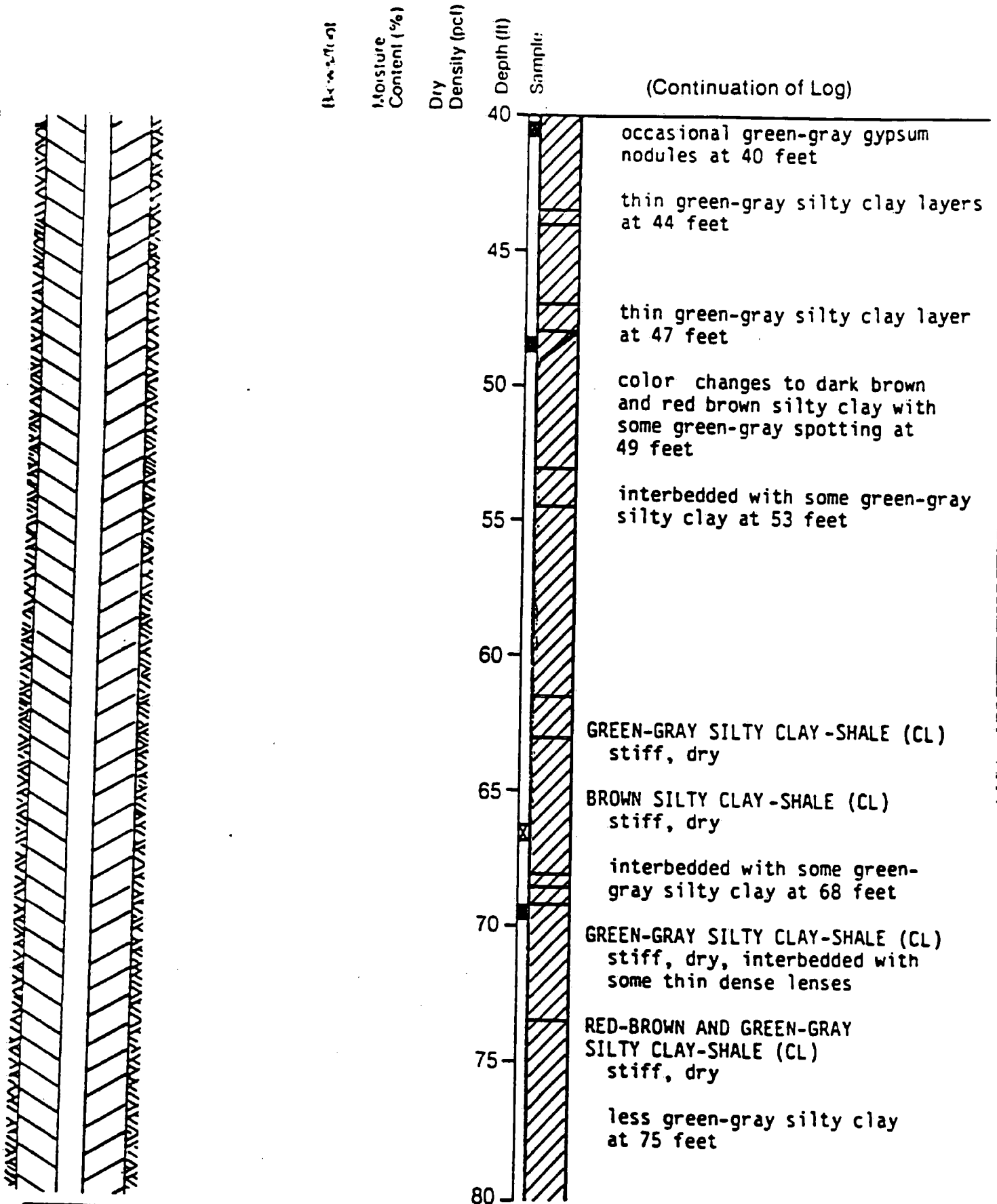
Blows/foot
Moisture
Content (%)
Dry
Density (pcf)

Equipment ROTARY AIR AND WASH
Elevation 1451 Date 03/22/83



OW 5

(Continuation of Log)



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

LOG OF BORING HLB-1

USPCI,
LONE MOUNTAIN, OKLAHOMA

PLATE

B

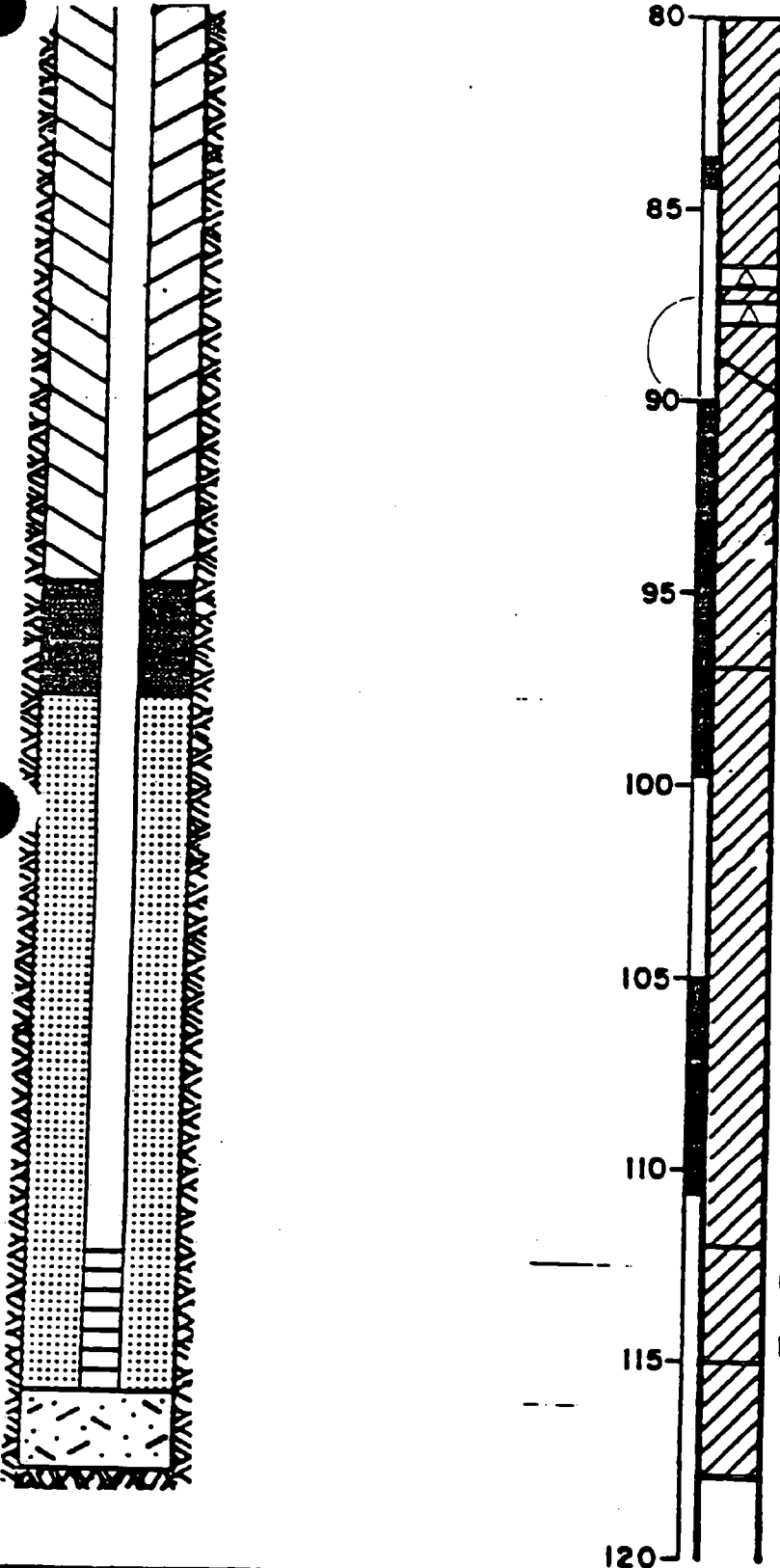
DRAWN

JOB NUMBER
6251.005.12

APPROVED
ARM

DATE
April 1983

Pocket Penetrometer (ksf)
 Vane Shear (ksf)
 Blows/Foot
 Moisture Content (%)
 Dry Density (pcf)



Equipment	
Elevation	Date

Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

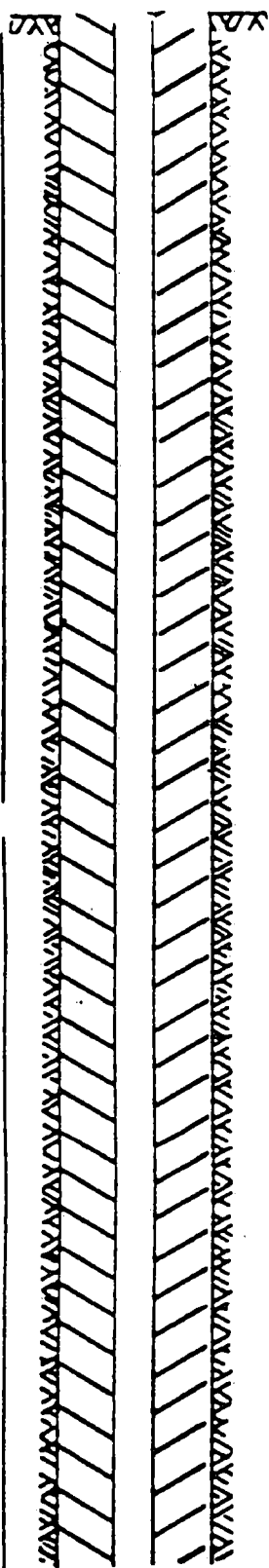
LOG OF BORING HLB-1

PLATE

USPCI
 LONE MOUNTAIN, OKLAHOMA

B1A

WELL CONSTRUCTION
HLB-6



Blows/foot
Moisture
Content (%)

Dry
Density (pcf)

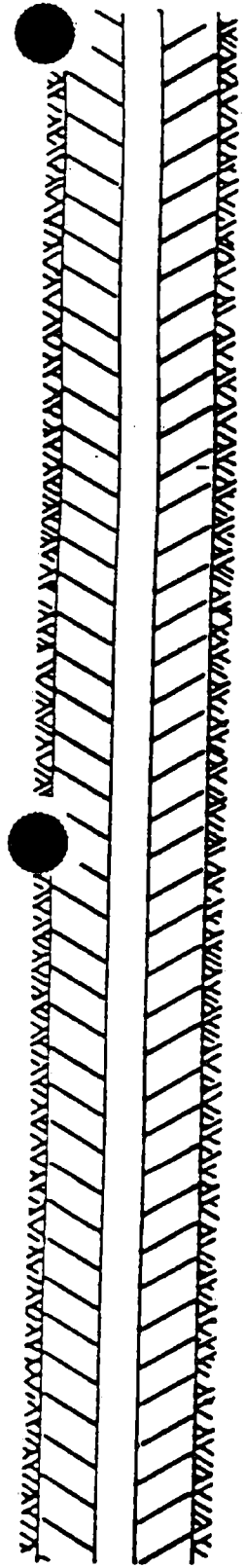
Depth (ft)

Sample

Equipment ROTARY AIR

Elevation 1466 Date 03/15/83

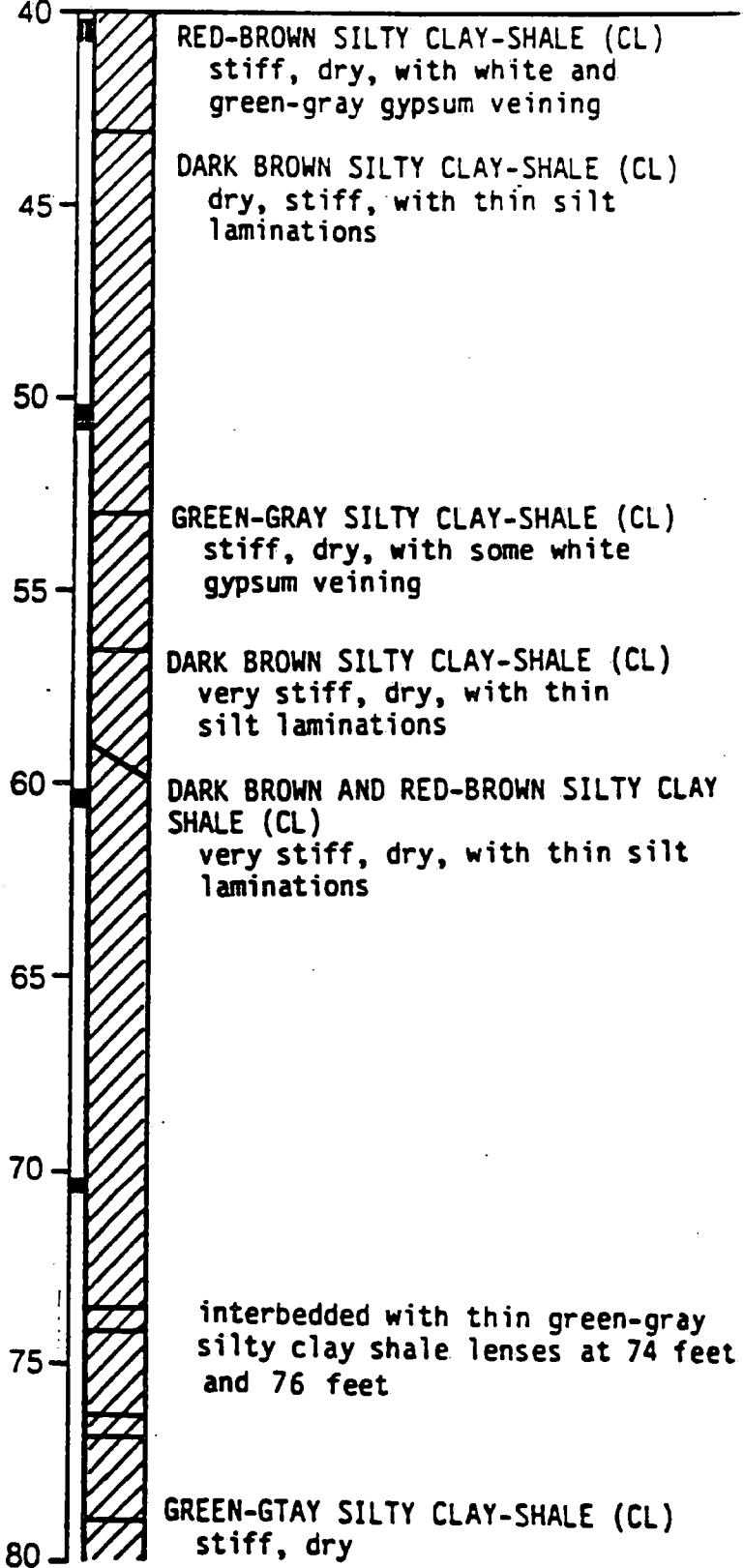
Depth (ft)	Sample	Description
0		RED-BROWN SILTY CLAY-SHALE (CL) stiff, moist, with few gypsum crystals
2.5		moist at 2.5 feet
5		interbedded with thin white gypsum layers at 5 feet
7.5		moist at 7.5 feet
10		RED-BROWN SILTY CLAY-SHALE (CL) stiff, dry, with gypsum veining
15		BLUE-GRAY, GREEN-GRAY SILTY CLAY (CL) very stiff, dry
20		RED-BROWN SILTY CLAY-SHALE (CL) stiff, moist, with some gray spotting and thin silt laminations
25		
30		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry
35		RED-BROWN CLAY-SHALE (CL)
40		GREEN-GRAY SILTY CLAY-SHALE (CL)



Blows/foot
Moisture Content (%)
Dry Density (pcf)

Depth (ft)
Sample

(Continuation of Log)



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Engineers, Geologists
& Geophysicists

LOG OF BORING HLB-6
USPCI
LONE MOUNTAIN, OKLAHOMA

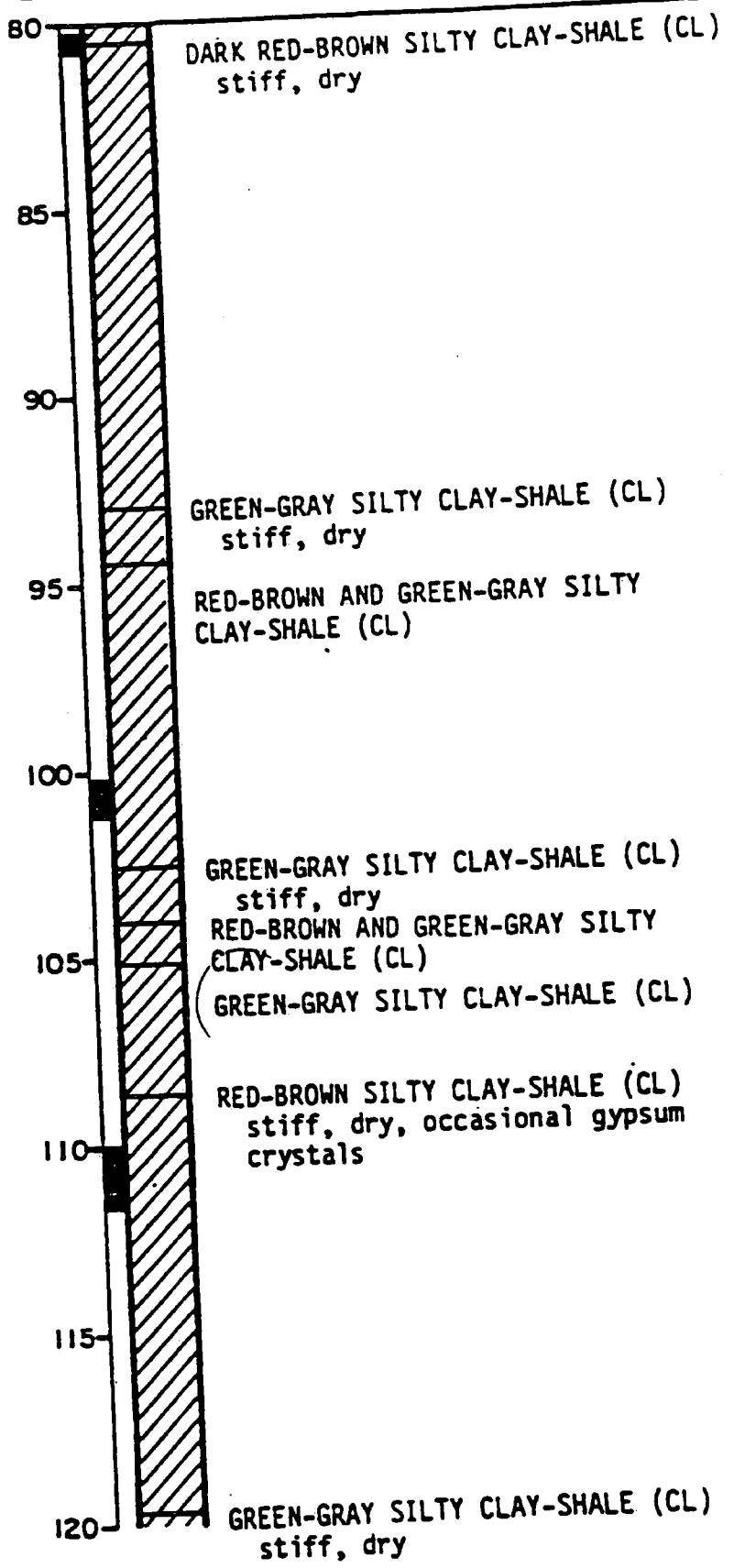
0007

PLATE
B6

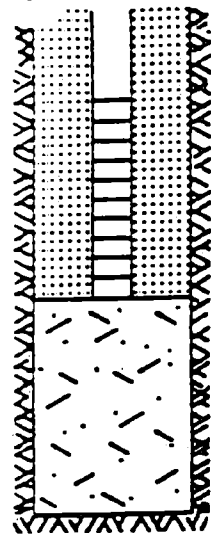
Blows/Foot
 Moisture Content (%)
 Dry Density (pcf)

Depth (ft)
 Sample

(Continuation of Log)

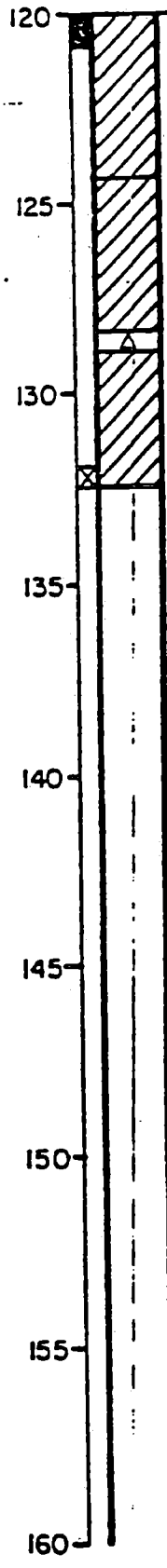


362



Blows/Foot
 Moisture Content (%)
 Dry Density (pcf)
 Depth (ft)
 Sample

(Continuation of Log)



RED-BROWN AND SILTY CLAY-SHALE (CL)
 stiff, dry

interbedded with thin white
 gypsum layers at 128 feet

some green-gray silty clay
 and some white gypsum at
 132 feet

End of Boring at 132.5 feet



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 Engineers, Geologists
 & Geophysicists

LOG OF BORING HLB-6
 USPCI
 LONE MOUNTAIN, OKLAHOMA

B6

DRAWN

JOB NUMBER 6

APPROVED
 J.P.M.

DATE
 April 1997

REVISED

DATE

WELL CONSTRUCTION

HLB-10

HLB-10A

Blows/foot

Moisture Content (%)

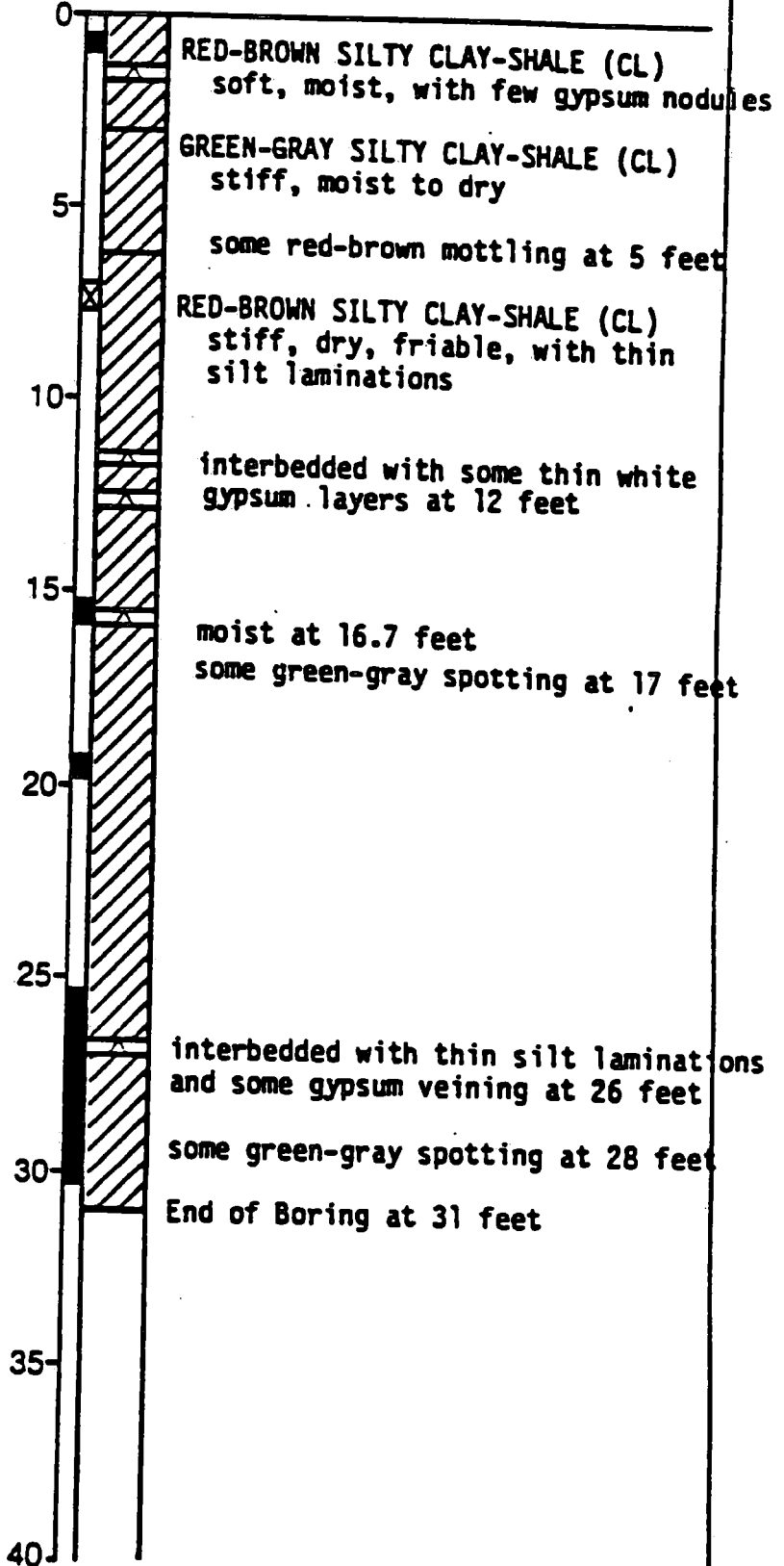
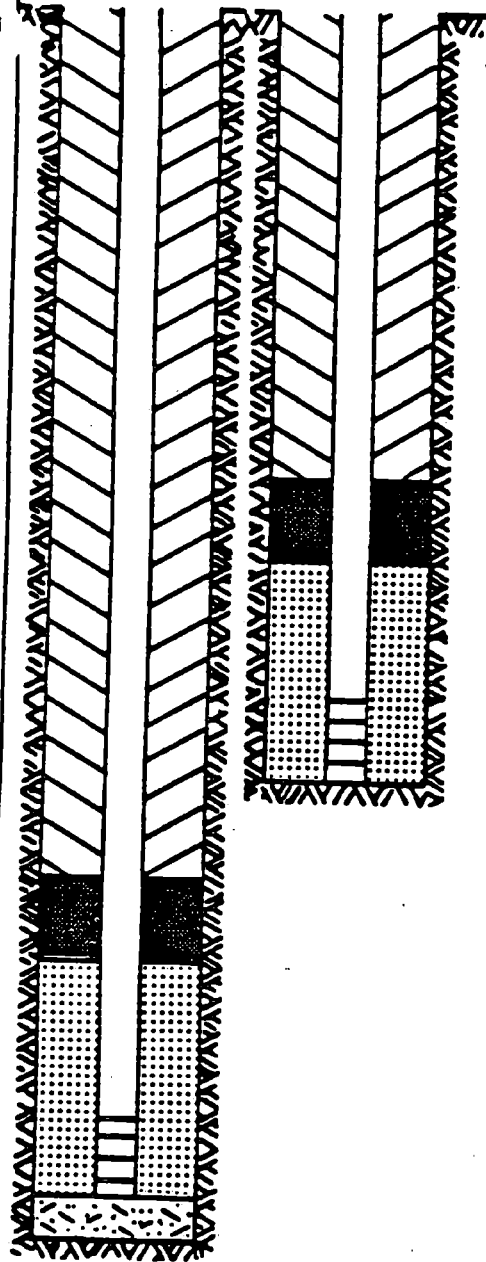
Dry Density (pcf)

Depth (ft)
Sample

Equipment ROTARY AIR & WASH

Elevation 1361

Date 3/30/83



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& Geophysicists

LOG OF BORING HLB-10 #10A

PLATE

A4

DRAWN

JOB NUMBER
6251.005.12

APPROVED
A.R. [Signature]

DATE
5/83

REVISED

DATE

WELL CONSTRUCTION
HLB-12

Blows/foot
Moisture
Content (%)

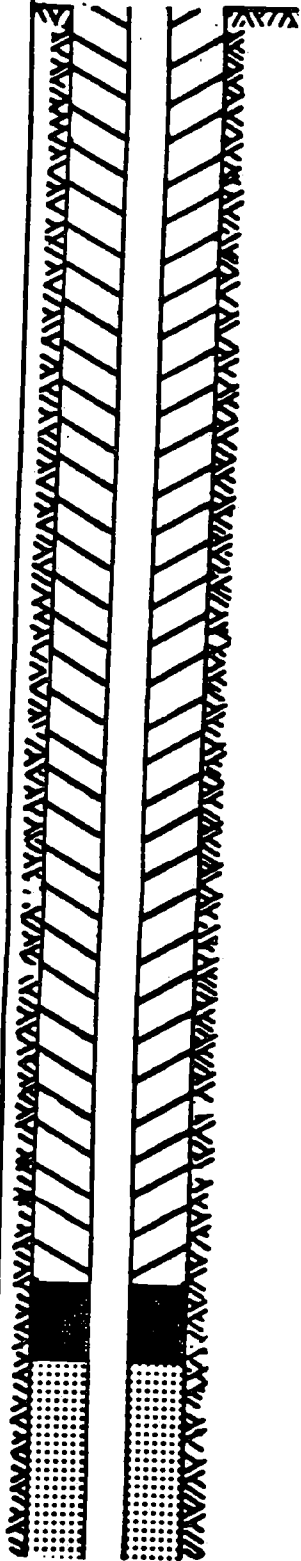
Dry
Density (pcf)

Depth (ft)

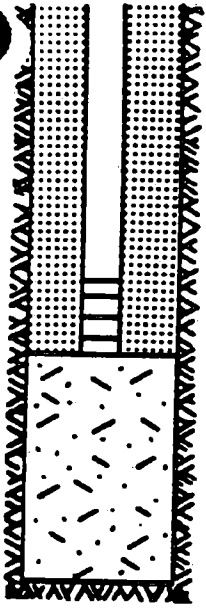
Sample

Equipment ROTARY AIR

Elevation 1392 Date 4/23/83



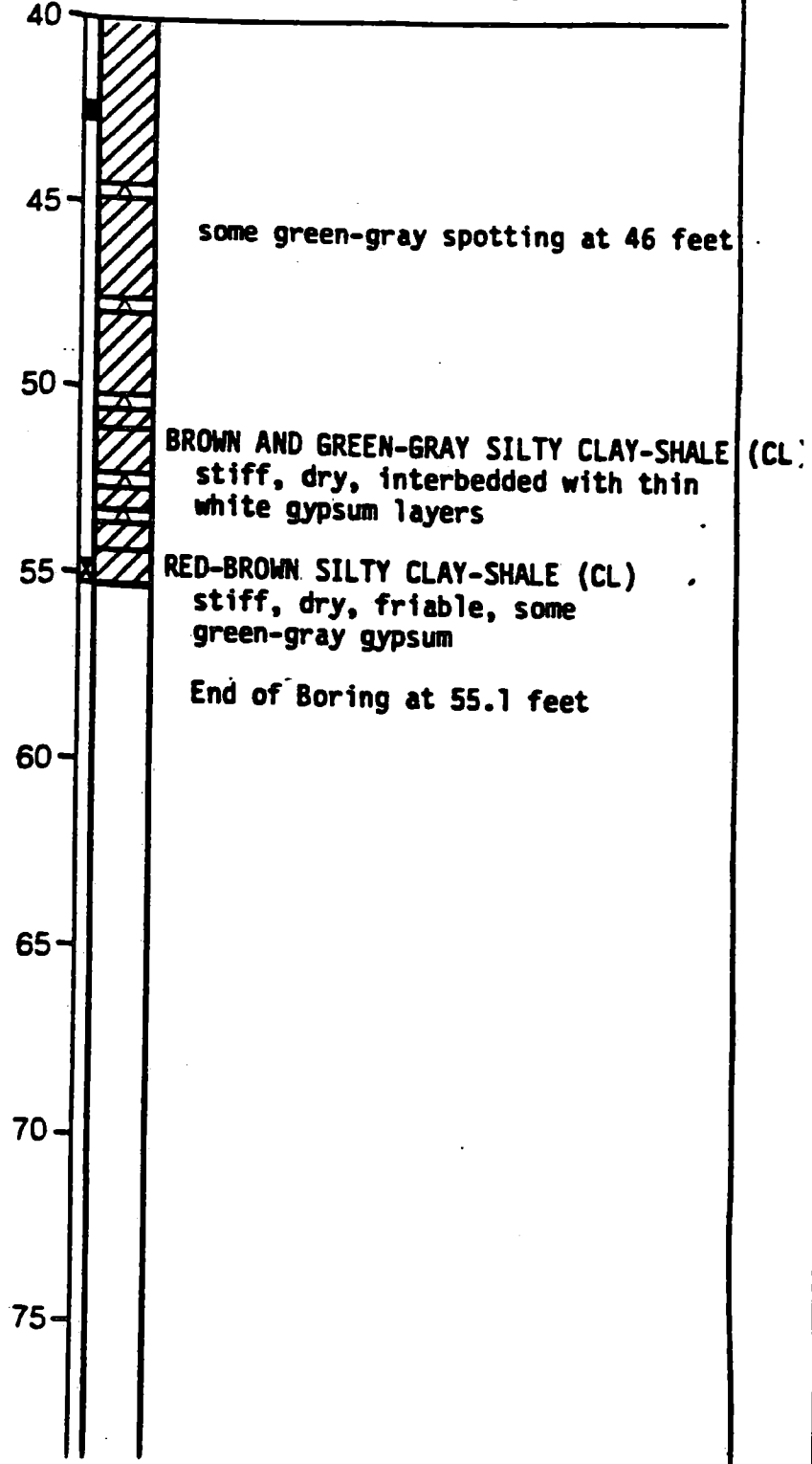
Depth (ft)	Sample	Description
0		LIGHT BROWN SILTY CLAY-SHALE (CL) stiff, moist
5		GREEN-GRAY SILTY CLAY-SHALE (CL) moist, stiff
5		RED-BROWN SILTY CLAY-SHALE (CL) stiff, dry some green-gray spotting at 6 feet interbedded with thin white gypsum layers at 7 feet
10		some gypsum veining at 9 feet
15		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist, some gypsum veining
15		BROWN SILTY CLAY-SHALE (CL) stiff, dry, some green-gray spotting
20		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist, friable
20		RED-BROWN SILTY CLAY-SHALE (CL) stiff, dry, with thin silt laminations and occasional gypsum veining interbedded with thin white gypsum layers at 21 feet
25		some green-gray spotting at 26 feet
30		
35		BROWN AND GREEN-GRAY SILTY CLAY SHALE (CL) stiff, dry
35		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist to dry, with some gypsum veining some brown mottling at 37 feet
40		BROWN AND RED-BROWN SILTY CLAY SHALE (CL) stiff, dry, with abundant silt laminations and occasional thin white gypsum layers



Blows/foot
Moisture Content (%)
Dry Density (pcf)

Depth (ft)
Sample

(Continuation of Log)



WELL CONSTRUCTION

HLB-13

HLB-13A

Blows/foot

Moisture Content (%)

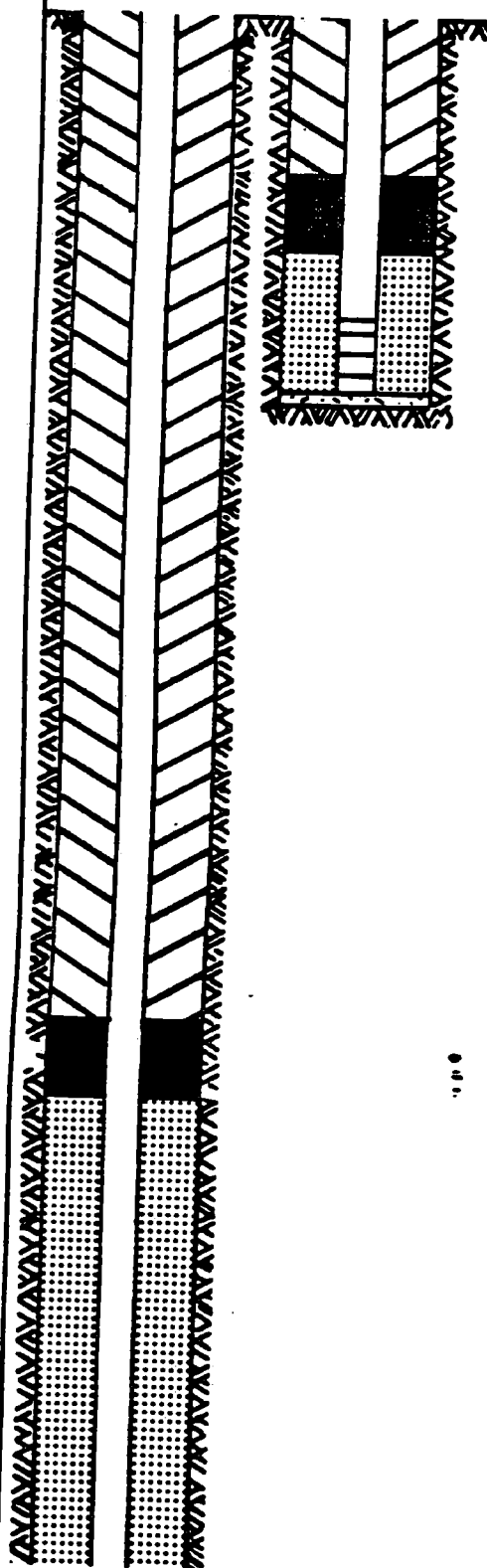
Dry Density (pcf)

Depth (ft)

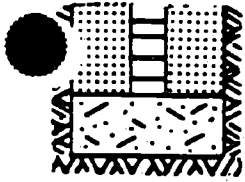
Sample

Equipment ROTARY AIR

Elevation 1387 Date 4/24/83



Depth (ft)	Sample	Description
0		RED-BROWN SILTY CLAY-SHALE (CL) stiff, moist near the surface interbedded with white gypsum at 1.5 feet
5		color changes to brown with white gypsum interbedded at 4.2 feet some green-gray spotting at 6.0 feet moist at 6.7 feet
10		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist, some red-brown mottling
15		RED-BROWN SILTY CLAY-SHALE (CL) stiff, moist
20		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist, with some gypsum veining
25		RED-BROWN SILTY CLAY-SHALE (CL) stiff, dry interbedded with green-gray gypsum and silt laminations at 15 feet some gypsum veining and green-gray spotting at 17 feet
30		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry, friable
35		RED-BROWN SILTY CLAY-SHALE (CL) very stiff, dry, friable much gypsum veining at 23.5 feet
40		BROWN AND GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry
		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry
		BROWN AND GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry
		RED-BROWN SILTY CLAY-SHALE (CL) stiff, dry some green-gray spotting at 35 feet some gypsum veining at 38 feet



Blows/foot
Moisture Content (%)
Dry Density (pcf)
Depth (ft)
Sample

(Continuation of Log)

40
45
50
55
60
65
70
75
80

End of Boring at 43.7 feet



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

LOG OF BORING HLB-13
USPCI
LONE MOUNTAIN, OKLAHOMA

PLATE

A6

DRAWN

JOB NUMBER
6251.005.12

APPROVED

DATE

5/83

REVISED

DATE

WELL CONSTRUCTION

HLM-8

Blows/foot
Moisture
Content (%)

Dry
Density (pcf)

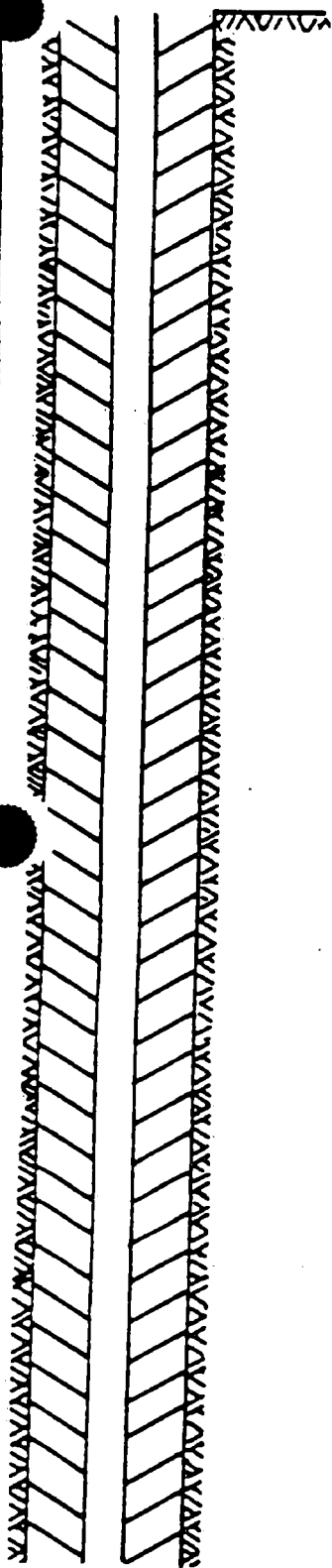
Depth (ft)

Sample

Equipment _____

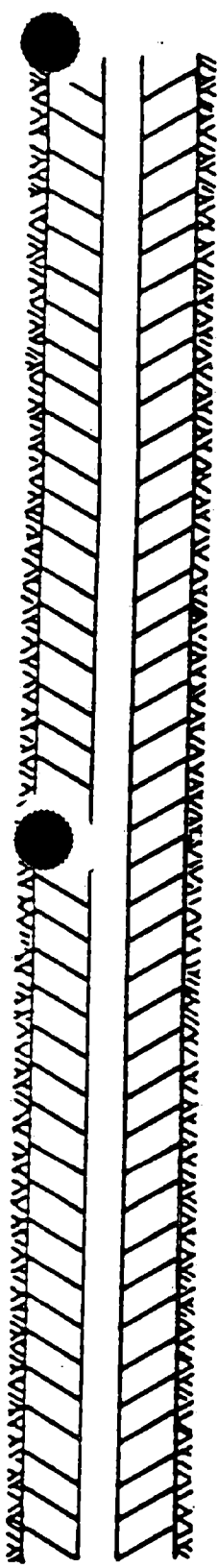
Elevation 1460

Date 04/22/83



Depth (ft)	Sample	Description
0		RED-BROWN SILTY CLAY (CL) stiff, moist, with some gypsum nodules
5		interbedded with thin white gypsum and red-brown clayey silt layers at 3.5 feet
10		RED-BROWN SILTY CLAY-SHALE (CL) very stiff, dry, friable, with gypsum veining
15		GREEN-GRAY SILTY CLAY-SHALE (CL)
20		RED-BROWN SILTY CLAY-SHALE (CL) stiff, dry, friable
21		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry, some red-brown mottling
22		RED-BROWN SILTY CLAY-SHALE (CL) very stiff, dry, friable color changes to brown at 21 feet
25		BROWN AND GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist to dry
28		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist
30		RED-BROWN SILTY CLAY-SHALE (CL) very stiff, dry, friable
31		some thin white gypsum layers at 31 feet
33		some green-gray gypsum at 33 feet
35		GREEN-GRAY SILTY CLAY-SHALE (CL) very stiff, dry, interbedded with very silty layer 36.2-36.8 feet
36.2-36.8		BROWN AND RED-BROWN SILTY CLAY SHALE (CL)
40		GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, dry to moist some gypsum interbedded

OW 4



Blows/foot
Moisture Content (%)
Dry Density (pcf)

Depth (ft)
Sample

(Continuation of Log)

40	RED-BROWN SILTY CLAY-SHALE (CL) very stiff, dry, friable
45	color changes to brown at 46 feet
	thin white gypsum layer at 48 feet
50	GREEN-GRAY SILTY CLAY-SHALE (CL) stiff, moist to dry, with red-brown mottling some thin silt layers interbedded some red-brown mottling at 52 feet
55	RED-BROWN SILTY CLAY-SHALE (CL) very stiff, dry, friable
60	some green-gray mottling at 60 feet color changes to brown at 61 feet
65	some green-gray mottling at 64 feet
70	interbedded with thin white gypsum and brown silty clay-shale layers BROWN SILTY CLAY-SHALE (CL) stiff, dry, interbedded with thin white gypsum layers
75	GREEN-GRAY SILTY CLAY-SHALE (CL) very stiff, dry, some gypsum veining
80	



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LOG OF BORING HLM-8

USPCI
LONE MOUNTAIN, OKLAHOMA

PLATE

B8

DRAWN

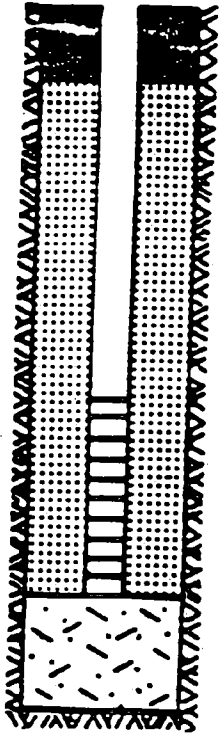
JOB NUMBER
6251,005.12

APPROVED
ARM

DATE
April 1983

REVISED

DATE



Pocket Penetrometer (ksf)
 Vane Shear (ksf)
 Blows/Foot
 Moisture Content (%)
 Dry Density (pcf)

80
 85
 90
 95
 100
 105
 110
 115
 120

Equipment _____
 Elevation _____ Date _____

BROWN SILTY CLAY-SHALE (CL)
 very stiff, dry, friable,
 some green-gray spotting
 interbedded with some white gypsum
 at 83 feet

GREEN-GRAY SILTY CLAY-SHALE (CL)
 stiff, dry

RED-BROWN SILTY CLAY-SHALE (CL)
 stiff, dry

some green-gray spotting
 and gypsum veining at 95 feet

some thin silt laminations and
 green-gray spotting at 97 feet

End of Boring at 97 feet

Harding Lawson Associates
 Engineers, Geologists
 & Geophysicists

LOG OF BORING HLM-8
 USPCI
 LONE MOUNTAIN, OKLAHOMA

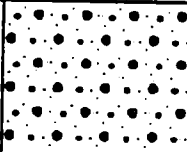


PLATE
Sand
B8A

DRAWN _____
 JOB NUMBER
 6251,005.12

APPROVED
A.R.M.
 DATE
 April 1983

REVISED _____ DATE _____

CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 96321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W. POOL	DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY	
START DATE: 1-18-95	COMP. DATE: 1-19-95	SURFACE ELEVATION: 1385.84 FEET	
LOGGED BY: DAN DOWERS		TOTAL DEPTH: 52.0 FEET BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 2.5' Fill; red clay (10R 4/3) w/10% green clay, slightly moist	 FILL	
		2.5' to 4.0' Red Claystone: (10R 3/4 & 10R 4/8), slightly moist, w/10% green claystone (10G 8/2)	 CL	
	5	4.0' to 8.0' Red claystone; med - dk reddish brown (10R 4/8 & 10R 3/4), non calcareous, dry		
		8.0' to 10.0' Green claystone: (10G 8/2), w/40% red claystone as above		
	10	10.0' to 19.0' Red claystone: (10 R 3/4) Abdt gypsum, fragments 1/4" diam. from 11' to 11.5'		
		Samples moist at 13'. Hole producing mist of water. Samples wet below 13'		
	15			
	20	19.0' to 20.0' Green claystone: (10G 8/2)		

BOZE
Nance
X, V
elevation - bottom line
Riser - 999
Screen - 999
Riser height - 999
Surface
Bedrock - 969
Blank - PAT
out. PAT

111 Down
PFI ALW

Fill = 1
Red = 2
Green = 3
Gypsum = 4
- gypsum -

Forham
Comber

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>1-18-95</i>	COMP. DATE: <i>1-19-95</i>	SURFACE ELEVATION: <i>1385.84 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>52.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.	
	20.0' to 23.0'	Green claystone; as above, w/approx. 25% red claystone, damp	CL	↖	
	23.0' to 33.0'	Red claystone; as above, dry to damp	CL		
	25	10% w/gypsum at 27.5'	CL		
	30	33.0' to 35.0'	Red claystone; as above w/30% green claystone & 10% gypsum	CL	↘
	35	35.0' to 38.5'	Red claystone as above	CL	
	40	38.5' to 39'	Green claystone: (10G 8/2), damp to moist	CL	↘
	39.0' to 42.0'	Green claystone: as above (10G 8/2), dry cuttings, mottled, red claystone at bottom 1"	CL		

IM-1
30'-39'
DRY
IM-1.39
0'-39'

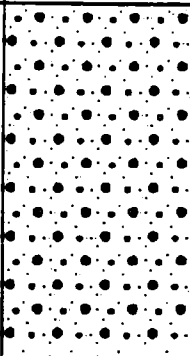
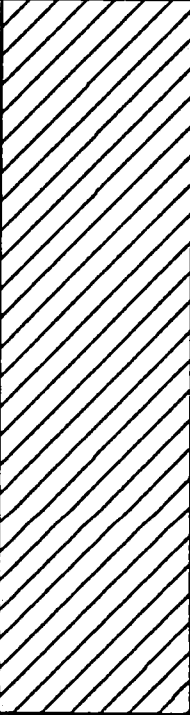
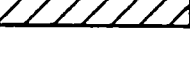
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>1-18-95</i>	COMP. DATE: <i>1-19-95</i>	SURFACE ELEVATION: <i>1385.84 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>52.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
			CL	
	42.0' to 52.0'	Red claystone; dry Trace gypsum from 42' to 52' 10% gypsum from 44' to 44.5'	CL	IM-1 30'-42' DRY
	49' to 50'	w/5% green claystone	CL	
		Total Depth = 52.0 Feet BGS		IM-1 30'-52' DRY

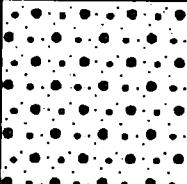
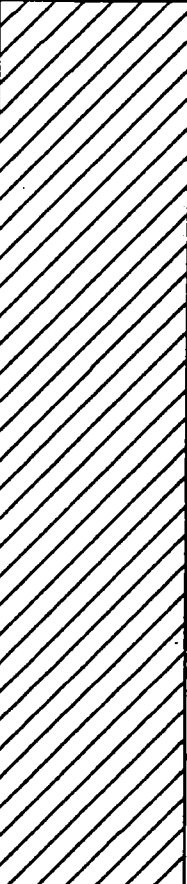
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>1-19-95</i>	COMP. DATE: <i>1-23-95</i>	SURFACE ELEVATION: <i>1385.45 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>37.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		Green claystone; damp to dry		CL
	22.0' to 37.0'	Red claystone: (10R 4/8), trace gypsum, dry		
	25	20% gypsum from 25.5' to 28'		
		Thin interbeds of green claystone, approximately 5% from 8' to 30'		
	30			IM-2.30 20'-30'
		Damp from 32.5' to 35'		
	35	5% white gypsum from 34.5' to 35'		
		Dry		
	37.0' to 37.5'	Green claystone: (10G 8/2), dry		CL
		Total Depth = 37.5 Feet BGS		IM-2 30'-37.5' DRY
	40			

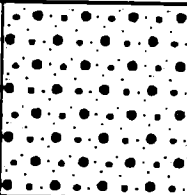

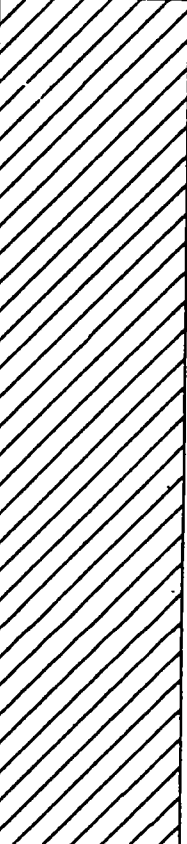
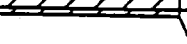
CLIENT: <i>USPCI LONE MOUNTAIN</i>			JOB NO.: <i>98321-09-93</i>		
PROJECT: <i>CELL 5 INTERIM MEASURE</i>			LOCATION: <i>WAYNOKA, OKLAHOMA</i>		
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>		METHOD: <i>AIR ROTARY</i>	
START DATE: <i>1-23-95</i>		COMP. DATE: <i>1-24-95</i>		SURFACE ELEVATION: <i>1386.00 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>			TOTAL DEPTH: <i>17.0 FEET BGS</i>		

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.5'	Fill: red clay, (10R 3/4, 10R 4/8), sticky, wet		FILL
	5.5' to 16.5'	Red claystone: (10R 3/4), damp Dry to slightly damp 10% white gypsum from 13.5' to 14'		CL IM-3.10 0'-10'
	16.5' to 17.0'	Green claystone: (10G 8/2), damp to slightly damp Total Depth = 17.0 Feet BGS		CL IM-3.17 10'-17'


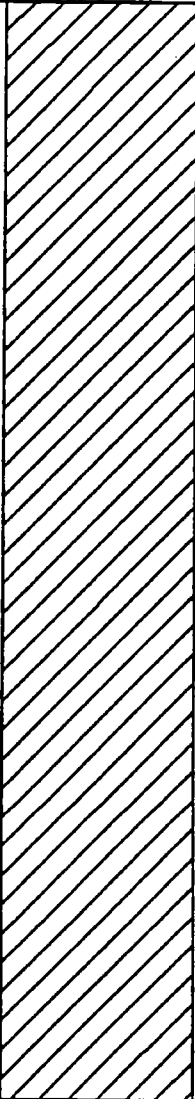

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>1-24-95</i>	COMP. DATE: <i>1-25-95</i>	SURFACE ELEVATION: <i>1385.96 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 3.0'	Fill: red clay (10R 3/4, 10R 4/8), trace green clay, moist		FILL
	3.0' to 17.0'	Red claystone: slightly damp to dry 5% gypsum at 5.5' Trace green claystone Damp Scattered gypsum at 8.5' Damp Dry Scattered gypsum from 14.5' to 15'		CL
	18.8'	Top of green claystone (10G 8/2) at 18.8'		CL
		Total Depth = 17.0 Feet BGS		1M-4.17 7'-17'

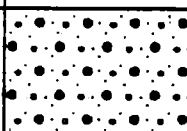
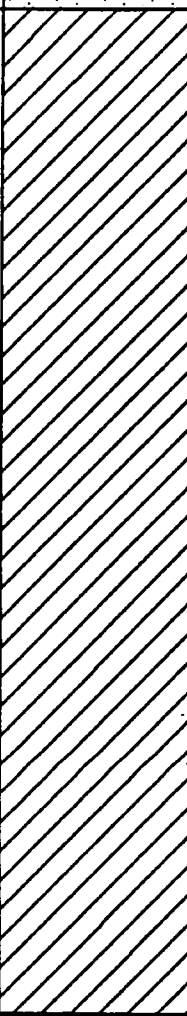
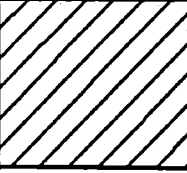
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>1-25-95</i>	COMP. DATE: <i>1-28-95</i>	SURFACE ELEVATION: <i>1386.01 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 3.0' Fill; red clay (IOR 3/4), damp		FILL
		3.0' to 3.75' Green clay: (IOG 8/2) 80%, becomes 100% at 3.5'		CL
	5	3.75' to 18.9' Red claystone: (IOR 3/4), dry		CL
		Slightly damp		
	10	Trace white gypsum at 9', dry		
		Abdt white gypsum from 11' to 11.5'; slightly damp		
	15	Thin gypsum zone at 15', dry		
		Green claystone (IOG 8/2) begins at 18.9'		CL
		Total Depth = 17.0 Feet BGS		
	20			
				IM-5 7'-17' DRY

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WILLIE CARRASCO</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>1-26-95</i>	COMP. DATE: <i>1-27-95</i>	SURFACE ELEVATION: <i>1387.14 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 1.0'	Fill; red clay (IOR 3/4, IOR 4/8), trace white gypsum, damp	 FILL	
	1.0' to 17.9'	Red claystone: (IOR 3/4, IOR 4/8), slightly damp Moist - wet from 2.4' to 2.8' Damp to 5' 5' Dry Trace scattered gypsum from 6.5' to 7', damp 20% green claystone from 8' to 8.5' 10' Dry Thin gypsum zone from 11' to 11.2' Dry from 9.5' to 13' 20% gypsum from 12.5' to 13' Cuttings getting moist from 13' to 13.2', moist to wet in thin zone (2"), dry to damp from 13.2' to 14.5' 15' Scattered white gypsum at 18', dusty, dry	 CL	
	17.9' to 18.0'	Green claystone; (IOG 8/2) begins at 17.9'	 CL	IM-6.18 7'-18'
		Total Depth = 18.0 Feet BGS		
	20'			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WILLIE CARRASCO</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>1-27-95</i>	COMP. DATE: <i>1-30-95</i>	SURFACE ELEVATION: <i>1388.47 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>38.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 2.0' Fill; red clay (10R 3/4, 10R 4/8), damp to moist		FILL
	5	2.0' to 17.4' Red claystone; (10R 3/4, 10R 4/8), trace gypsum at 2', becomes more moist at 3', then dry to slightly damp		CL
		Scattered gypsum at 8'		
	10	Trace gypsum at 9', slightly damp to 9.5' Dry to 12'		
		80% gypsum from 11.5' to 11.8' Dry from 12' to 17.5'		
	15	40% gypsum from 14' to 14.5'		
		Trace gypsum at 17'		
	20	17.4' to 21.9' Green clay; (10G 8/2), moist, plastic at top Becomes stiff at 18.5'		CL
		Thin layer red claystone (as above) from 19.9' to 20', dry		

IM-7.17.5
7'-17.5'

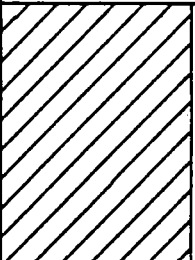
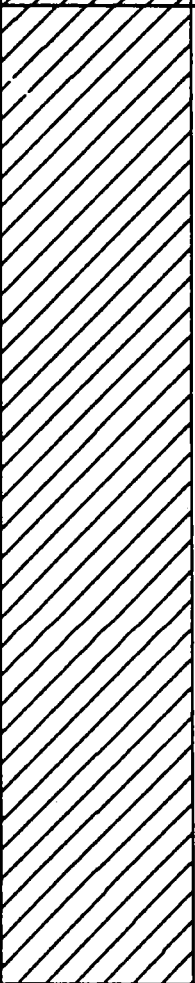

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WILLIE CARRASCO</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>1-27-95</i>	COMP. DATE: <i>1-30-95</i>	SURFACE ELEVATION: <i>1386.47 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>38.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		Green claystone; slightly damp to dry	CL	
	21.9' to 37.9'	Red claystone; (10R 3/4, 10R 4/8), dry and dusty at 22'	CL	
	25	50% gypsum from 25' to 25.2' and from 25.5' to 25.8' Trace damp red claystone at 25' Slightly damp from 27.5' to 30'	CL	IM-7.27.5 17.5'-27.5'
	30	5% green claystone from 32' to 32.5', dry	CL	
	35	Trace gypsum at 35', dry	CL	
		Top of green clay (10G 8/2) at 37.9', dry	CL	IM-7.38 27.5'-38'
		Total Depth = 38.0 Feet BGS		
	40			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WILLIE CARRASCO</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>1-31-95</i>	COMP. DATE: <i>1-31-95</i>	SURFACE ELEVATION: <i>1387.86 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 2.1'	80% red claystone (10R 3/4), 20% green claystone (10G 8/2)	CL	
	Trace gypsum from 2' to 2.1'			
	2.1' to 2.5'	80% green claystone, 40% red claystone, minor gypsum, damp	CL	
	2.5' to 4.0'	Red claystone; damp		
	4.0' to 18.9'	Red claystone, moist minor gypsum		
		100% red claystone, dry		
		90% red claystone, 10% green claystone, damp		
		80% red claystone, 20% green claystone, dry		
		Red claystone, dry	CL	
		Minor gypsum at 13'		
15	10% gypsum from 15' to 17'			
	Red claystone; wet from 17' to 19'			
20	18.9' to 19'	Green claystone	CL	IM-8.19 7'-19'
	Total Depth = 19.0 Feet BGS			

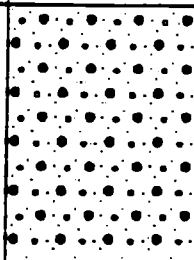
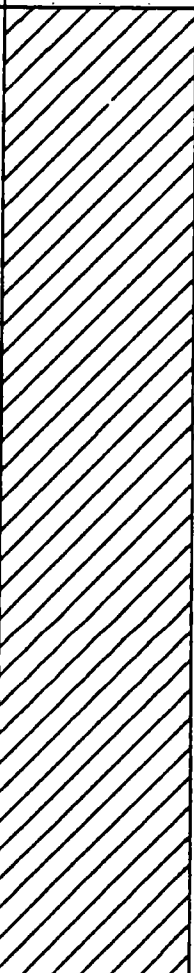
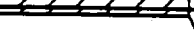
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WILLIE CARRASCO</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>1-31-95</i>	COMP. DATE: <i>1-31-95</i>	SURFACE ELEVATION: <i>1388.0 FEET</i>
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' 90% red claystone, 10% green claystone, damp		CL
		Moist		
	5	4.0' to 19.0' Red claystone, damp Minor gypsum from 5' to 8', dry Red claystone; damp from 8' to 7'		CL
		70% red claystone, 30% green claystone from 7' to 9', damp		
	10	Red claystone, damp from 9' to 13'		
		Gypsum at 13.5', minor green claystone to 18', dry		
	15	Red claystone; 25% gypsum from 18' to 17'		IM-9.19 7'-9'
		Dry		
		Red claystone, 20% green claystone from 18' to 19'		
	20	Total Depth = 19.0 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AJR ROTARY</i>
START DATE: <i>2-8-95</i>	COMP. DATE: <i>2-8-95</i>	SURFACE ELEVATION: <i>1387.31 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 2.5'	Fill; 70% red clay (10R 3/4), w/ 30% green clay, damp, plastic	CL	
	2.5' to 18.8'	Red claystone; (10R 3/4) Very damp to wet from 4' to 4.5' Becoming drier and harder with depth Slightly damp Slightly damp to dry	CL	
	13' to 13.3'	Gypsun from 13' to 13.3'	CL	
	18' to 18.5'	Gypsum from 18' to 18.5'; dry and dusty	CL	
	18.8' to 19.0'	Green claystone; (10G 8/2) Total Depth = 19.0 Feet BGS	CL	IM-10.19 7'-9'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-8-95</i>	COMP. DATE: <i>2-7-95</i>	SURFACE ELEVATION: <i>1388.32 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' Fill: red clay (10R 3/4), 10% green clay, trace white gypsum, damp		FILL
	5	4.0' to 18.9' Red claystone: (10R 3/4), mod damp to very damp, plastic Slightly damp to dry from 4.5' to 7' Dry		CL
	10	50% white gypsum from 13' to 13.5'		
	15	50% white gypsum from 18.5' to 18.7' Dry to slightly damp		
	20	18.9' to 19.0' Green claystone: (10G 8/2), slightly damp Total Depth = 19.0 Feet BGS		CL

IM-1119
7'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-7-95</i>	COMP. DATE: <i>2-7-95</i>	SURFACE ELEVATION: <i>1388.18 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 8.0'	Fill: red clay (10R 3/4), 20% green clay, damp, slightly plastic		FILL
	5	Fill: dark green plastic clay from 5.5' to 8.0'		
	8.0' to 7.0'	50% dark green clay, 50% red claystone (10R 3/4)		CL
	7.0' to 18.9'	Red claystone: damp Wet, producing water at 18' to 19'		CL
	15	Wet		
18.9' to 19.0'	Green claystone: (10G 8/2) Total Depth = 19.0 Feet BGS		CL	IM-12.19 7'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-7-95</i>	COMP. DATE: <i>2-7-95</i>	SURFACE ELEVATION: <i>1386.89 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>18.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 5.0'	Fill: red clay, moderately to very damp, plastic		FILL
	5.0' to 7.0'	Red claystone: (10R 3/4), damp		CL
	7.0' to 8.5'	Green claystone; damp to very damp, plastic		CL
	8.5' to 17.8'	Red claystone; damp		CL
	10	Scattered gypsum from 10' to 10.5'; dry		CL
	15	Becomes damp below 15' 50% gypsum from 15' to 15.5'		CL
17.8' to 18.0'	Green claystone: (10G 0/2), damp, plastic		CL	1M-13.1B 7'-18'
20	Total Depth = 18.0 Feet BGS			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-8-95</i>	COMP. DATE: <i>2-8-95</i>	SURFACE ELEVATION: <i>1387.33 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.0 FEET BGS</i>	

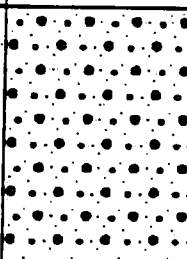

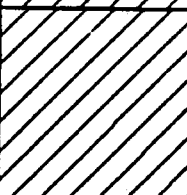
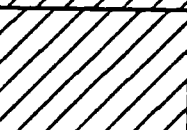
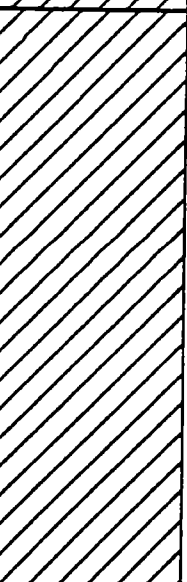
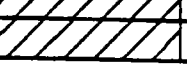
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.	
	0.0' to 5.0'	Fill: 80% red clay (10R 3/4), 20% green clay, damp Very damp to wet, plastic		FILL	
	5.0' to 15.0'	Red claystone: dry to slightly damp 0.1' gypsum at 13' 0.1' gypsum at 14.5' Gypsum from 15' to 15.5'		CL	
	15.5' to 17.8'	Red claystone		CL	
	17.8' to 18.0'	Green claystone: (10G 0/2), dry Total Depth = 18.0 Feet BGS		CL	

IM-14.18
7'-18'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-8-95</i>	COMP. DATE: <i>2-8-95</i>	SURFACE ELEVATION: <i>1386.81 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>17.5 FEET BGS</i>	

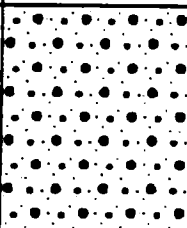
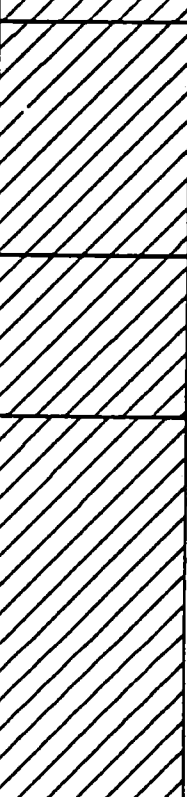
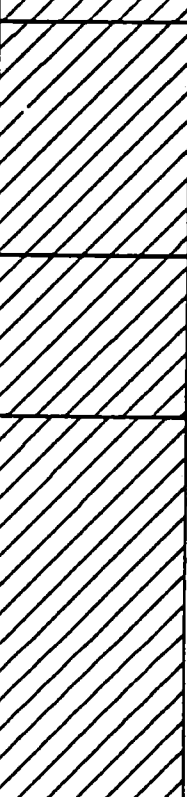
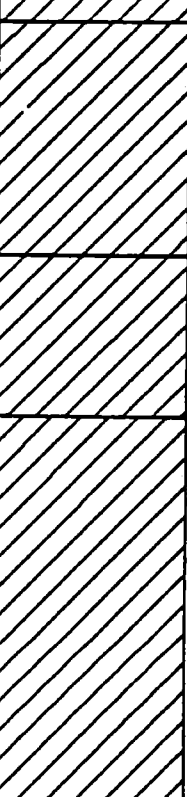
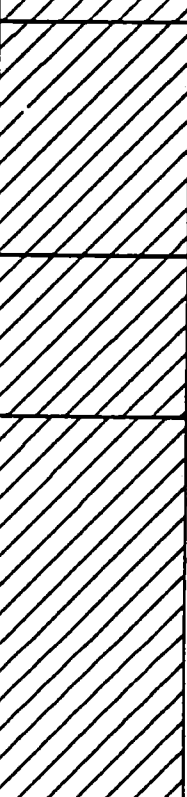
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 5.5'	Fill: red clay (10R 3/4), trace white gypsum, damp Moist		CL
	5.5' to 17.3'	Red claystone; dry Red claystone with trace gypsum from 8' to 7', slightly damp		CL
	17.3' to 17.5'	Green claystone; (10G 8/2) Total Depth = 17.5 Feet BGS		CL

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.40 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.6 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' Fill: red clay (10R 3/4), damp		FILL
	5	4.0' to 5.0' Green claystone: (10G 6/2), damp, slightly plastic		CL
		5.0' to 8.0' Red claystone: (10R 3/4), slightly damp		CL
		8.0' to 10.0' Green claystone: slightly damp		CL
	10	10.0' to 19.0' Red claystone: damp		CL
	15	Trace gypsum at 12.5', wet Wet, producing water at 13' to 19.8'		
	20	19.0' to 19.8' Green claystone: (10G 6/2), damp		CL
		Total Depth = 19.6 Feet BGS		

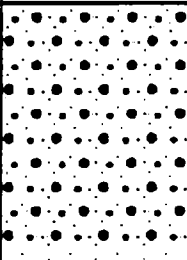
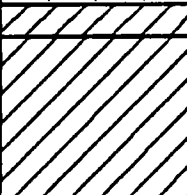
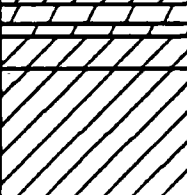
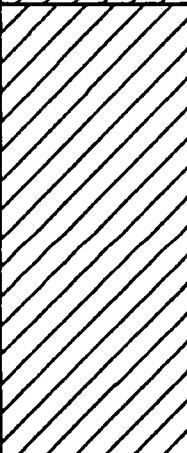
IM-16.19.6
0'-19.8'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.00 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.6 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 3.5' Fill: red clay (10R 3/4), damp	 FILL	
		3.5' to 3.9' Green claystone: (10G 8/2), dry		CL
	5	3.9' to 7.5' Red claystone: (10R 3/4), damp		CL
		Gypsum from 7' to 7.2'		
		7.5' to 10.0' Green claystone: (10G 8/2), damp to moist		CL
	10	10.0' to 18.0' Red claystone: as above		CL
		Gypsum from 14' to 14.1'		
		Gypsum from 18' to 18.5'		GP
		18.5' to 19.6' Red claystone		CL
		Wet		
	20	19.5' to 19.6' Green claystone: (10G 8/2)		CL
		Total Depth = 19.6 Feet BGS		

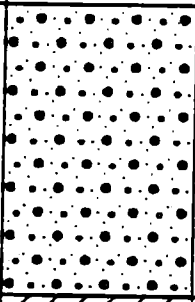


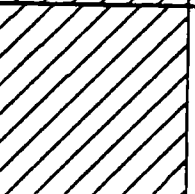
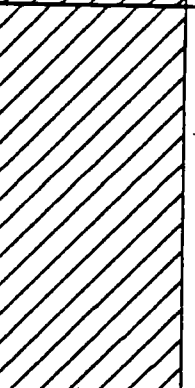



IM-17.19.6
0'-19.6'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.70 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' Fill; red clay (IOR 3/4), damp		FILL
	5	4.0' to 4.5' Green claystone; damp		CL
		4.5' to 7.0' Red claystone: (IOR 3/4), dry		CL
		Gypsum from 7' to 7.5'		GP
		7.5' to 8.0' Red claystone		CL
		8.0' to 10.0' Green claystone; damp, plastic		CL
	10	10.0' to 17.0' Red claystone; damp - dry		CL
		Gypsum from 17' to 17.3'		GP
		17.3' to 18.9' Samples wet from 18' to 19'		CL
	20	18.9' to 19.0' Green claystone: (IOG B/2)		CL
		Total Depth = 19.0 Feet BGS		

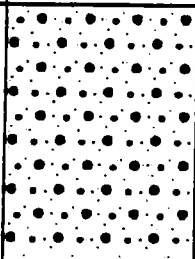
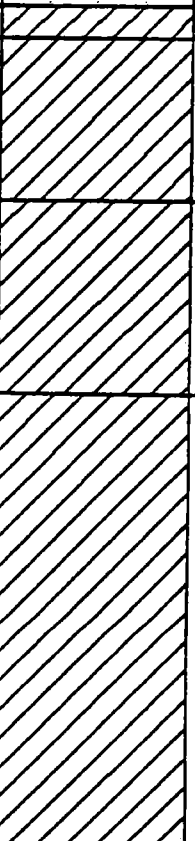
IM-18.19
0'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.75 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.6 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.5' Fill: red clay (IOR 3/4), 20% green clay		FILL
	5	4.5' to 8.0' Green claystone: (IOG 8/2), damp		CL
		8.0' to 8.0' Red claystone: (IOR 3/4), damp to dry		CL
	10	8.0' to 11.0' Green claystone: (IOG 8/2), damp		CL
		11.0' to 17.0' Red claystone: damp Gypsum at 12.5'		CL
		Gypsum from 17' to 17.5', dry below 17'		GP
		17.5' to 18.5' Red claystone		CL
		18.5' to 18.8' Green claystone: dry to damp		CL
	20	Total Depth = 18.6' Feet BGS		

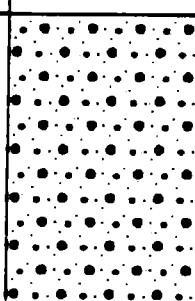
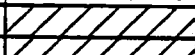
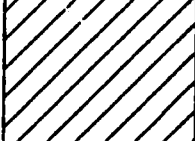

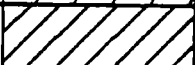
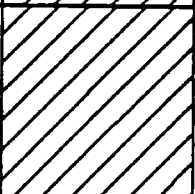
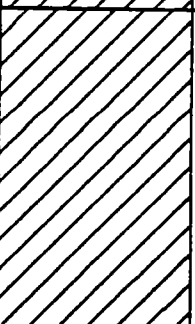
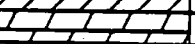


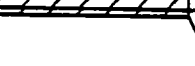
IM-19.18.8
0'-18.6'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.60 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 4.0' Fill: red clay (10R 3/4), damp		FILL
	5	4.0' to 4.5' Green claystone: (10G 8/2), damp		CL
		4.5' to 7.0' Red claystone: damp		CL
		7.0' to 10.0' Green claystone: dry to slightly damp		CL
	10	10.0' to 17.0' Red claystone: dry to slightly damp		CL
	15	Gypsum from 14' to 14.2' Damp to moist from 14.2' to 18.8'		CL
		Gypsum from 17' to 17.5'		GP
		17.5' to 18.8' Red claystone		CL
	20	18.8' to 19.0' Green claystone: (10G 8/2)		CL
		Total Depth = 19.0 Feet BGS		

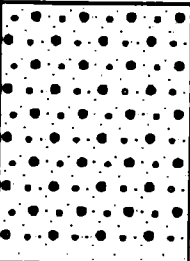



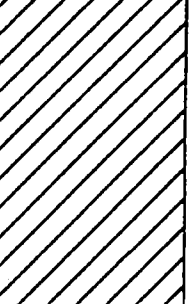

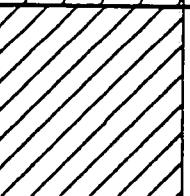


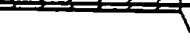
IM-20.19
0'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.94 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 4.5' Fill: red clay (10R 3/4), dry to slightly damp		FILL
	5	4.5' to 5.0' Green claystone		CL
		5.0' to 7.5' Red claystone: damp to dry		CL
		Gypsum from 7.5' to 8'		GP
		8.0' to 9.0' Red claystone		CL
	10	9.0' to 12.0' Green claystone: damp to dry		CL
		12.0' to 17.0' Red claystone: dry		CL
	15	Trace of gypsum at 14'		CL
		Gypsum from 17' to 17.5'		GP
		17.5' to 18.9' Red claystone		CL
	20	18.9' to 19.0' Green claystone		CL
		Total Depth = 19.0 Feet BGS		

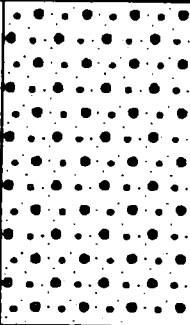


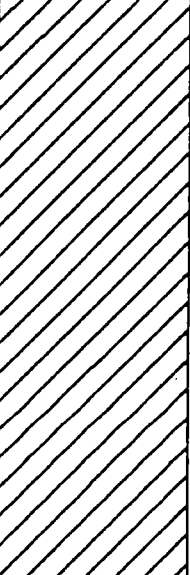


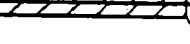
IM-2119
0'-19'

CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 98321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W POOL	DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY	
START DATE: 2-9-95	COMP. DATE: 2-9-95	SURFACE ELEVATION: 1387.06 FEET	
LOGGED BY: DAN DOWERS		TOTAL DEPTH: 19.0 FEET BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' Fill; red clay (IOR 3/4)		FILL
	5	4.0' to 5.0' Green claystone: (IOG 8/2), soft, plastic, damp		CL
		5.0' to 7.0' Red claystone: (IOR 3/4), dry to slightly damp		CL
		7.0' to 7.5' Green claystone: (IOG 8/2), dry to slightly damp		CL
	10	7.5' to 12.5' Red claystone: dry to slightly damp		CL
		Gypsum from 12.5' to 13'		GP
	15	13.0' to 18.0' Red claystone		CL
		Gypsum from 18' to 17'		GP
		17.0' to 18.9' Red claystone		CL
	20	18.9' to 19.0' Green claystone: (IOG 8/2)		CL
		Total Depth = 19.0 Feet BGS		


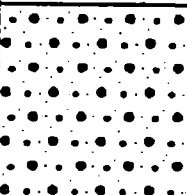
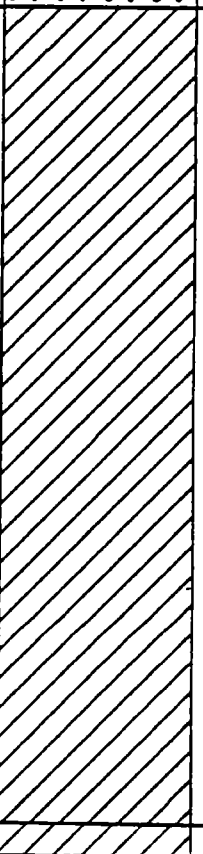

IM-22.19
0'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>	JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-9-95</i>	COMP. DATE: <i>2-9-95</i>	SURFACE ELEVATION: <i>1387.47 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>18.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 5.0' Fill: red clay (IOR 3/4), 20% green clay, slightly plastic, damp		FILL
	5	5.0' to 6.5' Red claystone: (IOR 3/4), dry		CL
		6.5' to 7.0' Green claystone		CL
		7.0' to 16.0' Red claystone: dry to slightly damp		CL
	10			
	15			
		Gypsum from 16' to 16.4'		GP
		16.4' to 18.3' Red claystone Damp from 17' to 18.3'		CL
		18.3' to 18.5' Green claystone		CL
	20	Total Depth = 18.5 Feet BGS		

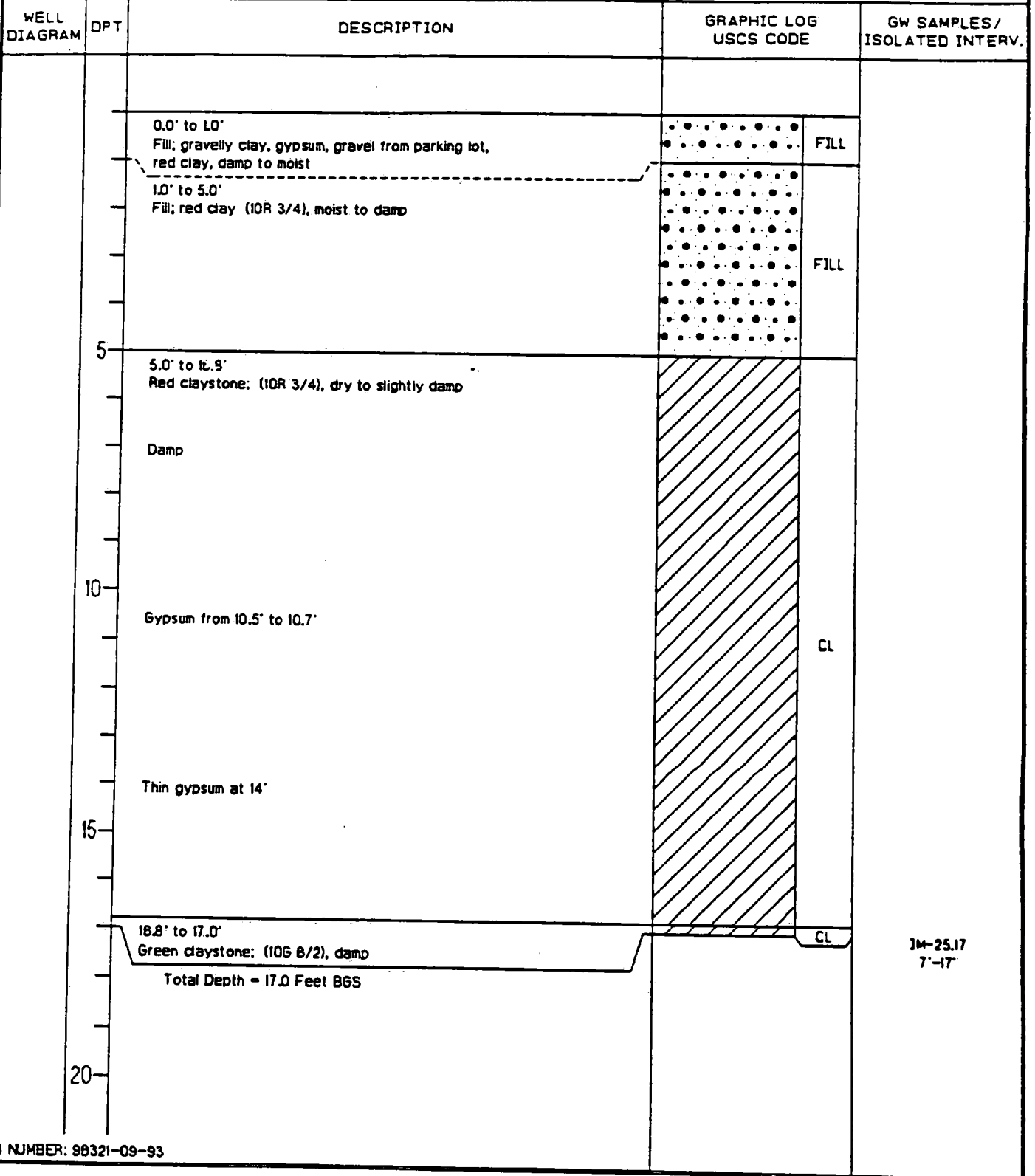
IM-23.18.5
7'-18.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-13-95</i>	COMP. DATE: <i>2-13-95</i>	SURFACE ELEVATION: <i>1385.26 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>


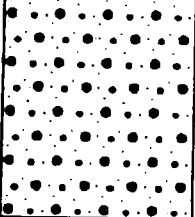
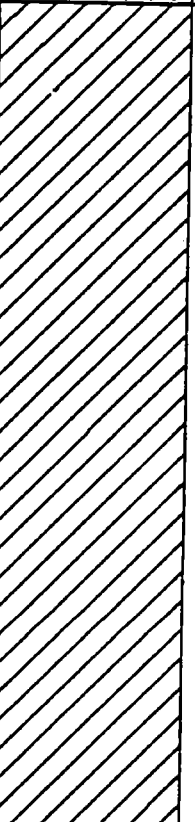

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 1.0' Fill: gypsum, clay, gravel, fill from parking lot		FILL
		1.0' to 4.0' Fill: red clay (10R 3/4), plastic, damp		FILL
	5	4.0' to 18.5' Red claystone: (10R 3/4), trace - scattered (10X) green claystone, damp		CL
		Red claystone, damp		
	10	Gypsum from 10' to 10.1'		
		Green claystone from 12.5' to 12.7'		
		Gypsum from 13.5' to 13.6'		
	15	18.5' to 17.0' Green claystone (10G 8/2), damp		CL
		Total Depth = 17.0 Feet BGS		
	20			

IM-24.17
7'-17'

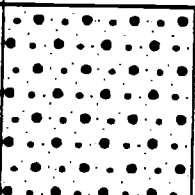
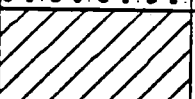
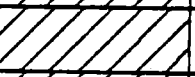
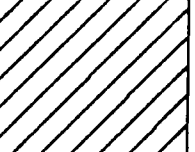
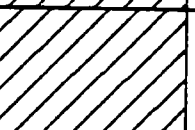
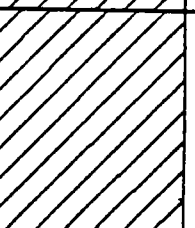


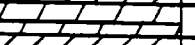
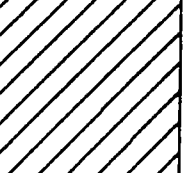

CLIENT: <i>USPCI LONE MOUNTAIN</i>	JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>
METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-13-95</i>	COMP. DATE: <i>2-14-95</i>
SURFACE ELEVATION: <i>1385.69 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>17.0 FEET BGS</i>



CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-14-95</i>	COMP. DATE: <i>2-14-95</i>	SURFACE ELEVATION: <i>1384.89 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>	

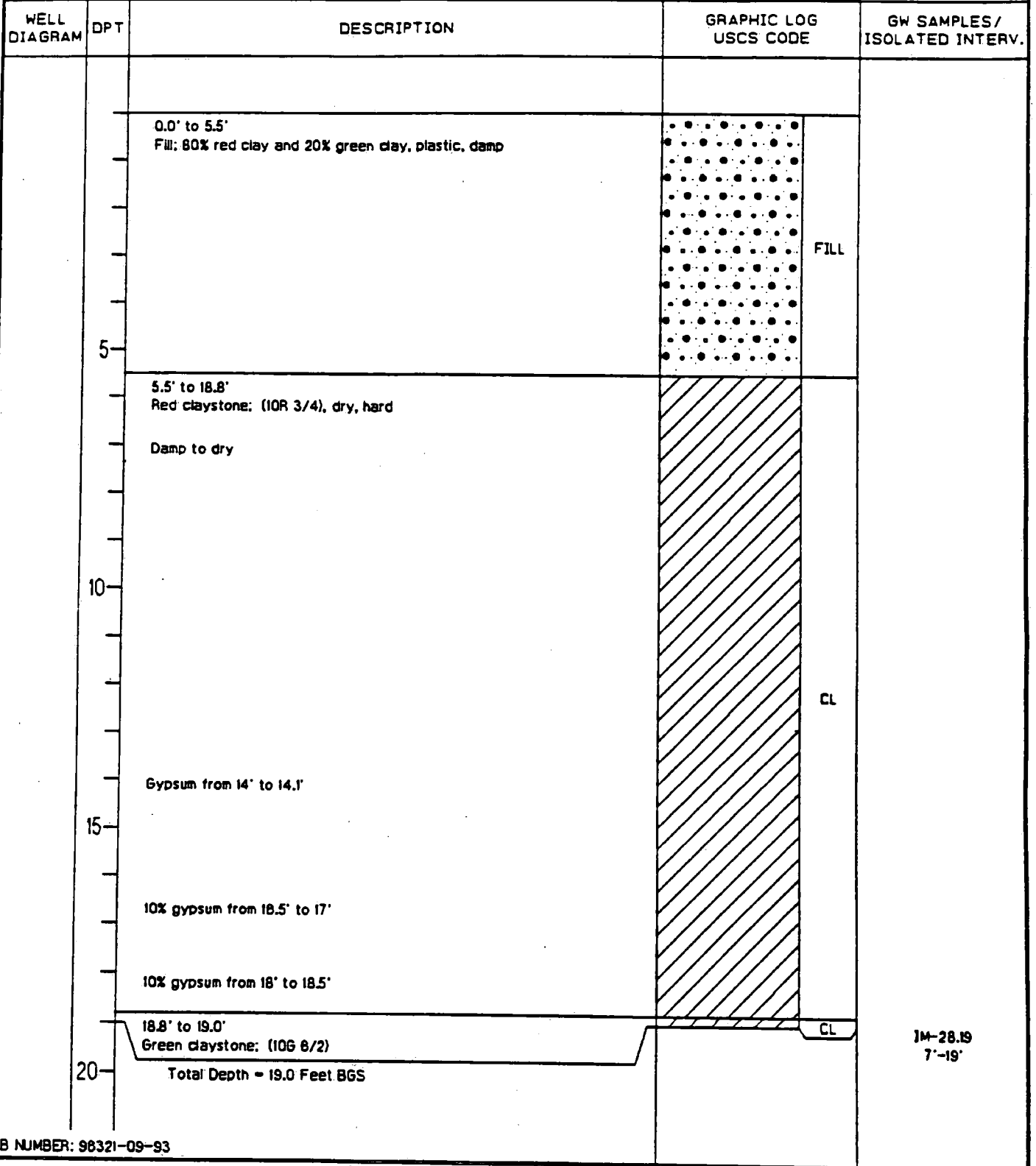
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 0.3' Concrete: in parking lot	 CONC	
		0.3' to 4.0' Fill: red clay (10R 3/4), moist	 FILL	
	5	4.0' to 18.8' Red claystone: (10R 3/4), damp to dry Trace of gypsum at 5.5'	 CL	
	10			
	15	Wet from 13' to 17', produces water at 13' to 17'		
		18.8' to 17.0' Green claystone: (10G 8/2) Total Depth = 17.0 Feet BGS	 CL	IM-26.17 7'-17'
	20			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-15-95</i>	COMP. DATE: <i>2-15-95</i>	SURFACE ELEVATION: <i>1388.08 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.5 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 3.0' Fill: Mixed red and green clay, damp		FILL
		3.0' to 4.5' Red claystone: (10R 3/4), damp		CL
	5	4.5' to 5.5' Green claystone: (10G 6/2), damp		CL
		5.5' to 8.0' Red claystone: trace of gypsum, dry, hard		CL
		8.0' to 10.0' Green claystone: plastic, damp		CL
	10	10.0' to 13.5' Red claystone: damp to dry		CL
		Gypsum from 13.5' to 14'		GP
		14.0' to 15.5' Red claystone		CL
	15	Dry below 15'		
		Gypsum from 15.5' to 18', dry		GP
		18.0' to 19.0' Red claystone		CL
		19.0' to 19.5' Green claystone: damp		CL
	20	Total Depth = 19.5 Feet BGS		

IM-27.19.5
7'-19.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>	JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-15-95</i>	COMP. DATE: <i>2-16-95</i>	SURFACE ELEVATION: <i>1388.37 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>19.0 FEET BGS</i>	



CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-16-95</i>	COMP. DATE: <i>2-16-95</i>	SURFACE ELEVATION: <i>1387.25 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.0 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0'	0.0' to 5.5' Fill: red clay (10R 3/4), plastic, damp		FILL
	5	5.5' to 17.8' Red claystone: damp to dry Damp		CL
	10	30% gypsum from 11.8' to 12' Becomes dry below 14' Gypsum from 15' to 15.1'		CL
	15	17.8' to 18.0' Green claystone: (10G 8/2) Total Depth = 18.0 Feet BGS		CL
20				IM-29.18 7'-18'

CLIENT: <i>USPCI LONE MOUNTAIN</i>	JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-16-95</i>	COMP. DATE: <i>2-16-95</i>	SURFACE ELEVATION: <i>1386.84 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>18.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 4.0'	Fill: 50% red clay (IOR 3/4) and 50% green clay (IOG 6/2), damp Fill: red clay from 2' to 4'		FILL
	4.0' to 17.8'	Red claystone: (IOR 3/4), damp to dry 20% xylene gypsum from 8.5' to 7', frags up to 1/2" diam. Damp to dry Wet from 9' to 12' Damp to dry		CL
	17.8' to 18.0'	Green claystone: (IOG 6/2), damp Total Depth = 18.0 Feet BGS		CL
	18.0'			

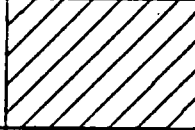
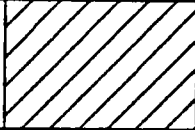
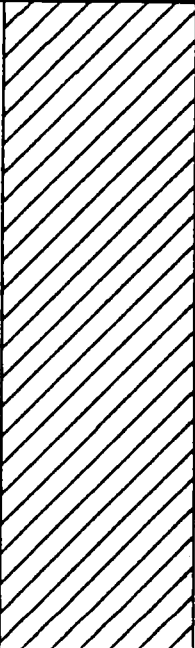
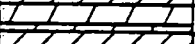
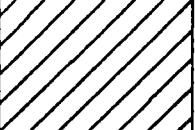
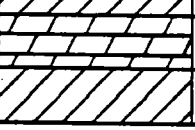


CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-20-95</i>	COMP. DATE: <i>2-20-95</i>	SURFACE ELEVATION: <i>1386.54 FEET</i>
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 7.0'	First 7' not logged		
	7.0' to 17.0'	Red claystone: dry 10% gypsum from 9' to 16', dry Dry wet Very wet from 16' to 17' Green claystone begins at 17'	CL	IM-31.17 7'-17'
		Total Depth = 17.0 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-20-95</i>	COMP. DATE: <i>2-20-95</i>	SURFACE ELEVATION: <i>1388.59 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>19.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 5.0'	80% green claystone, 20% red claystone, damp	CL	
	5.0' to 5.5'	80% green claystone, 40% red claystone, damp		
	5.5' to 19.5'	Red claystone; minor gypsum, damp Red claystone; minor green claystone from 7' to 9.5', damp Red claystone, damp Gypsum at 14.5', damp Red claystone Gypsum at 17', damp Red claystone Green claystone begins at 19.5'	CL	
	20	Total Depth = 19.5 Feet BGS		IM-32.20 7'-19.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-20-95</i>	COMP. DATE: <i>2-20-95</i>	SURFACE ELEVATION: <i>1391.99 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>23.0 FEET BGS</i>		

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 2.5'	80% red claystone, 20% green claystone, damp		CL
	2.5' to 5.0'	90% red claystone, 10% green claystone, moist		CL
5	5.0' to 17.5'	Red claystone: damp Wet from 7.5' to 10' Minor gypsum from 10' to 12.5', moist Damp from 12.5' to 14' Light red to brown from 14' to 15' Dry from 15' to 20'		CL
	17.5' to 18'	Gypsum from 17.5' to 18'		GP
	18.0' to 21.0'	Red claystone		CL
20	20' to 23'	Damp from 20' to 23'		CL
	21' to 22'	Gypsum from 21' to 22'		GP
	22.0' to 23.0'	Red claystone Green claystone begins at 23'		CL
	Total Depth = 23.0 Feet BGS			
25				

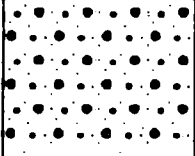
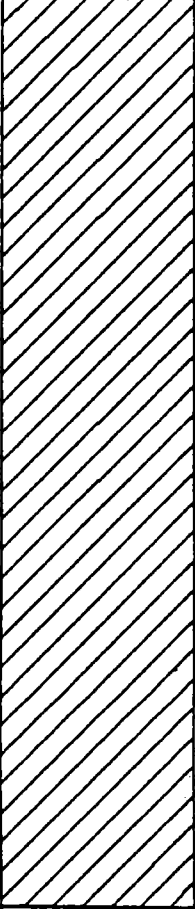
IM-33.22
10'-23'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-21-95</i>	COMP. DATE: <i>2-21-95</i>	SURFACE ELEVATION: <i>1384.41 FEET</i>
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>15.0 FEET BGS</i>

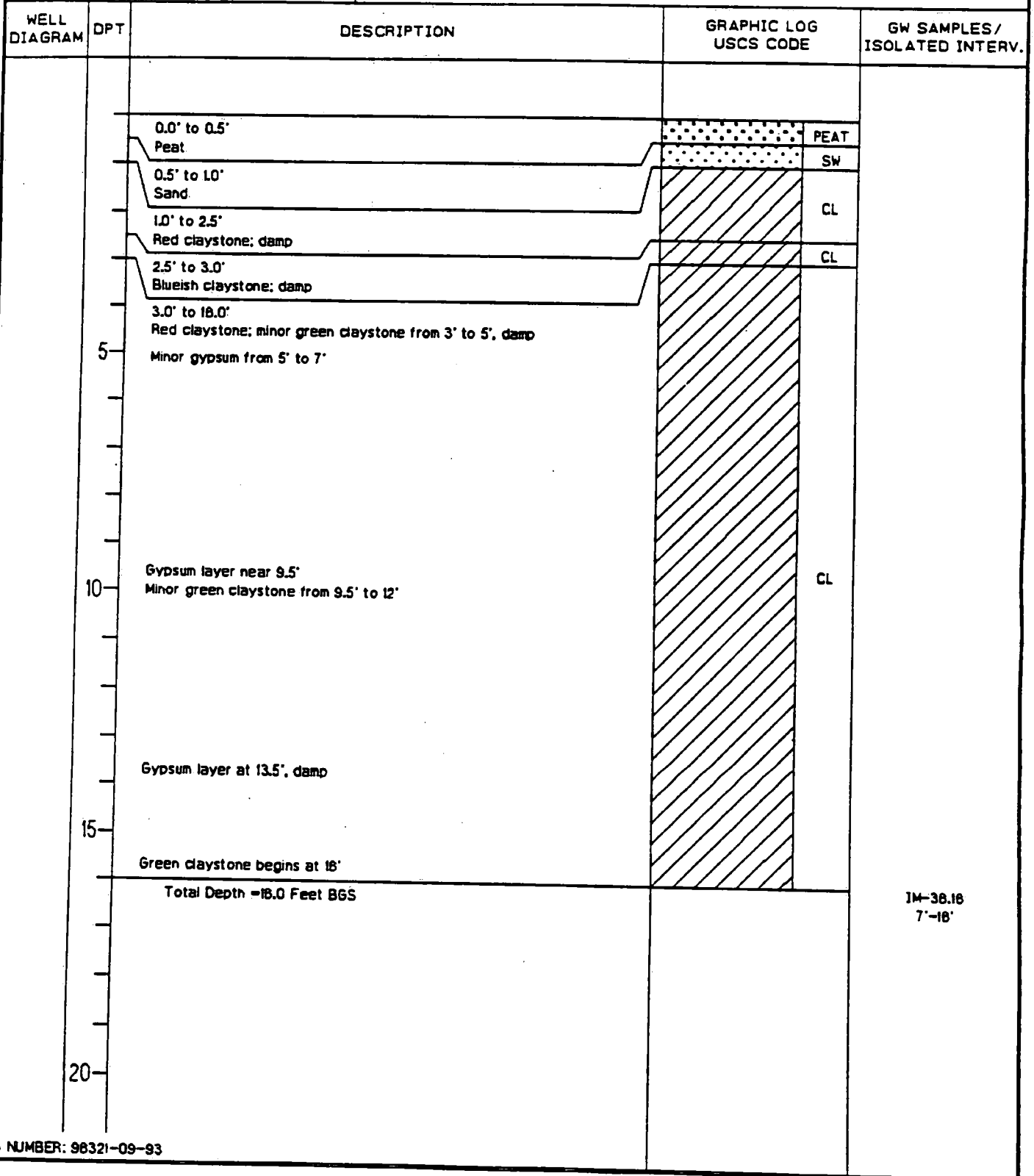
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 8.0'	Fill; red claystone, some limestone clasts		FILL
		Red claystone and clay from 2.5' to 5'		
	5	Clay and limestone gravel from 5' to 8'		
	8.0'	Blue green claystone layer over red claystone, minor green claystone, damp		CL
10	Interbedded gypsum from 11' to 13.5'			
	Damp			
	15	Green claystone begins at 15'		
		Total Depth = 15.0 Feet BGS		
	20			

IM-34.15
8'-15'
DRY

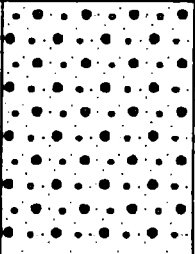
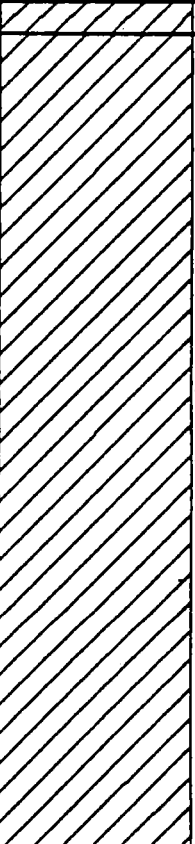
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-21-95</i>	COMP. DATE: <i>2-22-95</i>	SURFACE ELEVATION: <i>1385.46 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>16.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 2.5' Fill: red claystone, very wet (beneath lawn)		FILL
		2.5' to 18.5' Red claystone; minor green claystone, damp		CL
	5	Custs with a light coating of tan soil from 5' to 7'		
		Minor green claystone, damp		
	10	Minor gypsum from 9.5' to 12'		
		50% gypsum from 12' to 13'		
	15	Green claystone begins at 18.5'		
		Total Depth = 16.5 Feet BGS		IM-35.18.5 7'-18.5'
	20			


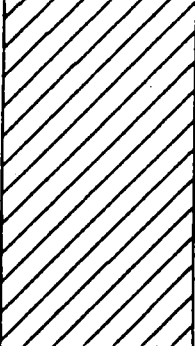
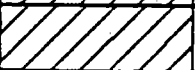
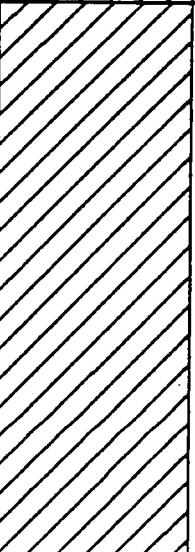
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AJR ROTARY</i>
START DATE: <i>2-22-95</i>	COMP. DATE: <i>2-22-95</i>	SURFACE ELEVATION: <i>1385.14 FEET</i>
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>16.0 FEET BGS</i>	



CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-22-95</i>	COMP. DATE: <i>2-23-95</i>	SURFACE ELEVATION: <i>1386.00 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 4.0' Fill: red claystone, minor gypsum from 0' to 2.5', damp		FILL
	5	4.0' to 4.5' Greenish - brown claystone		CL
		4.5' to 17.0' Red claystone: damp Gypsum layer at 6' Minor green claystone from 6' to 7'		
	10	Minor green claystone from 9.5' to 14.5' Damp		CL
	15	Minor gypsum from 14.5' to 17' Damp		
		Green claystone begins at 17'		
		Total Depth = 17.0 Feet BGS		
	20			IM-37.17 7'-17'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-23-95</i>	COMP. DATE: <i>2-23-95</i>	SURFACE ELEVATION: <i>1384.28 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>15.5 FEET BGS</i>	

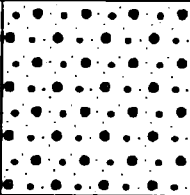
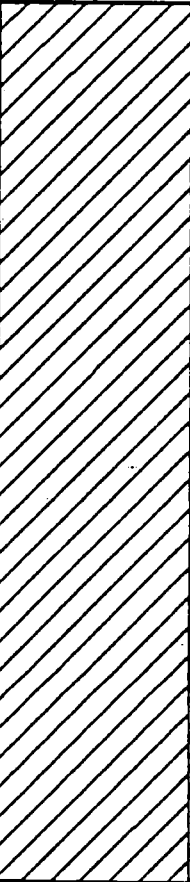

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 0.5' Concrete pad		CONC
		0.5' to 8.0' Red claystone: damp Minor green claystone from 2.5' to 5'		CL
	5			
		8.0' to 7.0' Tan claystone: damp		CL
		7.0' to 15.5' Red claystone: damp, minor green claystone from 7' to 9.5'		CL
	10			
		Green claystone begins at 15.5'		
	15			
		Total Depth = 15.5 Feet BGS		
	20			
				IM-38.15.5 7'-15.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-23-95</i>	COMP. DATE: <i>2-23-95</i>	SURFACE ELEVATION: <i>1384.09 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>18.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Concrete pad	A > A > A > A > A	CONC
	0.5' to 2.5'	Fill; red claystone, minor blue claystone and gypsum, damp		FILL
	2.5' to 8.0'	Red claystone: minor gypsum and green claystone, damp		CL
5	8.0' to 7.0'	Tan claystone: damp		CL
	7.0' to 18.0'	Red claystone: damp, 10% gypsum from 7' to 9.5'		CL
10		10% gypsum from 12' to 15'		CL
15		Green claystone begins at 18'		CL
		Total Depth = 18.0 Feet BGS		
20				

IM-39.18
7'-18'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-27-95</i>	COMP. DATE: <i>2-27-95</i>	SURFACE ELEVATION: <i>1385.66 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>	

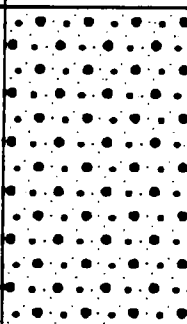
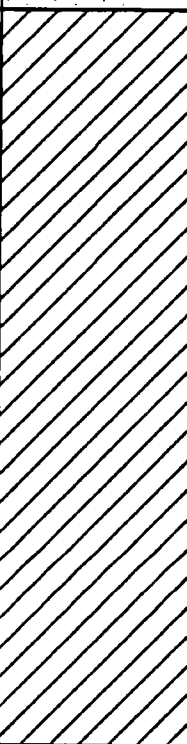

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 3.0' Fill; on grassy lawn north of office, mixed red (90%) and green clay (10%), plastic, damp		FILL
	5	3.0' to 18.5' Red claystone: (10R 3/4), hard, dry 10% green claystone: (10G 8/2) at 8' Dry to slightly damp from 7' to 18.5'		CL
	10	Gypsum from 11' to 11.2'		
	15	Gypsum from 14' to 14.2'		
		Green claystone: (10G 8/2), dry - slightly damp		CL
		Total Depth = 17.0 Feet BGS		
	20			IM-40J7 7'-17'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-27-95</i>	COMP. DATE: <i>2-27-95</i>	SURFACE ELEVATION: <i>1384.86 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>16.0 FEET BGS</i>	

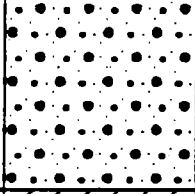
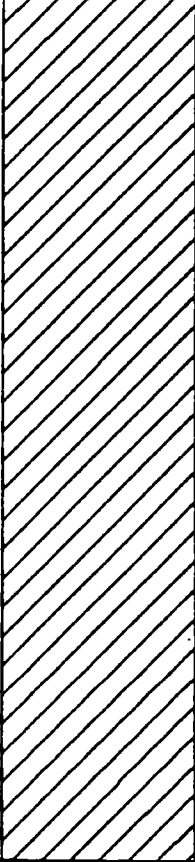

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 5.0'	Fill: red clay (10R 3/4), moist	FILL	
	5.0' to 14.0'	Red claystone: (10R 3/4), damp, gypsum from 5' to 5.1'	CL	
	14.0' to 15.0'	Gypsum from 14' to 15'	GP	
	15.0' to 15.8'	Red claystone	CL	
	15.8' to 16.0'	Green claystone: (10G 8/2), dry	CL	
		Total Depth = 16.0 Feet BGS		

IM-41.1B
7'-16'

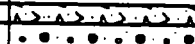
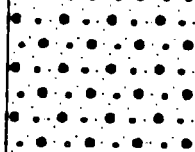
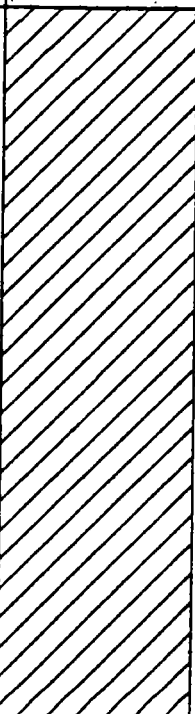
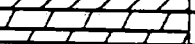
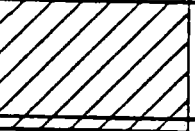

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-27-95</i>	COMP. DATE: <i>2-27-95</i>	SURFACE ELEVATION: <i>1385.59 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>16.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 5.0' Fill; concrete below 4" (located in parking area), red clay (10R 3/4), damp, 10% green clay, damp to dry		FILL
	5	5.0' to 18.3' Red claystone Trace gypsum at 6'		CL
	10	Dry		
	15	Trace gypsum at 13' 20% gypsum from 14.5' to 15'		
		18.3' to 18.5' Green claystone: (10G 6/2), dry Total Depth = 16.5 Feet BGS		CL
	20			IM-42J8.5 7'-18.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>	JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i> METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-28-95</i>	COMP. DATE: <i>2-28-95</i> SURFACE ELEVATION: <i>1385.35 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>18.5 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 3.0' Fill: 80% red clay (10R 3/4), 20% green clay (10G 8/2)		FILL
	5	3.0' to 18.3' Red claystone: (10R 3/4)		CL
		Gypsum from 8' to 8.2'		
		Dry		
	10	Damp to moist from 10' to 18.3'		
	15			
		18.3' to 18.5' Green claystone: (10G 8/2)		CL
		Total Depth = 18.5 Feet BGS		IM-43.18.5 7'-18.5'
	20			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-28-95</i>	COMP. DATE: <i>2-28-95</i>	SURFACE ELEVATION: <i>1385.18 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>16.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 0.3' Concrete; parking lot	 CONC	
		0.3' to 3.0' Fill; red clay (IOR 3/4), damp	 FILL	
	5	3.0' to 14.0' Red claystone: (IOR 3/4), dry		CL
		Gypsum from 8' to 8.1'		
		Dry		
	10	Gypsum from 10' to 10.2'		
	15	Gypsum from 14' to 14.5'		GP
		14.5' to 16.3' Red claystone		CL
		16.3' to 16.5' Green claystone: (IOG 6/2), damp to dry		CL
		Total Depth = 16.5 Feet BGS		
	20			

IM-44
7'-16.5'

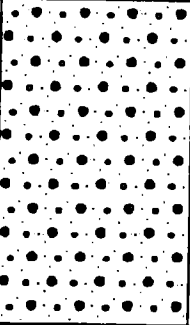
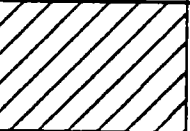
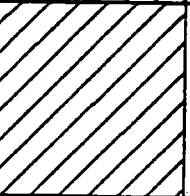
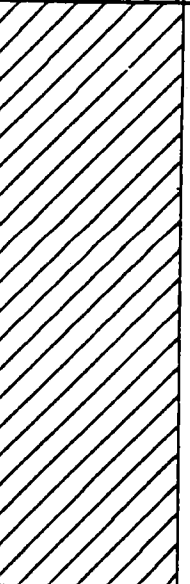

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-28-95</i>	COMP. DATE: <i>3-01-95</i>	SURFACE ELEVATION: <i>1387.62 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 8.0'	Fill: red clay (10R 3/4) w/ 10% green clay (10G 8/2), damp to moist		FILL
	8.0' to 18.8'	Red claystone: (10R 3/4), dry		CL
	10% gypsum from 12.5' to 13'			
	10% gypsum from 18.5' to 17'			
18.8' to 19.0'	Green claystone: (10G 8/2), damp to dry		CL	IM-45.19 7'-19'
		Total Depth = 19.0 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-06-95</i>	COMP. DATE: <i>3-06-95</i>	SURFACE ELEVATION: <i>1386.87 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

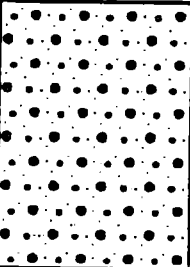

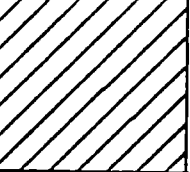
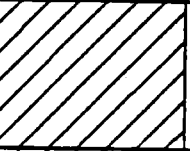
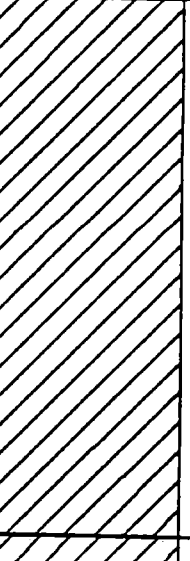
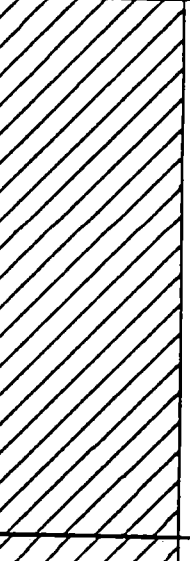
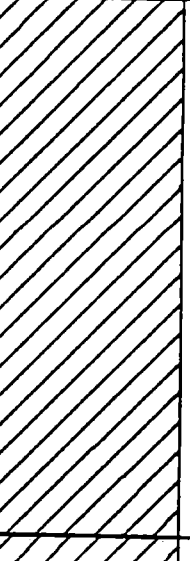
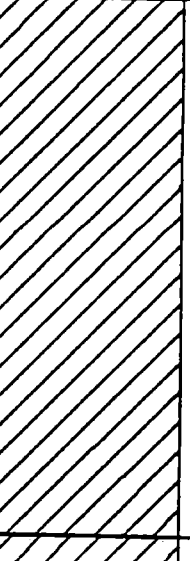
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 5.5'	Fill: red clay (10R 3/4), plastic, damp to moist		FILL
	5.5' to 15.0'	Red claystone: (10R 3/4), hard, damp to dry Damp Dry from 9.5' to 15.5'		CL
	13' to 13.2'	Gypsum		GP
	15.5' to 18.9'	Red claystone		CL
	18.9' to 19'	Green claystone: (10G 8/2) Total Depth = 19.0 Feet BGS		CL
				IM-46.19 7'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-06-95</i>	COMP. DATE: <i>3-06-95</i>	SURFACE ELEVATION: <i>1387.48 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 5.0' Fill: red clay w/ 10% green clay, damp		FILL
	5	5.0' to 7.0' Red claystone: (10R 3/4), damp		CL
		7.0' to 10.0' Green claystone: (10G 8/2), damp		CL
	10	10.0' to 18.9' Red claystone		CL
	15	Gypsum from 14.5' to 14.7' Wet from 15' to 18'		
		Gypsum from 18' to 18.2' Damp from 18' to 19'		
	20	18.9' to 19.0' Green claystone: (10G 8/2), damp		CL
		Total Depth = 19.0 Feet BGS		

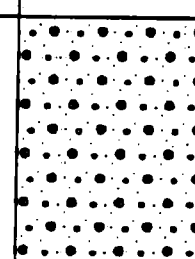
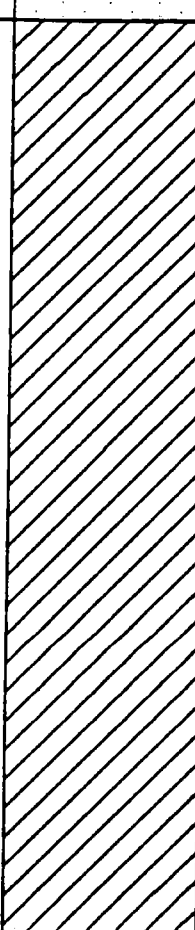
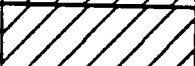
IM-47.19
7'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>	JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>
METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-08-95</i>	COMP. DATE: <i>3-08-95</i>
SURFACE ELEVATION: <i>1387.96 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>20.5 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.5' Fill: red clay (10R 3/4), w/ 10% green clay (10G 6/2), damp		FILL
	5	4.5' to 5.5' Green claystone; (10G 6/2), damp to dry		CL
		5.5' to 8.5' Red claystone; (10R 3/4), damp to dry		CL
	10	8.5' to 11.0' Green claystone; damp		CL
		11.0' to 20.0' Red claystone Gypsum from 12' to 12.2'		CL
	15	5% gypsum from 16' to 17'		CL
	20	Wet cuttings from 19.5' to 20.5' - <i>Produced water at 19.5-20.5</i>		CL
		20.0' to 20.5' Green claystone; (10G 6/2), wet Total Depth = 20.5 Feet BGS		CL

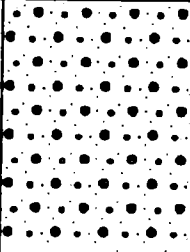
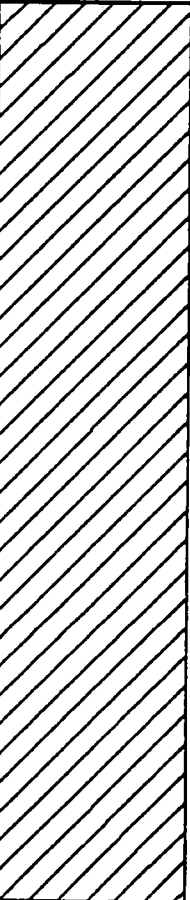

IM-48.20.5
7'-20.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-08-95</i>	COMP. DATE: <i>3-08-95</i>	SURFACE ELEVATION: <i>1386.56 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>

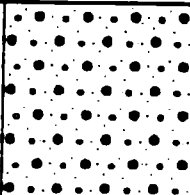
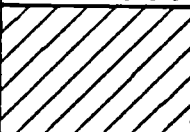

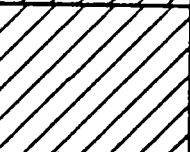

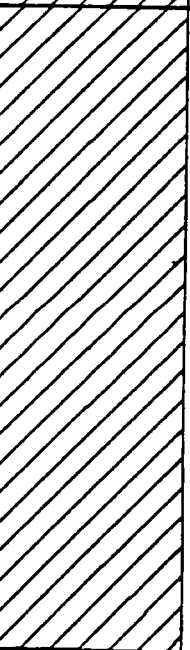

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' Fill; red clay (10R 3/4), damp		FILL
	5	4.0' to 18.0' Red claystone; (10R 3/4), damp		CL
	15	Wet cuttings from 13' to 19', produced minor amount of water <i>@ 13 to 19'</i>		
		18.0' to 19.0' Green claystone; (10G 8/2), wet from above		CL
	20	Total Depth = 19.0 Feet BGS		

IM-49.19
7'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-09-95</i>	COMP. DATE: <i>3-09-95</i>	SURFACE ELEVATION: <i>1386.72 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 4.0' Fill: red clay (10R 3/4), damp		FILL
	5	4.0' to 17.8' Red claystone; (10R 3/4), dry		CL
		50% gypsum from 8.3' to 8.8' Slightly damp (generally dry) from 7' to 17.8'		
	10	Gypsum from 12' to 12.1'		
	15	Gypsum from 18' to 18.1'		
		Green claystone; (10G 8/2), damp to dry		CL
		Total Depth = 18.0 Feet BGS		IM-50.18 7'-18'
	20			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-9-95</i>	COMP. DATE: <i>3-9-95</i>	SURFACE ELEVATION: <i>1388.43 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>19.0 FEET BGS</i>

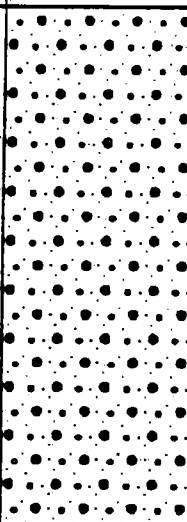
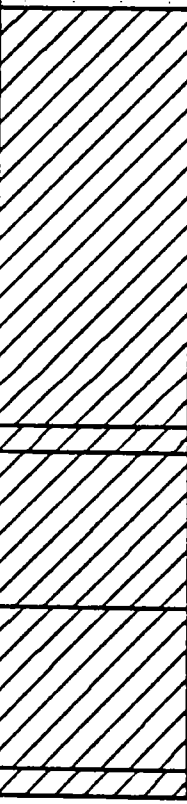
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 3.0' Fill; red clay (IOR 3/4), damp		FILL
		3.0' to 5.0' Red claystone: (IOR 3/4), damp to dry		CL
	5	5.0' to 6.0' Green claystone: (IOG 8/2), damp to dry		CL
		6.0' to 8.5' Red claystone: (IOR 3/4), damp		CL
		8.5' to 9.0' Green claystone: (IOG 8/2), damp, plastic		CL
	10	9.0' to 18.8' Red claystone: (IOR 3/4), dry		CL
		Trace gypsum at 12'		
	15			
		Green claystone: (IOG 8/2), damp		CL
	20	Total Depth = 19.0 Feet BGS		

IM-51.19
7'-19'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AJR ROTARY</i>	
START DATE: <i>3-10-95</i>	COMP. DATE: <i>3-13-95</i>	SURFACE ELEVATION: <i>1387.04 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 5.0'	Fill: red clay w/ 10% green clay, damp		FILL
	5.0' to 7.0'	Red claystone; (10R 3/4), damp to dry Trace of gypsum from 6' to 7'		CL
	7.0' to 7.5'	Green claystone; dry		CL
	7.5' to 18.5'	Red claystone; damp		CL
		Green claystone begins at 18.5'		
		Total Depth = 18.5 Feet BGS		
				IM-52.18.5 7'-18.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-15-95</i>	COMP. DATE: <i>3-18-95</i>	SURFACE ELEVATION: <i>1410.85 FEET</i>
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>65.5 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 10.0' Fill; red claystone, w/ 20% green claystone, wet to 2.5'		FILL
		Green claystone (fill) from 2.5' to 3.5', dry		
		Red claystone (fill) from 3.5' to 7.5', w/ wood chips, damp		
		Red and green claystone from 7.5' to 10'		
	5			
	10	10.0' to 18.5' Red claystone; damp Minor blue claystone to 12.5'		CL
		Minor gypsum from 14' to 15'		
		Dry from 15' to 18'		
		Green claystone: dry		
		18.5' to 21.5' Red claystone;		
	15			
	20	21.5' to 24.5' Green claystone; wet		IM-53.22 10'-22'
		24.5' to 29.5' Red claystone; damp		
	25			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-15-95</i>	COMP. DATE: <i>3-16-95</i>	SURFACE ELEVATION: <i>1410.85 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>65.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	30	29.5' to 30' Green claystone: dry	CL	
		30.0' to 34.0' Red claystone: dry	CL	
	35	34.0' to 38.5' Green claystone: dry	CL	
		38.5' to 45.0' Red claystone: dry Minor gypsum from 38.5' to 41.5'	CL	
	45	45.0' to 49.0' Green claystone:	CL	IM-53.45 22'-45'
	50	49.0' to 52.0' Red claystone: damp	CL	

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-15-95</i>	COMP. DATE: <i>3-18-95</i>	SURFACE ELEVATION: <i>1410.85 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>85.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
			CL	
		Gypsum vein from 52' to 52.5'	GP	
	55	52.5' to 65.5' Red claystone: damp 10% gypsum from 52.5' to 54'	CL	
	65	Top of green claystone at 65.5'		
		Total Depth = 85.5 Feet BGS		IM-53.85.5 45'-85.5
	70			
	75			

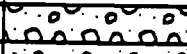

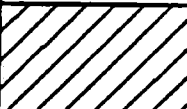
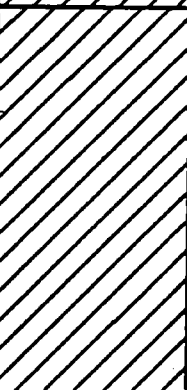



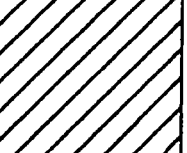
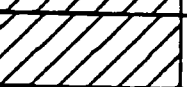
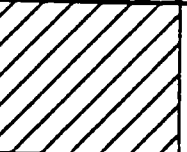
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-20-95</i>	COMP. DATE: <i>3-22-95</i>	SURFACE ELEVATION: <i>1410.14 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>83.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0'	0.0' to 15.0' Fill: red clay w/ 50% gypsum, gravel, damp to moist		FILL
	5	Fill: scattered green clay (10%) mixed through, damp to moist		
		Fill: red clay (10R 3/4), wet, sticky, soft, plastic		
	10	Red clay w/ 20% green clay, wet		
	15	15.0' to 19.9' Red claystone: damp to dry		CL
	Wet, produces water at 19' to 20'			
20	19.9' to 24.5' Green claystone: (10G 8/2), damp		CL	IM-54.20 10-20'
25	24.5' to 35.0' Red claystone: (10R 3/4), damp to dry		CL	
35			CL	

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-20-95</i>	COMP. DATE: <i>3-22-95</i>	SURFACE ELEVATION: <i>1410.14 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>83.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		35.0' to 38.0' Green claystone: (10G 8/2), damp to dry	CL	
	40	38.0' to 43.1' Red claystone: (10R 3/4), dry to slightly damp Gypsum from 38' to 38.2'	CL	
	45	43.1' to 48.5' Green claystone: (10G 8/2)	CL	IM-54.43.5 20'-43.5'
	50	48.5' to 82.5' Red claystone: (10R 3/4), damp to dry	CL	
	55	50% gypsum from 52' to 54'	CL	
	60	5% gypsum from 80' to 82'	CL	
	65	82.5' to 83.0' Green claystone: (10G 8/2), damp to dry Total Depth = 83.0 Feet BGS	CL	IM-54.83 44'-83'
	70			

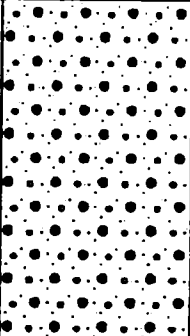
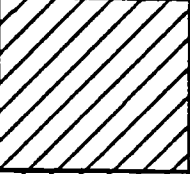
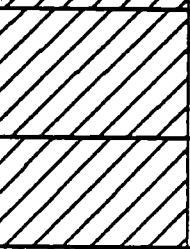
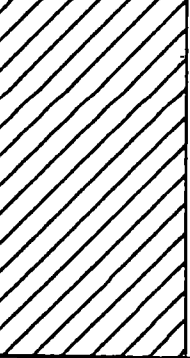

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-22-95</i>	COMP. DATE: <i>3-23-95</i>	SURFACE ELEVATION: <i>1408.08 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>80.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 1.0'	Gravel; gypsum rock	 GW	
	1.0' to 4.0	FB; red clay (10R 3/4), trace of gypsum	 FILL	
	4.0' to 7.0'	Green claystone: (10G 8/2), damp, plastic	 CL	
	7.0' to 17.5'	Red claystone; w/ 50% gypsum from 7' to 7.5', moist to wet Wet from 13' to 17.5', produced water from 13' to 18'	 CL	
	17.5' to 20.0'	Green claystone: (10G 8/2), wet from 17.5' to 18' Dry from 18' to 20'	 CL	IM-55.18 10'-18'
	20.0' to 23.0'	Red claystone; trace of gypsum, dry	 CL	
	23.0' to 24.0'	Green claystone; dry to damp	 CL	
	24.0' to 29.0'	Red claystone: (10R 3/4), dry	 CL	
	29.0' to 31.0'	Green claystone; damp to dry	 CL	
	31.0' to 41.0'	Red claystone; dry to damp Trace to 5% gypsum from 33' to 34'	 CL	

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-22-95</i>	COMP. DATE: <i>3-23-95</i>	SURFACE ELEVATION: <i>1406.08 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>80.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.	
	36'	Moist from 36' to 37'		CL	
	37'	Wet from 37' to 41'			
	41.0'	41.0' to 43.0'	Green claystone: (106 8/2), wet		CL
	42'	Damp from 42' to 43'			
43.0'	43.0' to 59.5'	Red claystone; dry		CL	
47'	20% gypsum from 48' to 47'				
53'	10% gypsum from 53' to 53.5'			CL	
59.5'	59.5' to 60.0'	Green claystone: (106 8/2), slightly damp to dry			
		Total Depth = 80.0 Feet BGS			

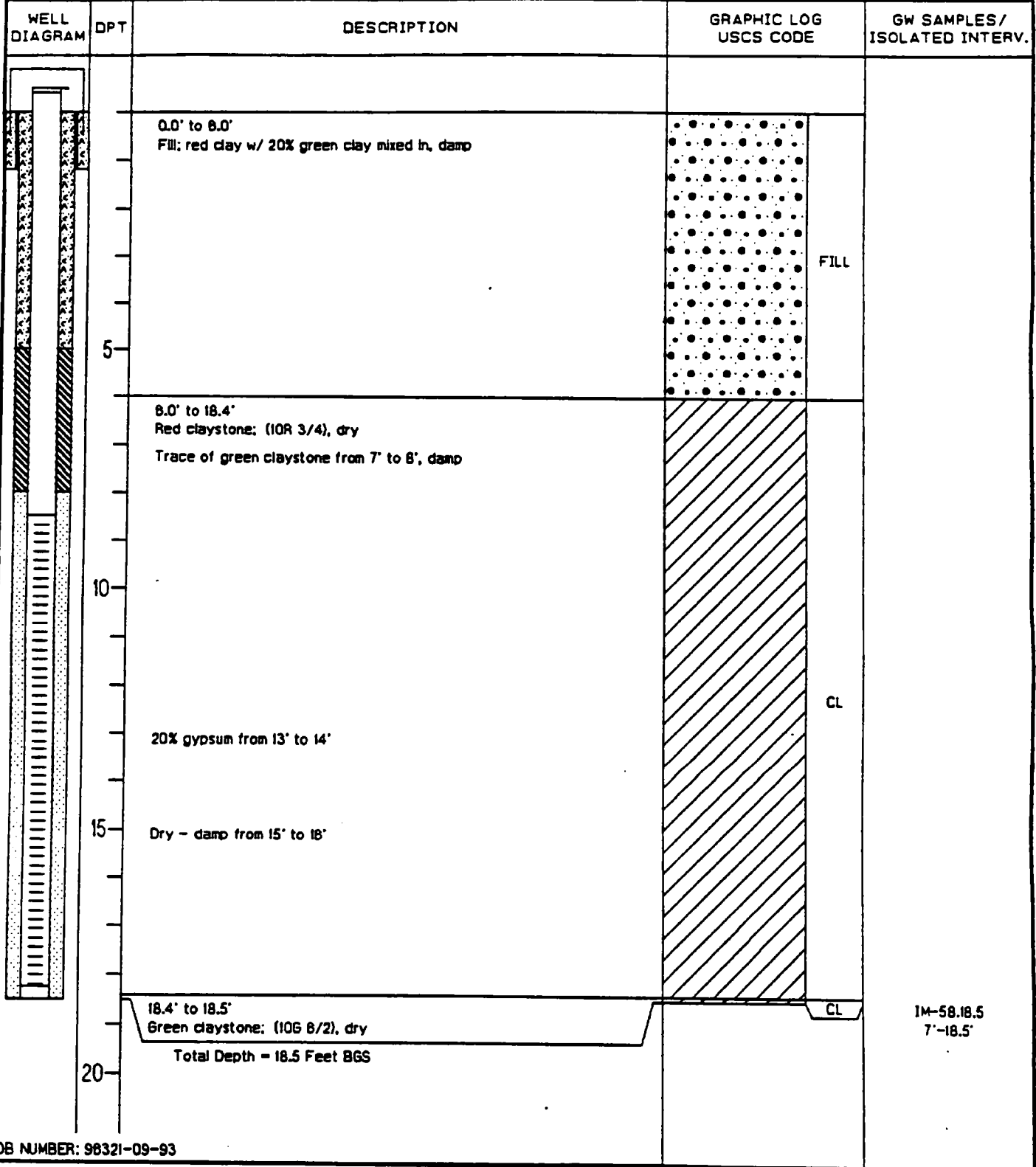
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PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>
METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-24-95</i>	COMP. DATE: <i>3-24-95</i>
SURFACE ELEVATION: <i>1394.24 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>27.0 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.	
		0.0' to 8.0' Fill; gravel for parking lot w/ red clay, damp to moist.		FILL	
		Red clay (fW), plastic, moist			
5		Green clay w/ 20% red clay (fW), moist, sticky			
	10	8.0' to 12.0' Red claystone: (10R 3/4), trace of gypsum, hard, dry Damp from 10' to 12'		CL	
		12.0' to 12.5' Green claystone: (10G 6/2), damp		CL	
	15	12.5' to 15.5' Red claystone		CL	
		15.5' to 18.0' Green claystone: (10G 6/2), dry		CL	
	20	18.0' to 26.5' Red claystone: (10R 3/4), dry 20% gypsum from 21' to 22'			CL
	25	Wet from 25' to 26.5'			CL
		26.5' to 27.0' Green claystone: (10G 6/2), wet Total Depth = 27.0 Feet BGS			CL
	30			IM-56.27 10'-27'	

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-29-95</i>	COMP. DATE: <i>3-29-95</i>	SURFACE ELEVATION: <i>1385.82 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 9.0'	Fill; red clay, wet. (poor recovery)		FILL
	9.0' to 18.9'	Red claystone: (10R 3/4), w/ <5% green claystone to 14', damp to dry 50% - 70% gypsum from 11' to 12' Dry 20% gypsum from 15' to 15.5' Dry		CL
	18.9' to 17.0'	Green claystone		CL
	Total Depth = 17.0 Feet BGS			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-29-95</i>	COMP. DATE: <i>3-29-95</i>	SURFACE ELEVATION: <i>1387.58 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>18.5 FEET BGS</i>	M.P. ELEV.: <i>1390.02 FEET</i>	



CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-29-95</i>	COMP. DATE: <i>3-29-95</i>	SURFACE ELEVATION: <i>1387.58 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.5 FEET BGS</i>	

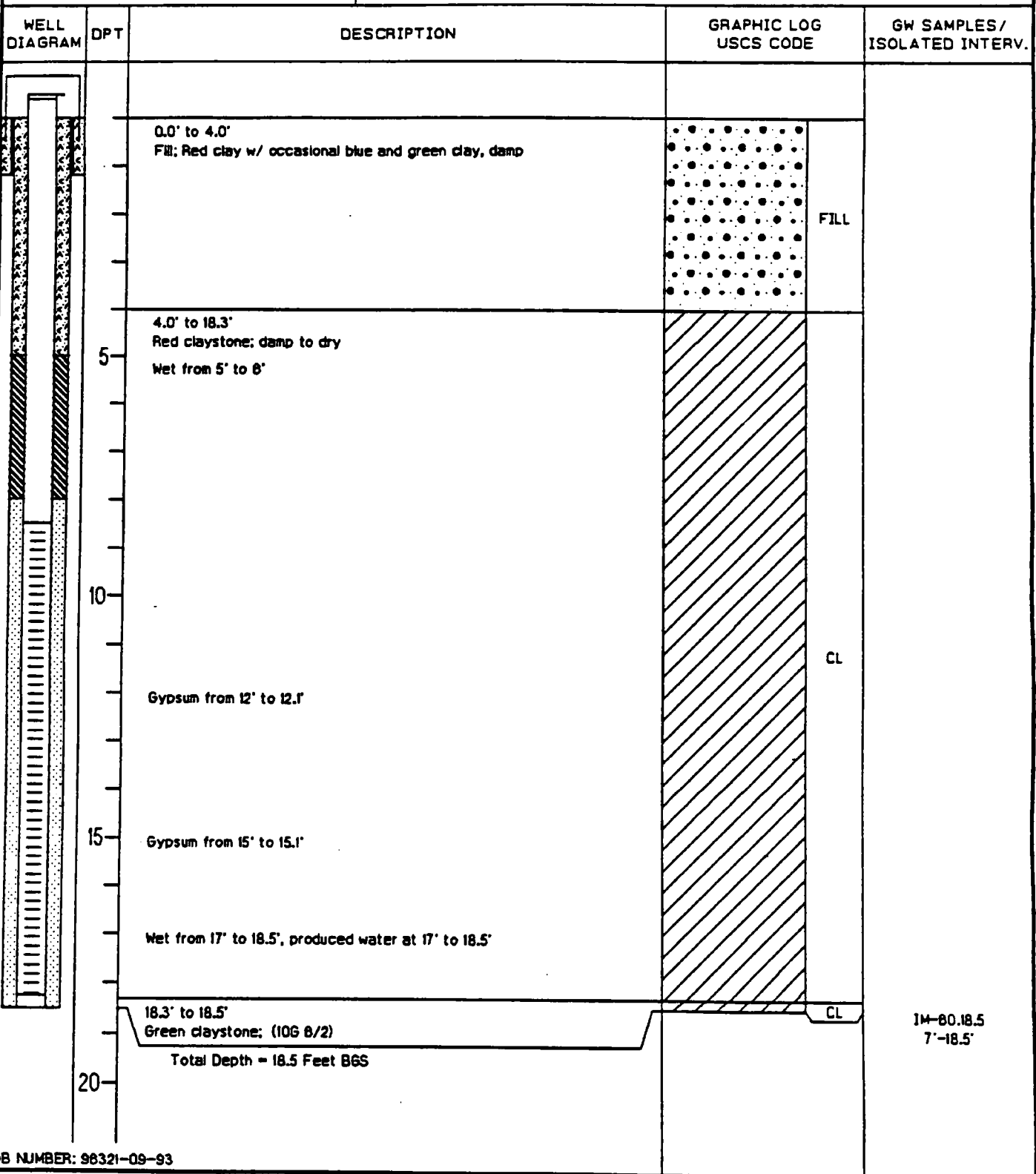
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 6.0'	Fill; red clay w/ 20% green clay mixed in, damp	FILL	
	6.0' to 18.4'	Red claystone: (10R 3/4), dry Trace of green claystone from 7' to 8', damp	CL	
	18.4' to 18.5'	Green claystone: (10G 6/2), dry Total Depth = 18.5 Feet BGS	CL	IM-58.18.5 7'-18.5'
	20'			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-29-95</i>	COMP. DATE: <i>3-29-95</i>	SURFACE ELEVATION: <i>1386.26 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>17.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 5.0' Fill: red clay (10R 3/4), damp		FILL
		Wet from 4' to 5'		
	5	5.0' to 11.5' Red claystone: damp to dry		CL
		Dry from 7' to 17.4'		
	10	Gypsum from 11.5' to 12'		GP
		12.0' to 15.0' Red claystone		CL
	15	Gypsum from 15' to 15.5'		GP
		15.5' to 18.0' Red claystone		CL
		Gypsum from 18' to 18.5'		GP
		18.5' to 17.4' Red claystone		CL
	17.4' to 17.5' Green Claystone: (10G 8/2), dry		CL	
20	Total Depth = 17.5 Feet BGS			

IM-59.17.5
7'-17.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-29-95</i>	COMP. DATE: <i>3-29-95</i>	SURFACE ELEVATION: <i>1386.25 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.5 FEET BGS</i>	

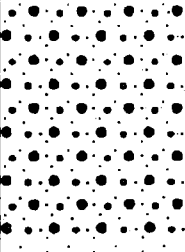
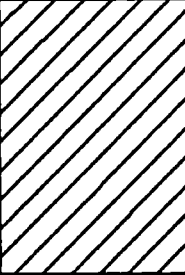

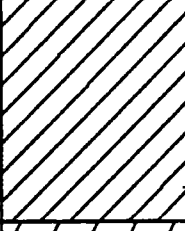



1M-80.18.5
7'-18.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-29-95</i>	COMP. DATE: <i>3-29-95</i>	SURFACE ELEVATION: <i>1386.25 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>18.5 FEET BGS</i>	M.P. ELEV.: <i>1388.90 FEET</i>

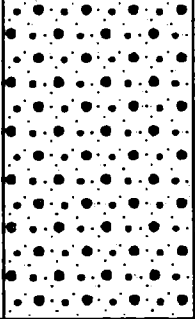

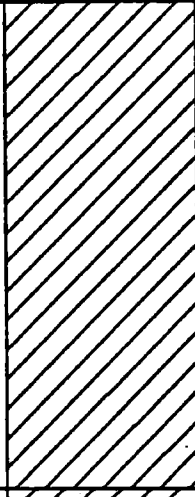

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 4.0'	Fill: Red clay w/ occasional blue and green clay, damp	FILL	
	4.0' to 18.3'	Red claystone; damp to dry Wet from 5' to 8'	CL	
		Gypsum from 12' to 12.1'	CL	
		Gypsum from 15' to 15.1'	CL	
		Wet from 17' to 18.5'	CL	
	18.3' to 18.5'	Green claystone: (10G 8/2) Total Depth = 18.5 Feet BGS	CL	IM-60.18.5 7'-18.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-31-95</i>	COMP. DATE: <i>3-31-95</i>	SURFACE ELEVATION: <i>1394.38 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>27.0 FEET BGS</i>

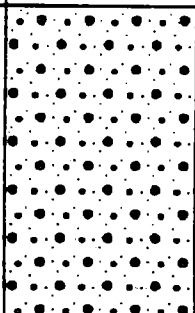
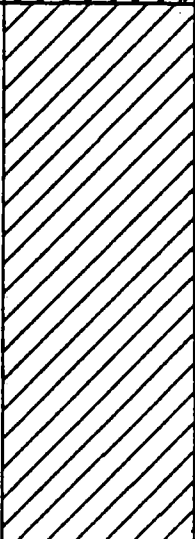
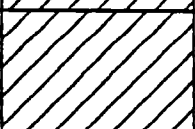
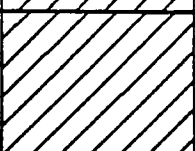
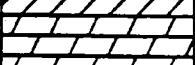


WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 7.0' Fill; red clay and gravel, parking lot, moist		FILL
	5	Red clay (fill), plastic, soft, moist		
		7.0' to 14.5' Red claystone: (10R 3/4), damp to dry		CL
	10	Damp		
		Gypsum from 14.5' to 15'	GP	
		15.0' to 18.0' Red claystone		CL
		18.0' to 17.5' Green claystone: damp		CL
		17.5' to 23.5' Red claystone: (10R 3/4), wet		CL
	20			
		Gypsum from 23.5' to 24'	GP	
		24.0' to 28.9' Red claystone		CL
	25			CL
		28.9' to 27.0' Green claystone: (10G 8/2), wet	CL	
		Total Depth = 27.0 Feet BGS		
	30			
	35			

IM-61.27
10'-27'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>3-31-95</i>	COMP. DATE: <i>3-31-95</i>	SURFACE ELEVATION: <i>1394.89 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>14.0 FEET BGS</i>	



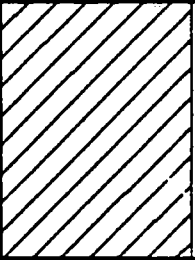
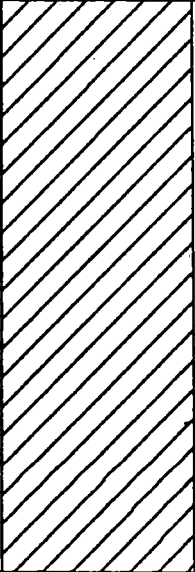

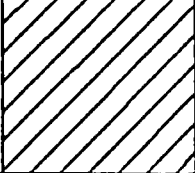

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 5.0' Fill: red clay, plastic, gravel from parking lot, moist		FILL
	5	5.0' to 8.0' Green claystone (10G 8/2), plastic, soft, moist		CL
		8.0' to 13.5' Red claystone: (10R 3/4), damp to dry		CL
	10			
		13.5' to 14' Green claystone: (10G 8/2)		CL
	15	Total Depth = 14.0 Feet BGS		
				IM-62.14 9'-14'
	20			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-31-95</i>	COMP. DATE: <i>4-01-95</i>	SURFACE ELEVATION: <i>1395.57 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>48.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 6.0'	Fill; red clay w/ gypsum gravel, plastic, occasional green clay mixed through, damp	 FILL	
	6.0' to 18.5'	Red claystone: (10R 3/4), slightly plastic, damp Damp to dry	 CL	
	18.5' to 19'	Green claystone: (10G 8/2), damp	 CL	
	19' to 22'	Red claystone: (10R 3/4)	 CL	
	22' to 23'	10% gypsum from 22' to 23'	 GP	
	23' to 25'	Red claystone	 CL	
			 CL	

IM-63.13
5'-13'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-31-95</i>	COMP. DATE: <i>4-01-95</i>	SURFACE ELEVATION: <i>1395.57 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>48.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		10% gypsum from 25' to 28'	 CL	
		28.0' to 28.0' Red claystone	 CL	
	30	28.0' to 33.0' Green claystone: (10G 8/2), dry	 CL	IM-63.28 0'-28'
	35	33.0' to 44.0' Red claystone: dry	 CL	
		Gypsum at 38'		
	40	Damp from 40' to 42'		
		20% gypsum from 44' to 44.5'	 GP	
	45	44.5' to 47.9' Red claystone: dry	 CL	
		47.9' to 48.0' Green claystone: dry	 CL	IM-63 28'-48' DRY
	50	Total Depth = 48.0 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>5-09-95</i>	COMP. DATE: <i>5-09-95</i>	SURFACE ELEVATION: <i>1387.59 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>40.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Fill; red clay, (10R 3/4), plastic, damp		FILL
	5.0' to 8.0'	Red claystone; Dry to slightly damp		CL
	8.0' to 10.0'	Green claystone: (10G 8/2), slightly damp		CL
	10.0' to 19.3'	Red claystone Trace gypsum		CL
	19.3' to 25.5'	Green claystone: (10G 8/2), wet to 19.5' Tight, waxy, dry to slightly damp from 19.5'		CL
		Wet from 18.5' to 19.5', making water		
				IM-64.195 7'-19.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>5-09-95</i>	COMP. DATE: <i>5-09-95</i>	SURFACE ELEVATION: <i>1387.59 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>40.0 FEET BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.	
			CL		
		Red claystone; slightly damp to dry		CL	
		Gypsum from 29' to 30'		GP	
	30	30.0' to 38.0' Red claystone		CL	
	35	10% gypsum from 36' to 36.5'		GP	
		36.5' to 37.0' Red claystone		GP	
		20% gypsum from 37' to 38'		CL	
	40	38.0' to 39.9' Red claystone		CL	
		39.9' to 40.0' Green claystone; dry		CL	IM-64.40 20.5'-40'
		Total Depth = 40.0 Feet BGS			

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>5-11-95</i>	COMP. DATE: <i>5-11-95</i>	SURFACE ELEVATION: <i>1394.08 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>12.0 FEET BGS</i>	

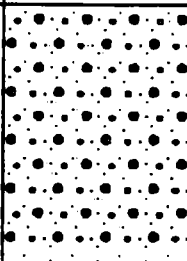
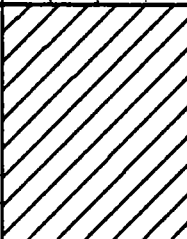
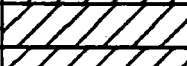


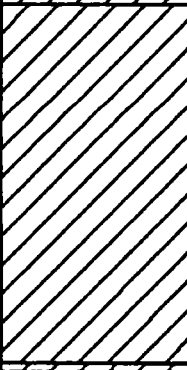

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 7.0'	Fill; red clay, damp from 0' to 4', moist from 4' to 7'		FILL
	7.0' to 11.9'	Red claystone: (10R 3/4), damp Damp to moist		CL
	11.9' to 12.0'	Green claystone: (10G 8/2), damp to moist Total Depth = 12.0 Feet BGS		CL
				IM-65 9'-12'

CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 96321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W. POOL	DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY	
START DATE: 5-11-95	COMP. DATE: 5-11-95	SURFACE ELEVATION: 1394.29 FEET	
LOGGED BY: DAN DOWERS		TOTAL DEPTH: 12.1 FEET BGS	

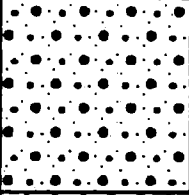
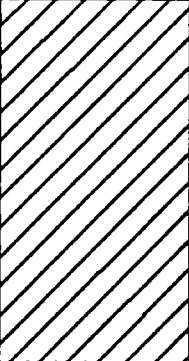
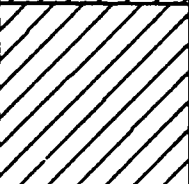
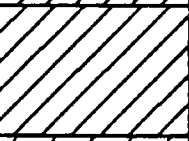

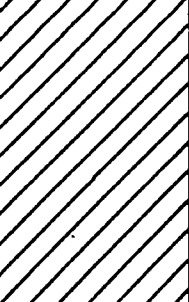

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 7.0'	Fill; red clay, occasional gypsum gravel, moist		
	7.0' to 12.0'	Red claystone; damp to dry Damp		CL
	12.0' to 12.1'	Green claystone; slightly plastic, damp Total Depth = 12.1 Feet BGS		CL

IM-66
9-12

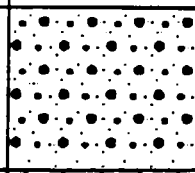

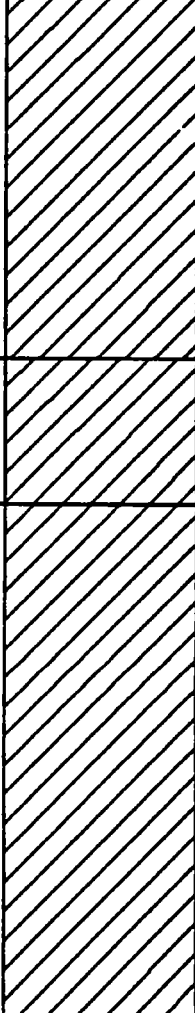
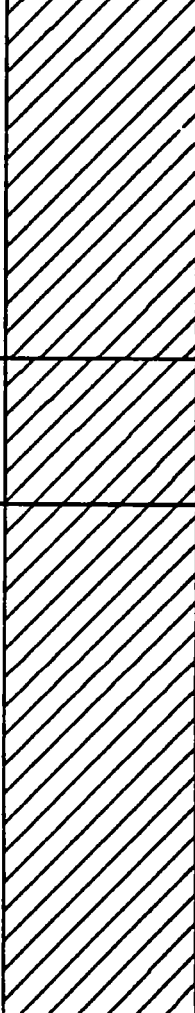
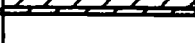
CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>7-11-95</i>	COMP. DATE: <i>7-11-95</i>	SURFACE ELEVATION: <i>1393.83 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>28.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 6.0'	Fill; red clay, dry from 0' to 2' Damp from 2' to 6'		FILL
	6.0' to 11.5'	Red claystone: (10R 3/4), dry 20% gypsum from 7' to 8'		CL
	11.5' to 12.5'	Green claystone: (10G 8/2), damp		CL
	12.5' to 15.7'	Red claystone: dry, dusty 10% gypsum from 15' to 15.7'		CL
	15.7' to 18.0'	Green claystone: (10G 8/4), damp		CL
	18.0' to 28.3'	Red claystone: damp, trace gypsum from 18' to 20' 5% gypsum from 23.5' to 24'		CL
	28.3' to 28.5'	Green claystone: (10G 8/4), damp to wet Total Depth = 28.5 Feet BGS		CL
				IM-67.28.5 18'-28.5'

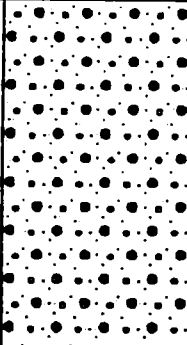

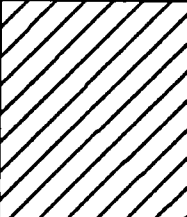
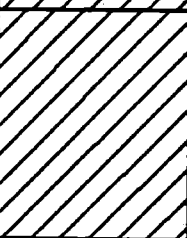


CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>7-11-95</i>	COMP. DATE: <i>7-12-95</i>	SURFACE ELEVATION: <i>1386.85 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>38.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	5	0.0' to 8.0' Fill; red clay, dry from 0' to 2' Moist from 2' to 8'	 FILL	
	10	8.0' to 17.3' Red claystone: (10R 3/4), damp 20% gypsum from 11' to 12' 5% gypsum from 12 to 14' 5% gypsum from 15.5' to 18'	 CL	
	20	17.3' to 23.0' Green claystone: (10G 8/4), damp to dry 2% xylene gypsum from 17.5' to 23'	 CL	IM-68.17.5 7'-17.5'
	25	23.0' to 27.0' Red claystone; plastic, damp from 23' to 28' Wet from 28' to 27'	 CL	
	30	27.0' to 28.0' 50% gypsum	 GP	
	35	28.0' to 37.9' Red claystone; as above, wet from 28' to 34' Damp to moist from 34' to 37.9'	 CL	
	40	37.9' to 38.0' Green claystone; damp Total Depth = 38.0 Feet BGS	 CL	IM-68.38 18'-38.0'

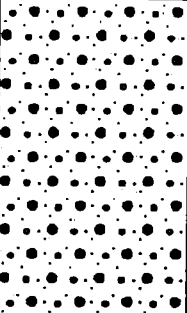
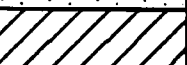

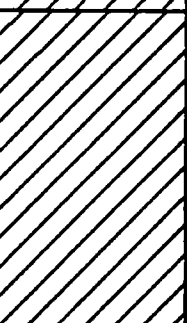
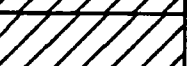
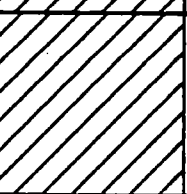

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>7-12-95</i>	COMP. DATE: <i>7-13-95</i>	SURFACE ELEVATION: <i>1385.88 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>38.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Fill; red clay, damp, soft, plastic	 FILL	
	5.0' to 6.0'	Massive white gypsum, dry, dusty	 GP	
	6.0' to 17.5'	Red claystone: (10R 3/4), damp		
	1-2% gypsum from 11' to 12'			CL
	17.5' to 22.0'	Green claystone: (10G 8/2), wet (makes water) to 18'		CL
		Damp, plastic from 18' to 22'		
	22.0' to 37.8'	Red claystone: damp to dry to 25'		
		Wet from 26' to 37.9'		CL
		Green claystone: (10G 8/2), damp		IM-89.38 18'-38.0'
		Total Depth = 38.0 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>7-13-95</i>	COMP. DATE: <i>7-14-95</i>	SURFACE ELEVATION: <i>1393.15 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>15.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.5'	Fill; red clay, moist to wet		FILL
	5.5' to 8.5'	Green claystone: (10G 8/2), damp		CL
	8.5' to 10.0'	Red claystone: (10R 3/4), damp		CL
	10.0' to 13.5'	Green claystone: (10G 8/2), damp		CL
	13.5' to 14.8	Red claystone: dry, 10% gypsum from 13.5' to 14'		CL
	14.8' to 15.0'	Green claystone: damp		CL
	Total Depth = 15.0 Feet BGS			
				IM-70.15 7-15.0'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>
PROJECT: <i>CELL 5 INTERIM MEASURE</i>	LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>7-14-95</i>	COMP. DATE: <i>7-14-95</i>	SURFACE ELEVATION: <i>1394.07 FEET</i>
LOGGED BY: <i>DAN DOWERS</i>	TOTAL DEPTH: <i>18.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 5.0' Fill; sandy gypsum gravel and red clay, damp		FILL
	5	5.0' to 8.0' Red claystone; damp to dry		CL
		8.0' to 7.0' Green claystone; damp		CL
		7.0' to 12.0' Red claystone, dry, dusty		CL
	10			
		12.0' to 13.0' Green claystone; damp		CL
		13.0' to 15.8' Red claystone; dry, dusty		CL
	15			
		15.8' to 18.0' Green claystone; damp		CL
		Total Depth = 18.0 Feet BGS		
	20			

IM-7118
0'-18.0'

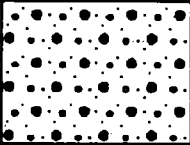


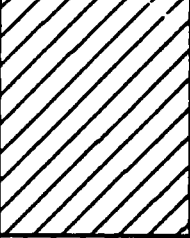



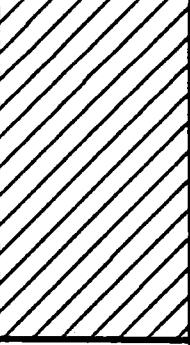

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>7-14-95</i>	COMP. DATE: <i>7-14-95</i>	SURFACE ELEVATION: <i>1393.42 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>15.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Fill; red clay, trace gypsum, damp	FILL	
	5.0' to 6.0'	Red claystone	CL	
	6.0' to 7.0'	Green claystone; damp	CL	
	7.0' to 12.0'	Red claystone, dry	CL	
	12.0' to 12.5'	Green claystone	CL	
	12.5' to 15.4'	Red claystone; moist to wet	CL	
	15.4' to 15.5'	Green claystone; moist to wet	CL	IM-72.15.5 0'-15.5'
		Total Depth = 15.5 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>7-18-95</i>	COMP. DATE: <i>7-18-95</i>	SURFACE ELEVATION: <i>1388.43 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>41.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.5'	Fill; red clay, trace gypsum	FILL	
	5.5' to 19.7'	Red claystone; damp to dry		
	19.7' to 24.5'	Green claystone; dry to damp		CL
	24.5' to 40.8'	Red claystone; dry to 28' Wet from 28' to 40.8'		CL
	40.8' to 41.0'	Green claystone; wet from above	CL	IM-73.20 No sample, dry 0'-20.0'
		Total Depth = 41.0 Feet BGS Hole making water at total depth		IM-73.41 20'-41.0'

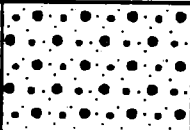
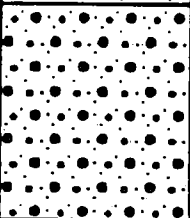
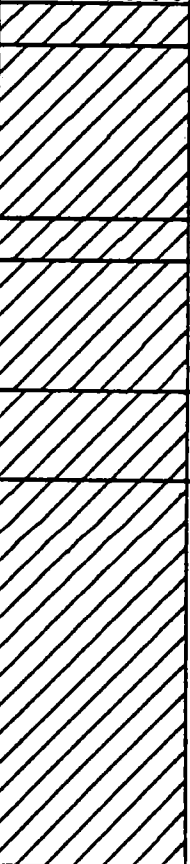
CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 98321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W. POOL	DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY	
START DATE: 7-19-95	COMP. DATE: 7-19-95	SURFACE ELEVATION: 1388.31 FEET	
LOGGED BY: DAN DOWERS		TOTAL DEPTH: 40.0 FEET BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Fill; red clay, damp, sticky, plastic		FILL
	5.0' to 9.5'	Red claystone; with 20% green claystone, trace 1% gypsum, damp Damp to dry from 8' to 9.5'		CL
	9.5' to 11.0'	Green claystone; damp, slightly plastic		CL
	11.0' to 19.9'	Red claystone; dry to damp Gypsum from 14' to 14.5' 10% gypsum from 15' to 18' 10% gypsum from 17' to 18'		CL
	19.9' to 24.0'	Green claystone; damp, slightly plastic		CL
	24.0' to 27.0'	Red claystone; dry to slightly damp		CL
	27.0' to 28.0'	Massive white gypsum		GP
	28.0' to 39.9'	Red claystone; dry Moist at 38' Damp from 38' to 40'		CL
	39.9' to 40.0'	Green claystone Total Depth = 40.0 Feet BGS		CL

IM-74.20
No water sample
dry
0'-20.0'

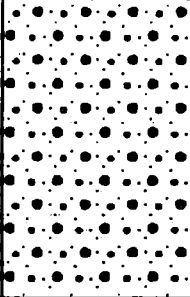
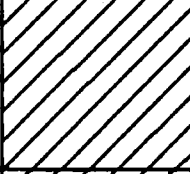



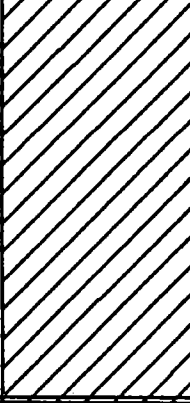

IM-74.40
20'-40.0'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>7-20-95</i>	COMP. DATE: <i>7-20-95</i>	SURFACE ELEVATION: <i>1394.68 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>28.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 3.0' Fill; gypsum gravel		FILL
	5	3.0' to 8.0' Fill; red clay, damp, plastic		FILL
	10	8.0' to 9.0' Green claystone: damp, slightly plastic		CL
		9.0' to 13.0' Red claystone: damp		CL
	15	13.0' to 14.0' Green claystone: damp, slightly plastic		CL
		14.0' to 17.0' Red claystone: dry		CL
		17.0' to 19.0' Green claystone: damp, slightly plastic		CL
	20	19.0' to 27.9' Red claystone: damp Becomes wet at 20'		CL
	25			
	30	27.9' to 28.0' Green claystone		CL
		Total Depth = 28.0 Feet BGS		

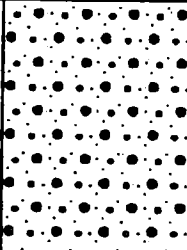
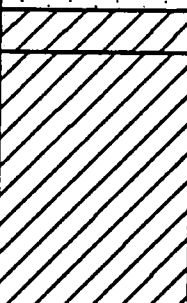
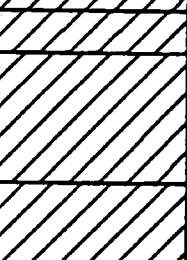
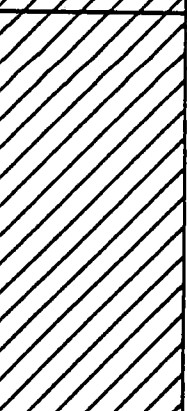

IM-75.28
0'-28.0'

CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 96321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W. POOL	DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY	
START DATE: 7-20-95	COMP. DATE: 7-20-95	SURFACE ELEVATION: 1392.45 FEET	
LOGGED BY: DAN DOWERS		TOTAL DEPTH: 26.5 FEET BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 7.0'	Fill; red clay, damp, plastic		FILL
	7.0' to 11.0'	Red claystone; damp to dry		CL
	11.0' to 12.0'	Green claystone; damp		CL
	12.0' to 15.0'	Red claystone		CL
	15.0' to 17.0'	Green claystone; damp, plastic		CL
	17.0' to 26.4'	Red claystone; damp to 19' Moist to wet from 19' to 20' Damp from 20' to 24' 10% gypsum from 23.5' to 24' Wet from 24' to 26.4'		CL
	26.4' to 26.5'	Green claystone; wet Total Depth = 26.5 Feet BGS		CL

IM-76.26.5
0'-26.5'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>7-21-95</i>	COMP. DATE: <i>7-21-95</i>	SURFACE ELEVATION: <i>1393.82 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>28.5 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 8.0'	Fill; red clay, damp		FILL
	8.0' to 7.0'	Green claystone; damp		CL
	7.0' to 13.0'	Red claystone; dry		CL
	13.0' to 14.0'	Green claystone; damp		CL
	14.0' to 17.0'	Red claystone; dry		CL
	17.0' to 19.0'	Thin gypsum zone at 18.5' Green claystone; damp		CL
	19.0' to 28.3'	Red claystone; damp		C
	24.5' to 25'	20% gypsum from 24.5' to 25'		
	28.3' to 28.5'	Green claystone; damp		CL
	Total Depth = 28.5 Feet BGS			

IM-77.28.5
0'-28.5'

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/11/92		DATE COMP: 9/16/92		REF. EL.:	TOTAL DEPTH: 21
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0'- 13.0'. Engineered Clay Fill: 100% fines, h dry strength, m pist, m reddish brn (10R3/4) npo, n organics, mst, homo.			
	10		CL	13.0'- 21.0'. Claystone: 100% fines, stiff to hard, dry to moist, no observed sat. intervals, blocky fracture, mottled, moderate reddish brown (10R 3/4), spotted pale green (10G 6/2), subhoriz. to high angle gypsum veins (<1/4" thick), no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill)			
	15			Bottom of boring: 21 feet below grade Borehole diameter: 8" to 6' BG 6" to 15' BG 4" to 21' BG Boring abandoned with neat cement (0-42' @30 degrees) Borehole diameter: 4.25" Cement mix: 7 sacks Portland type II cement 5X bentonite powder (35 lbs.) 53 gal. water 1-1 mix			
	20						
	25						
	30						
	35						
	40						
	45						
	50						
	55						
	60						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 08124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR ROTARY	
DATE START: 8/25/92		DATE COMP: 8/25/92		REF. EL.:	TOTAL DEPTH: 81
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER: 15

WELL COMP	DPT	BLOMS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
T	5	[Hatched Pattern]	CL	0.0' - 18.0', Engineered Fill: 100% fines, h dry strngth, n dntncy, m tghnss, m reddish brn (10R3/4) npo, n organics, mst, homo, grades to claystone bedrock at 18 feet below grade.	0		NO
	18			18.0' - 81.0', Claystone: 100% fines, firm to hard, dry to moist, wet at 25-28 feet below grade, blocky fracture, mottled, moderate reddish brown (10R3/4) to pale green (10G6/2), subhorizontal to high angle gypsum veins (<1/4" thick), no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill)			
	60						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR ROTARY	
DATE START: 8/25/92		DATE COMP: 8/25/92		REF. EL.:	TOTAL DEPTH: 81
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER: 15

WELL COMP	DPT	BLOKS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		CL				
	70						
	75						
	80						
	85			Bottom of boring: 80 feet below grade Boring abandoned with neat cement (0-80') Borehole diameter: 4.75" 6 sacks cement 60 lbs. bentonite 90 gal. water			
	90						
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR ROTARY	
DATE START: 8/25/92		DATE COMP: 8/25/92		TOTAL DEPTH: 80	
LOGGED BY: ERIC TAYLOR		APPROVED BY:		DEPTH TO WATER: 15	

WELL COMP	DPT	BLOW	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.	
↓	5	[Hatched]	CL	0.0' - 16.5'. Engineered Fill: 100% fines, h dry strength, n dntncy, m tghnss, m reddish brn (10R3/4) npo, n organics, mst, homo, grades to claystone bedrock at 18 feet below grade.	0		ND	
	15			18.0' - 81.0'. Claystone: 100% fines, firm to hard, dry to moist, no observed sat. intervals, locky fracture, mottled, moderate reddish brown (10R3/4) to pale green (10G6/2), subhorizontal to high angle gypsum veins (<1/4" thick), no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill)				
	20	[Hatched]	CL					
	25							
	30							
	35							
	40	[Hatched]	CL					
	45							
	50							
	55							
	60	[Hatched]						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR ROTARY	
DATE START: 8/25/92		DATE COMP: 8/25/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER: 15

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		CL				
	70						
	75						
	80						
	85			Bottom of boring: 81 feet below grade Boring abandoned with neat cement (0-81') Borehole diameter: 4.75" Cement mix: 8 sacks cement 80 lbs. bentonite 120 gal. water			
	90						
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:	
LOGGED BY: ERIC TAYLOR		APPROVED BY:		DEPTH TO WATER:	
TOTAL DEPTH: 80					

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dntncy, m plst, m reddish brn (1OR3/4) npo, n organics, dry - mst, homo.			
	15		CL	13.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to moist, moderate reddish brown (1OR 3/4) to pale green (1OG 6/2), crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill) no core recovery, descrip. from drill cuttings.			
	25		CL	25.0' - 29.5', Claystone: 100% fines, m stiff, mst to wet, slightly fissile, homo, pale green (1OG 6/2), mottled r.brn (27-28'), HCL reaction, h dry strngth, n dntncy, m plst, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	35		CL	29.5' - 45.0' Claystone: 100% fines, stiff to hard, dry - mst, blocky fracture, reddish brown (1OR 3/4), homo, trc mottled pale green (1OG 6/2), green coloration associated with gypsum, no HCL reaction, npo, sub horiz. - vertical gypsum veins (<1/4" thick), mst, worked samples exhibit properties of lean clay (see Fill descrip.), A/A mottled (35-37', 39.5-40')			
	45		CL	45.0' - 48.0', Claystone: 100% fines, mst-wet, slightly fissile, homo, pale green (1OG 6/2), no HCL reaction, h dry strngth, n dntncy, m plst, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	55		CL	48.0' - 74.5', Claystone: 100% fines, dry - mst, stiff to hard, blocky fracture, reddish brown (1OR 3/4) spotted with pale green (1OG 6/2), grn coloration associated with gypsum, extensive sub horiz. gypsum veins (<1/4 " thick), moist, worked samples exhibit properties of lean clay (see Fill descrip.)			
	60						

CLIENT: USPCI, LONE MOUNTAIN				JOB NUMBER: 96124			
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA				
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL			METHOD: AIR & MUD ROTARY		
DATE START: 8/27/82		DATE COMP: 8/27/82		REF. EL.:		TOTAL DEPTH: 80	
LOGGED BY: ERIC TAYLOR			APPROVED BY:			DEPTH TO WATER:	
WELL COMP	DPT	SLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		CL				
	70						
	75		CL	74.5' - 75.0'. Claystone: 100% fines, dry - mst, m. stiff to stiff, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy m plst, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	80		CL	75.0' - 80.0'. Claystone: 100% fines, dry - mst, stiff to hard, interbedded reddish brown (10R 3/4) and pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m plst, npo, no organics, extensive sub horizontal gypsum veins (<1/4" thick), pale green material appears and handles more like lean clay than claystone due to higher moisture content.			
	85			Bottom of boring: 80 feet below grade Borehole diameter: 12.25" to 13" 6.25" 13' to 80'			
	90			Boring abandoned with neat cement (0-80') Cement mix: 13 sacks Portland type II cement 130 lbs bentonite powder 185 gallons water Removed 13 feet casing			
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 98124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/21/92		DATE COMP: 9/29/92		REF. EL.:	TOTAL DEPTH: 85
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOMS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dintncy, m plst, m reddish brn (10R3/4) npo, n organics, dry - mst, homo.			
	15		CL	13.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to moist, moderate reddish brown (10R 3/4) spotted pale green (10G 6/2), moistened and worked samples exhibit properties of lean clay (see above description for engineered fill), extensive sub horizontal gypsum veins (<1/4" thick, 23-24').			
	25		CL	25.0' - 30.0', Claystone: 100% fines, m stiff, mst, slightly fissile, homo, pale green (10G 6/2), h dry strngth, m plst, n dintncy, no HCL reaction, 2 feet of recovery from core, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	35		CL	30.0' - 47.0' Claystone: 100% fines, stiff to hard, dry - wet, saturated gypsum veins at 32-34', 35-36', blocky fracture when dry, reddish brown (10R 3/4), spotted to mottled pale green (10G 6/2), green coloration associated with gypsum, no HCL reaction, npo, extensive sub horiz. - vertical gypsum veins (<1/4" thick) from 30-35'.			
	50		CL	47.0' - 49.5', Claystone: 100% fines, mst-wet, slightly fissile, pale green (10G 6/2), no HCL reaction, h dry strngth, n dintncy, m plst, npo, no organics, two saturated, high angle gypsum veins.			
	55		CL	49.5' - 75.0', Claystone: 100% fines, dry - wet, m stiff to hard, blocky fracture to sl fissile, reddish brown (10R 3/4) spotted with pale green (10G 6/2), grn coloration associated with gypsum, all cores recovered from this interval contained saturated either wet gypsum veins or very soft, wet, clay intervals, obvious transitions between dry and saturated clay noted throughout interval.			
	60						

CLIENT: USPCI, LONE MOUNTAIN				JOB NUMBER: 96124			
PROJECT: CELL 5 RFI				LOCATION: LONE MTN, OKLAHOMA			
DRILLED BY: A.W. POOL			DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY		
DATE START: 8/21/92		DATE COMP: 8/29/92		REF. EL.:		TOTAL DEPTH: 85	
LOGGED BY: ERIC TAYLOR			APPROVED BY:			DEPTH TO WATER:	
WELL COMP	DPT	BLOS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		CL				
	70						
	75		CL	75.0' - 77.5'. Claystone: 100% fines, wet, soft, homo, pale green (10G 6/2), no HCL reaction, h dry strngth, n dntncy, m plst, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	80		CL	77.5' - 85.0'. Claystone: 100% fines, dry - wet, m stiff to hard, reddish brown (10R 3/4), spotted to mottled pale green (10G 6/2), h dry strngth, n dntncy, m plst, npo, no organics, common sub horizontal gypsum veins (<1/4" thick), pale green material appears and handles more like lean clay than claystone due to higher moisture content.			
	85			Bottom of boring: 85 feet below grade Borehole diameter: 8" to 14" 6", 14 to 80' Boring abandoned with neat cement (0-85') Cement mix: 19 sacks Portland type II cement 35 lbs bentonite powder 180 gallons water Pulled 14' of 8" and 80' of 6" casing			
	90						
	95						
	100						
	105						
	110						
	115						
	120						

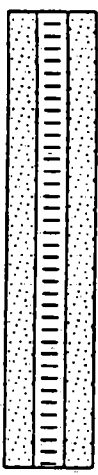
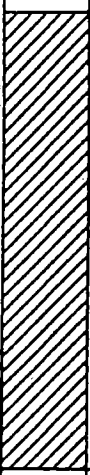
CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/18/82		DATE COMP: 9/21/82		REF. EL.:	TOTAL DEPTH: 35
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dntncy, m plst, m reddish brn (10R3/4) npo, n organics, dry - mst, homo.			
	15		CL	13.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to wet, moderate reddish brown (10R 3/4) spotted pale green (10G 6/2), moistened and worked samples exhibit properties of lean clay (see above description for engineered fill), common sub horizontal gypsum veins (<1/4" thick), saturated clay (21-23').			
	25		CL	25.0' - 30.5', Claystone: 100% fines, m stiff, mst-wet, sl. fissae, homo, pale green (10G 6/2), h dry strngth, m plst, n dntncy, no HCL reaction, mottled rd-brn (30-30.5'), no organics, appears and handles more like lean clay than claystone due to higher moisture content. Very wet fat clay (30.5-31'). Common gypsum veins (<1" thick).			
	35		CL	30.5' - 35.0' Claystone: 100% fines, m stiff to hard, dry - wet, saturated gypsum veins (<1" thick) common, blocky fracture when dry, reddish brown (10R 3/4), spotted to mottled pale green (10G 6/2), green coloration associated with gypsum, no HCL reaction.			
	40			Bottom of boring: 35 feet below grade Borehole diameter: 12.25" to 13" 6.25", 13 to 35'			
	45			Boring abandoned with neat cement (0-35') Cement mix: 7 sacks Portland type II cement 25 lbs bentonite powder 70 gallons water Pull 30 feet 6" casing and 14 feet of 8" casing			

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/18/92		DATE COMP: 10/5/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	0			0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dhtncy, m plst, m reddish brn (1OR3/4) npo, n organics, dry - mst, homo.			
	5		CL				
	10						
	15		CL	13.0' - 26.0', Claystone: 100% fines, stiff to hard, dry, moderate reddish brown (1OR 3/4) spotted (<1") pale green (1OG 6/2), crushed moistened and worked samples exhibit properties of lean clay (see above description for engineered fill), occ gypsum vein (<1/4" thick).			
	20						
	25						
	30		CL	26.0' - 31.0', Claystone: 100% fines, m stiff, mst, slightly fissile, homo, pale green (1OG 6/2), rare gypsum inclusions, no HCL reaction, h dry strngth, n dhtncy, m plst, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	35		CL	31.0' - 45.0' Claystone: 100% fines, stiff to hard, dry - mst, blocky fracture, reddish brown (1OR 3/4), homo, trc mottled pale green (1OG 6/2), green coloration associated with gypsum, no HCL reaction, npo, sub horiz. - vertical gypsum veins (<1/4" thick), mst, worked samples exhibit properties of lean clay (see Fill descrip.).			
40							
45		CL	45.0' - 46.0', Claystone: 100% fines, m stiff, mst-wet, reddish brown (1OR 3/4), homo, no HCL reaction, npo, first observed rd-brn interval exhibiting in-situ characteristics of lean clay (see Fill descrip.).				
50		CL	46.0' - 50.0', Claystone: 100% fines, mst-wet, slightly fissile, homo, pale green (1OG 6/2), no HCL reaction, m stiff, h dry strngth, m plst, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content.				
55		CL	50.0' - 52.0', Claystone: 100% fines, wet, soft, reddish brown w/ pale green streaks (<1" thick), h dry strngth, m plst, npo.				
60				52.0' - 80.0', Claystone: 100% fines, dry-mst, mostly dry and hard, common gypsum veins (<1/4" thick), 2" gypsum vein at 60', saturated gypsum veins at 54.5', 61', 62', 63', saturated interval at 65-67' associated with gypsum veins.			

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/18/92		DATE COMP: 10/5/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVH	SAMPLE NUMBER	SAMPLE ANAL.
	65 70 75 80			CL			
	85 90 95 100 105 110 115 120						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/21/92		DATE COMP: 9/29/92		REF. EL.:	TOTAL DEPTH: 75
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dntncy, m plst, m reddish brn (10R3/4) npo, n organics, dry - mst, homo.			
	15		CL	13.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to moist, moderate reddish brown (10R 3/4) spotted pale green (10G 6/2), moistened and worked samples exhibit properties of lean clay (see above description for engineered fill), extensive sub horizontal gypsum veins (<1/4" thick, 23-24').			
	25		CL	25.0' - 30.0', Claystone: 100% fines, m stiff, mst, slightly fissile, homo, pale green (10G 6/2), h dry strngth, m plst, n dntncy, no HCL reaction, 2 feet of recovery from core, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	35		CL	30.0' - 47.0' Claystone: 100% fines, stiff to hard, dry - wet, saturated gypsum veins at 32-34', 35-36', blocky fracture when dry, reddish brown (10R 3/4), spotted to mottled pale green (10G 6/2), green coloration associated with gypsum, no HCL reaction, npo, extensive sub horiz. - vertical gypsum veins (<1/4" thick) from 30-35'.			
	50		CL	47.0' - 49.5', Claystone: 100% fines, mst-wet, slightly fissile, pale green (10G 6/2), no HCL reaction, h dry strngth, n dntncy, m plst, npo, no organics, two saturated, high angle gypsum veins.			
	55		CL	49.5' - 75.0', Claystone: 100% fines, dry - wet, m stiff to hard, blocky fracture to sl fissile, reddish brown (10R 3/4) spotted with pale green (10G 6/2), grn coloration associated with gypsum, all cores recovered from this interval contained saturated either wet gypsum veins or very soft, wet, clay intervals, obvious transitions between dry and saturated clay noted throughout interval.			
	60						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 96124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 9/21/92	DATE COMP: 9/29/92	REF. EL.:		TOTAL DEPTH: 75	
LOGGED BY: ERIC TAYLOR		APPROVED BY:		DEPTH TO WATER:	

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		CL				
	70						
	75						
	80			Bottom of boring: 75 feet below grade Borehole diameter: 6" to 14" 6", 14 to 70' Boring abandoned with neat cement (0-75') Cement mix: 18 sacks Portland type II cement 35 lbs bentonite powder 160 gallons water Pulled 14' of 8" and 80' of 6" casing			
	85						
	90						
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill 100% fines, h dry strngth, n dintncy, m pist, m reddish brn (IOR3/4) npo, n organics, mst, homo, grades to claystone bedrock at 18 feet below grade.			
	13.0'		CL	13.0' - 16.0', Claystone: 100% fines, stiff to hard, dry to moist, no observed sat. intervals, blocky fracture, mottled, moderate reddish brown (IOR 3/4) to pale green (IOG 6/2), subhorizontal to high angle gypsum veins (<1/4" thick), no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill)			
	16.0'		CL	16.0' - 18.0', Claystone: 100% fines, m stiff, mst to v. mst, no observed saturated intervals, slightly fissile, homo, pale green (IOG 6/2), no HCL reaction, h dry strngth, n dintncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	18.0'		CL	18.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to mst, no observed sat. intervals, blocky fracture, reddish brown (IOR 3/4) w/ pale green (IOG 6/2) spots (to 1" diameter), green coloration associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.), sub horizontal to high angle gypsum veins (<1/4" thick)			
	25.0'		CL	25.0' - 28.0', Claystone: 100% fines, mst to wet, slightly fissile, homo, pale green (IOG 6/2), no HCL reaction, h dry strngth, n dintncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	28.0'		CL	28.0' - 48.0', Claystone: 100% fines, stiff to hard, mst, possible saturated intervals, blocky fracture, reddish brown (IOR 3/4) w/ pale green (IOG 6/2) spots (to 1" diameter), green coloration associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.).			
	48.0'		CL	48.0' - 49.0', Claystone: 100% fines, mst, slightly fissile, homo, pale green (IOG 6/2), no HCL reaction, h dry strngth, n dintncy, m pist, npo, no organics, appears and handles more like lean clay claystone due to higher moisture content.			
	49.0'		CL	49.0' - 80.0', Claystone: 100% fines, mst, possible sat. intervals, stiff to hard, blocky fracture, reddish brown (IOR 3/4) spotted to mottled (55-80'), pale green coloration (IOG 6/2) associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.) gypsum veins (<1/4' dia.) common.			

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOMS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65						
	70		CL				
	75						
	80						
	85			Bottom of boring: 81 feet below grade Borehole diameter: 12.25" to 13" 6.25" to 80' Boring abandoned with neat cement (0-80') Cement mix: 15 sacks Portland type II cement 150 lbs bentonite powder 225 gallons water Pulled 13' of 8" casing			
	90						
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN				JOB NUMBER: 96124				
PROJECT: CELL 5 RFI				LOCATION: LONE MTN, OKLAHOMA				
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY				
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:		TOTAL DEPTH: 50'		
LOGGED BY: ERIC TAYLOR			APPROVED BY:			DEPTH TO WATER:		
WELL COMP	DPT	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.		
	5		0.0' - 13.0', Engineered Fill: 100% fines, h dry strength, n dintncy, m pist, m reddish brn (10R3/4) npo, n organics, mst, homo, grades to claystone bedrock at 18 feet below grade.					
	10		CL					
	15		CL	13.0' - 18.0', Claystone: 100% fines, stiff to hard, dry to moist, no observed sat. intervals, blocky fracture, mottled, moderate reddish brown (10R 3/4) to pale green (10G 6/2), subhorizontal to high angle gypsum veins (<1/4" thick), no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill)				
	20		CL					
	25		CL	18.0' - 18.0', Claystone: 100% fines, m stiff, mst to v. mst, no observed saturated intervals, slightly fissile, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content				
	30		CL					
	35		CL	18.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to mst, no observed sat. intervals, blocky fracture, reddish brown (10R 3/4) w/ pale green (10G 6/2) spots (to 1" diameter), green coloration associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.), sub horizontal to high angle gypsum veins (1/4" thick).				
	40		CL					
	45		CL	25.0' - 28.0', Claystone: 100% fines, mst to wet, slightly fissile, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content				
	50		CL	28.0' - 46.0', Claystone: 100% fines, stiff to hard, mst, possible saturated intervals, blocky fracture, reddish brown (10R 3/4) w/ pale green (10G 6/2) spots (to 1" diameter), green coloration associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.).				
	55		46.0' - 50.0', Claystone: 100% fines, mst, slightly fissile, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m pist, npo, no organics, appears and handles more like lean clay claystone due to n gher moisture content.					
	60		Bottom of boring: 50 feet below grade Borehole diameter: 12.25" to 13" 5.25", 13 to 50' Boring abandoned with neat cement (0-50') Cement mix: 10 sacks Portland type II cement 50 lbs bentonite powder 60 gallons water Puled 13 feet 8" casing and 45 feet of 6" casing.					

CLIENT: USPCI, LONE MOUNTAIN						JOB NUMBER: 06124		
PROJECT: CELL 5 RFI				LOCATION: LONE MTN, OKLAHOMA				
DRILLED BY: A.W. POOL			DRILLER: WAYNE CALDWELL			METHOD: AIR & MUD ROTARY		
DATE START: 0/2/92		DATE COMP: 0/4/92		REF. EL.:		TOTAL DEPTH: 80		
LOGGED BY: ERIC TAYLOR			APPROVED BY:			DEPTH TO WATER:		
WELL COMP	DPT	SBLOW	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.	
	0			0.0' - 13.0', Engineered Fill: 100% fines, h dry strength, n dintncy, m plst, m reddish brn (10R3/4) npo, n organics, dry - mst, homo.				
	5		CL					
	10							
	15				13.0' - 26.0', Claystone: 100% fines, stiff to hard, dry to moist, moderate reddish brown (10R 3/4), blocky fracture, no HCL reaction, npo, crushed, moistened and worked samples exhibit properties of lean of lean clay (see above description for engineered fill).			
	20		CL					
25								
30			CL	26.0' - 28.0', Claystone: 100% fines, m stiff, mst to wet, slightly fissile, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m plst, no organics, appears and handles more like lean clay than claystone due to higher moisture content				
35				28.0' - 40.0' Claystone: 100% fines, stiff to hard, mst, blocky fracture, reddish brown (10R 3/4), mottled pale green (10G 6/2), green coloration associated with gypsum, no HCL reaction, npo, sub horiz. - vertical gypsum veins (<1/4" thick), mst, worked samples exhibit properties of lean clay (see Fill descrip.).				
40								
45			CL	40.0 - 75.0', Claystone: 100% fines, stiff to hard, dry, blocky fracture, reddish brown (10R 3/4), moist, worked samples exhibit properties of lean clay (see Fill descrip.)				
50								
55								
60								

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 98124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER: 25

WELL COMP	DPT	BLOMS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dintncy, m pist, m reddish brn (10R3/4) npo, n organics, mst, homo, grades to claystone bedrock at 18 feet below grade.			
	15		CL	13.0' - 18.0', Claystone: 100% fines, stiff to hard, dry to moist, no observed sat. intervals, blocky fracture, mottled, moderate reddish brown (10R 3/4) to pale green (10G 8/2), subhorizontal to high angle fractures filled with gypsum (<1/4" thick), no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill)	0		
	25		CL	18.0' - 18.0', Claystone: 100% fines, m stiff, mst to v. mst, no observed saturated intervals, slightly fissile, homo, pale green (10G 8/2), no HCL reaction, h dry strngth, n dintncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	30		CL	18.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to mst, no observed sat. intervals, blocky fracture, reddish brown (10R 3/4) w/ pale green (10G 8/2) spots (to 1" diameter), green coloration associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.), sub horizontal to high angle fractures (<1/4" thick) filled with gypsum			
	35		CL	25.0' - 28.0', Claystone: 100% fines, mst to wet, slightly fissile, homo, pale green (10G 8/2), no HCL reaction, h dry strngth, n dintncy m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	45		CL	28.0' - 46.0', Claystone: 100% fines, stiff to hard, mst, possible saturated intervals, blocky fracture, reddish brown (10R 3/4) w/ pale green (10G 8/2) spots (to 1" diameter), green coloration associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.).	0		
	50		CL	46.0' - 48.0', Claystone: 100% fines, mst, slightly fissile, homo, pale green (10G 8/2), no HCL reaction, h dry strngth, n dintncy, m pist, npo, no organics, appears and handles more like lean clay claystone due to higher moisture content.			
	55		CL	48.0' - 80.0', Claystone: 100% fines, mst, possible sat. intervals, stiff to hard, blocky fracture, reddish brown (10R 3/4) spotted to mottled (55-80'), pale green coloration (10G 8/2) associated with gypsum, no HCL reaction, crushed, moistened and worked samples exhibit properties of lean clay (see Fill descrip.) gypsum filled fractures (<1/4" dia.) common.			
	60						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER: 25

WELL COMP	DPT	BLOKS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		c				
	70						
	75						
	80				0		
	85			Bottom of boring: 81 feet below grade Borehole diameter: 12.25" to 11.5" 8", 11.5 to 80' Boring abandoned with neat cement (0-80') Cement mix: 15 sacks Portland type II cement 50 lbs bentonite powder 120 gallons water			
	90						
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 98124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		REF. EL.:	TOTAL DEPTH: 80
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOMS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	5		CL	0.0' - 13.0', Engineered Fill: 100% fines, h dry strngth, n dintncy, m pist, m reddish brn (10R3/4) npo, n organics, dry - mst, homo.			
	15		CL	13.0' - 25.0', Claystone: 100% fines, stiff to hard, dry to moist, moderate reddish brown (10R 3/4) to pale green (10G 6/2), crushed, moistened and worked samples exhibit properties of lean clay (see above description for engineered fill) no core recovery, descrip. from drill cuttings.			
	25		CL	25.0' - 28.5', Claystone: 100% fines, m stiff, mst to wet, sat. fractures (25-28'), slightly fissile, homo, pale green (10G 6/2), mottled r.brn (27-28'), HCL reaction, h dry strngth, n dintncy, m pist, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	35		CL	28.5' - 45.0' Claystone: 100% fines, stiff to hard, dry - mst, blocky fracture, reddish brown (10R 3/4), homo, trc mottled pale green (10G 6/2), green coloration associated with gypsum, no HCL reaction, npo, sub horiz. - vertical gypsum filled fractures (<1/4" thick), mst, worked samples exhibit properties of lean clay (see Fill descrip.). A/A mottled (35-37', 39.5-40')			
	45		CL	45.0' - 48.0', Claystone: 100% fines, mst-wet, slightly fissile, homo, pale green (10G 6/2), no HCL reaction, h dry strngth, n dintncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	55		CL	48.0' - 74.5', Claystone: 100% fines, dry - mst, stiff to hard, blocky fracture, reddish brown (10R 3/4) spotted with pale green (10G 6/2), grn coloration associated with gypsum, extensive sub horiz. gypsum filled fractures (<1/4 " thick), moist, worked samples exhibit properties of lean clay (see Fill descrip.)			

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.M. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/27/92		DATE COMP: 8/27/92		TOTAL DEPTH: 80	
LOGGED BY: ERIC TAYLOR		APPROVED BY:		DEPTH TO WATER:	

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	85		CL				
	70		CL				
	75		CL	74.5' - 75.0'. Claystone: 100% fines, dry - mst, m. stiff to stiff, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dntncy, m pist, npo, no organics, appears and handles more like lean clay than claystone due to higher moisture content.			
	80		CL	75.0' - 80.0'. Claystone: 100% fines, dry - mst, stiff to hard, interbedded reddish brown (10R 3/4) and pale green (10G 6/2), no HCL reaction, h dry strength, n dntncy, m pist, npo, no organics, extensive sub horizontal gypsum filled fractures (<1/4" thick), pale green material appears and handles more like lean clay than claystone due to higher moisture content.			
	85			Bottom of boring: 80 feet below grade Borehole diameter: 12.25" to 13" 8" 13 to 80'			
	90			Boring abandoned with neat cement (0-80') Cement mix: 13 sacks Portland type II cement 50 lbs bentonite powder 120 gallons water			
	95						
	100						
	105						
	110						
	115						
	120						

CLIENT: USPCI, LONE MOUNTAIN				JOB NUMBER: 98124				
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA					
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY				
DATE START: 9/2/92		DATE COMP: 9/4/92		REF. EL.:		TOTAL DEPTH: 80		
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:			
WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.	
	0			0.0' - 13.0', Engineered Fill: 100% fines, h dry strength, n dintncy, m pist, m reddish brn (10R3/4) npo, n organics, dry - mst, homo.				
	5		CL					
	10							
	15		CL		13.0' - 26.0', Claystone: 100% fines, stiff to hard, dry to moist, moderate reddish brown (10R 3/4), blocky fracture, no HCL reaction, npo, crushed, moistened and worked samples exhibit properties of lean of lean clay (see above description for engineered fill).			
	20							
	25		CL					
	30		CL		26.0' - 28.0', Claystone: 100% fines, m stiff, mst to wet, slightly fissile, homo, pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m pist, no organics, appears and handles more like lean clay than claystone due to higher moisture content			
	35							
	40				28.0' - 40.0' Claystone: 100% fines, stiff to hard, mst, blocky fracture, reddish brown (10R 3/4), mottled pale green (10G 6/2), green coloration associated with gypsum, no HCL reaction, npo, sub horiz. - vertical gypsum filled fractures (<1/4"thick), mst, worked samples exhibit properties of lean clay (see Fill descrip.).			
	45		CL					
	50							
	55							
	60				40.0' - 75.0', Claystone: 100% fines, stiff to hard, dry, blocky fracture, reddish brown (10R 3/4), moist, worked samples exhibit properties of lean clay (see Fill descrip.)			

CLIENT: USPCI, LONE MOUNTAIN			JOB NUMBER: 06124		
PROJECT: CELL 5 RFI			LOCATION: LONE MTN, OKLAHOMA		
DRILLED BY: A.M. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR & MUD ROTARY	
DATE START: 8/2/92		DATE COMP: 8/4/92		REF. EL.:	
LOGGED BY: ERIC TAYLOR			APPROVED BY:		DEPTH TO WATER:

WELL COMP	DPT	BLOWS	GRAPHIC LOG ASTM CODE	DESCRIPTION	OVM	SAMPLE NUMBER	SAMPLE ANAL.
	65		CL				
	70		CL				
	75		CL				
	80		CL	<p>75.0' - 80.0', Claystone: 100% fines, sat - wet, m stiff to hard, interbedded reddish brown (10R 3/4) and pale green (10G 6/2), no HCL reaction, h dry strength, n dintncy, m pist, npo, no organics, extensive sub horizontal gypsum filled fractures (<1/4" thick), pale green material appears and handles more like lean clay than claystone due to higher moisture content.</p>			
	85			<p>Bottom of boring: 80 feet below grade (BG) Borehole diameter: 12.25" to 18" 8", 16 to 80' Boring completed as groundwater monitoring well (10-5-92) Boring backfilled with bentonite pellets (50 lbs.) and hole plug (6 sacks) from 80 to 40' Screen type: teflon, diameter: 2", interval: 40 to 20'BG Casing type: teflon, diameter: 2", interval: 20 to 15'BG PVC, diameter: 2", interval: 15 to -2'BG Filter pack: interval: 40 to 18'BG Surface seal: bentonite pellets, interval: 18 to 18'BG neat cement, interval: 18 to 0' BG</p>			
	90						
	95						
	100						
	105						
	110						
	115						
	120						

DRILLING METHOD (s) WIRE ROPE
 SAMPLING METHOD (s) CORE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 2018-06
 WELL NO. MWE-AB
 LOCATION LEPOI / LONE MOUNTAIN
 GEOLOGIST E. LAWRENCE
 DATE STARTED 3-26-92
 DATE COMPLETED 3-26-92
 TOTAL DEPTH 20.0 ft
 DRILLER A.W. POOLE DRILL CO.

COMMENTS OVM readings taken in breathing zone
all readings were 0.0 to 1.0 ppm
Organic Vapor Monitor

DEPTH (ft)	SPLIT SPOON/ RECOVERY %	ANALYTICAL SAMPLE	BLOW COUNTS/6in	OVM SAMPLE	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	PROFILE						
30								GP	GRAVEL, SILT and gypsum nodules (road base)	2.5'		
80								CL	SILTY CLAY, dark red 2.5yr3/6, w/ clay mottled olive gray (green) 5y5/2, wet		Bentonite Seal	
5								GP	NO RECOVERY, cobble in core barrel		2" PTFE Casing	5
10									GYPNUM NODULES and COBBLES, large gypsum cobbles from 4.0' to 15.0', apparently still in road base		8" Borehole	10
10											Sand Gravel Deck (16-30) screen	
15											2" PTFE 0.010 Slot Screen	15
18												
20								CL	CLAY, olive gray 5y5/2			20.0'
								GP	CLAYEY SILTSTONE, dark red 2.5yr3/6, w/ olive gray (green) specks, no gypsum, dry			
									Total Depth 20.0 feet			

CLIENT: USPCI - LONE MT. FACILITY			JOB NUMBER: 96277		
PROJECT: MW-6A2 WELL REPLACEMENT			LOCATION: LONE MT. RCRA CELL 6		
DRILLED BY: A.W. POOL, INC.		DRILLER: WAYNE CALDWELL		METHOD: AIR ROTARY	
DATE START: 12/16/92		DATE COMP: 12/17/92		SURF. EL: 1395.90	
LOGGED BY: AJC		APPROVED BY: CAD		DEPTH TO WATER (ft): NA	

WELL COMP	ELEVATION (ft msl)	DEPTH (ft)	DESCRIPTION	GRAPHIC LOG USC CODE	OVM PPM	SAMPLE NUMBER	BLOW COUNTS
	1398.58						
	1398.03						
	1395.90	0	GROUND SURFACE				
	Bentonite Seal	0.0 to 2.0 (1395.90 - 1393.90)	FILL SOILS, Loose, dry red - brown CLAY, some silt.	•••••			
		2.0 to 5.0 (1393.90 - 1391.90)	Dry, Red (10R-4/4/8) silty CLAY, trace gypsum present in veins.	//////	0.0		
		5.0 to 9.0 (1391.90 - 1386.90)	Dry, olive Gray (5Y-4/4/2) Clayey SILT, trace gypsum present in veins. (30% recovery)		0.0		NA
	Borehole dia. = 8 in.	9.0 to 12.0 (1386.90 - 1383.90)	Dry, Red (10R-4/4/2) silty CLAY, trace gypsum present in veins.	//////	0.0		
	Gravel Pack (18/30)	12.0 to 17.0 (1383.90 - 1378.90)	Dry, olive Gray (5Y-4/4/2) clayey SILT, trace gypsum present in veins (100% recovery)	//////	0.0		NA
		17.0 to 20.0 (1378.90 - 1375.90)	Dry, Red (10R-4/4/8) silty CLAY, trace gypsum present in veins. (100% recovery)	//////	0.0		NA
		20	Boring Terminated at 20.0 Feet Below Grade		0.0		

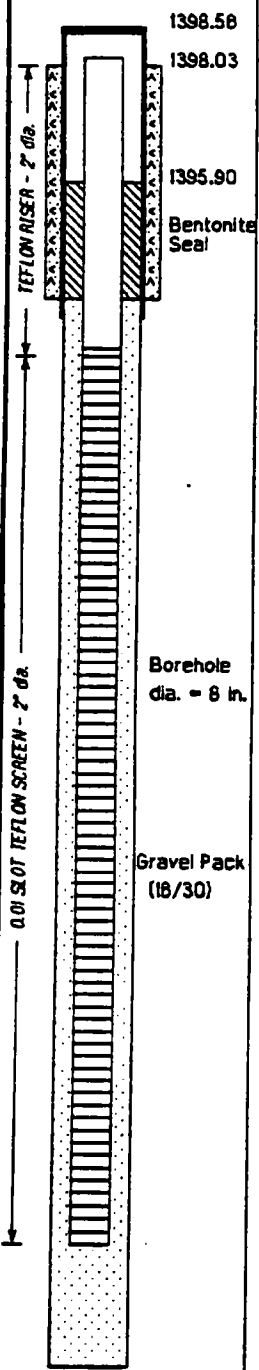
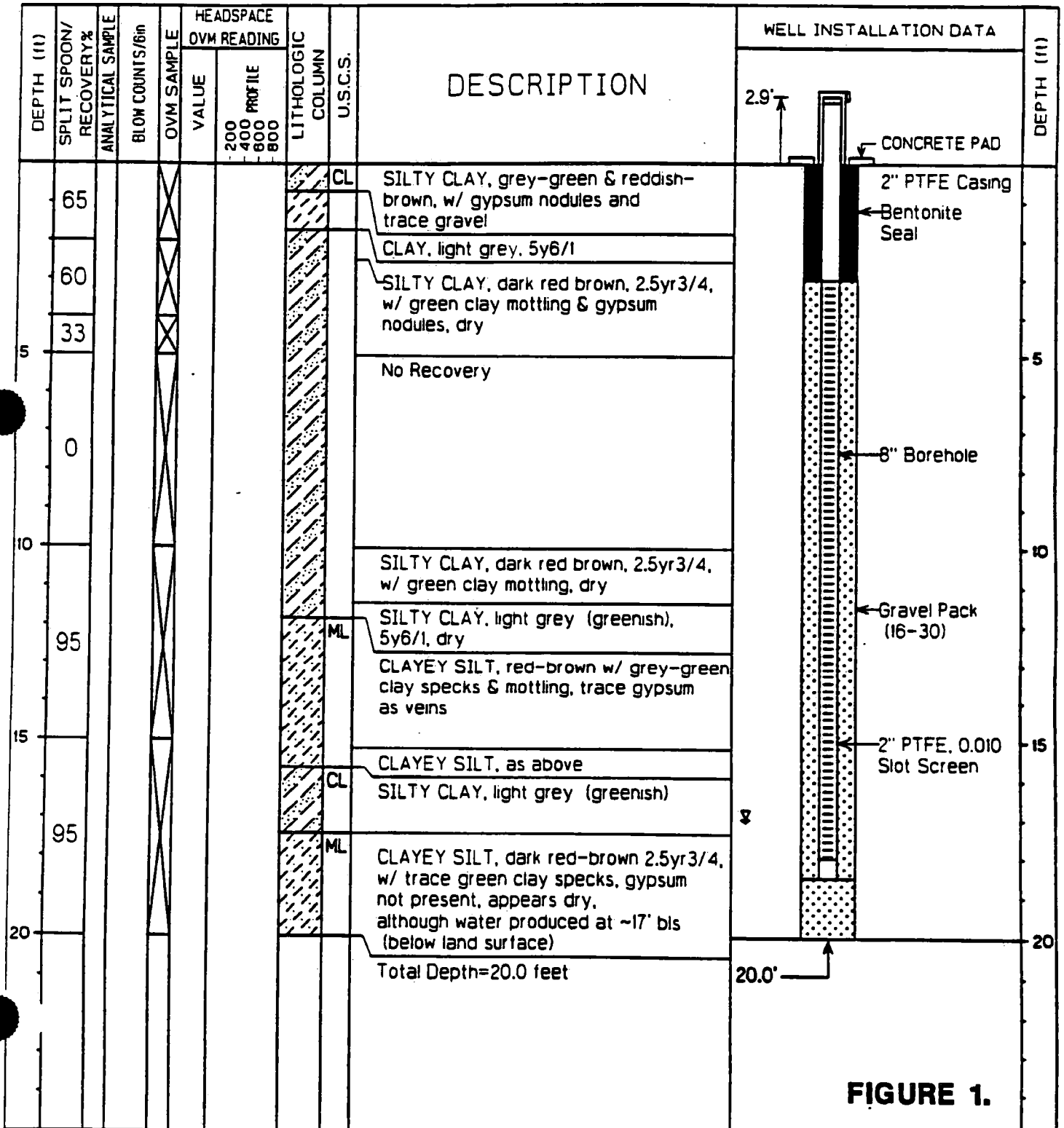


FIGURE 2.

DRILLING METHOD (s) AIR ROTARY
 SAMPLING METHOD (s) CORE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. CO178.02
 WELL NO. MW6A2
 LOCATION USPCI / LONE MOUNTAIN
 GEOLOGIST E. LAWRENCE
 DATE STARTED 3-25-92
 DATE COMPLETED 3-26-92
 TOTAL DEPTH 20.0 ft
 DRILLER A.W. POOLE DRLG. CO

COMMENTS OVM readings taken in the breathing zone
all readings were from 0.0 to 0.5 ppm
OVM - Organic Vapor Monitor

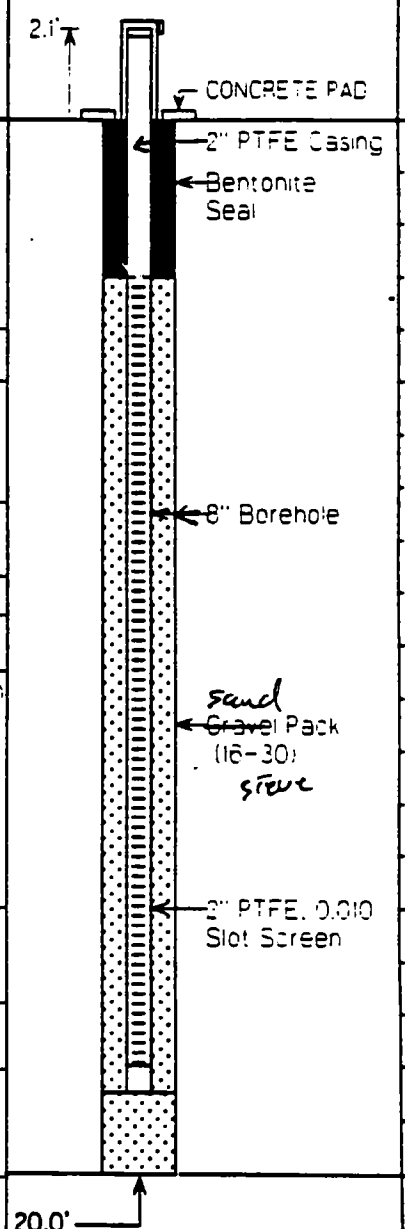


DRILLING METHOD (s) WIRELINE
 SAMPLING METHOD (s) TYPE 2/BBE
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 007820
 WELL NO. MAE 20
 LOCATION USPO - Lone Mountain
 GEOLOGIST E. Lawrence
 DATE STARTED 3-25-90
 DATE COMPLETED 3-25-90
 TOTAL DEPTH 200 ft
 DRILLER A.W. BOULDER CO.

COMMENTS OVM readings taken in the breathing zone
all readings were from 7.0 to 9.5 ppm
OVM = Organic Vapor Monitor

DEPTH (ft)	SPLIT SPOON/ RECOVERY %	ANALYTICAL SAMPLE	BLOW COUNTS/6in	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
				VALUE	PROFILE				2" PTFE Casing	8" Borehole	
0-60						CL	FILL Material: Silty Clay, reddish-brown w/ green clay mottling and gypsum nodules	2" PTFE Casing	8" Borehole	0-20	
60-60							NO SAMPLE	Bentonite Seal		20-25	
60-65							NO RECOVERY			25-30	
65-55						ML	CLAYE - SILT, grey, 5y5/1			30-35	
55-100							CLAYE - SILT, dark brown, 7.5yr 4/2			35-40	
100-90							CLAYE - SILT, grey, 5y5/1			40-45	
90-15							CLAYE - SILT, red-brown w/ grey-green clay mottling and banding, gypsum nodules and veins			45-150	
15-100						CL	CLAYE - SILT, dark red, 2.5yr 4/6, w/ green clay mottling and gypsum in veins			150-165	
100-20							SILT - CLAY, light grey, 5y7/1, gypsum in veins			165-180	
20-20							SILT - CLAY, reddish brown, w/ grey-green mottling, less gypsum present			180-200	
Total Depth=200 feet										200	



DRILLING METHOD (s) _____
 SAMPLING METHOD (s) _____
 WELL DEVELOPMENT DATE _____
 METHOD (s)/GALLONS PURGED _____

PROJECT NO. _____
 WELL NO. _____
 LOCATION _____
 GEOLOGIST _____
 DATE STARTED _____
 DATE COMPLETED _____
 TOTAL DEPTH _____
 DRILLER _____

COMMENTS _____

DEPTH (ft)	SPLIT SPINNING/RECOVER %	ANOMALY SAMPLE	BLON COUNTS/Min	OVM SAMPLE	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	PROFILE						
0						200 400 600 800		CL		2.3'	CONCRETE PAD	0
5									FILL MATERIAL-SILTY CLAY, red 2.5yr 4/6, w/ minor green clay mottling throughout, dry	8" Borehole		5
10										2" PVC Casing		10
15										Cement Grout		15
20												20
25												25
30									Same as above with minor gypsum present	2" PVC Casing		30
35												35

DRILLING METHOD (s) DIE HEAD
 SAMPLING METHOD (s) CORE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 00178-00
 WELL NO. MW12-21
 LOCATION USPOLY LONE MOUNTAIN
 GEOLOGIST JEFFREY M. GERAGHTY & MILLER, INC.
 DATE STARTED 4-24-92
 DATE COMPLETED 4-24-92
 TOTAL DEPTH 66.5 ft
 DRILLER A.W. BOO DRILL CO

COMMENTS This is a composite log. See description
OVM readings taken in the breathing zone
all readings were 0.0 ppm

DEPTH (ft)	SPLIT SPREAD/RECOVERY%	ANALYTICAL SAMPLE	BLOW COUNTS/6in	OVM SAMPLE	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA	
					VALUE	PROFILE				DEPTH (ft)	DEPTH (ft)
45	100							BR	CLAYEY SILTSTONE, dark reddish brown 2.5yr 3/4, minor green clay mottling and gypsum nodules present throughout, dry		45
50									small grain gravel from 51.5-71.7		50
55	100							BR	SILTY CLAYSTONE, gray 5y 5/1, minor gypsum, waxy, dry		55
60								BR	CLAYEY SILTSTONE, reddish brown 2.5yr 4/4, minor green clay mottling and 1/4-1/2" gypsum lenses present, friable to brittle, dry		60
65	100										65
70											70
											75

The diagram illustrates the well installation components. From top to bottom: a Bentonite Seal, 2" PTFE Casing, a Sand Pack (16-30) surrounding a 2" PTFE 0.010 Slot Screen, and a final 2" PTFE casing section. The total depth of the well is indicated as 66.5 feet.

DRILLING METHOD (s) WIRELINE
 SAMPLING METHOD (s) CORE SAMPLE
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 007802
 WELL NO. MWB-42
 LOCATION USDO / LONE MOUNTAIN
 GEOLOGIST B. NEWLIN-GERAGHTY & MILLER, INC.
 DATE STARTED 4-22-92
 DATE COMPLETED 4-22-92
 TOTAL DEPTH 65.4 ft
 DRILLER A.W. POOL DRUG CO.

COMMENTS This is a composite log, see description
O.V.M. readings taken in the breathing zone
at readings were 0.0 ppm

DEPTH (ft)	SPLIT SPEED/RECOVERY %	ANALYTICAL SAMPLE	BLOW COUNTS/Gm	O.V.M. SAMPLE	HEADSPACE O.V.M. READING			LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	200	400				PROF. ILE	600	
0											2.3'	CONCRETE PAD	0
5												8" Borehole	5
10													10
15												2" PVC Casing	15
20												Cement Grout	20
25													25
30												2" PVC Casing	30
35													35

FILL MATERIAL-SILTY CLAY, red 2.5yr 4/8, w/ minor green clay mottling throughout, dry

Same as above with minor gypsum present

DRILLING METHOD (s) AIR BIT
 SAMPLING METHOD (s) SOFT BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 007902
 WELL NO. MW12-10
 LOCATION USPCL LONE MOUNTAIN
 GEOLOGIST B. NEWLIN-GERAG-TH. MILLER, INC.
 DATE STARTED 4-22-92
 DATE COMPLETED 4-22-92
 TOTAL DEPTH 65.4 ft
 DRILLER A.W. POOL DRILLING CO

COMMENTS This is a composite log, see description
QVM readings taken in the breathing zone
all readings were 0.0 ppm

DEPTH (ft)	SPLIT SP/HR/RECOVERY%	ANALYTICAL SAMPLE	FLOW COUNTS/GM	QVM SAMPLE	HEADSPACE QVM READING			LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA	
					VAI	UE	PROFILE				DEPTH (ft)	Diagram
45	100								BR	SILTY CLAYSTONE, gray 5y5/1, minor gypsum, waxy, dry		
50									BR	CLAYEY SILTSTONE, reddish brown 2.5yr 4/4, minor green clay mottling and gypsum lenses present, dry		
55	100									friable from 46.3-50		
60										slightly moist from 50-51		
65										1/4-1/2" gypsum lenses present from 54-57.5 dipping approximately 15 degrees		
65									BR	SILTY CLAYSTONE, gray 5y5/1, dry		
70									BR	CLAYEY SILTSTONE, dark reddish brown 2.5yr 3/4, minor green clay and gypsum present, friable, dry		
75										incurated, brittle, dry from 63.5-65		
											65.4'	

DRILLING METHOD (s) SPIN DRILL
 SAMPLING METHOD (s) COPE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 20175-02
 WELL NO. MW12-B1
 LOCATION LSPCI / LONE MOUNTAIN
 GEOLOGIST E. LEWIN-GERAGHY & MILLER, INC.
 DATE STARTED 4-23-92
 DATE COMPLETED 4-23-92
 TOTAL DEPTH 76.0 ft
 DRILLER A.W. BOULDRIG CO

COMMENTS This is a bottom hole, see description
OVM readings taken in the breathing zone
at readings were 2.0 ppm

DEPTH (ft)	SPLIT SPUR/RECOVERY %	ANALYTICAL SAMPLE	BLOW COUNTS/6min	OVM SAMPLE	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	PROFILE						
0										2.3'	CONCRETE PAD	0
5												5
10												10
15									FILL MATERIAL-SILTY CLAY, red 2.5yr 4/6, w/ minor green clay mottling throughout, dry		8" Borehole	15
20											2" PVC Casing	20
25											Cement Grout	25
30												30
35									Same as above with minor gypsum present		2" PVC Casing	35

DRILLING METHOD (s) DIAPHRAGM
 SAMPLING METHOD (s) DIAPHRAGM
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 0015603
 WELL NO. WV12-E1
 LOCATION SPRING LONE MOUNTAIN
 GEOLOGIST B. NEWLIN-GERAGHTY & MILLER, INC
 DATE STARTED 4-23-92
 DATE COMPLETED 4-23-92
 TOTAL DEPTH 76.0
 DRILLER A.W. POOL DRILLING CO

COMMENTS This is a composite log, see description
OVM readings taken in the breathing zone
all readings were 0.0 ppm

DEPTH (ft)	SPLIT SP/DEPTH/RECOVERY%	ANALYTICAL SAMPLE	FLOW COUNTS/6in	OVM SAMPLE	HEADSPACE		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	PROF/IE						
45	90							BR	CLAYEY SILTSTONE, reddish brown 2.5yr 4/4, minor green clay mottling and gypsum nodules present throughout, dry slight moisture observed from 40-41.5			45
30									increased green clay, slight moisture, waxy			50
55	100								brittle and dry from 60.8-62.5			55
60												60
65	30							SP	SILTY CLAYSTONE, gray, 5y5/1, minor gypsum, dry			65
70								BR	CLAYEY SILTSTONE, reddish brown, 2.5y 4/4, minor green clay mottling and gypsum present, dry			70
	90								gray, 5y5/1, becoming reddish brown and gray from 70.2-76, minor gypsum present, dry			75
5												76.0'

The diagram illustrates the well installation details. From top to bottom, it shows: a hatched section representing the upper casing; a solid black section labeled 'Bentonite Seal' at approximately 48 feet depth; a section with diagonal hatching labeled '2" PTFE Casing' extending from 50 feet to 60 feet; a section with a stippled pattern labeled 'Sand Pack (16-30)' from 60 feet to 65 feet; and a section with vertical hatching labeled '2" PTFE, 0.010 Slot Screen' from 65 feet to 75 feet. The total depth of the well is indicated as 76.0 feet.

DRILLING METHOD (s) WIRE PIPE
 SAMPLING METHOD (s) COPE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED 100

PROJECT NO. 20176-02
 WELL NO. MW12-62
 LOCATION USPOL / LONE MOUNTAIN
 GEOLOGIST B. NEWLIN-GERAGHTY & MILLER, INC.
 DATE STARTED 4-21-92
 DATE COMPLETED 4-21-92
 TOTAL DEPTH 76.8 ft
 DRILLER A.W. POOL DRILLING CO

COMMENTS This is a composite log see description
OVM readings taken in the breathing zone
a readings were from 0.0 to 0.2 ppm

DEPTH (ft)	SPLIT SPOON/ RECOVERY% ANALYTICAL SAMPLE	BLOW COUNTS/Gm	OVM SAMPLE	HEADSPACE OVM READING			LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
				VALUE	200	400				600	800	
0												0
5												5
10												10
15												15
20												20
25												25
30												30
35												35
40												40
45												45
50												50
55												55
60												60
65												65
70												70
75												75
80												80
85												85
90												90
95												95
100												100

DRILLING METHOD (s) SOFT SOLE
 SAMPLING METHOD (s) SOPE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 007802
 WELL NO. MW12-B2
 LOCATION USFCA LONE MOUNTAIN
 GEOLOGIST E. NEWLIN-GERAGHTY & MILLER, INC.
 DATE STARTED 4-21-92
 DATE COMPLETED 4-21-92
 TOTAL DEPTH 76.8 ft
 DRILLER A.W. POOL DRLG. CO

COMMENTS This is a composite log, see description
OVM readings taken in the breathing zone
a¹ readings were from 0.0 to 0.2 ppm

DEPTH (ft)	SPLIT SPICER/ RECOVERY% ANALYTICAL SAMPLE	BLOW COUNTS/6in	OVM SAMPLE	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
				VALUE	PROFILE						
45	100					CL					45
50						BR		SILTY CLAYSTONE, reddish brown 2.5yr 4/4, minor green clay mottling and gypsum nodules present throughout, dry			50
55	100					BR		CLAYEY SILTSTONE, red 2.5yr 4/6, friable, dry		Bentonite Seal	55
60						BR		SILTY CLAYSTONE, gray 5y5/1, waxy, dry		2" PTFE Casing	60
65	100					BR		CLAYEY SILTSTONE, dark reddish brown 2.5yr 3/4, 1/4"-3/4" thick gypsum lenses present dipping from 5-30 degrees, dry		Sand Pack (16-30)	65
70						BR		SILTY CLAYSTONE, gray 5y5/1, waxy, dry		2" PTFE, 0.010 Slot Screen	70
75	100					BR		CLAYEY SILTSTONE, reddish brown 2.5yr 3/4, minor bedding planes, friable, dry			75
						BR		SILTY CLAYSTONE, gray 5y5/1, minor gypsum present, dry			
						BR		CLAYEY SILTSTONE, reddish brown 2.5yr 3/4, minor gypsum, dry			
						BR		SILTY CLAYSTONE, reddish brown 2.5yr 3/4, massive, waxy, dry			
								76.8'			

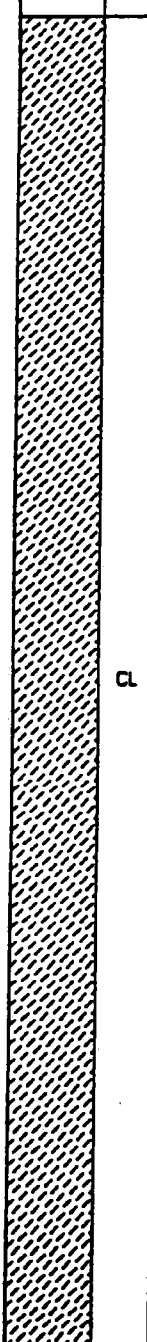
CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 98302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/22/93		DATE COMP: 9/25/93		REF. EL.: GRD EL 1420 11 MSL	TOTAL DEPTH: 61.0
LOGGED BY: JPG			APPROVED BY: CAD		DEPTH TO WATER: 49.7 (NOT STATIC)

WELL COMP	DPT (ft)	BLOWS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.
	0						
	5			<p>Engineered Fill Material: SILTY CLAY, reddish brown, 5YR 4/4, minor greenish mottling throughout, dry, moderately soft to brittle, trace amounts of gypsum present.</p>	0.0		
	10				0.0		
	15				0.0		
	20				0.0		
	25				0.0		
	30				0.0		
	35				0.0		

CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 96302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/22/93		DATE COMP: 9/25/93		REF. EL.: GRD EL 1420 ft MSL	
LOGGED BY: JPG		APPROVED BY: CAD		DEPTH TO WATER: 49.7 (NOT STATIC)	

WELL COMP	DPT (ft)	BLOWS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.
			CL	Engineered Fill Material: SILTY CLAY , reddish brown, 5YR 4/6, minor greenish mottling throughout, dry, brittle, trace amounts of gypsum present.			
	40		BR	CLAYEY SILTSTONE : reddish brown, 2.5 YR 3/4, dry, friable to brittle, greenish mottling throughout, minor gypsum lenses and nodules throughout, very slightly moist at 44.8 feet, 80 to 100% core recovery within interval.	0.0		
	45		BR	SILTY CLAYSTONE : light olive gray, 5Y 6/2, very slightly moist at 47.8 feet, slightly soft, trace gypsum, 100% core recovery.	0.0		
	50		BR	CLAYEY SILTSTONE : reddish brown, 5YR 4/4, waxy, hard, brittle, high angle gypsum lenses from 1/8 to 1/4-inch in thickness, nodules and horizontal lenses also present, minor to abundant green mottling, very slightly moist at 52.2 feet otherwise dry, 100% core recovery.	0.0		
	55		BR	SILTY CLAYSTONE : light olive gray, 5Y 6/2, dense to very slightly soft, very slightly moist, gypsum not visually apparent, reddish mottling abundant near 57.5 feet, 100% core recovery.	0.0		
	60		BR	SILTY CLAYSTONE : reddish brown, 2.5YR 4/4, blocky, brittle in part, dry, high angle gypsum lenses abundant from 57.5 to 60.0 feet, numerous horizontal lenses and gypsum nodules, minor greenish mottling, 100% core recovery.	0.0		
	65			TOTAL DEPTH OF BORING: 61.0' Below Land Surface (BLS) BOREHOLE DIAMETER: 6-7/8" to TD CASING TYPE: PVC, DIAMETER: 2", INTERVAL: -2.5' TO 44.0' BLS PTFE, DIAMETER: 2", INTERVAL: 44.0' TO 49.0' BLS SCREEN TYPE: PTFE, DIAMETER: 2", SLOT SIZE: 0.010 inches INTERVAL: 49.0' TO 59.0' BLS FILTER PACK: 16-30 SILICA SAND, INTERVAL: 47.0' TO 61.0' BLS SURFACE SEAL: BENTONITE PELLETS, INTERVAL 44.0' TO 47.0' BLS : NEAT CEMENT (5 gal. water/sack cement) : INTERVAL: 0' to 44.0' BLS FLUID LEVEL NOT STATIC, WELL DEVELOPMENT CONTINUING			
	70						

CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 96302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/20/93		DATE COMP: 9/23/93		REF. EL.: GRD EL 1420 ft MSL	TOTAL DEPTH: 60.5
LOGGED BY: JPG		APPROVED BY: CAD		DEPTH TO WATER: 49.5 (NOT STATIC)	

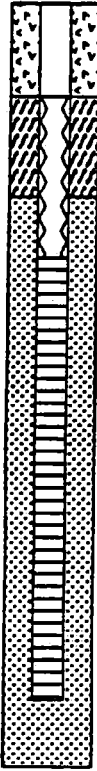
WELL COMP	DPT (ft)	BLOWS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.
	0						
	5		 CL	Engineered Fill Material: SILTY CLAY , reddish brown, 5YR 4/6, minor greenish mottling throughout, dry, minor gypsum present.	0.0		
	10	0.0					
	15	0.0					
	20	0.0					
	25	0.0					
	30	0.0					
	35	0.0					
		0.0					
		0.0					
		0.0					

CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 06302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/20/93		DATE COMP: 9/23/93		REF. EL.: GRD EL 1420 ft MSL	TOTAL DEPTH: 60.5
LOGGED BY: JPG		APPROVED BY: CAD		DEPTH TO WATER: 49.5 (NOT STATIC)	

WELL COMP	DPT (ft)	BLOWS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.
			CL	Engineered Fill Material: SILTY CLAY , reddish brown, 5YR 4/6, minor greenish mottling throughout, dry to slightly moist from 37 to 38 feet, minor gypsum present.			
	40		BR	CLAYEY SILTSTONE : reddish brown, 2.5 YR 3/4, dry, brittle, minor greenish mottling which becomes abundant from 41 to 43 and 47 to 48 feet, minor gypsum lenses and nodules throughout, 100% core recovery.	0.0		
	45		BR	SILTY CLAYSTONE : light olive gray, 5Y 6/2, very slightly moist, very slightly soft, 100% core recovery.	0.0		
	50		BR	CLAYEY SILTSTONE : reddish brown, 2.5YR 3/4, dry, waxy, brittle in part, minor greenish mottling, minor gypsum lenses to 1/16-inch in thickness, 100% core recovery.	0.0		
	55		BR	SILTY CLAYSTONE : light olive gray, 5Y 6/2, dense to very slightly soft, very slightly moist, gypsum not visually apparent, 100% core recovery.	0.0		
	60		BR	CLAYEY SILTSTONE : reddish brown, 2.5YR 4/6, waxy, brittle in part, dry to very slightly moist at 58.2 feet, minor greenish mottling throughout and abundant from 58.5 to 60 feet, minor gypsum nodules throughout with gypsum lenses at 57.1, 57.3, and 57.5 feet, 100% core recovery.	0.0		
	65			<p>TOTAL DEPTH OF BORING: 60.5' Below Land Surface (BLS) BOREHOLE DIAMETER: 6-7/8" to TD CASING TYPE: PVC, DIAMETER: 2", INTERVAL: -2.0' TO 43.6' BLS PTFE, DIAMETER: 2", INTERVAL: 43.6' TO 48.6' BLS SCREEN TYPE: PTFE, DIAMETER: 2", SLOT SIZE: 0.010 inches INTERVAL: 48.6' TO 58.6' BLS FILTER PACK: 16-30 SILICA SAND, INTERVAL: 48.6' TO 60.5' BLS SURFACE SEAL: BENTONITE PELLETS, INTERVAL 43.5' TO 46.6' BLS : NEAT CEMENT (5 gal water/sack cement) : INTERVAL: 0' to 43.5' BLS FLUID LEVEL NOT STATIC, WELL DEVELOPMENT CONTINUING</p>			
	70						

CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 86302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/21/93		DATE COMP: 9/24/93		REF. EL.: GRD EL 1420 ft MSL	TOTAL DEPTH: 71.0
LOGGED BY: JPG		APPROVED BY: CAD		DEPTH TO WATER: 51.8 (NOT STATIC)	

WELL COMP	DPT (ft)	BLOWS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (DDM)	SAMPLE NUMBER	SAMPLE ANAL.
	5				0.0		
	10				0.0		
	15				0.0		
	20		CL	Engineered Fill Material: SILTY CLAY , reddish brown, 5YR 4/4, minor greenish mottling present, trace to minor amounts of gypsum present.	0.0		
	25				0.0		
	30				0.0		
	35			Fill material moist at 38 feet	0.0		
	40		BR	CLAYEY SILTSTONE : reddish brown, 5YR 4/4, dry, massive, waxy, minor greenish mottling mainly associated with gypsum lenses and nodules throughout, minor root traces from 45 to 48 feet, 10% to 50% core recovery.	0.0		
	45				0.0		

CLIENT: USPCI-LONE MOUNTAIN FACILITY					JOB NUMBER: 96302-02			
PROJECT: CELL 14 WELL INSTALLATIONS				LOCATION: WAYNOKA, OKLAHOMA				
DRILLED BY: A.W. POOL			DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY			
DATE START: 9/21/93		DATE COMP: 9/24/93		REF. EL.: GRD EL 1420 ft MSL		TOTAL DEPTH: 71.0		
LOGGED BY: JPG			APPROVED BY: CAD			DEPTH TO WATER: 51.8 (NOT STATIC)		
WELL COMP	DPT (ft)	BLOMS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.	
			BR					
			BR	CLAYEY SILTSTONE: reddish brown, 5YR 4/4, dry, waxy, friable, in part, greenish mottling throughout, low angle (0-10 degrees) gypsum lenses, gypsum lenses and veinlets throughout, root traces from 46 to 47 feet, 80% core recovery.	0.0			
	50				0.0			
			BR	CLAYEY SILTSTONE: reddish brown 5YR 4/4, friable, very slightly moist, waxy, trace greenish mottling, minor gypsum lenses, 50% core recovery.				
	55				0.0			
			BR	SILTY CLAYSTONE: light olive gray, 5Y 6/2, massive, dry to very slightly moist, trace of gypsum, 100% core recovery.				
	60				0.0			
			BR	CLAYEY SILTSTONE: reddish brown, 2.5YR 3/4, waxy to friable, dry, massive, minor greenish mottling associated with gypsum lenses, brittle from 63.0 to 63.5 feet, 100% core recovery.				
	65				0.0			
			BR	SILTY CLAYSTONE: light olive gray, 5Y 6/4, massive, waxy, slightly soft and very slightly moist from 66.0 to 66.5 and at 67 feet, reddish mottling begins at 68.0 feet, 100% core recovery.				
	70				0.0			
		BR	CLAYEY SILTSTONE: dark reddish brown, 5YR 3/4, waxy, brittle, trace greenish mottling, trace gypsum throughout, 100% core recovery.					
75				0.0				
		BR	SILTY CLAYSTONE: light olive gray, 5Y 6/2, massive very low angle gypsum lenses to 1/8" thick to 68.7 feet, very moist at 68.9 feet, dry thereafter, 100% core recovery.					
80				0.0				
		BR	CLAYEY SILTSTONE: reddish brown, 2.5YR 4/4, massive, waxy, brittle to massive from 70.5 to 71.0 feet, very slightly moist at 70.5 feet and dry thereafter, 50% core recovery.					
85								
			TOTAL DEPTH OF BORING: 71.0' Below Land Surface (BLS) BOREHOLE DIAMETER: 6-7/8" to TD CASING TYPE: PVC, DIAMETER: 2", INTERVAL: -2.2' TO 48.7' BLS PTFE, DIAMETER: 2", INTERVAL: 48.7' TO 53.7' BLS SCREEN TYPE: PTFE, DIAMETER: 2", SLOT SIZE: 0.010 inches INTERVAL: 53.7' TO 68.7' BLS FILTER PACK: 18-30 SILICA SAND, INTERVAL: 51.7' TO 71.0' BLS SURFACE SEAL: BENTONITE PELLETS, INTERVAL 48.7' TO 51.7' BLS : NEAT CEMENT (5 gal. water/sack cement) : INTERVAL: 0' to 48.7' BLS FLUID LEVEL NOT STATIC, WELL DEVELOPMENT CONTINUING					
90								

CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 96302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/21/93		DATE COMP: 9/24/93		REF. EL.: GRD EL 1420 ft MSL	TOTAL DEPTH: 71.5
LOGGED BY: JPG			APPROVED BY: CAD		DEPTH TO WATER: 51.5 (NOT STATIC)

WELL COMP	DPT (ft)	BLD	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.	
	5			<p>Engineered Fill Material: SILTY CLAY, reddish brown, 5YR 4/6 to 2.5YR 4/6, dry, minor greenish mottling throughout, dominant from 30 to 35 feet, minor gypsum present.</p>	0.0			
	10				0.0			
	15				0.0			
	20		CL		0.0			
	25				0.0			
	30				0.0			
	35				0.0			
					Fill material moist at 38 feet	0.0		
			BR		<p>CLAYEY SILTSTONE: red, 2.5YR 3/4, dry, massive in part, waxy, minor greenish mottling, minor gypsum throughout, root traces at 44.8 feet, 20X core recovery.</p>	0.0		
	40					0.0		

CLIENT: USPCI-LONE MOUNTAIN FACILITY			JOB NUMBER: 96302-02		
PROJECT: CELL 14 WELL INSTALLATIONS			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: GERALD COLPITTS		METHOD: AIR ROTARY	
DATE START: 9/21/93		DATE COMP: 9/24/93		REF. EL.: GRD EL 1420 ft MSL	TOTAL DEPTH: 71.5
LOGGED BY: JPG			APPROVED BY: CAD		DEPTH TO WATER: 51.5 (NOT STATIC)

WELL COMP	DPT (ft)	BLOWS	GRAPHIC LOG USCS CODE	DESCRIPTION	OVM (ppm)	SAMPLE NUMBER	SAMPLE ANAL.
	45		BR	CLAYEY SILTSTONE: red, 2.5YR 3/4, dry, massive in part, waxy, minor greenish mottling, minor gypsum throughout, root traces at 44.8 feet, 20% core recovery.	0.0		
	50		BR	CLAYEY SILTSTONE: dark reddish brown, 2.5YR 3/4, very slightly moist, friable in part, trace greenish mottling, waxy in part, gypsum lenses and veinlets throughout, 50% core recovery.	0.0		
	55		BR	CLAYEY SILTSTONE: reddish brown, 2.5YR 4/4, dry to very slightly moist, waxy, trace greenish mottling, minor gypsum lenses, 40% core recovery.	0.0		
	60		BR	SILTY CLAYSTONE: light olive gray, 5Y 6/2, very slightly moist, dense to slightly soft, gypsum not visually apparent, 100% core recovery.	0.0		
	65		BR	CLAYEY SILTSTONE: reddish brown, 2.5YR 4/4, dry, waxy, dense, brittle, high angle gypsum lenses 1/8 to 1/4-inch thick throughout, minor greenish mottling at 58.0 feet, 100% core recovery.	0.0		
	70		BR	SILTY CLAYSTONE: reddish brown, 2.5YR 4/4, massive, dull waxy, massive, trace green mottling, minor gypsum lenses and nodules throughout, 80% core recovery.	0.0		
	75		BR	SILTY CLAYSTONE: light gray, 2.5Y 6/0, slightly reddish mottling with increasing mottling from 61.3 to 61.7 feet, very slightly moist at 62.5 feet otherwise dry, trace gypsum, 80% core recovery.	0.0		
	80		BR	SILTY CLAYSTONE: reddish brown, 2.5YR 4/4, massive, dull waxy, greenish mottling with gypsum lenses at 66.7, 67.0, and 70.0 feet, minor mottling throughout, 100% core recovery.	0.0		
TOTAL DEPTH OF BORING: 71.5' Below Land Surface (BLS) BOREHOLE DIAMETER: 6-7/8" to TD CASING TYPE: PVC, DIAMETER: 2", INTERVAL: -2.5' TO 48.7' BLS PTFE, DIAMETER: 2", INTERVAL: 48.7' TO 53.7' BLS SCREEN TYPE: PTFE, DIAMETER: 2", SLOT SIZE: 0.010 inches INTERVAL: 53.7' TO 68.7' BLS FILTER PACK: 18-30 SILICA SAND, INTERVAL: 51.7' TO 71.5' BLS SURFACE SEAL: BENTONITE PELLETS, INTERVAL 48.7' TO 51.7' BLS : NEAT CEMENT (5 gal water/sack cement) : INTERVAL: 0' to 48.7' BLS FLUID LEVEL NOT STATIC, WELL DEVELOPMENT CONTINUING							

DRILLING METHOD (s) AIR ROTARY
 SAMPLING METHOD (s) CORE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 107800
 WELL NO. MW20
 LOCATION USFCA LONE MOUNTAIN
 GEOLOGIST E. LAWRENCE
 DATE STARTED 3-24-92
 DATE COMPLETED 3-27-92
 TOTAL DEPTH 57.0 ft
 DRILLER A.W. POOLE DRILL CO.

COMMENTS This is a composite log, see description
QVM readings taken in the breathing zone
all readings were from 0.0 to 0.5 ppm.

DEPTH (ft)	SPLIT SPOON/ RECOVERY%	ANALYTICAL SAMPLE	BLOW COUNTS/6in	OVM SAMPLE	HEADSPACE OVM READING			LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	200	400				600	800	
50											2.6'	CONCRETE PAD	5
5													5
60												8" Borehole d = 7.07-2	10
10													10
84													15
15										FILL MATERIAL-SILTY CLAY, reddish brown 5tr4/4, w/ green clay mottling, dry		2" PVC Casing d = 1.56 a = 0	15
20	100												20
25												Cement Grout d = 1.56 a = 0	25
95													25

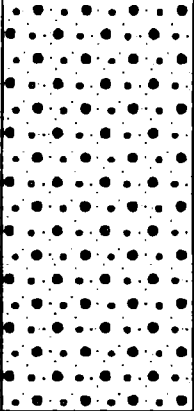
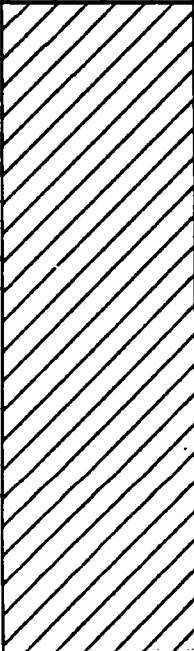
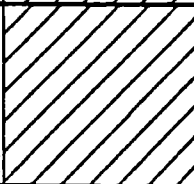
DRILLING METHOD (s) DIAPHRAGM
 SAMPLING METHOD (s) CORE BARREL
 WELL DEVELOPMENT DATE N/A
 METHOD (s)/GALLONS PURGED N/A

PROJECT NO. 007833
 WELL NO. MW22
 LOCATION USPOI / LONE MOUNTAIN
 GEOLOGIST E. LAWRENCE
 DATE STARTED 3-24-92
 DATE COMPLETED 3-27-92
 TOTAL DEPTH 57.0 ft
 DRILLER A.W. POOLE DPLG. CO.

COMMENTS This is a composite log, see description
OVM readings taken in the breathing zone
all readings were from 0.0 to 0.5 ppm

DEPTH (ft)	SPLIT SPOON/ RECOVERY %	ANALYTICAL SAMPLE	BLOW COUNTS/6in	OVM SAMPLE	HEADSPACE OVM READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE	PROFILE				2"	PTFE Casing	
					200	400						
35	95						CL	SAME AS ABOVE		2" PVC Casing	35	
40	90						ML	FILL MATERIAL-CLAYEY SILT, reddish brown 5yr4/4, w/ green clay mottling, dry		Bentonite Seal	40	
								CLAYEY SILT, reddish brown 5yr4/4, w/ green clay specks and gypsum veins, dry		2" PTFE Casing		
45							BR	CLAYEY SILTSTONE, light gray 5y7/1, dry			45	
							BR	SILTY CLAYSTONE, reddish brown 2.5yr4/6, w/ green clay mottling, indurated, brittle		Sand Gravel Pack (16-30) size		
50								gypsum nodules at 48.6', very hard, dry large (3" diam.) gypsum nodule at 49.3'		2" PTFE, 0.010 Slot Screen	50	
55	96						CL	CLAY, light gray 5y6/1, w/ gypsum veins			55	
							BR	CLAYSTONE, reddish brown 2.5yr4/6, w/ green clay mottling, dry				
								CLAYSTONE, light gray 5y6/1				
								CLAYSTONE, reddish brown 2.5yr4/6, w/ green clay mottling, dry				
								NOTE: This log was composited from two boreholes drilled 3/24-3/25 and 3/27. The boreholes were drilled 8 feet apart. The original borehole was abandoned on 3/27.			57.0'	

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>
START DATE: <i>2-1-95</i>	COMP. DATE: <i>2-1-95</i>	SURFACE ELEVATION: <i>1385.74 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>21.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 7.0'	Fill: red claystone, damp		FILL
	7.0' to 18.0'	Red claystone: w/minor gypsum nodules, gypsum veins and veinlets		CL
		Significant water encountered at 18' BGS		
	18.0' to 21.0'	Green claystone: w/trace red claystone		CL
	Total Depth = 21.0 Feet BGS Cored to 20.0 Feet BGS			PT-3.20

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-14-95</i>	COMP. DATE: <i>3-14-95</i>	SURFACE ELEVATION: <i>FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>25.0 FEET BGS</i>	M.P. ELEV.: <i>1398.30 FEET</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 2.5'	Fill; red claystone (50%), some sand, very wet		FILL
	2.5' to 9.5'	Red claystone; damp, minor gypsum to 5' Major gypsum vein at 8.5', dry		CL
	9.5' to 17'	Green claystone; dry		CL
	17.0' to 17.5'	Tan - red claystone, dry		CL
	17.5' to 21.0'	Red claystone; damp, minor gypsum to 20' Dry		CL
	21.0' to 22.0'	Green claystone		CL
	22.0' to 23.0'	Red claystone; damp		CL
	23.0' to 25.0'	Green claystone; damp		CL
	Total Depth = 25.0 Feet BGS			
				WL-2 13'-25'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-13-95</i>	COMP. DATE: <i>3-13-95</i>	SURFACE ELEVATION: <i>FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>39.0 FEET BGS</i>	M.P. ELEV.: <i>1410.05 FEET</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 2.5'	Fill; tan clay, wet		FILL
	2.5' to 8.0'	Green claystone; wet		CL
	8.0' to 15.0'	Red claystone; damp Minor gypsum from 7.5' to 10'		CL
	5% green claystone from 10' to 12.5'			CL
	Wet from 12.5' to 15'			
	15' to 15.5'	Green claystone; damp		CL
	15.5' to 25.0'	Red claystone; damp Minor gypsum and green claystone from 15.5' to 17.5' 10% gypsum from 17.5' to 20'		CL
	Minor gypsum from 22.5' to 25'			
	25.0' to 30.5'	Green claystone; damp		CL
	30.5' to 35.5'	Red claystone; damp, w/ minor gypsum		CL
35.5' to 38'	Green claystone		CL	
38' to 38'	Red claystone; damp		CL	
38.0' to 39.0'	Green claystone			
		Total Depth = 39.0 Feet BGS Bottom 2 feet caved in		

WL-1
25'-37'
DRY

USPCI

LOG

BORING NO.

LIDLAW ENVIRONMENTAL

Page 1 of 1

WELL NO. RFI-8

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>2-3-95</i>	COMP. DATE: <i>2-3-95</i>	SURFACE ELEVATION: <i>1385.76 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>18.0 FEET BGS</i>	M.P. ELEV.: <i>1389.24 FEET</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Red claystone fill, damp		FILL
	5.0' to 7.5'	70% red claystone, 30% green claystone, minor gypsum, damp		CL
	7.5' to 10.0'	90% red claystone, 10% green claystone		CL
	10.0' to 11.0'	70% red claystone, 30% gypsum, dry		CL
	11.0' to 15.5'	80% red claystone, 20% gypsum, dry		CL
	15.5' to 17.5'	90% red claystone, 10% green claystone		CL
	17.5' to 18.0'	Green claystone, damp		CL
	20'	Total Depth = 18.0 Feet BGS Hole reamed to 7 7/8" Well completed with 2" I.D. PVC Casing		

RFI-8.18
7'-18'

CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 98321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY
START DATE: 4-13-95	COMP. DATE: 4-13-95	SURFACE ELEVATION: 1385.93 FEET	
LOGGED BY: GENE WALKER		TOTAL DEPTH: 19.3 FEET BGS	M.P. ELEV.: 1388.21 FEET

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 4.0'	Fill; red clay		FILL
	4.0' to 17.8'	Red claystone Gypsum from 8.5' to 7' Mixed w/ gray claystone from 8' to 9' Wet from 8' to 11.5' Dry from 11.5' to 17.8'		CL
	17.8' to 19.3'	Green claystone		CL
	Total Depth = 19.3 Feet BGS			

CLIENT: USPCI LONE MOUNTAIN			JOB NO.: 98321-09-93		
PROJECT: CELL 5 INTERIM MEASURE			LOCATION: WAYNOKA, OKLAHOMA		
DRILLED BY: A.W. POOL		DRILLER: WAYNE CALDWELL		METHOD: AIR ROTARY	
START DATE: 3-28-95		COMP. DATE: 3-28-95		SURFACE ELEVATION: 1385.73 FEET	
LOGGED BY: SHAWN LEPPERT			TOTAL DEPTH: 17.8 FEET BGS		M.P. ELEV.: 1388.96 FEET

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
		0.0' to 4.0' Fill; red claystone, minor gypsum, damp		FILL
		4.0' to 5.5' Red claystone; minor gypsum, damp		CL
	5	Gypsum from 5.5' to 6'		GP
		6.0' to 7.0' Red claystone		CL
		7.0' to 8.0' Red claystone; minor green claystone, damp		CL
	10	8.0' to 17.8' Red claystone; damp		CL
		Very wet from 11' to 17.8', produced water at 11' to 17.8'		
	Green claystone starts at 17.8'			
	20	Total Depth = 17.8 Feet BGS		RF1-9.17.5 7'-17.8'

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>DAN DOWERS</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-30-95</i>	COMP. DATE: <i>3-30-95</i>	SURFACE ELEVATION: <i>1386.59 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>18.5 FEET BGS</i>	M.P. ELEV.: <i>1389.07 FEET</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 4.5'	Fill; red clay, w/ occasional green clay, damp to wet	FILL	
	4.5' to 7.5'	Red claystone: (10R 3/4), damp to dry	CL	
	7.5' to 10.0'	Green claystone: (10G 6/2), damp to dry	CL	
	10.0' to 18.4'	Red claystone, damp to dry	CL	
	18.4' to 18.5'	Green claystone: (10G 6/2), damp to dry	CL	RFI-10.18.5 8.5'-18.5'
		Total Depth = 18.5 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>			JOB NO.: <i>98321-09-93</i>		
PROJECT: <i>CELL 5 INTERIM MEASURE</i>			LOCATION: <i>WAYNOKA, OKLAHOMA</i>		
DRILLED BY: <i>A.W. POOL</i>		DRILLER: <i>WAYNE CALDWELL</i>		METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-30-95</i>		COMP. DATE: <i>3-30-95</i>		SURFACE ELEVATION: <i>1387.35 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>			TOTAL DEPTH: <i>18.5 FEET BGS</i>		M.P. ELEV.: <i>1390.09 FEET</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 5.0'	Fill: red clay (10R 3/4), plastic, damp		FILL
	5.0' to 18.3'	Red claystone: (10R 3/4), damp to dry Trace of gypsum from 7' to 8' 80% gypsum from 12.5' to 13' 80% gypsum from 16' to 18.3'		CL
	18.3' to 18.5'	Green claystone: dry Total Depth = 18.5 Feet BGS		CL

CLIENT: USPCI LONE MOUNTAIN		JOB NO.: 96321-09-93	
PROJECT: CELL 5 INTERIM MEASURE		LOCATION: WAYNOKA, OKLAHOMA	
DRILLED BY: A.W. POOL	DRILLER: WAYNE CALDWELL	METHOD: AIR ROTARY	
START DATE: 3-30-95	COMP. DATE: 3-30-95	SURFACE ELEVATION: 1387.02 FEET	
LOGGED BY: DAN DOWERS	TOTAL DEPTH: 18.5 FEET BGS	M.P. ELEV.: 1389.90 FEET	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.	
	0.0' to 5.0'	Fill: red clay (10R 3/4), sticky, plastic, moist		FILL	
	5.0' to 18.4'	Red claystone: (10R 3/4), stiff to hard, damp to dry		CL	
	18.4' to 18.5'	Green claystone: (10G 8/2), dry		CL	RFI-12.18.5 8.5'-18.5'
	Total Depth = 18.5 Feet BGS				

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>4-14-95</i>	COMP. DATE: <i>4-14-95</i>	SURFACE ELEVATION: <i>1387.72 FEET</i>	
LOGGED BY: <i>GENE WALKER</i>	TOTAL DEPTH: <i>19.0 FEET BGS</i>	M.P. ELEV.: <i>1388.96 FEET</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
		0.0' to 4.0' Fill: red clay		FILL
	5	4.0' to 8.0' Fill: gray/red clay		FILL
	10	8.0' to 18.9' Red claystone		CL
	20	18.9' to 19.0' Green claystone		CL
		Total Depth = 19 Feet BGS		

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>5-10-95</i>	COMP. DATE: <i>5-10-95</i>	SURFACE ELEVATION: <i>1386.28 FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>	TOTAL DEPTH: <i>38.0 FEET BGS</i>	M.P. ELEV.: <i>1389.11 FEET</i>	


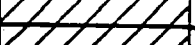

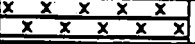


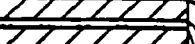




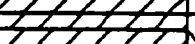
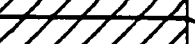










WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.
	0.0' to 4.0'	Fill; red clay (10R 3/4), dry to damp		FILL
	4.0' to 11.0'	Red claystone: (10R 3/4), dry to slightly damp		CL
	11' to 12'	5% gypsum		GP
	12.0' to 17.5'	Red claystone		CL
	17.5' to 23.0'	Green claystone: (10G 8/2), dry to slightly damp		CL
	23.0' to 38.0'	Red claystone; slightly damp to becoming moist Trace gypsum at 25' More damp from 27' to 38'		CL
	38'	Trace gypsum at 38' Green claystone begins at 38'		CL
		Total Depth = 38.0 Feet BGS		

RFI-16
28'-36'


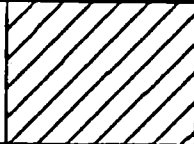







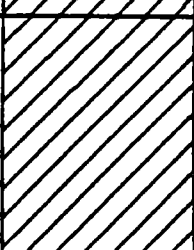





CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>96321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>7-19-95</i>	COMP. DATE: <i>7-20-95</i>	SURFACE ELEVATION: <i>1368.90 FEET</i>	
LOGGED BY: <i>DAN DOWERS</i>		TOTAL DEPTH: <i>43.0 FEET BGS</i>	M.P. ELEV.: <i>1393.74 FEET</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES/ ISOLATED INTERV.
	0.0' to 8.0'	Fill; red clay, damp, plastic		FILL
	8.0' to 9.0'	Green claystone; damp		CL
	9.0' to 22.4'	Red claystone; dry to slightly damp 1-5% gypsum from 11' to 12'		CL
		5% gypsum from 16.5' to 17' Trace gypsum from 17' to 22.4'		CL
	22.4' to 27.0'	Green claystone; damp	CL	RFI-17.23 0'-23.0'
	27.0' to 42.8'	Red claystone; moist to wet	CL	
	42.8' to 43.0'	Green claystone; wet Total Depth = 43.0 Feet BGS	CL	

CLIENT: LONE MOUNTAIN			JOB NO.: 98328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 8/3/98		COMP. DATE: 8/3/98		SURF. EL.: 1439.19 FT.	
LOGGED BY: D. Dowers		MEAS. PT. EL.: --- FT.		D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red clay, occ gyp gravel, damp-plastic, moist	 Fill	
	5	4'-8' Red claystone	 CL	
	8	8'-7' Green claystone, damp	 CL	
	10	10'-13' Common thin gyp zones, dry, dusty	 GYP	
	15	14'-14.5' Green claystone, sli damp	 CL	
	17	14.5'-17' Red claystone, sli damp	 CL	
	20	17'-18.5' Green claystone, sli damp	 CL	
	25	18.5'-20' Red claystone, sli damp-dry	 GYP	
	25	20'-20.5' Common gyp	 CL	
	30	21'-30' Dry, dusty	 CL	
	35	30'-34' Green claystone, damp, sli moist	 CL	
	35	34'-35' Red claystone, dry	 CL	
	40	35'-37' Green claystone, sli damp-dry, tr gyp	 CL	
	40	37'-41' Red claystone, dry	 CL	
	45	41'-41.5' Thin green claystone	 CL	
	45	41.5'-55' Red claystone, occ gyp, dry, dusty	 CL	
	50			
	55	55'-58' Green claystone, dry	 CL	
	60	58'-64' Red claystone	 CL	
	65	64'-64.5' Green claystone, dry	 CL	
	65	64.5'-68' Red claystone, dry	 CL	
	70	68'-70' Green claystone, dry	 CL	
	75	70'-78' Red claystone, tr gyp, dry, dusty	 CL	
	80	78'-80' Green claystone	 CL	
	85	Total Depth 80 Ft Drill rods dry when pulled from hole		
	90			

CLIENT: <i>LONE MOUNTAIN</i>		JOB NO.: <i>96328-30</i>	
PROJECT: <i>Stress Test/Dewatering</i>		LOCATION: <i>Waynoka, Oklahoma</i>	
DRILLED BY: <i>A.W. Pool</i>	DRILLER: <i>W. Caldwell</i>	METHOD: <i>Air Rotary 5"hole</i>	
START DATE: <i>6/3/96</i>	COMP. DATE: <i>8/3/96</i>	SURF. EL.: <i>1437.31 FT.</i>	TD: <i>80 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>	MEAS. PT. EL.: <i>--- FT.</i>	D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4.5' Fill, red clay, soft, plastic, moist, occ green clay @ 4-4.5'		FI
	5	4.5-14' Red claystone, occ tr gyp, gyp zone @ 8-8.5'		CL
	10			
	15	14-15' Green claystone, damp-dry		CL
		15-17' Thin red/green claystone, interbedded, dry		CL
	20	17-27' Red claystone, dry		CL
	25			
	30	27-27.5' Green claystone		CL
		27.5-30' Red claystone		CL
	35	30-33' Green clay, damp, plastic, sli moist		CL
		33-37' Red claystone, damp		CL
	40	37-53' Red claystone, dry, dusty		CL
	45	Occ gyp @ ~45', dry, dusty		
	50			
	55	53-58' Green claystone, sli damp-dry		CL
		58-88' Red claystone, dry, dusty		CL
	60			
	65			
	70	88-87.5' Green claystone		CL
		87.5-78.5' Red claystone		CL
		Thin gyp zone @ 73'		
	75			
	80	78.5-80' Green claystone, w/approx .5' red claystone mixed/interbedded @ approx. 77.5-78.5'		CL
	85	Total Depth 80 Ft Rods dry when pulled from hole		
	90			

CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/3/96</i>		COMP. DATE: <i>6/3/96</i>		SURF. EL.: <i>1434.57 FT.</i>	
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1437.22 FT.</i>		D. T. WATER: <i>14.5 FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red brown clay, damp, silt, tr whi gyp		FW
	5	4'-10.5' Red claystone, trace gyp through in thin lenses		CL
	10	10.5'-13.5' Green claystone, silt damp		CL
	15	13.5'-22.5' Red claystone Becoming damp-sticky @ 15-23.5'		CL
	20			
	25	23.5'-28' Green claystone, damp-dry		CL
	30	28'-40' Red claystone, dry-silt damp		CL
	35			
	40			
	45			CL
	50	48'-48.5' Gyp		GYP
	55	48.5'-53.5' Green claystone, damp 53.5'-58' Red claystone, dusty, dry		CL
	60	58'-58.5' Green clay, dry-silt damp 58.5'-62.5' Red claystone, dusty		CL
	65	62.5'-65' Green claystone 65'-73.5' Red clay		CL
70				
75	73.5'-78' Green clay w/approx 1' red clay zone @ ~75'		CL	
80	Total Depth 78 Ft Rods visibly wet when pulling out of hole (Driller notes that water coming to hole is on SE side) Well completion data: Hole size: 12"; Casing: Schedule 40 PVC, 0-14' & 74-78', 8" ID Screen: Schedule 40 PVC, 14-74', .010" slot, 8" ID Filter pack: 18/30 sand, 12-78' Bentonite seal @ 10-12'; Cement @ surface-10'			
85				
90				

CLIENT: LONE MOUNTAIN		JOB NO.: 98328-30	
PROJECT: Stress Test/Dewatering		LOCATION: Waynoka, Oklahoma	
DRILLED BY: A.W. Pool	DRILLER: W. Caldwell	METHOD: Air Rotary	
START DATE: 6/3/96	COMP. DATE: 6/3/96	SURF. EL.: 1433.7 FT.	TD: 77 FT. BGS
LOGGED BY: D. Dowers	MEAS. PT. EL.: 1434.69 FT.	D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red clay, damp, plastic		FI
	5	4'-5' Red claystone, w/occ gyp and mixed green claystone		CL
	5	5'-8' Red claystone, damp		CL
	10	8'-11' Green claystone, damp		CL
	15	11'-23' Red claystone, damp-dry		CL
	25	23'-27.5' Green clay, moist, gyp @ base 2"		CL
	30	27.5'-48.5' Red claystone, dry		CL
	45	Gyp - thin zones <.5 @ ~45' Gyp @ ~47.5'		CL
	50	48.5'-52.5' Green claystone, dry		CL
	55	52.5'-62' Red claystone, dry		CL
	65	62'-63.5' Green claystone, dry		CL
	65	63.5'-73' Red claystone, common white gyp frags @ ~65-70'		CL
	75	73'-73.5' Thin green clay, dry		CL
	75	73.5'-74.5' Red claystone, dry		CL
80	74.5'-77' Green claystone		CL	
Total Depth 77 Ft Minor wet spots on rods when pulling from hole Note: 8" PVC surface casing extends to 2' BGS for use in stress test				

CLIENT: LONE MOUNTAIN			JOB NO.: 96328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary (5")	
START DATE: 6/4/96		COMP. DATE: 6/4/96		SURF. EL.: 1433.5 FT.	TD: 75 FT. BGS
LOGGED BY: D. Dowers		MEAS. PT. EL.: 1434.48 FT.		D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, mixed red clay and gyp gravel, damp, plastic, occ moist		Fill
	5	4'-8' Red claystone		CL
	8	8'-8.5' Green claystone, damp-dry		CL
	10	8.5'-8' Red claystone, dry		CL
	15	8'-11' Green claystone, damp		CL
	20	11'-22' Red claystone, dry		CL
	20	18'-20' Common white gyp		GYP
	22	22'-23' Green clay, damp, soft		CL
	25	23'-25' Red claystone, dry-sli damp		CL
	30	25'-28' Green claystone, damp, soft		CL
	35	28'-34' Red claystone, dry, occ white gyp frags		CL
	40	34'-35.5' Green-gray claystone, dry		CL
	45	35.5'-48' Red claystone, dry		CL
	50	47'-47.5' Gyp zone		GYP
	50	48'-51.5' Green claystone		CL
	55	51.5'-81' Red claystone, dry, dusty		CL
	60	81'-83' Green claystone, dry-sli damp		CL
	65	83'-72.5' Red claystone		CL
	70	88'-88.5' Gyp zone		GYP
	70	72.5'-73' Green claystone, sli damp		CL
	75	73'-74' Red claystone		CL
	80	74'-75' Green claystone		CL
		Total Depth 75 Ft		
		Note: 6" PVC surface casing extends to 2' BGS for use in stress test.		

CLIENT: <i>LONE MOUNTAIN</i>		JOB NO.: <i>98328-30</i>	
PROJECT: <i>Stress Test/Dewatering</i>		LOCATION: <i>Waynoka, Oklahoma</i>	
DRILLED BY: <i>A.W. Pool</i>	DRILLER: <i>W. Caldwell</i>	METHOD: <i>Air Rotary</i>	
START DATE: <i>6/4/96</i>	COMP. DATE: <i>6/4/96</i>	SURF. EL.: <i>1433.2 FT.</i>	TD: <i>75 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>	MEAS. PT. EL.: <i>1434.21 FT.</i>	D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red clay, damp, plastic		FW
	5	4'-8' Red claystone, dry-sli damp		CL
	10	8'-10' Green claystone, damp		CL
	15	10'-20' Red claystone		CL
	20	12' Gyp zone		CL
	25	20'-24' Green claystone, damp-moist		CL
	30	24'-33' Red claystone, dry		CL
	35	33'-35' Green claystone, damp-dry		CL
	40	35'-47.5' Red claystone, dry, occ gyp frags		CL
	45			CL
	50	47.5'-51' Green claystone, dry		CL
	55	51'-80' Red claystone, dry, occ gyp frags		CL
	60	80'-82.5' Green claystone, damp		CL
	65	82.5'-72' Red claystone, dry		CL
	70	70' Thin gyp zone		CL
75	72'-73' Green claystone, sli damp		CL	
75	73'-74' Red claystone, dry		CL	
80	74'-75' Green claystone, dry		CL	
		Total Depth 75 Ft		
		Note: 8" PVC surface casing extends to 2' BGS for use in stress test		

CLIENT: LONE MOUNTAIN		JOB NO.: 98328-30	
PROJECT: Stress Test/Dewatering		LOCATION: Waynoka, Oklahoma	
DRILLED BY: A.W. Pool	DRILLER: W. Caldwell	METHOD: Air Rotary	
START DATE: 6/4/98	COMP. DATE: 6/4/98	SURF. EL.: 1432.8 FT.	TD: 74 FT. BGS
LOGGED BY: D. Dowers	MEAS. PT. EL.: 1433.84 FT.	D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4'8" Fill, red clay, wet, plastic, water coming in @ base of fill, cased off		FW
	5	4'8"-7' Red claystone, damp		CL
	10	7'-8.5' Green claystone, damp		CL
	15	8.5'-20' Red claystone, dry, gyp frags common @ 18-20'		CL
	20	20'-24' Green claystone, damp		CL
	25	24'-33.5' Red claystone, dry, dusty		CL
	30	25'-25.5' Gyp		GYP
	35	25'-25.5' Gyp		CL
	40	33.5'-34.5' Green claystone, damp		CL
	45	34.5'-44' Red claystone, dry, common gyp @ 37'		CL
	50	44'-44.5' Thin green claystone, dry		CL
	55	44.5'-47' Red claystone, dry		CL
	60	47'-50' Green claystone, dry		CL
	65	50'-58' Red claystone, dry		CL
	70	58'-58.5' Thin green claystone, dry		CL
	75	58.5'-58.5' Red claystone, dry		CL
	80	58.5'-82' Green claystone, damp		CL
85	82'-71' Red claystone, dry		CL	
90	87' Gyp frags common		CL	
	71'-72' Green claystone, damp		CL	
	72'-73' Red claystone, dry		CL	
	73'-74' Green claystone, dry		CL	
	Total Depth 74 Ft			
	Note: 8" PVC surface casing extends to 5.5' BGS for use in stress test			





















CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>96328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/4/96</i>		COMP. DATE: <i>6/4/96</i>		SURF. EL.: <i>1433.1 FT.</i>	TD: <i>73 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1434.13 FT.</i>		D. T. WATER: <i>17 FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4'8" Fill, red clay, damp-moist, plastic, probable water producer, cased off w/8" surface csg.		FW
	5	4'8"-5.5' Green claystone, damp		CL
	5.5	5.5'-8' Red claystone, damp		CL
	8	8'-8' Green claystone, damp		CL
	15	8'-20' Red claystone, damp, tr gyp frags Water on drill pipe noted @ 17' when pulling rods after compl. hole		CL
	20	20'-22.5' Green claystone, damp		CL
	25	22.5'-32' Red claystone, scat gyp frags @ ~25', dry		CL
	32	32'-33' Green claystone, dry		CL
	33	33'-47.5' Red claystone, occ gyp frags, dry		CL
	41.5	41.5' Scat green clay frags		CL
	45	45' Scat gyp frags @ 45' & 47'		CL
	47.5	47.5'-50' Green claystone, dry		CL
	50	50'-58.5' Red claystone, dry		CL
	55	55' Scat whi gyp @ 55'		CL
	58.5	58.5'-80' Green claystone, damp-moist		CL
	60	80'-70' Red claystone, dry		CL
	63	83'-84' Common white gyp frags		GYP
70	70'-71' Green claystone, dry		CL	
71	71'-72' Red claystone, dry		CL	
72	72'-73' Green claystone, dry		CL	
80	Total Depth 73 Ft			
85	Note: 8" PVC surface casing extends to 5.5' BGS for use in stress test			

CLIENT: LONE MOUNTAIN			JOB NO.: 96328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 6/4/96		COMP. DATE: 6/4/96		SURF. EL.: 1432.2 FT.	TD: 72 FT. BGS
LOGGED BY: D. Dowers		MEAS. PT. EL.: 1433.22 FT.		D. T. WATER: FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-5' Fill, red clay, damp-moist, installed surface casing to prevent shallow H ₂ O infiltration		FI
	5	5'-7' Red claystone, damp		CL
	7	7'-8' Green claystone, damp		CL
	10	8'-19.5' Red claystone, tr scattered gyp frags		CL
	15			
	20	19.5'-23' Green claystone, damp-sli moist		CL
	25	23'-28' Red claystone, dry		CL
	30			
	35	32'-33' Green claystone		CL
	40	33'-47' Red claystone, dry		CL
	45			
	50	47'-50' Green claystone		CL
	55	50'-58' Red claystone, dry, dusty		CL
	60	58'-80' Green claystone, damp		CL
65	80'-70' Red claystone, dry		CL	
70	87'-88' Common gyp		GYP	
70	70'-72' Green clay, dry		CL	
75	Total Depth 72 Ft			
80	Note: 8" PVC surface casing extends to 8' BGS for use in stress test			
85				
90				


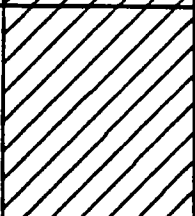
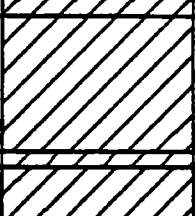
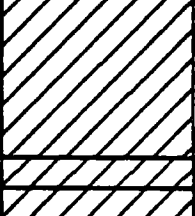
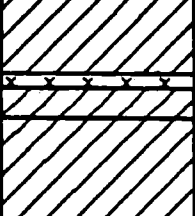
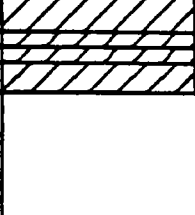

CLIENT: LONE MOUNTAIN			JOB NO.: 98328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 6/4/98	COMP. DATE: 6/4/98	SURF. EL.: 1431.9 FT.	TD: 72 FT. BGS		
LOGGED BY: D. Dowers		MEAS. PT. EL.: 1432.98 FT.		D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red clay, soft, plastic, damp-moist, set surface casing @ 0-4.5'		FI
	5	4'-5.5' Red claystone, damp-moist		CL
	10	5.5'-7' Green claystone, damp		CL
	15	7'-18' Red claystone		CL
	20	18'-22.5' Green claystone, damp-moist		CL
	25	22.5'-32' Red claystone, dry		CL
	30	30'-30.5' Common gyp		GY
	35	32'-34' Green claystone, dry-sli damp		CL
	40	34'-47' Red claystone		CL
	45	44'-45' Occ gyp frags		CL
	50	47'-48' Green claystone, dry		CL
	55	48'-58' Red claystone, dry		CL
	60	58'-80' Green claystone, damp		CL
	65	80'-88' Red claystone, dry, dusty		CL
	70	83'-84' Scat. gyp		GY
	75	87'-88' Scat. gyp		GY
80	88'-70' Green clay, sli damp-dry		CL	
85	70'-71' Red clay, dry		CL	
90	71'-72' Green clay, sli damp-dry		CL	
	Total Depth 72 Ft			
	Note: Temporary surface casing, hole plugged and abandoned			

CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>96328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/4/96</i>		COMP. DATE: <i>6/4/96</i>		SURF. EL.: <i>1432.7 FT.</i>	
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1433.70 FT.</i>		D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-1' Fill, red clay, damp	Fll	
	5	1'-7' Red claystone, damp, tr gyp	CL	
	10	7'-8' Green claystone, sli damp	CL	
	15	8'-18' Red claystone, dry, dusty	CL	
	20	Tr scat gyp @ 17'		
	25	18'-22.5' Green claystone, sli damp	CL	
	25	22.5'-32' Red claystone	CL	
	25	24'-24.5' White gyp	GYP	
	30		CL	
	35	32'-33' Green claystone, dry-sli damp	CL	
	35	33'-45' Red claystone, dry, dusty	CL	
	40	40'-40.5' Common gyp, dusty	GYP	
	45		CL	
	45	45'-48' Green claystone, dry	CL	
	50	48'-57.5' Red claystone, dry, dusty	CL	
	55		CL	
	60	57.5'-80' Green claystone, dry	CL	
	60	80'-70' Red claystone, dry, dusty	CL	
	65		CL	
	70	70'-71' Green claystone, dry	CL	
	75	71'-71.5' Red claystone, dry	CL	
	75	71.5'-72' Green claystone, dry	CL	
	80	Total Depth 72 Ft		
	85	Plugged and abandoned		
	90			

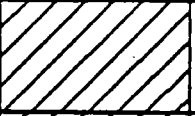





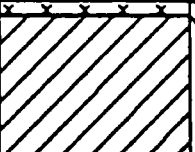

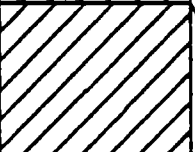

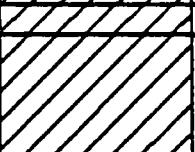





CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/4/96</i>		COMP. DATE: <i>6/4/96</i>		SURF. EL.: <i>1434 FT.</i>	TD: <i>75 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>			MEAS. PT. EL.: <i>1435.04 FT.</i>		D. T. WATER: <i>Dry FT. BGS</i>

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4.5' Fill, wet, installed 5' surface casing	 FM	
	5	4.5'-8.5' Green claystone, damp		CL
	10	8.5'-21' Red claystone, dry		CL
	21	21'-23' Green claystone, damp		CL
	25	23'-48' Red claystone, dry, dusty		CL
	32	32'-33' Thin green claystone		CL
	48	48'-50' Green claystone, dry		CL
	50	50'-58.5' Red claystone, dry, dusty		CL
	58	58'-58' White gyp		GYP
	58.5	58.5'-81' Green claystone, dry		CL
	65	81'-71' Red claystone, dry		CL
	71	71'-72' Green claystone, dry		CL
	72	72'-73' Red claystone, dry		CL
	73	73'-75' Green claystone, dry		CL
	80	Total Depth 75 Ft		
	85	Plugged and abandoned		
	90			

CLIENT: <i>LONE MOUNTAIN</i>		JOB NO.: <i>98328-30</i>	
PROJECT: <i>Stress Test/Dewatering</i>		LOCATION: <i>Waynoka, Oklahoma</i>	
DRILLED BY: <i>A.W. Pool</i>	DRILLER: <i>W. Caldwell</i>	METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>	COMP. DATE: <i>6/5/96</i>	SURF. EL.: <i>1434.5 FT.</i>	TD: <i>74 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>	MEAS. PT. EL.: <i>1435.51 FT.</i>	D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-7' Red claystone, scat white gyp, damp-dry	CL	
	5			
	7-10'	7'-10' Green claystone, damp-dry	CL	
	10	10'-21' Red claystone, dry, dusty	CL	
	15	Scat gyp frags @ 13'		
	20			
	21'-24.5'	21'-24.5' Green claystone, damp	CL	
	25	24.5'-34' Red claystone	CL	
	30	Common white gyp frags @ 27'		
	35	34'-35' Green claystone, dry	CL	
	40	35'-44' Red claystone, dry, dusty	CL	
	45	44'-44.5' Green claystone, dry	CL	
	44.5'-48'	44.5'-48' Red claystone, dry	CL	
	50	48'-51' Green claystone, dry	CL	
	55	51'-80.5' Red claystone, dry, dusty	CL	
	60	80'-80.5' Common gyp frags	GYP	
	60.5'-82'	80.5'-82' Green claystone, dry	CL	
	65	82'-71' Red claystone, dry, dusty	GYP	
70	85'-85.5' Common white gyp frags	CL		
75	Common white gyp frags @ 88'	CL		
71'-72'	71'-72' Green claystone, dry	CL		
80	72'-73' Red claystone, dry			
73'-74'	73'-74' Green claystone, dry			
85	Total Depth 74 Ft			
90	Plugged and abandoned			

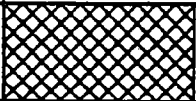


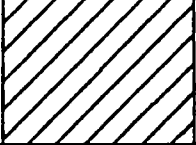



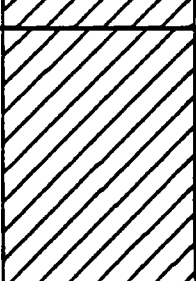



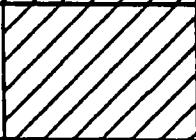



CLIENT: LONE MOUNTAIN			JOB NO.: 98328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Wainoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 6/5/98		COMP. DATE: 6/5/98		SURF. EL.: 1434.8 FT.	
LOGGED BY: D. Dowers		MEAS. PT. EL.: 1435.58 FT.		D. T. WATER: 13 FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-7.5' Red claystone, damp-dry		CL
	5	Com white gyp @ 8'		
	7.5	7.5'-8.5' Green claystone		CL
	8.5	8.5'-8.5' Red claystone, dry-damp		CL
	8.5	8.5'-11' Green claystone, damp		CL
	11	11'-23' Red claystone, becomes damp-sil moist @ 13' to 23' *Made water after making connection @ 20' - prospective zone @ 13-23' - dried up during deeper drilling		CL
	23	23'-28' Green claystone, damp-moist		GYP
	25	25'-28' Com gyp frags		
	28	28'-38' Red claystone, sil damp-dry		CL
	38	38'-38.5' Gray-green claystone, dry		CL
	38.5	38.5'-48' Red claystone, dry		CL
	48	48'-50' Green claystone		CL
	50	50'-80' Red claystone, dry		CL
	80	80'-82.5' Green claystone		CL
	82.5	82.5'-72' Red claystone Common gyp @ 85' & 88'		CL
	72	72'-73' Green claystone, dry		CL
	73	73'-74' Red claystone, dry		CL
	74	74'-75' Green claystone, dry		CL
	75	Total Depth 75 Ft		
	85	Plugged and abandoned		

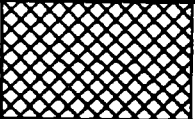



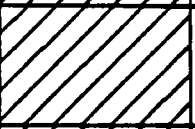

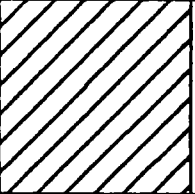

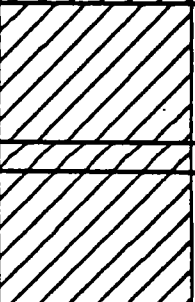





CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>		COMP. DATE: <i>6/5/98</i>		SURF. EL.: <i>1434 FT.</i>	TD: <i>74 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1435.02 FT.</i>		D. T. WATER: <i>18 FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-5' Fill, red clay, wet, soft, plastic, cased off to 8' to prevent H ₂ O infiltration		FB
	5	5'-8.5' Red claystone, damp		CL
	10	8.5'-11.5' Green claystone, damp		CL
	15	11.5'-18' Red claystone, dry, dusty		CL
	20	18'-20' Red claystone, moist		CL
	25	20'-24' Green claystone, damp		CL
	30	24'-34' Red claystone, slt damp-dry		CL
	35	34'-35' Green claystone, dry		CL
	40	35'-50' Red claystone, dry		CL
	50	50'-55' Green claystone, dry		CL
	55	55'-80' Red claystone, dry		CL
	60	80'-82' Green claystone, dry		CL
	65	82'-71' Red claystone, dry		CL
	70	71'-72' Green claystone, dry		CL
75	72'-73' Red claystone, dry		CL	
80	73'-74' Green claystone, dry		CL	
	80	Total Depth 74 Ft		
	85	Note: Surface casing temporary, plugged and abandoned		
	90			










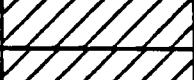

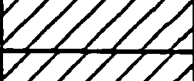








CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>		COMP. DATE: <i>6/5/98</i>		SURF. EL.: <i>1434 FT.</i>	TD: <i>74 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1435.01 FT.</i>		D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-8.5' Fill, red clay, gyp gravel, damp-sli moist (no need for surface casing)	 FW	
	5	8.5'-8' Red claystone, damp	 CL	
	10	8'-10.5' Green claystone, damp-sli moist	 CL	
	15	10.5'-20.5' Red claystone, sli damp @ 10.5-15', dry below 15'	 CL	
	20	20.5'-24' Green claystone, sli damp-dry	 CL	
	25	24'-30' Red claystone, dry	 CL	
	30	30'-33' Green claystone, dry	 CL	
	35	33'-50' Red claystone, dry	 CL	
	40			
	45			
	50	50'-53' Green claystone	 CL	
	55	55'-80' Red claystone, dry	 CL	
	60	80'-82' Green claystone, w/thin gyp layer on top	 CL	
	65	82'-71' Red claystone, dry Thin gyp zone @ 85'	 CL	
	70	71'-72' Green claystone, dry	 CL	
	75	72'-73' Red claystone, dry	 CL	
	80	73'-74' Green claystone, dry	 CL	
		Total Depth 74 Ft		
	85	Plugged and abandoned		
	90			




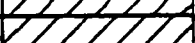

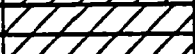
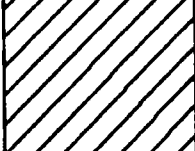




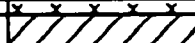



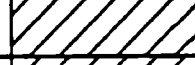





CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>	COMP. DATE: <i>6/5/96</i>	SURF. EL.: <i>1434.29 FT.</i>	TD: <i>74 FT. BGS</i>		
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>--- FT.</i>		D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0			
	0-8'	Fill, clay, damp		FI
	8-10'	Green clay, damp, plastic		CL
	10-20'	Red claystone, dry		CL
	20-24'	Lt green gray @ 20-23', green claystone @ 23-24'		CL
	24-32'	Red claystone, dry		CL
	32-35'	Green claystone, sil damp		CL
	35-48'	Red claystone, sil damp		CL
	48-51'	Green claystone, sil damp		CL
	51-80'	Red claystone, dry, dusty		CL
	80-82'	Green claystone, damp		CL
	82-71'	Red claystone, dry, dusty		CL
	71-72'	Green claystone		CL
	72-73'	Red claystone		CL
	73-74'	Green claystone		CL
	80	Total Depth 74 Ft		
	85	Plugged and abandoned		
	90			

CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>		COMP. DATE: <i>6/5/96</i>		SURF. EL.: <i>1444.55 FT.</i>	
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>--- FT.</i>		D. T. WATER: <i>Dry FT. BGS</i>	



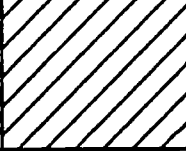




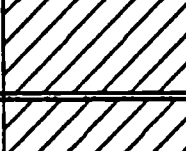
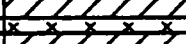


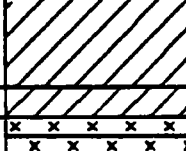





WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-5' Red claystone, damp		CL
	5	5'-5.5' Green claystone, damp		CL
	10	5.5'-13' Red claystone, sil damp		CL
	15	13'-14' Green claystone, sil damp		CL
	20	14'-20' Red claystone, sil damp		CL
	25	20'-22' Green claystone, damp		CL
	30	22'-35' Red claystone, dry		CL
	35	35'-40' Green claystone, sil damp-dry		CL
	40	40'-50' Red claystone, dry, dusty		CL
	45			CL
	50	50'-82' Red claystone, dry, dusty, occ white gyp frags		CL
	55			CL
	60	82'-85' Green claystone, dry		CL
	65	85'-75' Red claystone, dry		CL
	70			CL
	75	75'-78' Green claystone, dry		CL
	80	78'-85' Red claystone, dry		CL
	85	85'-88' Green claystone		CL
	90	88'-87' Occ. red claystone mixed in green claystone		CL
		87'-88' Green claystone, dry		CL

JOB NUMBER: 98328-30 Total Depth 88 Ft Plugged and abandoned

CLIENT: LONE MOUNTAIN		JOB NO.: 96328-30		
PROJECT: Stress Test/Dewatering		LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool	DRILLER: W. Caldwell	METHOD: Air Rotary		
START DATE: 6/5/96	COMP. DATE: 6/5/96	SURF. EL.: 1445.00 FT.	TD: 88 FT. BGS	
LOGGED BY: D. Dowers	MEAS. PT. EL.: --- FT.	D. T. WATER: Dry FT. BGS		
WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-5' Red claystone, damp	 CL	
	5	5-8' Green claystone, damp	 CL	
	10	8-13' Red claystone, slt damp	 CL	
	15	13-14.5' Green claystone, dry	 CL	
	20	14.5-23' Red claystone, com gyp frags @ 18-18', dry	 CL	
	25	23-25' Green claystone, dry	 CL	
	30	25-37' Red claystone, dry	 CL	
	35			
	40	37-42' Green claystone, damp	 CL	
	45	42-48' Red claystone, dry	 CL	
	50	48-50' Green claystone, dry	 CL	
	55	50-62.5' Red claystone, dry	 CL	
	60	58-60' Common gyp	 GYP CL	
	65	62.5-66' Green claystone, dry	 CL	
	70	66-70' Red claystone, dry, dusty	 CL	
	75	70-70.5' Green claystone, dry	 CL	
	80	70.5-77' Red claystone, dry, dusty	 CL	
	85	77-78' Mixed green clay, red clay & gyp	 CL	
	90	78-85' Red claystone, dry, dusty	 CL	
		Com gyp @ 83'		
		85-86' Green claystone, dry	 CL	
		86-87' Mixed red/green claystone	 CL	
		87-88' Green claystone	 CL	

JOB NUMBER: 96328-30 Total Depth 88 Ft Plugged and abandoned


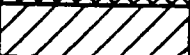
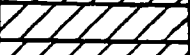



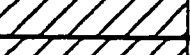

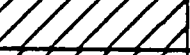








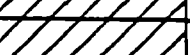
CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>		COMP. DATE: <i>6/5/96</i>		SURF. EL.: <i>1432.6 FT.</i>	TD: <i>72 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1433.59 FT.</i>		D. T. WATER: <i>Dry FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-5' Fill, soft red clay, damp-sli moist, stopped drilling @ 5' for 15 min to check for water infiltration, no surf casing required	 FB	
	5	5-7' Green claystone, damp	 CL	
	10	7-18.5' Red claystone, dry	 CL	
	20	18.5-23' Green claystone, damp	 CL	
	25	23-30' Red claystone, dry, dusty	 CL	
	25	24-24.5' Gyp, dry, dusty	 GYP	
	30	30-33' Green claystone, dry	 CL	
	35	33-48' Red claystone	 CL	
	40	40-40.5' Gyp frags common	 GYP	
	45	45-48' Gyp frags common	 CL	
	45	48-48' Green claystone, dry	 GYP	
	50	48-58' Red claystone, dry, dusty	 CL	
	55	58-60' Green claystone, sli damp	 CL	
	60	60-68' Red claystone	 GYP	
	65	60-65' Com gyp frags, dry, v dusty	 CL	
	70	68-70' Green claystone, dry	 CL	
	70	70-71' Red claystone, dry	 CL	
	75	71-72' Green claystone, dry		
	80	Total Depth 72 Ft		
	85	8" PVC temporary surface casing extends to 2' BGS		
	90			

CLIENT: LONE MOUNTAIN			JOB NO.: 96328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 6/5/96		COMP. DATE: 6/5/96		SURF. EL.: 1432.9 FT.	
LOGGED BY: D. Dowers		MEAS. PT. EL.: 1433.88 FT.		D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG	USCS CODE	ANALYSIS
	0	0-4' Fill, damp, red clay, no surface casing required		FW	
	5	4'-5' Green claystone, damp		CL	
		5'-7' Red claystone, damp		CL	
	10	7'-10' Green claystone, damp		CL	
	15	10'-20' Red claystone, dry, dusty		CL	
	20	20'-23' Green claystone, damp		CL	
	25	23'-31' Red claystone, dry, dusty		CL	
	30	31'-34.5' Green claystone, dry		CL	
	35	34.5'-44' Red claystone, dry		CL	
	40	40'-44' Gyp frags common		GYP	
	45	44'-48' Green claystone, dry		CL	
	50	48'-80' Red claystone, dry, dusty, occ thin gyp zones		CL	
	55			CL	
	60	80'-82' Green claystone, dry		CL	
	65	82'-71' Red claystone, dry, dusty		CL	
	70			CL	
	71	71'-72' Green claystone, dry		CL	
	72	72'-73' Red claystone, dry		CL	
	73	73'-74' Green claystone, dry		CL	
	80	Total Depth 74 Ft			
	85	8" PVC temporary surface casing extends to 2' BGS			
	90				






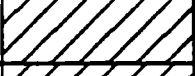
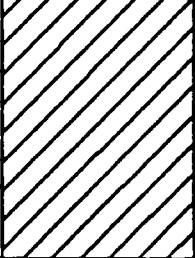




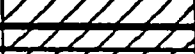



CLIENT: <i>LONE MOUNTAIN</i>		JOB NO.: <i>98328-30</i>	
PROJECT: <i>Stress Test/Dewatering</i>		LOCATION: <i>Waynoka, Oklahoma</i>	
DRILLED BY: <i>A.W. Pool</i>	DRILLER: <i>W. Caldwell</i>	METHOD: <i>Air Rotary</i>	
START DATE: <i>6/5/96</i>	COMP. DATE: <i>6/5/96</i>	SURF. EL.: <i>1432.8 FT.</i>	TD: <i>75 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>	MEAS. PT. EL.: <i>1433.77 FT.</i>	D. T. WATER: <i>21 FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red clay, damp		FW
	5	4'-7.5' Red claystone, damp, scat gyp		CL
	10	7.5'-10' Green claystone, damp		CL
	15	10'-21' Red claystone, dry		CL
	20	21'-24' Green claystone, damp-moist		CL
	25	24'-32' Red claystone, dry, Gyp @ 25'		CL
	30	32'-34' Green claystone, dry		CL
	35	34'-47' Red claystone, dusty, dry, occ thin gyp zones		CL
	40			CL
	45			CL
	50	47'-50' Green claystone		CL
	55	50'-80' Red claystone, dry, dusty		CL
	60	80'-82' Green claystone, dry		CL
	65	82'-72' Red claystone, dry, dusty 82'-85' Com gyp		CL
	70			CL
	75	72'-73' Green claystone, dry		CL
		73'-74' Red claystone, dry		CL
		74'-75' Green claystone, dry		CL
	80	Total Depth 75 Ft		
	85	8" PVC temporary surface casing extends to 2' BGS		
	90			


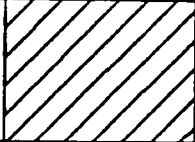
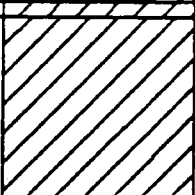


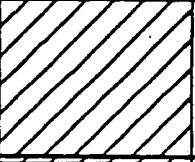
CLIENT: LONE MOUNTAIN		JOB NO.: 96328-30	
PROJECT: Stress Test/Dewatering		LOCATION: Waynoka, Oklahoma	
DRILLED BY: A.W. Pool	DRILLER: W. Caldwell	METHOD: Air Rotary	
START DATE: 6/5/96	COMP. DATE: 6/5/96	SURF. EL.: 1434.24 FT.	TD: 75 FT. BGS
LOGGED BY: D. Dowers	MEAS. PT. EL.: 1437.18 FT.	D. T. WATER: 15 FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-7' Fill, soft red clay, moist-damp		FW
	5	7-10' Green claystone, damp		CL
	10	10'-22' Red claystone, damp		CL
	15	*Water in hole when connection made @ 20' & @ all connections below		
	20	22'-25' Green claystone, damp		CL
	25	25'-35' Red claystone, damp		CL
	30	Gyp @ 27'		CL
	35	35'-38' Green claystone, dry		CL
	40	38'-47.5' Red claystone, sl damp		CL
	45	47.5'-50' Green claystone		CL
	50	50'-80.5' Red claystone, damp, occ gyp frags		CL
	55	80'-80.5' white gyp frags		GYP
	60	80.5'-82.5' Green claystone, damp		CL
	65	82.5'-72' Red claystone, damp		CL
	70	Gyp zone @ 88'		CL
75	72'-73' Green claystone, damp		CL	
75	73'-74' Red claystone, damp		CL	
75	74'-75' Green claystone, damp		CL	
80	Total Depth 75 Ft Well completion data: Hole size: 12"; Casing (blank) Schedule 40 PVC, 8" ID, @ 0-15' Screen: 8" ID Schedule 40 PVC, .010" slots, @ 15-75' Filter pack: 18/30 sand @ 13-75' Bentonite seal @ 10-13'; Cement @ surface-10'			
85				
90				

CLIENT: LONE MOUNTAIN			JOB NO.: 98328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 5/7/96		COMP. DATE: 5/7/96		SURF. EL.: 1437.34 FT.	TD: 77 FT. BGS
LOGGED BY: D. Dowers		MEAS. PT. EL.: --- FT.		D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4.5' Fill, red clay, soft, damp		FM
	5	4.5'-14' Red claystone, damp-dry		CL
	10	8'-10' Gyp		GY
	15	14'-15.5' Green claystone, damp-dry		CL
	20	15.5'-27.5' Red claystone, dry		CL
	25			
	30	27.5'-32' Green claystone, damp-dry		CL
	35	32'-50' Red claystone, dry		CL
	40			
	45	Com gyp @ 47'		
	50	50'-52' Green claystone, dry		CL
	55	52'-53' Red claystone, dry		CL
	60	53'-58' Green claystone, dry		CL
	65	58'-85.8' Red claystone, dry		CL
	70	85.8'-88' Green claystone TD @ 88' w/5" hole, ream to 8" for isolation casing Set to 88' in hydrated bentonite		CL
	75	88'-87.5' Green claystone, dry		CL
	80	87.5'-78.5' Red claystone, dry		CL
	85	Gyp @ 73'		
	90	78.5'-77' Green claystone, dry		
		Total Depth 77 Ft Note: Drilled with water during ream from 40-88' due to moisture in hole causing poor return w/air. Set temporary 8" PVC isolation casing @ 0-88', plugged and abandoned		

CLIENT: LONE MOUNTAIN			JOB NO.: 96328-30		
PROJECT: Stress Test/Dewatering			LOCATION: Waynoka, Oklahoma		
DRILLED BY: A.W. Pool		DRILLER: W. Caldwell		METHOD: Air Rotary	
START DATE: 6/6/96	COMP. DATE: 6/6/96	SURF. EL.: 1437.4 FT.	TD: 88 FT. BGS		
LOGGED BY: D. Dowers		MEAS. PT. EL.: --- FT.		D. T. WATER: Dry FT. BGS	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4.5' Fill, red clay, damp		FI
	5	4.5'-14' Red claystone, damp		CL
	10	Gyp @ 8'		
	15	14'-15' Green claystone, dry		CL
	20	15'-27' Red claystone		
	25			CL
	30	27'-32.5' Green claystone Mixed red/green claystone @ 28-30'		
	35	Common gyp @ 35'		
	40	38.5'-40' Green claystone		CL
	45	Occ gyp @ 45'		
	50	48.5'-50' Green claystone		CL
	55	Stopped @ 50', reamed 5" hole to 8" 50# bentonite pellets, hydrated @ bottom of hole set isolation casing 0 to 50'		
	60	50'-55' Green claystone		CL
	65	55'-85.5' Red claystone		
	70	85.5'-88' Green claystone		CL
	75	Total Depth 88 Ft Note: Temporary 8" ID PVC isolation casing set @ 0-50', plugged and abandoned		
	80			
	85			
	90			

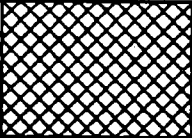

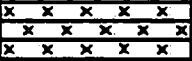

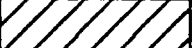
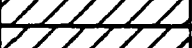






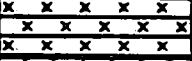




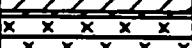
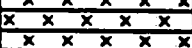
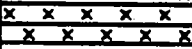
CLIENT: <i>LONE MOUNTAIN</i>		JOB NO.: <i>98328-30</i>	
PROJECT: <i>Stress Test/Dewatering</i>		LOCATION: <i>Waynoka, Oklahoma</i>	
DRILLED BY: <i>A.W. Pool</i>	DRILLER: <i>W. Caldwell</i>	METHOD: <i>Air Rotary</i>	
START DATE: <i>6/7/96</i>	COMP. DATE: <i>6/7/96</i>	SURF. EL.: <i>1434.33 FT.</i>	TD: <i>50 FT. BGS</i>
LOGGED BY: <i>D. Dowers</i>	MEAS. PT. EL.: <i>1437.22 FT.</i>	D. T. WATER: <i>15 FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4' Fill, red clay, soft, damp		FI
	5	4'-10.5' Red claystone		CL
	10	10.5'-13' Green claystone		CL
	15	13'-23' Red claystone, becomes damp @ ~15'		CL
	20	Wet cuttings from connection @ 20'		CL
	23	23'-23.8' Green claystone Stopped to set isolation casing		CL
	25	23.8'-25' Green claystone (continued)		CL
	30	25'-~48.5' Red claystone		CL
	37	Gray-brownish green claystone @ 37-38'		CL
	47	- Gyp @ 47' & 48'		CL
50	48.5'-50' Green claystone		CL	
55	Total Depth 50 Ft			
60	Well completion data:			
65	Hole size: 8.5"			
70	Blank casing: 2" ID PVC @ 0-30'			
75	Screen: 2" ID PVC @ 30-50', .010" slots			
80	Filter pack: 16/30 sand @ 28-50'			
85	Bentonite seal: 28-28'			
90	Cement: 0-28'			

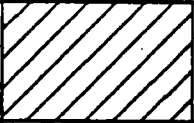
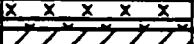


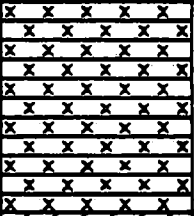


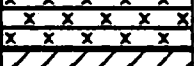
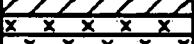
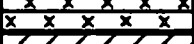





CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER: <i>W. Caldwell</i>		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/7/96</i>		COMP. DATE: <i>6/7/96</i>		SURF. EL.: <i>1434.31 FT.</i>	
LOGGED BY: <i>D. Dowers</i>		MEAS. PT. EL.: <i>1437.07 FT.</i>		D. T. WATER: <i>FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-5' Fill, red clay, soft, damp		FI
	5	5'-10' Red claystone, soft, damp, becomes drier @ depth		CL
	10	10'-12' Green claystone, damp		CL
	15	12'-21.5' Red claystone, becomes wet @ ~20' after making connection		CL
	20	21.5'-27' Green claystone		CL
	25	27'-35' Red claystone, dry		CL
	30	35'-37' Scattered green claystone mixed w/red claystone		CL
	35	37'-48' Red claystone, dry		CL
	40	48'-48.8' Green claystone, dry Drill pipe wet when pulling drill string		CL CL
	45	48.8'-53' Green claystone		CL
	50	53'-62.5' Red claystone, dry Thh green claystone @ 58-58.2'		CL
	55	62.5'-83' Green claystone		CL
	60	83'-72' Red claystone, dry		CL
	65	72'-75' Green claystone, dry		CL
70	Total Depth 75 Ft Well completion data: Hole size: 8.5" Blank casing: 2" ID PVC @ 0-55' Screen: 2" ID PVC @ 55-75' Filter pack: 18/30 sand @ 53-75' Bentonite seat 52-53' Cement: 0-52'			

CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>98328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER:		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/11/96</i>		COMP. DATE: <i>6/11/96</i>		SURF. EL.: <i>--- FT.</i>	TD: <i>78.5 FT. BGS</i>
LOGGED BY: <i>G. Walker</i>		MEAS. PT. EL.: <i>1437.58 FT.</i>		D. T. WATER: <i>FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
	0	0-4'8" Fill, red clay, wet Set 8" casing x 2' long at the surface	 FB	
	5	In situ red claystone	 CL	
	10	8' Gypsum - 2" thick	 GYP	
		11' Green claystone, moist	 CL	
		11'8" Red claystone	 CL	
	15	12'8" Green claystone, moist	 CL	
		15' Red claystone	 CL	
	20	18'8" Gypsum - 2" thick Red claystone, drier but still has some moisture	 CL	
		Red claystone	 CL	
	25	25'8" Green claystone	 CL	
		26' Brown to gray claystone	 CL	
		28' Green claystone, moist	 CL	
	30	30' Red claystone, dry	 GYP	
		32' Gypsum - 2" thick	 CL	
	35	32'8" Red claystone, dry	 CL	
		37' Green claystone, moist	 CL	
	40	39'8" Red claystone, slightly moist	 CL	
		41' Green claystone, moist	 CL	
		41'2" Red claystone, dry	 GYP	
	45		 CL	

CLIENT: <i>LONE MOUNTAIN</i>			JOB NO.: <i>96328-30</i>		
PROJECT: <i>Stress Test/Dewatering</i>			LOCATION: <i>Waynoka, Oklahoma</i>		
DRILLED BY: <i>A.W. Pool</i>		DRILLER:		METHOD: <i>Air Rotary</i>	
START DATE: <i>6/11/96</i>	COMP. DATE: <i>6/11/96</i>	SURF. EL.: <i>--- FT.</i>		TD: <i>78.5 FT. BGS</i>	
LOGGED BY: <i>G. Walker</i>		MEAS. PT. EL.: <i>1437.58 FT.</i>		D. T. WATER: <i>FT. BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	ANALYSIS
		45' Gypsum - 2" thick		CL
	50	48' Green claystone, moist, soft		GYP
		50' Gypsum, red claystone		CL
		51'8" Green claystone, moist		CL
	55	58' Red claystone, dry		GYP
	60	63' Gypsum - 2" thick		CL
	65	64'8" Green claystone, some moisture		CL
		67' Red claystone, dry		GYP
	70	68' Gypsum - 2" thick		CL
		70' Red claystone, dry		GYP
		72' Gypsum, dry		CL
	75	Red, dusty, dry		CL
		75'8" Green claystone		CL
		77' Red claystone		CL
		78' Green claystone		CL
	80	Total Depth 78.5 Ft		
		Temporary 8" ID PVC surface casing set @ 0-2'		
	85			
	90			

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF 11

DATE STARTED: 5/14/87 DATE ENDED: 5/

BORING NAME: CONTRACTOR/DEVELOPER: BOYLES BROTHERS

BORING LOCATION: 8306.0 E-10292.1 N

LOGGER: T.R.

DRILLING METHOD: UNC CORE

INITIAL WATER LEVEL: STATIC WATER OTHER

WATER LEVEL: LEVEL: 165.0' 8/13/87 LEVELS:

SURFACE ELEV.: 1606.9' BORING SIZE: 4" BORING DEPTH: 331.3' CASING ELEV.: N/A

WEATHER CONDITIONS: PARTLY CLOUDY TO MOSTLY CLEAR

CASING DETAILS: N/A

REMARKS: OBSERVATION WELL TO BE CONSTRUCTED.




CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-6.5 Surface Casing (not logged)
	6.5				Gypsum: Layered grains; silty
	7.8				Lost Core
	9.6				Siltstone: Clayey; light gray
	9.9				Claystone: Light gray
	10.4				Claystone: Medium gray
	11.9-12.0, 13.0-13.5, 12.5-12.9, 12.9		1 77%		gypsum nodules open fractures
	13.5			Lt. Gy Med Gy	Claystone: Gray and reddish brown
	14.0				Gypsum: Layered
	14.4				Claystone: Reddish brown
	14.8-15.4, 15.4-15.5				gypsum nodules gypsum grains
	15.5		2 100%	R-B	Claystone: Reddish brown with gypsum nodules
	18.5				Claystone: Reddish brown with some gray mottle
	19.0-19.1				gypsum veinlets
	19.3		3 100%	R-B	Claystone: Reddish brown
	19.7			R-B G R-B	Claystone: Silty; gray with gypsum grains
	20.0			Gy	Claystone: Reddish brown
	20.1, 21.3, 21.8, 20.5, 20.7		4 90%	R-B	gypsum veinlets gypsum nodules
	22.7				Claystone: Gray with red mottle
	23.9				Gypsum: Vein
	24.0				Claystone: Reddish brown with gypsum veinlets

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

PROJECT NO. 3187108

PAGE 2 OF 11

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	25				
	25.4			R-B	25.4 Claystone: Reddish brown with gypsum veinlets and gypsum nodules
	26.9			Gy	26.9 Lost Core
	27.4			Gy	
	28.3		5	B	27.4 Claystone: Gray with gypsum veinlets and gypsum nodules
	29.0		100%		
	30				28.3 Claystone: Gray @ 28.6-29.0: gypsum veinlets
	33.5		6	Gy/R-B	29.0 Claystone: Brown @ 29.5, 33.3-33.5: gypsum nodules @ 30.4: gypsum veinlet
	34.5		92%	R-B	
	35			R-B	33.5 Claystone: Gray and reddish brown @ 33.8, 33.9, 34.1, 34.3, 34.4, 34.5: gypsum veinlets
	35.7			R-B	
	36.0			R-B	
	38.1		7		34.5 Claystone: Silty; reddish brown @ 34.8, 34.9-35.0, 35.2: gypsum veinlets
	40		53%		
	41.3			Gy	35.7 Claystone: Reddish brown with gypsum nodules
	42.0			B	
	44.5		8	R-B	36.0 Claystone: Reddish brown @ 36.0-36.2, 36.8-37.3: gypsum grains @ 37.6-38.1: gypsum veinlets
	45		100%		38.1 Lost Core
	47.0			B	
	47.3			Gy	41.3 Claystone: Gray with reddish brown mottle and gypsum veinlets
	48.2			Med.Gy	
	48.4			Gy	42.0 Claystone: Brown with gray mottle and gypsum veinlets
	49.3			Gy/R-B	
	49.5				44.5 Claystone: Reddish brown @ 44.9: gypsum nodules @ 45.1-45.4, 46.1-47.0: gypsum veinlets
	50				47.0 Claystone: Silty; brown with gypsum nodules
					47.3 Claystone: Gray @ 47.7, 48.1: layered gypsum grains
					48.2 Gypsum: Layered grains
					48.4 Claystone: Medium gray
					49.3 Claystone: Silty; gray
					49.5 Claystone: Gray and reddish brown with gypsum veinlets

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 11

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	50				
	50.4	[Symbol: Dotted pattern]	9 75%	R-B	50.4 Claystone: Reddish brown
	50.7			Gy	50.7 Claystone: Gray
	52.5				52.5 Lost Core
	53.5	[Symbol: Dotted pattern]	10 100%	R-B	53.5 Claystone: Reddish brown
	54.2			R-B	54.2 Claystone: Reddish brown with gray mottle @ 54.9: gypsum veinlet @ 55.3: gypsum nodule
	55				55.3 Claystone: Silty; gray with red mottle, gypsum nodules, and gypsum veinlets
	56.3			Gy	56.3 Claystone: Reddish brown @ 58.0-58.1: gypsum veinlet
	57.6		11 100%	R-B	57.6 Claystone: Reddish brown
	58.2	R-B		58.2 Claystone: Reddish brown @ 59.2: gypsum veinlet	
	59.3		12 100%	R-B	59.3 Claystone: Reddish brown @ 59.5, 59.7, 59.8, 60.1, 60.7, 61.1, 61.3: gypsum veinlets
	60			60 Claystone: Reddish brown @ 61.5-61.9, 62.1 (3 m): gypsum veinlets @ 62.6: gypsum nodules	
	61.3			61.3 Claystone: Brown with gypsum nodules @ 64.4-65.3, 67.0, 67.2-67.4, 67.6: gypsum veinlets	
	63.2		13 100%	B	63.2 Claystone: Brown and reddish brown @ 68.1-68.2 (3 m), 68.6: gypsum veinlets
	65			65 Claystone: Reddish brown with green mottle @ 68.6-69.2: gypsum nodules @ 69.7, 70.2, 70.4: gypsum veinlets	
	68.0		14 100%	B/R-B	68.0 Claystone: Reddish brown
	68.6			68.6 Claystone: Reddish brown @ 72.4, 72.7-72.8: gypsum nodules @ 72.7-72.8: gypsum veinlet	
	70			R-B	70.6 Claystone: Silty; green @ 73.1, 73.6 (6 m), 73.9: gypsum veinlets
	70.6				
	73.0			G	
	75				

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
	75					
	75.5			Med.Gy	75.5 Claystone: Medium gray	
	75.9		R-B			# 75.5-75.6, 75.8 (6 mm): gypsum veinlets
	76.9		Gy			
	770		R-B			
	78.4			15	Gy/R	75.9 Claystone: Reddish brown with gypsum veinlets
	79.5			100%	R-B	76.9 Claystone: Gray
	80					77.0 Claystone: Reddish brown with gypsum grains
	83.1			16	R-B	78.4 Claystone: Silty; gray and red with gypsum veinlets
	83.5			100%	R-B	79.5 Claystone: Reddish brown with gray mottle # 79.6, 81.9, 82.2: gypsum veinlets
	85					
	86.5			17	RB	83.1 Claystone: Reddish brown with gypsum veinlets
	87.1			84%	Gy	
	87.4				Med.Gy	83.5 Claystone: Reddish brown # 84.2, 85.4, 85.8, 86.2: gypsum veinlets # 84.8, 86.4: gypsum nodules
	88.0					
	89.5				G/R-B	
	89.7			R-B		
	90					
	90.2		18	G	86.5 Claystone: Reddish brown with green mottle # 86.6, 86.8: gypsum nodules	
	92.1		100%	R-B	87.1 Claystone: Gray with reddish brown mottle # 87.2: gypsum nodule	
	92.3			G		
	93.4			R-B		
	93.6			R-B		
	93.8			R-B		
	94.2			R-B		
	94.8			R-B		
	95					
					87.4 Lost Core	
					88.0 Claystone: Silty; medium gray with gypsum grains # 88.3: gypsum veinlet	
					89.5 Lost Core	
					89.7 Claystone: Silty; green and reddish brown	
					90.2 Claystone: Silty; reddish brown with green mottle	
					92.1 Claystone: Silty; green with reddish brown mottle	
					92.3 Claystone: Silty; reddish brown	
					93.4 Claystone: Green # 93.4-93.5: gypsum nodules # 93.4-93.5: gypsum veinlets	
					93.6 Claystone: Green and reddish brown with gypsum grains	
					93.8 Claystone: Reddish brown	
					94.2 Claystone: Reddish brown with gypsum grains	
					94.8 Claystone: Silty; reddish brown	

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	95				
	96.2			R-B	96.2 Claystone: Reddish brown
			19 100%		98.1 Claystone: Reddish brown with gypsum nodules
	98.1			R-B	
	98.3			G	98.3 Claystone: Green with gypsum nodules
	99.4			G/R-B	
	100			R-B	99.4 Claystone: Green and reddish brown
					100.0 Claystone: Silty; reddish brown
	01.6		20 100%	R-B	101.6 Claystone: Silty; reddish brown with gypsum nodules, gypsum veinlets, and gypsum grains
					106.0 Claystone: Red and green
	105				
	06.0			R/G	106.2 Claystone: Reddish brown with gypsum grains
	06.2		21 95%	R-B	109.4 Claystone: Reddish brown
					110.6 Claystone: Green with gypsum nodules and gypsum veinlets
	09.4			R/B	
	110			G	110.9 Gypsum: Vein
	10.6				
	10.9			G/R	111.0 Claystone: Green and red
	11.0				
	11.7				111.7 Gypsum: Vein network; clayey
	12.2		22 100%	R/R/G	112.2 Lost Core
	13.0			R-B	
	13.9				112.5 Claystone: Red with gypsum grains
	115				
	16.5			R-B	113.0 Claystone: Silty; red and green
	16.9			R	
	17.5			R-B/G	113.9 Claystone: Silty; reddish brown
	17.8		23 100%	R-B	
	18.6			R-B	116.5 Claystone: Reddish brown with green mottle, gypsum nodules, gypsum veinlets, and gypsum grains
	19.7		24 72%	R-B/G	
	120			R-B	
					116.9 Claystone: Red with gypsum grains @ 117.3-117.5 (vertical): gypsum veinlet
	21.2				
	22.1				
					117.5 Claystone: Reddish brown and green with gypsum grains
	23.5		25 76%	R-B	117.8 Claystone: Reddish brown
	125				118.6 Claystone: Reddish brown with gypsum veinlets
					119.7 Claystone: Reddish brown and green
					119.9 Claystone: Reddish brown with gypsum veinlets and gypsum grains
					121.2 Claystone: Reddish brown
					122.1 Lost Core
					123.5 Claystone: Reddish brown with some gypsum grains

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	125				
	26.5			R-B	126.5 Claystone: Reddish brown with gypsum veinlets
	273				127.3 Lost Core
	28.5		26	R-B	128.5 Claystone: Reddish brown
	28.7		100%	G	@ 128.6: gypsum veinlet
	29.5			R-B	
	130				128.7 Claystone: Green
					@ 129.3, 129.4: gypsum veinlets
	32.5			R-B	129.5 Claystone: Reddish brown
	33.9		27	R/G	132.5 Claystone: Reddish brown with gypsum
	34.8		46%	G	veinlets and gypsum grains
	135				
	35.3			G	133.9 Claystone: Red and green with gypsum
	35.6			R	veinlets and gypsum grains
	35.8				
	38.5		28	R	134.8 Claystone: Green with gypsum
			100%		veinlets
	140				135.2 Claystone: Green with gypsum grains
					135.6 Claystone: Red with gypsum grains
					135.8 Lost Core
	42.5		29	R	138.5 Claystone: Red with gypsum grains
			100%		
	145				142.5 Claystone: Red
					@ 142.5-142.7, 146.2: gypsum
					veinlets
			30		147.4 Claystone: Red
			100%		
	47.4			R	148.8 Claystone: Red and green
	48.8			R/G	150.1 Claystone: Red
	150				
	50.1			R	152.0 Claystone: Red and green with gypsum
					grains
	52.0		31	R/G	152.5 Claystone: Red
	52.5		86%	R	
	53.5			R	153.5 Claystone: Red with green mottle
	54.0				
	54.5				154.0 Lost Core
	54.9				
	155		32	R	154.5 Claystone: Red
			100%	R	
	55.2				154.9 Claystone: Red with gypsum veinlets
	57.7			G	155.2 Claystone: Red
	57.9			R	157.7 Claystone: Green
	160				157.9 Claystone: Red

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
	160	[Symbol: Dotted pattern]	33 100%		161.8 Claystone: Green with gypsum grains	
	61.8				GG	161.9 Claystone: Green
	61.9					
	62.4				RG	162.4 Claystone: Red
	63.4				RG	162.8 Claystone: Green with gypsum nodules
	165	[Symbol: Dotted pattern]	34 100%		163.4 Claystone: Red @ 166.8-167.3: gypsum veinlet	
	67.9				R/G	167.9 Claystone: Red and green
	70.5				R	170.5 Claystone: Red @ 172.0: gypsum nodule
	72.0				R	172.0 Claystone: Red with gypsum grains
	73.5				R	173.5 Claystone: Green
	175	[Symbol: Dotted pattern]	35 100%		174.0 Claystone: Red with green mottle @ 174.2-174.9 (vertical): gypsum veinlet	
	74.0				G/R	174.9 Claystone: Red and green
	74.9				R/G	177.6 Lost Core
	77.6					179.5 Claystone: Silty; red
	79.5				R	180.2 Lost Core
	180	[Symbol: X-pattern]	36 68%		184.5 Claystone: Red @ 185.1: gypsum nodule	
	80.2					185.1 Claystone: Silty; red with green mottle @ 185.4: gypsum grains
	84.5				R	185.7 Lost Core
	85				R	186.5 Claystone: Red
	85.1				R	186.7 Claystone: Red and green
	190	[Symbol: Dotted pattern]	37 14%		188.0 Claystone: Red @ 188.3: gypsum veinlet @ 189.1: layered gypsum grains	
	85.7				R/R/G	189.4 Claystone: Red and green
	86.5				R	189.7 Claystone: Red
	86.7				R	189.9 Claystone: Red with gypsum grains and gypsum veinlets
	88.0				R	192.1 Claystone: Red @ 194.7: gypsum veinlet
	195	[Symbol: Dotted pattern]	38 60%		197.5 Claystone: Red and green	
	89.4				R/G	198.0 Claystone: Red
	89.7				R/R	198.5 Claystone: Red with gypsum nodules
	89.9				R	199.0 Claystone: Red and green
	92.1				R	
	199.0	[Symbol: Dotted pattern]	39 100%			
	97.5				R/G	
	98.0				R/R	
	98.5				R	
	99.0				R/G	
	200		40 100%			
			41 100%			

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	200				
	00.5			B	200.5 Claystone: Silty; brown
	01.5		42 100%	R	201.5 Claystone: Red with gypsum grains
	205				
	07.0		43 67%	R	207.0 Claystone: Red @ 208.1-208.2: gypsum nodules
	09.2				209.2 Lost Core
	210				
	10.5		44 100%	R-B	210.5 Claystone: Reddish brown with gypsum grains
	11.0			R-B	
	215				
	07.0		45 100%		211.0 Claystone: Reddish brown @ 217.0, 218.4, 219.3: gypsum nodules @ 219.3: gypsum grains @ 220.1, 220.4: gypsum veinlets
	220				
	20.5		46 100%	R	220.5 Claystone: Red with gypsum grains
	24.0			R/G	224.0 Claystone: Red and green
	225				
	07.0		47 42%		
	276				227.6 Lost Core
	230				
	30.5		48 100%	G	230.5 Claystone: Green @ 233.7, 233.9: gypsum veinlets
	235				
	35.5		49 72%	G/R	235.5 Claystone: Green and red
	39.1				239.1 Lost Core
	240				

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	240				
	405		50 100%	R	240.5 Claystone: Red @ 242.0, 242.1, 242.2, 242.3: gypsum grains @ 244.3, 244.5: gypsum veinlets
	245		51 100%		
	470			R/G	247.0 Claystone: Red and green
	250		52 100%		
	544				254.4 Claystone: Red with gypsum nodule
	548			R	254.8 Gypsum: Broken layers
	255			R	255.2 Claystone: Red @ 256.5: gypsum nodule
	552			R	
	565		53 100%	R	256.5 Claystone: Red with gypsum grains
	567			R	256.7 Claystone: Red
	582			R	258.2 Claystone: Red with gypsum nodule
	260				
	615		54 100%	R	261.5 Claystone: Red @ 262.8: gypsum fragments
	634			R	263.4 Gypsum: Broken layers: clayey
	637			R	263.7 Claystone: Red
	640			R	264.0 Gypsum: Broken layers
	643			R	264.3 Claystone: Red @ 264.6: gypsum fragments @ 264.8: gypsum nodule @ 265.2, 266.4: gypsum veinlets
	265				
	665		55 100%	R	266.5 Claystone: Red with green mottle
	685			G	268.5 Claystone: Green
	270				
	707			R	270.7 Claystone: Red with green mottle
	715		56 100%	R	271.5 Claystone: Red @ 271.6, 271.7, 271.8, 271.9: gypsum veinlets @ 273.8: gypsum nodule
	275				
	788		57 100%	R	278.8 Claystone: Green with gypsum nodules
	790			R	279.0 Claystone: Red with green mottle @ 280.3, 282.2: gypsum veinlets
	280				

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

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	280				283.5 Claystone: Reddish brown @ 284.0, 284.1, 284.3, 284.4. 285.0: gypsa veinlets
	835		58 60%	R-B	285.0 Lost Core
	285				287.0 Claystone: Reddish brown @ 288.1: gypsa veinlet
	870			R-B	288.5 Claystone: Reddish brown @ 289.2: gypsa veinlet
	885		59	R-B	289.5 Claystone: Reddish brown with green mottle
	895		100%	R-B	294.5 Claystone: Reddish brown and green @ 295.8: gypsa nodule
	290				296.0 Claystone: Red
					296.2 Lost Core
	945		60	R-B	296.5 Claystone: Red @ 296.7, 296.8, 296.9, 297.3: gypsa veinlets
	295		53%	R	
	960			R	297.9 Claystone: Reddish brown
	962			R	
	965			R-B	
	979			R-B	298.0 Lost Core
	980				300.5 Claystone: Reddish brown with gypsa veinlets
	300				300.8 Claystone: Green
	005		61	R-B	300.9 Claystone: Reddish brown @ 301.1, 301.2, 301.3, 301.9, 302.6, 302.7, 304.1: gypsa veinlets
	008		82%	R-B	
	009			R-B	
	305				305.0 Lost Core
	060		62	R	306.0 Claystone: Red with green mottle @ 306.7: gypsa veinlet
	068		100%	R-B	
	076			R-B	306.8 Claystone: Reddish brown with gypsa fragments
	081			R-B	
	310				307.6 Claystone: Reddish brown with green mottle @ 308.1: gypsa veinlet
	12.8		63 88%	G	308.1 Claystone: Reddish brown and green @ 309.1, 309.3, 309.4, 309.5, 309.8, 310.1, 310.8, 311.2, 311.5, 311.8, 312.8: gypsa veinlets
	315				312.8 Claystone: Green @ 312.9, 313.2, 313.5, 313.7, 313.8, 314.1, 314.6, 314.7, 315.2, 315.3, 315.5-315.6: gypsa fragments

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TB-1 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	315				
	156			R-B	315.6 Claystone: Reddish brown
	164			G	# 316.4: gypsum fragments
	169			B	
	173			R-B	316.4 Claystone: Green
	180		64		316.9 Claystone: Brown
			80%		
	320				317.3 Lost Core
					318.0 Claystone: Reddish brown with gypsum veinlets
	220				322.0 Lost Core
	230		65	R-B	323.0 Claystone: Reddish brown with gypsum veinlets
			100%		
	325				328.5 Claystone: Reddish brown
					# 328.6: gypsum veinlet
	285			R-B	328.7 Claystone: Green with gypsum veinlets
	287			G	
	295			G	329.5 Claystone: Green
	298		66	R-B	# 329.7, 329.8: gypsum nodules
			100%		# 329.7, 329.8: gypsum veinlets
	330				329.8 Claystone: Reddish brown with green nodules
					# 330.5, 330.9, 331.1, 331.3: gypsum veinlets
	TOTAL DEPTH				331.3 Total Depth
	331.3				

PROJECT NO. 3187108

5/14/87

11

BORING NO. 8306.0 F-10292.1N FACTORY NO. BOYLES BROTHERS

DEPT. OF ENVIRONMENTAL & NATURAL RESOURCES LOGGING T.R.

DEPT. OF ENVIRONMENTAL & NATURAL RESOURCES NC CORE

WATER TYPE: UNSATURATED WATER OTHER

WATER LEVEL: 165.0' 8/13/87 LEVELS:

SURFACE ELEV.: 1606.9' BOREHOLE SIZE: 4" BOREHOLE DEPTH: 331.3' CASING ELEV.: N/A

WEATHER CONDITIONS: PARTLY CLOUDY TO MOSTLY CLEAR

CASING LOGS: N/A

REMARKS: OBSERVATION WELL TO BE CONSTRUCTED.





















CASING	DEPTH	JSC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-6.5 Surface Casing (not logged)
	6.5				6.5 Gypsum: Layered grains: silty
	7.8				7.8 Lost Core
	9.6				9.6 Siltstone: Clayey; light gray
	9.9				9.9 Claystone: Light gray
	10.4				10.4 Claystone: Medium gray
	11.9-12.0, 13.0-13.5		1 77%		gypsum nodules
	12.5-12.9, 12.9				open fractures
	13.5			Lt. Gy Lt. Gy Med. Gy	13.5 Claystone: Gray and reddish brown
	14.0				14.0 Gypsum: Layered
	14.4				14.4 Claystone: Reddish brown
	14.8-15.4			Gy/R-B	gypsum nodules
	15.4-15.5			R-B	gypsum grains
	15.5		2 100%	R/B	15.5 Claystone: Reddish brown with gypsum nodules
	18.5			R-B	18.5 Claystone: Reddish brown with some gray mottle
	19.0-19.1				gypsum veinlets
	19.3		3 100%	R-B R-B G R-B	19.3 Claystone: Reddish brown
	19.7				19.7 Claystone: Silty; gray with gypsum grains
	20.0			Gy	20.0 Claystone: Reddish brown
	20.1, 21.3, 21.8				gypsum veinlets
	20.5, 20.7		4 90%	R-B	gypsum nodules
	22.7				22.7 Claystone: Gray with red mottle
	23.9				23.9 Gypsum: Vein
	24.0				24.0 Claystone: Reddish brown with gypsum veinlets

U. S. P. C. I. BORING LOG

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	25				
	25.4			R-B	25.4 Claystone: Reddish brown with gypsum veinlets and gypsum nodules
	26.9			Gy	26.9 Lost Core
	27.4		5 100%	Gy B	27.4 Claystone: Gray with gypsum veinlets and gypsum nodules
	28.3				28.3 Claystone: Gray @ 28.6-29.0: gypsum veinlets
	29.0				29.0 Claystone: Brown @ 29.5, 33.3-33.5: gypsum nodules @ 30.4: gypsum veinlet
	33.5		6 92%	Gy/R-B	33.5 Claystone: Gray and reddish brown @ 33.8, 33.9, 34.1, 34.3, 34.4, 34.5: gypsum veinlets
	34.5			R-B	34.5 Claystone: Silty; reddish brown @ 34.8, 34.9-35.0, 35.2: gypsum veinlets
	35.7			R-B	35.7 Claystone: Reddish brown with gypsum nodules
	36.0			R-B	36.0 Claystone: Reddish brown @ 36.0-36.2, 36.8-37.3: gypsum grains @ 37.6-38.1: gypsum veinlets
	38.1		7 53%		38.1 Lost Core
	41.3			Gy	41.3 Claystone: Gray with reddish brown mottle and gypsum veinlets
	42.0			B Gy	42.0 Claystone: Brown with gray mottle and gypsum veinlets
	44.5		8 100%	R-B	44.5 Claystone: Reddish brown @ 44.9: gypsum nodules @ 45.1-45.4, 46.1-47.0: gypsum veinlets
	45				45.0 Claystone: Reddish brown @ 45.1-45.4, 46.1-47.0: gypsum veinlets
	47.0				47.0 Claystone: Silty; brown with gypsum nodules
	47.3				47.3 Claystone: Gray @ 47.7, 48.1: layered gypsum grains
	48.2				48.2 Gypsum: Layered grains
	48.4				48.4 Claystone: Medium gray
	49.3				49.3 Claystone: Silty; gray
	49.5			Med.Gy Gy Gy/R-B	49.5 Claystone: Gray and reddish brown with gypsum veinlets
	50				

U. S. P. C. I. BORING LOG

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	50				
	50.4	[Symbol: Dotted pattern]	9	R-B	50.4 Claystone: Reddish brown
	50.7		75%	Gy	50.7 Claystone: Gray
	52.5	[Symbol: Cross-hatched]			52.5 Lost Core
	53.5	[Symbol: Dotted pattern]	10	R-B	53.5 Claystone: Reddish brown
	54.2		100%	R-B	54.2 Claystone: Reddish brown with gray mottle @ 54.9: gypsum veinlet @ 55.3: gypsum nodule
	55	[Symbol: Dotted pattern]			
	56.3			Gy	
	57.6	[Symbol: Dotted pattern]		R-B	
	58.2			R-B	
	59.3	[Symbol: Dotted pattern]	11	R-B	56.3 Claystone: Silty; gray with red mottle, gypsum nodules, and gypsum veinlets
60	60		100%	R-B	
	61.3	[Symbol: Dotted pattern]		R-B	57.6 Claystone: Reddish brown @ 58.0-58.1: gypsum veinlet
	63.2			B	58.2 Claystone: Reddish brown @ 59.2: gypsum veinlet
	65	[Symbol: Dotted pattern]	12		
	65		100%		59.3 Claystone: Reddish brown @ 59.5, 59.7, 59.8, 60.1, 60.7, 61.1, 61.3: gypsum veinlets
	68.0	[Symbol: Dotted pattern]		B/R-B	
	68.6			13	R-B
	70	[Symbol: Dotted pattern]	100%		
	70.6			R-B	63.2 Claystone: Brown with gypsum nodules @ 64.4-65.3, 67.0, 67.2-67.4, 67.6: gypsum veinlets
	73.0	[Symbol: Dotted pattern]		G	
	73.0		14	100%	68.0 Claystone: Brown and reddish brown @ 68.1-68.2 (3 mm), 68.6: gypsum veinlets
	75				68.6 Claystone: Reddish brown with green mottle @ 68.6-69.2: gypsum nodules @ 69.7, 70.2, 70.4: gypsum veinlets
					70.6 Claystone: Reddish brown @ 72.4, 72.7-72.8: gypsum nodules @ 72.7-72.8: gypsum veinlet
					73.0 Claystone: Silty; green @ 73.1, 73.6 (6 mm), 73.9: gypsum veinlets

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

PROJECT NO 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
	75					
	75.5			Med. Gy	75.5 Claystone: Medium gray	
	75.9			R-B	@ 75.5-75.6, 75.8 (6 in): gypsum veinlets	
	76.9			Gy		
	77.0			R-B		
	78.4			Gy/R	75.9 Claystone: Reddish brown with gypsum veinlets	
	79.5			15 100%	R-B	
	80					76.9 Claystone: Gray
	83.1					77.0 Claystone: Reddish brown with gypsum grains
	83.5			16 100%	R-B	
	85					78.4 Claystone: Silty; gray and red with gypsum veinlets
	86.5			R-B	79.5 Claystone: Reddish brown with gray mottle	
	87.1		17 84%	Gy	@ 79.6, 81.9, 82.2: gypsum veinlets	
	87.4				83.1 Claystone: Reddish brown with gypsum veinlets	
	88.0			Med. Gy		
	89.5				83.5 Claystone: Reddish brown	
	89.7			G/R-B	@ 84.2, 85.4, 85.8, 86.2: gypsum veinlets	
	90			R-B	@ 84.8, 86.4: gypsum nodules	
	90.2				86.5 Claystone: Reddish brown with green mottle	
	92.1		18 100%	G	@ 86.6, 86.8: gypsum nodules	
	92.3			R-B		
	93.6			R-B	87.1 Claystone: Gray with reddish brown mottle	
	94.2			R-B	@ 87.2: gypsum nodule	
	94.8			R-B	87.4 Lost Core	
	95				88.0 Claystone: Silty; medium gray with gypsum grains	
					@ 88.3: gypsum veinlet	
					89.5 Lost Core	
					89.7 Claystone: Silty; green and reddish brown	
					90.2 Claystone: Silty; reddish brown with green mottle	
					92.1 Claystone: Silty; green with reddish brown mottle	
					92.3 Claystone: Silty; reddish brown	
					93.4 Claystone: Green	
					@ 93.4-93.5: gypsum nodules @ 93.4-93.5: gypsum veinlets	
					93.6 Claystone: Green and reddish brown with gypsum grains	
					93.8 Claystone: Reddish brown	
					94.2 Claystone: Reddish brown with gypsum grains	
					94.8 Claystone: Silty; reddish brown	

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	95				
	96.2		19	R-B	96.2 Claystone: Reddish brown
			100%		98.1 Claystone: Reddish brown with gypsum nodules
	98.1			R-B	98.3 Claystone: Green with gypsum nodules
	98.3			G	
	99.4			G/R-B	99.4 Claystone: Green and reddish brown
	100			R-B	100.0 Claystone: Silty; reddish brown
	01.6		20	R-B	101.6 Claystone: Silty; reddish brown with gypsum nodules, gypsum veinlets, and gypsum grains
			100%		106.0 Claystone: Red and green
	105				106.2 Claystone: Reddish brown with gypsum grains
	06.0		21	R/G	109.4 Claystone: Reddish brown
	06.2		95%	R-B	110.6 Claystone: Green with gypsum nodules and gypsum veinlets
	09.4			R/B	110.9 Gypsum: Vein
	110			G	111.0 Claystone: Green and red
	10.6				
	10.9			G/R	111.7 Gypsum: Vein network; clayey
	11.0				
	11.7		22	R	112.2 Lost Core
	12.2		100%	R/G	112.5 Claystone: Red with gypsum grains
	12.5			R-B	113.0 Claystone: Silty; red and green
	13.0				
	13.9				113.9 Claystone: Silty; reddish brown
	115		23	R-B/G	116.5 Claystone: Reddish brown with green mottle, gypsum nodules, gypsum veinlets, and gypsum grains
	16.5		100%	R-B	
	16.9			R	116.9 Claystone: Red with gypsum grains @ 117.3-117.5 (vertical): gypsum veinlet
	17.5			R-B/G	
	17.8		24	R-B	117.5 Claystone: Reddish brown and green with gypsum grains
	18.6		72%	R-B/G	117.8 Claystone: Reddish brown
	18.9			R-B	118.6 Claystone: Reddish brown with gypsum veinlets
	21.2			R-B	119.7 Claystone: Reddish brown and green
	22.1				119.9 Claystone: Reddish brown with gypsum veinlets and gypsum grains
	235		25	R-B	121.2 Claystone: Reddish brown
			76%		122.1 Lost Core
	125				123.5 Claystone: Reddish brown with some gypsum grains

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	125				126.5 Claystone: Reddish brown with gypsum veinlets.
	26.5			R-B	
	273				127.3 Lost Core
	285		26	R-B	128.5 Claystone: Reddish brown
	287		100%	G	@ 128.6: gypsum veinlet
	295			R-B	
	130				128.7 Claystone: Green
					@ 129.3, 129.4: gypsum veinlets
	325			R-B	129.5 Claystone: Reddish brown
	339		27	R/G	132.5 Claystone: Reddish brown with gypsum
	34.8		46%	G	veinlets and gypsum grains
	135				133.9 Claystone: Red and green with gypsum
	353			R	veinlets and gypsum grains
	356				134.8 Claystone: Green with gypsum
	358				veinlets
	385		28	R	135.3 Claystone: Green with gypsum grains
			100%		135.6 Claystone: Red with gypsum grains
	140				135.8 Lost Core
	425		29	R	138.5 Claystone: Red with gypsum grains
			100%		142.5 Claystone: Red
	145				@ 142.5-142.7, 146.2: gypsum
					veinlets
	474		30	R	147.4 Claystone: Red
			100%		148.8 Claystone: Red and green
	48.8			R/G	150.1 Claystone: Red
	150			R	152.0 Claystone: Red and green with gypsum
	50.1				grains
	520		31	R/G	152.5 Claystone: Red
	525		86%	R	153.5 Claystone: Red with green mottle
	535				154.0 Lost Core
	540				154.5 Claystone: Red
	545				154.9 Claystone: Red with gypsum veinlets
	549		32	R	155.2 Claystone: Red
	155		100%	R	157.7 Claystone: Green
	577			G	157.9 Claystone: Red
	579			R	
	160				

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION		
	160		33 100%		161.8 Claystone: Green with gypsum grains		
	61.8				GG	161.9 Claystone: Green	
	61.9						
	62.4				RR	162.4 Claystone: Red	
	62.8						
	63.4				R	162.8 Claystone: Green with gypsum nodules	
	165			34 100%		163.4 Claystone: Red @ 166.8-167.3: gypsum veinlet	
	67.9					R/G	167.9 Claystone: Red and green
	170						
	70.5					R	170.5 Claystone: Red @ 172.0: gypsum nodule
	72.0				R	172.0 Claystone: Red with gypsum grains	
	73.5						
	74.0						
	74.9				R	173.5 Claystone: Green	
	175						
	77.6				R/G	174.0 Claystone: Red with green mottle @ 174.2-174.9 (vertical): gypsum veinlet	
	79.5						
	180		36 68%		174.9 Claystone: Red and green		
	80.2				R/G	177.6 Lost Core	
	84.5						
	185				R	179.5 Claystone: Silty; red	
	85.1						
	85.7				R	180.2 Lost Core	
	86.5						
	86.7				R	184.5 Claystone: Red @ 185.1: gypsum nodule	
	88.0						
	89.4				R	185.1 Claystone: Silty; red with green mottle @ 185.4: gypsum grains	
	89.7						
	89.9			R	185.7 Lost Core		
	190		38 60%		186.5 Claystone: Red		
	92.1				R	186.7 Claystone: Red and green	
	195						
	97.5				R/G	188.0 Claystone: Red @ 188.3: gypsum veinlet @ 189.1: layered gypsum grains	
	98.0				R	189.4 Claystone: Red and green	
	98.5				R	189.7 Claystone: Red	
	99.0				R	189.9 Claystone: Red with gypsum grains and gypsum veinlets	
	200						
					R	192.1 Claystone: Red @ 194.7: gypsum veinlet	
				R/G	197.5 Claystone: Red and green		
				R	198.0 Claystone: Red		
				R	198.5 Claystone: Red with gypsum nodules		
				R/G	199.0 Claystone: Red and green		

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	200				
	00.5	[Symbol: Dotted pattern]		B	200.5 Claystone: Silty; brown
	01.5		42 100%	R	201.5 Claystone: Red with gypsum grains
	205				
	07.0	[Symbol: Dotted pattern]	43 67%	R	207.0 Claystone: Red @ 208.1-208.2: gypsum nodules
	09.2				209.2 Lost Core
	210	[Symbol: X-pattern]			210.5 Claystone: Reddish brown with gypsum grains
	10.5	[Symbol: Dotted pattern]	44 100%	R-B R-B	211.0 Claystone: Reddish brown @ 217.0, 218.4, 219.3: gypsum nodules @ 219.3: gypsum grains @ 220.1, 220.4: gypsum veinlets
	11.0				
	215				
		[Symbol: Dotted pattern]	45 100%		
	220				
	20.5	[Symbol: Dotted pattern]	46 100%	R	220.5 Claystone: Red with gypsum grains
	24.0			R/G	224.0 Claystone: Red and green
	225				
		[Symbol: Dotted pattern]	47 42%		
	276	[Symbol: X-pattern]			227.6 Lost Core
	230	[Symbol: X-pattern]			230.5 Claystone: Green @ 233.7, 233.9: gypsum veinlets
	30.5	[Symbol: Dotted pattern]	48 100%	G	
	235				
	35.5	[Symbol: Dotted pattern]	49 72%	G/R	235.5 Claystone: Green and red
	39.1	[Symbol: X-pattern]			239.1 Lost Core
	240				

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	240				
	405		50 100%	R	240.5 Claystone: Red @ 242.0, 242.1, 242.2, 242.3: gypsum grains @ 244.3, 244.5: gypsum veinlets
	245		51 100%		
	470			R/G	247.0 Claystone: Red and green
	250				
			52 100%		
	544				254.4 Claystone: Red with gypsum nodule
	548			R	254.8 Gypsum: Broken layers
	255			R	255.2 Claystone: Red @ 256.5: gypsum nodule
	552			R	
	565			R	
	567		53 100%	R	256.5 Claystone: Red with gypsum grains
	582			R	256.7 Claystone: Red
	260				
	615		54 100%	R	258.2 Claystone: Red with gypsum nodule
	634				261.5 Claystone: Red @ 262.8: gypsum fragments
	637			R	263.4 Gypsum: Broken layers; clayey
	640			R	263.7 Claystone: Red
	643			R	264.0 Gypsum: Broken layers
	265				
	665			R	264.3 Claystone: Red @ 264.6: gypsum fragments @ 264.8: gypsum nodule @ 265.2, 266.4: gypsum veinlets
	685		55 100%	G	
	270				
	707			R	266.5 Claystone: Red with green mottle
	715			R	268.5 Claystone: Green
			56 100%		270.7 Claystone: Red with green mottle
	275				
	788				271.5 Claystone: Red @ 271.6, 271.7, 271.8, 271.9: gypsum veinlets @ 273.8: gypsum nodule
	790				278.8 Claystone: Green with gypsum nodules
			57 100%	G	279.0 Claystone: Red with green mottle @ 280.3, 282.2: gypsum veinlets
	280				

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	280				
					283.5 Claystone: Reddish brown @ 284.0, 284.1, 284.3, 284.4, 285.0: gypsum veinlets
	835		58 60%	R-B	285.0 Lost Core
	285				287.0 Claystone: Reddish brown @ 288.1: gypsum veinlet
	870			R-B	288.5 Claystone: Reddish brown @ 289.2: gypsum veinlet
	885		59 100%	R-B	289.5 Claystone: Reddish brown with green mottle
	895			R-B	294.5 Claystone: Reddish brown and green @ 295.8: gypsum nodule
	290				296.0 Claystone: Red
					296.2 Lost Core
	945		60 53%	R-B	296.5 Claystone: Red @ 296.7, 296.8, 296.9, 297.5: gypsum veinlets
	295			R	297.9 Claystone: Reddish brown
	960			R	
	962			R	
	965			R-B	
	979			R-B	298.0 Lost Core
	980				300.5 Claystone: Reddish brown with gypsum veinlets
	300				300.8 Claystone: Green
	005		61 82%	R-B	300.9 Claystone: Reddish brown @ 301.1, 301.2, 301.3, 301.9, 302.6, 302.7, 304.1: gypsum veinlets
	008			G	
	009			R-B	
	305				305.0 Lost Core
	060		62 100%	R	306.0 Claystone: Red with green mottle @ 306.7: gypsum veinlet
	068			R-B	
	076			R-B	306.8 Claystone: Reddish brown with gypsum fragments
	081			R-B	
	310				307.6 Claystone: Reddish brown with green mottle @ 308.1: gypsum veinlet
	12.8		63 88%	G	308.1 Claystone: Reddish brown and green @ 309.1, 309.3, 309.4, 309.5, 309.8, 310.1, 310.8, 311.2, 311.5, 311.8, 312.8: gypsum veinlets
	315				312.8 Claystone: Green @ 312.9, 313.2, 313.5, 313.7, 313.8, 314.1, 314.6, 314.7, 315.2, 315.3, 315.5-315.6: gypsum fragments

U. S. P. C. I. BORING LOG

TB-1 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	315				
	15.6	[Symbol]		R-B	315.6 Claystone: Reddish brown @ 316.4: gypsum fragments
	16.4			G	
	16.9			B	
	17.3	[Symbol]		R-B	316.4 Claystone: Green
	18.0		64 80%		316.9 Claystone: Brown
	320				317.3 Lost Core
	220	[Symbol]			318.0 Claystone: Reddish brown with gypsum veinlets
	230		65 100%	R-B	322.0 Lost Core
	325				323.0 Claystone: Reddish brown with gypsum veinlets
	285				328.5 Claystone: Reddish brown @ 328.6: gypsum veinlet
	287				328.7 Claystone: Green with gypsum veinlets
	295		66 100%	R-B	329.5 Claystone: Green @ 329.7, 329.8: gypsum nodules @ 329.7, 329.8: gypsum veinlets
	298			G	
	330			R-B	329.8 Claystone: Reddish brown with green nodules @ 330.5, 330.9, 331.1, 331.3: gypsum veinlets
	TOTAL DEPTH				331.3 Total Depth
	331.3				

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF 10

DATE STARTED: 5/20/87 DATE ENDED: 6/8/87

BORING NO.: TS-2 CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 7776.5 E-11200.0 N LOGGER: R.N.

DRILLING METHOD(S): NC CORE

INITIAL: _____ STATIC WATER: _____ OTHER: _____

WATER LEVEL: _____ LEVEL: 103.9' 8/13/87 LEVELS: _____

SURFACE ELEV.: 1607.1' BORING SIZE: 4" BORING DEPTH: 357.6' CASING ELEV.: N/A

WEATHER CONDITIONS: CLOUDY TO OVERCAST, SEVERAL DAYS OF RAIN, SUNNY TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS: OBSERVATION WELL TO BE CONSTRUCTED.

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-4.0 Surface Casing (not logged)
	4.0				4.0 Gypsum: Layered
	5		1 80%		
	9.4			Lt Gy.	9.4 Claystone: Light gray
	10.6			Dk Gy	10.6 Claystone: Dark gray
	12.6				12.6 Lost Core
	15				15.5 Claystone: Bluish green with disseminated gypsum fragments
	15.5		2 95%	Bl-G	
	16.5			Bl-G	16.5 Claystone: Bluish green with brown mottle and disseminated gypsum fragments @ 18.0, 19.5, 20.6, 23.5: gypsum veinlets @ 23.0: gypsum grains
	20				
	25				25.6 Lost Core
	25.6				26.2 Claystone: Reddish brown @ 26.2, 28.5: gypsum veinlets
	26.2		3 59%	R-B	
	28.6			Gy	28.6 Claystone: Gray with disseminated gypsum fragments
	29.9			R/Gy	29.9 Claystone: Red and gray with disseminated gypsum fragments
	30				

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TB-2 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	33.5				33.5 Lost Core
	35				38.5 Gypsum: Layered
	39.7				39.7 Claystone: Red with disseminated gypsum fragments
	40.3				40.3 Claystone: Red and bluish green with disseminated gypsum fragments @ 40.3, 41.0, 42.5, 43.8: gypsum veinlets
	38.5		4		
	39.7		84%	R	
	40			R/Bl-G	46.4 Claystone: Bluish green
	40.3				47.2 Lost Core
					48.8 Claystone: Bluish green @ 50.0, 50.1: gypsum veinlets
	45				51.0 Claystone: Reddish brown with disseminated gypsum fragments
	46.4			Bl-G	52.3 Claystone: Bluish green
	47.2				52.4 Claystone: Reddish brown with disseminated gypsum fragments
	48.8		5	Bl-G	
	50		95%		
	51.0			R-B	
	52.3			Bl-G	
	53.4			R-B	
	55				55.4 Lost Core
	55.4			R-B	
	55.7		6	Bl-G/R-B	55.7 Claystone: Reddish brown
	56.1		97%		
	56.1			Bl-G	56.1 Claystone: Bluish green and reddish brown
	57.2			R-B	57.2 Claystone: Bluish green
	57.6				57.6 Claystone: Reddish brown with bluish green mottle and disseminated gypsum fragments @ 57.7, 62.0-63.4 (vertical): gypsum veinlets
	60				
	63.4				63.4 Lost Core
	64.0		7	R-B	
	65		100%		64.0 Claystone: Reddish brown with some bluish green mottle @ 69.0, 71.5, 74.7, 75.5: gypsum veinlets
	70				

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TB-2 CONTINUED

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CASING	DEPTH	USGS SYMBOL	SAMPLE NO. OF REC.	COLOR	DESCRIPTION
	70				
			8 90%		
	75				
	81.5				81.5 Lost Core
	82.4		9 23%	R	82.4 Claystone: Red
	83.2			R	83.2 Gypsum: Layered
	83.7				83.7 Claystone: Red with disseminated gypsum fragments
	85				
	85.1				85.1 Lost Core
	90				
	91.8		10 100%	R-B	91.8 Claystone: Reddish brown with bluish green mottle
			11 100%		
	95		12 82%		
	97.5			Bl-G	97.5 Claystone: Bluish green
	99.2			R-B/Bl-G	99.2 Claystone: Reddish brown and bluish green
	100				
	101.4				101.4 Lost Core
	103.0		13 88%	R-B	103.0 Claystone: Reddish brown with some bluish green mottle @ 103.5: gypsum veinlet
	105				
	110				

U. S. P. C. I. BORING LOG

TB-2 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	110				
	114	X			111.4 Lost Core
	130		14	R-B	113.0 Claystone: Reddish brown with bluish green mottle
	135		100%	BI-G	
	115				113.5 Claystone: Bluish green
	15.5			R-B	115.5 Claystone: Reddish brown
	17.5			BI-G	117.5 Claystone: Bluish green @ 118.2: gypsum veinlet
	19.0			R-B	119.0 Claystone: Reddish brown with some bluish green mottle @ 125.5: gypsum veinlet
	120				
			15		
			36%		
	125				
	25.6	X			125.6 Lost Core
	130				
	31.6		16	R	131.6 Claystone: Red with disseminated gypsum fragments @ 125.0: gypsum veinlet
			67%		
	135				
	37.9	X			137.9 Lost Core
	140				
	41.0		17	R	141.0 Claystone: Silty; red
	41.8		100%	BI-G	141.8 Claystone: Bluish green
	43.4			R	143.4 Claystone: Red @ 145.0, 146.0, 146.5: gypsum grains
	145				148.0 Claystone: Bluish green
	48.0		18	BI-G	148.3 Claystone: Red @ 149.5: gypsum veinlet @ 151.5: gypsum grains
	48.3		97%	R	
	150				

U. S. P. C. I. BORING LOG

TB-2 CONTINUED

PROJECT NO. 3187108

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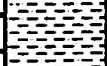








CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	150				
	155		19 100%		157.0 Claystone: Bluish green
	57.0 57.5			BI-G R	157.5 Claystone: Red with disseminated gypsum fragments @ 158.0-162.2 (vertical, dendritic), 163.5: gypsum veinlets @ 163.0, 167.0: gypsum grains
	160				
	165		20 67%		
	67.5				167.5 Lost Core
	170				170.2 Claystone: Red @ 171.2, 172.0-174.0 (vertical): gypsum veinlets
	70.2		21 96%	R	
	73.2			BI-G	173.2 Claystone: Bluish green
	74.8 175			R-B	174.8 Claystone: Reddish brown with some bluish green mottle and some gypsum veinlets
	180				
	185		22 83%		
	85.2			BI-G	185.2 Claystone: Bluish green with gypsum veinlets
	86.7			R-B	186.7 Claystone: Reddish brown with gypsum veinlets
	89.0				189.0 Lost Core
	190				

U. S. P. C. I. BORING LOG

TB-2 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	190				
	90.7		23 88%	R-B	190.7 Claystone: Reddish brown
	195				
	98.6			Bl-G	198.6 Claystone: Bluish green with some red mottle
	99.6				199.6 Lost Core
	200		24 0%		
	205				
	09.2			R-B	209.2 Claystone: Reddish brown with some bluish green mottle and disseminated gypsum fragments @ 210.0-210.5, 212.5, 215.6; gypsum veinlets
	210		24B 90%		
	215				
	188				218.8 Lost Core
	220		25 82%	R-B	220.6 Claystone: Reddish brown with some bluish green mottle @ 221.3, 222.0; gypsum veinlets
	20.6			Bl-G	222.4 Claystone: Bluish green with some red mottle
	22.4				225.4 Claystone: Reddish brown with some disseminated gypsum fragments
	225			R-B	228.3 Lost Core
	25.4				229.9 Claystone: Reddish brown with some disseminated gypsum fragments
	28.3			R-B	
	29.9				
	230				

U. S. P. C. I. BORING LOG

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
CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	230		26 39%		
	33.8				233.8 Lost Core
	235				
	240		27 100%	R	240.0 Claystone: Red with some bluish green mottle @ 241.0-241.4, 244.5-245.0: gypsum grains @ 241.6, 244.5, 246.0: gypsum veinlets
	245				
	247.5				247.5 Claystone: Bluish green with some red mottle @ 250.0, 250.7, 251.5: gypsum veinlets
	250		28 84%		
	252.5			R	252.5 Claystone: Red with some bluish green mottle @ 256.0-257.3 (vertical), 257.5, 258.1, 261.5, 262.0, 262.4, 263.0: gypsum veinlets
	255				
	260		29 53%		
	264.0				264.0 Lost Core
	265				268.5 Claystone: Red with some bluish green mottle
	268.5		30 100%	R	
	270				

U. S. P. C. I. BORING LOG

TB-2 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	270				
	70.5		31 99%	B-G R	270.5 Claystone: Bluish green
	71.0				271.0 Claystone: Red @ 274.2: gypsum veinlet @ 273.0-273.3: gypsum grains
	275				
	280				
	80.7		32 31%	R	280.7 Claystone: Red with some disseminated gypsum fragments
	83.4				283.4 Lost Core
	285				
	289.2				
	89.2		33 96%	R-B	289.2 Claystone: Reddish brown with some bluish green mottle @ 289.3, 291.0, 291.7, 293.2, 296.0, 297.0, 299.5, 300.0, 300.5, 301.0, 301.6, 305.0, 305.4, 305.8, 306.3, 307.0, 307.5, 310.5, 310.7, 311.0, 311.2, 312.0, 313.0, 313.7, 314.5, 315.0, 315.4: gypsum veinlets
	290				
	295				
	300				
	305				
	310				

U. S. P. C. I. BORING LOG

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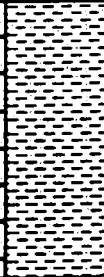
CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. OF REC.	COLOR	DESCRIPTION	
	310		36 100%			
	315					
	16.2		37 100%	R-B	316.2 Claystone: Reddish brown with some bluish green mottle and some disseminated gypsum fragments @ 316.6, 317.3, 319.5, 320.0, 321.6, 322.1, 322.5, 323.5, 324.4, 324.6, 325.7, 328.5, 329.2, 330.0, 330.7, 331.5; gypsum veinlets	
	320					
	325		38 100%			
	330					
	335		39 84%			
	380			R-B	338.0 Gypsum: Layered	
	38.3					
	340				338.3 Claystone: Reddish brown with some bluish green mottle and some disseminated gypsum fragments	
	40.9				340.9 Lost Core	
	42.5		40 96%	R-B	342.5 Claystone: Reddish brown with bluish green mottle @ 345.0, 345.5, 346.5; gypsum veinlets	
	345					
	350					

U. S. P. C. I. BORING LOG

TB-2 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	350		41		
	355		56%		
	TOTAL DEPTH 357.6				357.6 Total Depth

U. S. F. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 5

DATE STARTED: 4/30/87 DATE ENDED: 5/7/87

BORING NO.: TB-3 (A) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 8467.5 E - 10564.1 N

LOGGER: R.N.

DRILLING METHOD(S): NC CORE

INITIAL STATIC WATER

OTHER

WATER LEVEL: LEVEL: 1014' 6/2/87

LEVELS:

SURFACE ELEV.: 1468.2' BORING SIZE: 4" BORING DEPTH: 179.6' CASING ELEV.: N/A

WEATHER CONDITIONS: PARTLY CLOUDY, MUDDY & RAIN, CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS:

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-4.0 Surface Casing (not logged)
	4.0		1 25%	R-B	4.0 Claystone: Weathered; reddish brown with gypsum fragments and colluvial material from hillside
	13.5				13.5 Gypsum: Layered
	13.8		2 96%	R	13.8 Claystone: Red with some gypsum fragments
	24.2		3 87%	BI-G	24.2 Claystone: Bluish green
	24.7			R	24.7 Claystone: Red with some disseminated gypsum fragments
	27.3				27.3 Lost Core
	27.8		4 86%	BI-G	27.8 Claystone: Bluish green with red mottle
	29.5			R	29.5 Claystone: Red with some bluish green mottle
	30				

U. S. P. C. I. BORING LOG

PROJECT NO. 3187108

TB-3 CONTINUED

PAGE 2 OF 5

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	32.6	X			32.6 Lost Core
	33.3	X	5 89%	R-B	33.3 Claystone: Reddish brown with bluish green mottle and some disseminated gypsum fragments
	35				
	40				
	43.2	X	6 93%	R-B	43.2 Claystone: Reddish brown with some disseminated gypsum fragments
	45				
	50				
	52.6	X			52.6 Lost Core
	53.4	X	7 100%	R-B	53.4 Claystone: Reddish brown with some disseminated gypsum fragments
	55				
	60	X	8 0%		60.0 Lost Core
	63.3	X	9 87%	Bl-G	63.3 Claystone: Bluish green
	65				
	65.7	X		R-B	65.7 Claystone: Reddish brown with disseminated gypsum fragments
	67.3	X	10 95%	R-B	67.3 Claystone: Reddish brown with bluish green mottle and disseminated gypsum fragments
	70				

U. S. P. C. I. BORING LOG

TB-3 CONTINUED

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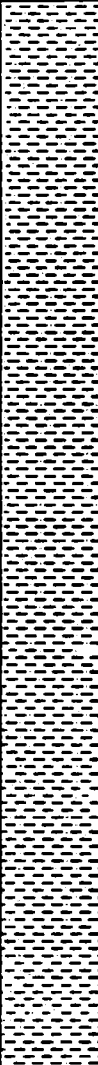


CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	70				
	75				
	76.5				76.5 Lost Core
	77.0		11 69%	Bl-G	77.0 Claystone: Bluish green
	80				
	83.0				83.0 Lost Core
	85				
	87.8		12 100%	Bl-G	87.8 Claystone: Bluish green
	89.5			R-B	89.5 Claystone: Reddish brown
	90				92.1 Claystone: Red
	92.1		13 48%	R	
	95				
	97.5			Bl-G	97.5 Claystone: Bluish green
	98.8			R	98.8 Claystone: Red @ 108.5-108.8: gypsum gravel
	100				
	105		14 0%		
			15 96%		
	110				

U. S. P. C. I. BORING LOG

TB-3 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
	110					
	110				Bl-G	111.0 Claystone: Bluish green
	115					
	154			16 100%	R	115.4 Claystone: Red @ 117.0, 118.5-119.1: gypsum grains
	120					
	125			17 100%		
	27.9				Bl-G	127.9 Claystone: Bluish green
	130					
	34.3			18 49%	R	134.3 Claystone: Red with some disseminated gypsum fragments
	135					
	38.6				138.6 Lost Core	
	140					
	43.2		19 75%	R	143.2 Claystone: Red @ 146.0, 147.5: gypsum fragments	
	145					
	49.2				149.2 Lost Core	
	150					

U. S. P. C. I. BORING LOG

TB-3 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	150				
	151		20 84%	R	151.1 Claystone: Red with bluish green mottle
	155				
	57.1			BI-G	157.1 Claystone: Bluish green
	59.1				159.1 Lost Core
	160				160.6 Claystone: Red with bluish green mottle
	60.6		21 96%	R	
	165				
	69.0				169.0 Lost Core
	170				171.2 Claystone: Red with bluish green mottle
	71.2		22 100%	R	
	175				
	75.5			BI-G	175.5 Claystone: Bluish green
	78.0			R	178.0 Claystone: Red
					179.6 Total Depth
	TOTAL DEPTH				
	179.6				

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF 6

BORING NO.: 7E-4 (B) DATE DRILLED: 5/4/87 DATE EMER: 5/9/87

BORING LOCATION: 8070.4 E - 11398.7 N CONTRACTOR/DRILLER: BOYLES BROTHERS

DRILLING METHOD: S - NC CORE LOGGER: P. B.

INITIAL: _____ STATIC WATER _____ OTHER _____

WATER LEVEL: _____ LEVEL: 7.02' 6/2/87 LEVELS: _____

SURFACE ELEV.: 1461.9' BORING SIZE: 4" BORING DEPTH: 151.2' CASING ELEV.: N/A

WEATHER CONDITIONS: CLOUDY, MUDDY & RAIN, CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS:

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-11.5 Surface Casing (not logged)
	5				
	11.5				11.5 Claystone: Reddish brown with some green mottle and disseminated gypsum grains @ 12.0, 13.2-13.3, 13.9-14.9: gypsum nodules
	14.5				14.5 Claystone: Reddish brown
	14.7		1 100%	R-B	14.7 Claystone: Green @ 14.8, 15.0: gypsum nodules
	15.2		2 100%	R-B G R-B	15.2 Claystone: Reddish brown with some green mottle @ 16.2-16.5 (vertical), 17.0-17.3 (vertical): gypsum veinlets
	18.5		3 100%	R-B	18.5 Claystone: Reddish brown with some green mottle and some disseminated gypsum grains
	19.5		4 100%	G R-B	19.5 Claystone: Green @ 19.6: gypsum veinlet
	19.8		5 100%	R-B	19.8 Claystone: Reddish brown with some green mottle and some disseminated gypsum grains @ 20.5: gypsum nodule
	21.5		5 100%	R-B	21.5 Claystone: Reddish brown with some green mottle @ 21.6: gypsum nodule @ 21.8-22.4 (vertical): gypsum veinlet
	23.0				23.0 Claystone: Reddish brown @ 24.0-24.3: network of very thin gypsum veinlets (< 1 mm thick)

U. S. P. C. I. BORING LOG

TB-4 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	25				
	25.5	[Symbol: Dotted pattern]	6	R-B	25.5 Claystone: Reddish brown with some green mottle
	26.2		100%	R-B	
	28.0	[Symbol: Dotted pattern]		G	25.8 Claystone: Green @ 26.0: gypsum grains
	28.5			R-B	
	29.0			R-B	26.2 Claystone: Reddish brown with some green mottle @ 27.1-27.5: gypsum grains
	30		7		28.0 Claystone: Green @ 28.0: gypsum nodules
	30		100%		
	33.5	[Symbol: Dotted pattern]	8	R-B	28.5 Claystone: Reddish brown with occasional disseminated gypsum grains
	35		100%	R-B	@ 28.7-28.9 (vertical): gypsum veinlet
	36.5	[Symbol: Dotted pattern]	9		
	37.0		100%	R-B	
	38.5	[Symbol: Dotted pattern]	10	R-B	29.0 Claystone: Reddish brown with some green mottle and occasional disseminated gypsum grains
	38.5		40%	G	@ 31.1, 32.9, 33.0-33.1 (vertical): gypsum veinlets
	40	[Symbol: X-pattern]			33.5 Claystone: Reddish brown with some green mottle
	41.5	[Symbol: Dotted pattern]	11	G	@ 34.2: gypsum nodule
	41.5		100%	R-B	@ 34.4, 34.6: gypsum veinlets
	44.5	[Symbol: Dotted pattern]			35.0 Claystone: Reddish brown with some green mottle
	45			R-B	
	45.7			R-B	36.5 Claystone: Reddish brown
	45.9		12		37.0 Claystone: Green @ 38.2: gypsum nodule @ 38.3: gypsum veinlet
	45.9		100%	R-B	
	48.5	[Symbol: Dotted pattern]	13		
	48.5		100%	R-B	38.5 Lost Core
	49.5		14		
	50		54%	G-B	41.5 Claystone: Green @ 41.6: gypsum nodule
					41.6 Claystone: Silty; reddish brown with some green mottle and some disseminated gypsum grains
					44.5 Claystone: Reddish brown with some green mottle @ 45.3-45.4: gypsum veinlet
					45.7 Claystone: Silty; reddish brown with some green mottle
					45.9 Claystone: Reddish brown with some green mottle @ 46.8, 47.3: gypsum nodules @ 47.2-47.9 (vertical): gypsum veinlet
					48.5 Claystone: Reddish brown
					49.5 Claystone: Greenish brown

U. S. P. C. I. BORING LOG

TB-4 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. OF REC.	COLOR	DESCRIPTION
	50				
	50.5			R-B	50.0 Claystone: Reddish brown
	51.2			G	50.5 Claystone: Green with brown mottle
	53.5		15	G	51.2 Lost Core
	53.9		100%	R-B	53.5 Claystone: Green @ 53.8: gypsum grains
	55				
	55.8		16	R-B	53.9 Claystone: Reddish brown with some green mottle @ 54.6, 55.1: gypsum grains
	57.1		75%	R-B	@ 56.4: gypsum nodule @ 56.1, 56.7: gypsum veinlets
	59.8			G-B	55.8 Claystone: Silty; reddish brown with some green mottle
	60				
	61.5		17	R-B	57.1 Claystone: Reddish brown with some green mottle
	61.8		100%	G	
	62.0			G-B	59.8 Claystone: Greenish brown
	62.5			R-B	
	63.5			R-B	60.0 Lost Core
	64.6			G-B	61.5 Claystone: Reddish brown with green mottle
	65				
	65.2			R-B	61.8 Claystone: Green with brown mottle
	65.5			R-B	62.0 Claystone: Greenish brown
	70				62.5 Claystone: Reddish brown
	71.6		18	R-B	63.5 Claystone: Reddish brown with some green mottle @ 64.4-64.5: gypsum veinlet
	71.9		100%	R-B	
	74.0		19	G	64.6 Claystone: Greenish brown
	75		100%		65.2 Claystone: Reddish brown with green mottle
					65.5 Claystone: Reddish brown with some green mottle @ 65.8-65.9 (network), 66.5, 67.1, 67.4, 67.5, 67.6, 67.9, 68.3, 68.6-68.7 (network), 68.8 (4 mm), 68.9, 69.4, 69.5, 69.55, 69.6, 69.85, 69.9, 70.0, 70.4: gypsum nodules
					71.6 Claystone: Reddish brown
					71.9 Claystone: Reddish brown with green mottle @ 72.5, 72.6 (10 mm), 73.4 (network): gypsum veinlets
					74.0 Claystone: Green

U. S. P. C. I. BORING LOG

TB-4 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	75				
	75.3		20	G-B	75.0 Claystone: Greenish brown
	75.6		100%	G	
				R-B	75.3 Claystone: Green
			21		75.8 Claystone: Reddish brown
			100%		# 75.9-76.0, 76.1-76.2: gypsum veinlets
	80		23	R-B	80.0 Claystone: Reddish brown with some green mottle
			25%		# 81.0: gypsum veinlet
	81.5			R-B	81.5 Claystone: Reddish brown
	83.1			R-B	83.1 Claystone: Reddish brown with green mottle
	83.8			R-B	83.8 Claystone: Reddish brown
	84.0				84.0 Lost Core
	85				91.5 Claystone: Reddish brown with some green mottle
					# 96.3-96.4, 97.5-97.9 (vertical): gypsum veinlet
					# 96.3-96.6: gypsum nodule
	90				98.9 Claystone: Brown with green mottle
	91.5		24	R-B	99.5 Claystone: Green with brown mottle
			100%		# 99.5-100.1: disseminated gypsum grains
	95		25		100.1 Claystone: Reddish brown with some green mottle
			100%		100.8 Claystone: Green with some disseminated gypsum grains
			26		101.1 Claystone: Green with brown mottle
			93%		101.2 Claystone: Green with some disseminated gypsum grains
	98.9			B	102.6 Lost Core
	99.5			G	
	100			R-B	
	100.1			G	
	100.8			G	
	101.1			G	
	101.2			G	
	102.6			G	
	103.0			G	103.0 Claystone: Green
	104.7		27		104.7 Claystone: Reddish brown with some green mottle
			100%		# 104.7 (3 m), 105.0-105.1, 105.7, 105.8: gypsum veinlets
	105			R-B	108.5 Lost Core
	108.5				113.3 Claystone: Reddish brown with some green mottle
	110		28		# 113.7-113.8, 114.0-114.2, 115.8, 116.8, 117.8: gypsum nodules
			17%		# 113.5, 114.4 (vertical), 115.0-115.2 (vertical), 115.4, 115.5, 115.7, 116.3, 116.6, 116.8, 116.9, 117.2: gypsum veinlets
	113.5		29	R-B	
			86%		
	115				

U. S. P. C. I. BORING LOG

TB-4 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	115				118.8 Claystone: Green
					119.5 Lost Core
					120.5 Claystone: Green
	18.8			G	122.2 Claystone: Reddish brown with some green mottle
	19.5				# 123.3, 127.4: gypsum nodules
	120		30	G	# 123.9-124.0, 124.0, 124.4, 124.5, 124.7-124.8, 124.9, 125.5, 126.1, 126.4-126.6, 127.1, 127.4-127.5 (30 mm), 127.6: gypsum veinlets
	20.5		100%	R-B	
	22.2				127.6 Claystone: Reddish brown with some green mottle and some disseminated gypsum grains
			31		# 128.4-128.6, 129.4, 129.9: gypsum nodules
	125		100%	R-B	# 131.0-131.1, 131.6, 131.65, 132.0-132.1, 132.2-132.3, 132.4 (6 mm), 132.5, 132.6, 132.7, 133.0 (8 mm), 133.5: gypsum veinlets
	27.6				133.9 Lost Core
	130				135.5 Claystone: Green
					135.7 Claystone: Reddish brown with some green mottle
	33.9		32		# 135.6-135.9, 136.1-136.3, 136.3-136.5: disseminated gypsum grains
	135		80%	G	# 136.0-136.5 (vertical), 137.1, 137.5: gypsum veinlets
	35.5		33	R-B	
	35.7		88%		137.7 Lost Core
	37.7		34		139.5 Claystone: Green
	39.5		100%	G	# 139.5: gypsum veinlet
	39.6		35	R-B	
	140		100%	R-B	139.6 Claystone: Reddish brown
	40.5		36		# 140.1, 140.4: gypsum veinlets
			100%	R-B	140.5 Claystone: Reddish brown with some green mottle and some disseminated gypsum grains
	43.5		37	R-B	# 141.5-141.6 (8-10 mm), 143.1-143.3 (vertical), 144.3: gypsum veinlets
	43.6			G	143.5 Claystone: Reddish brown
	43.9		100%	R-B	143.6 Claystone: Green
	145				143.9 Claystone: Reddish brown with some green mottle
					# 143.5-143.8 (vertical), 143.8, 144.1, 145.8-145.9, 146.7-146.8, 147.2, 147.3: gypsum veinlets

U. S. P. C. I. BORING LOG

TB-4 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	145				
	475				147.5 Claystone: Green @ 147.6-147.8 (network), 148.1: gypsum veinlets @ 148.1: layered gypsum grains
	48.2		38	R-B	
	49.3		100%	G	
	49.5			R-B	
	150		39	G-B	148.2 Claystone: Reddish brown @ 148.3-148.4, 148.8, 148.9, 149.0-149.6: gypsum veinlets
			100%		149.3 Claystone: Green
					149.5 Claystone: Reddish brown
					150.0 Claystone: Greenish brown @ 150.7: gypsum nodule
					151.2 Total Depth
	TOTAL DEPTH				
	151.2				

U. S. F. O. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 9

DATE STARTED: 5/8/87 DATE ENDED: 5/13/87

BORING NO.: 7E-E (C) CONTRACTOR: BOYLES BROTHERS

BORING LOCATION: 7975.8 E-12325.7 N LOGGER: D.V.

DRILLING METHOD: S.W. NC CORE

INITIAL: _____ STATIC WATER: _____ OTHER: _____

WATER LEVEL: _____ LEVEL: 16.42' 8/13/87 LEVEL: _____

SURFACE ELEV.: 4276' BORING SIZE: 4" BORING DEPTH: 170.0' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS: ABANDONED, NOT USED FOR A WELL.







CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-6.0 Surface Casing (not logged)
	6.0				6.0 Claystone: Sandy (fine-grained); reddish brown
	6.4				6.4 Claystone: Reddish brown with some green mottle
	7.4				7.4 Lost Core
	8.0		1 70%	R-R B-B	8.0 Claystone: Reddish brown with some gypsum nodules
	8.2		2 38%	R-R B-B	8.2 Claystone: Reddish brown
	8.4				8.4 Claystone: Silty; reddish brown
	8.6				8.6 Claystone: Reddish brown
	9.3				9.3 Claystone: Reddish brown with some green mottle and gypsum nodules
	10.1				10.1 Lost Core
	13.5		3 68%	B	13.5 Claystone: Green with reddish brown mottle
	14.7				14.7 Claystone: Brown with green mottle
	15				

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	15				
	15.6			G	15.6 Claystone: Green
	15.7			R-B	
	16.9				15.7 Claystone: Reddish brown with some green mottle and disseminated gypsum grains
	18.5			R-B	
	19.1		4	R-B	
	19.6		21%	R-B	16.9 Lost Core
	20				
	20.6				18.5 Claystone: Reddish brown with green mottle and gypsum nodules
	25				19.1 Claystone: Reddish brown with some green mottle @ 19.3, 19.4: gypsum veinlets @ 19.1: disseminated gypsum fragments @ 19.6: gypsum nodules
	28.5		5	R-B	
	29.3		100%	R-B	19.6 Claystone: Silty; reddish brown with green mottle and some gypsum nodules
	30				20.6 Lost Core
	30.5			R-B	28.5 Claystone: Silty; reddish brown with green mottle
	31.2			R-B	
	31.9		6	R-B	29.3 Claystone: Reddish brown
	32.5		0%		30.5 Claystone: Reddish brown with gypsum grains @ 30.5: gypsum veinlet
	35				31.2 Claystone: Reddish brown with green mottle and gypsum grains
	39.0		7	G	31.9 Claystone: Reddish brown with some green mottle and some gypsum nodules
	40		66%		32.5 Lost Core
	41.7			R-B	39.0 Claystone: Green
	42.2			R-B	
	42.4			R-B	41.7 Claystone: Silty; reddish brown with green mottle
	42.7			R-B	
	44.2			R-B	42.2 Claystone: Reddish brown with green mottle
	44.4			R-B	
	45				42.4 Claystone: Reddish brown
					42.7 Claystone: Reddish brown with green mottle and gypsum nodules
					44.2 Claystone: Silty; reddish brown
					44.4 Claystone: Reddish brown with green mottle and gypsum grains

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	45				
	45.4	X		G	45.4 Claystone: Silty; green with reddish brown mottle, gypsum nodules, and disseminated gypsum fragments
	45.6	X			
	49.0		8 100%	G	45.6 Lost Core 49.0 Claystone: Green
	51.2			R-B	51.2 Claystone: Reddish brown with green mottle
	54.6		9 100%	R-B	54.6 Claystone: Reddish brown with some green mottle, gypsum grains, and gypsum nodules
	55			R-B	55.7 Claystone: Reddish brown with green mottle
	55.7			R-B	
	58.2			R-B	58.2 Claystone: Reddish brown with gypsum nodules
	58.3			R-B	
	59.3		10 76%	R-B	58.3 Claystone: Silty; reddish brown with green mottle @ 58.4-58.6 (vertical): gypsum vein
	60			R-B	
	60.3			G	
	60.6			G	
	60.9			G	
	61.3			R-B	59.3 Claystone: Silty; reddish brown with green mottle and gypsum nodules
	62.1	X		R-B	
	63.3		11 100%	R-B	
	64.1			G	60.0 Claystone: Reddish brown with green mottle
	65				
	66.5			R-B	60.3 Claystone: Green
	68.3			R-B	60.6 Claystone: Green with brown mottle
	69.1		12 66%	R-B	60.9 Claystone: Green
	69.3			R-B	61.3 Claystone: Silty; reddish brown with green mottle
	70				62.1 Lost Core
					63.3 Claystone: Silty; reddish brown with green mottle @ 63.4-63.6 (vertical): gypsum veinlet
					64.1 Claystone: Green with brown mottle
					66.5 Claystone: Reddish brown with green mottle
					68.3 Claystone: Silty; reddish brown with green mottle
					69.1 Claystone: Reddish brown with green mottle and gypsum nodules
					69.3 Claystone: Silty; reddish brown with green mottle

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	70				
	70.1			R-B	70.1 Claystone: Silty; reddish brown with gypsum nodules
	70.8			R-B	70.8 Claystone: Silty; reddish brown
	71.3		13	R-B	71.3 Claystone: Silty; reddish brown with green mottle and gypsum nodules
	71.6		81%	R-B	71.6 Lost Core
	73.3			R-B	73.3 Claystone: Reddish brown with green mottle
	73.9		14	R-B	73.9 Claystone: Reddish brown with green mottle and gypsum grains
	74.1		100%	R-B	74.1 Claystone: Silty; reddish brown with green mottle and gypsum veinlets
	74.4			R-B	74.4 Claystone: Reddish brown with green mottle
	75				75.7 Claystone: Reddish brown with green mottle gypsum veinlets, and gypsum grains
	75.7				76.3 Lost Core
	76.3				77.0 Claystone: Reddish brown with some green mottle and gypsum nodules
	77.0				ø 78.2, 78.3, 78.7-78.9 (vertical): gypsum veinlets
	79.0				ø 79.0: gypsum nodules
	79.4				79.0 Claystone: Silty; reddish brown with green mottle
	80				79.4 Claystone: Reddish brown with green mottle
	81.4			G	81.4 Claystone: Green with brown mottle
	82.5			R-B	82.5 Claystone: Reddish brown
	82.6			G	82.6 Claystone: Green
	84.1			R-B	84.1 Claystone: Reddish brown with green mottle
	84.5			R-B	84.5 Claystone: Reddish brown
	85				ø 85.2-85.3: gypsum grains

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	85				
	85.6			B	85.6 Claystone: Brown with green mottle, gypsum nodules, and gypsum grains
	86.3			R-B	
	87.3		16	R-B	
	87.5		100%	R-B	86.3 Claystone: Reddish brown with gypsum grains
	87.7			R-B	
	88.1			R-B	86.3 Claystone: Reddish brown with gypsum grains @ 86.5 (1-2 mm): gypsum veinlet
	88.4			R-B	
	90			R-B	
	89.3			R-B	87.3 Claystone: Reddish brown with green mottle and gypsum grains
	90.2			R-B	
	90.4			R-B	
	92.5		17	R-B	
	92.7		100%	R-B	87.5 Claystone: Green with reddish brown mottle, gypsum nodules, and gypsum grains
	95				
	97.5		18	R-B	
			100%		87.7 Claystone: Reddish brown with green mottle
	100				88.1 Claystone: Green with brown mottle
					88.4 Claystone: Silty; reddish brown with green mottle
					89.3 Claystone: Reddish brown with green mottle, gypsum nodules, and gypsum grains
					90.2 Claystone: Green with gypsum nodules
					90.4 Claystone: Silty; reddish brown with green mottle @ 90.5-90.7, 90.9-91.1: gypsum veinlets @ 91.7-91.8: gypsum nodules
					92.5 Claystone: Silty; reddish brown with green mottle
					92.7 Claystone: Reddish brown with green mottle @ 93.8, 94.4-94.8, 97.3-97.5: gypsum veinlets @ 96.5 (1-2 mm), 93.7: gypsum veinlets
					97.5 Claystone: Silty; reddish brown with some green mottle @ 97.5 (3-4 mm), 98.8, 98.9, 99.1, 99.1-99.4 (vertical), 99.4, 99.6 (3-4 mm), 101.0: gypsum veinlets @ 98.3, 100.4-101.1: gypsum nodules @ 101.3-102.5: gypsum grains

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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




CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	100				
	02.5		19 76%	R-B	102.5 Claystone: Silty; reddish brown with green mottle @ 102.7 (2-3 mm), 102.6-103.1 (vertical), 103.6, 103.7: gypsum veinlets
	03.9			R-B	
	04.1			R-B	
	05.2			G	103.9 Claystone: Reddish brown with green mottle
	05.9			R-B	
	06.7			R-B	104.1 Claystone: Silty; reddish brown with green mottle @ 105.1-105.2 (3-4 mm): gypsum veinlet
	08.0		20 100%	R-B	
	08.3			R-B	
	08.5			R-B	
	09.3			G	105.2 Claystone: Green with brown mottle and gypsum grains
	110				
	10.5				
	11.3			G	105.9 Claystone: Silty; reddish brown with green mottle @ 105.4-106.0: gypsum grains @ 106.1-106.6 (3-4 mm): gypsum veinlet
	13.0		21 86%	R-B	
	115				106.7 Lost Core
					108.0 Claystone: Reddish brown
					108.3 Claystone: Silty; reddish brown with green mottle
					108.5 Claystone: Reddish brown with green mottle and gypsum grains @ 108.6-108.7 (2-3 mm), 108.7-108.9: gypsum veinlets
					109.3 Claystone: Green with reddish brown mottle and gypsum nodules @ 110.0-110.1 (3-4 mm): gypsum veinlet
					110.5 Claystone: Silty; reddish brown with green mottle and gypsum grains
					111.3 Claystone: Silty; green with brown mottle and gypsum grains
					113.0 Claystone: Reddish brown with green mottle @ 113.5, 114.1, 114.4-114.6 (1-2 mm), 115.0, 115.1: gypsum veinlets

U. S. P. C. I. BORING LOG

PROJECT NO. 3187108

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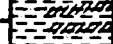

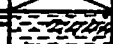
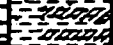
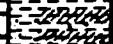
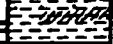


CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	115				
	154			R-B	115.4 Claystone: Reddish brown with green mottle and gypsum grains
	173				117.3 Lost Core
	180		22 94%	R-B	118.0 Claystone: Silty; reddish brown with green mottle
	120				@ 119.2-119.3, 119.8, 119.8-120.1 (vertical), 120.0, 120.2, 120.3-120.6, 120.7, 120.7-120.9 (vertical), 120.8, 121.1, 122.1: gypsum veinlets
	227			G	@ 119.4, 119.9, 120.5, 120.7, 126.1, 122.6: gypsum nodules
	230		23	R-B	
	232		88%		122.7 Lost Core
	125			G	123.0 Claystone: Green with brown mottle and gypsum grains
	254				123.2 Claystone: Reddish brown with green mottle and gypsum nodules
	274				@ 123.7, 123.8, 123.9, 124.3, 124.6, 124.8, 125.1: gypsum veinlets
	280		24	R-B	
	281		78%		125.4 Claystone: Green with brown mottle
	130				@ 125.5, 125.6, 125.8, 126.1, 126.4, 126.6, 126.7, 126.9, 127.3: gypsum veinlets
	319				127.4 Lost Core
	330			R-B	128.0 Gypsum: Vein
	331		25	R-B	128.1 Claystone: Silty; reddish brown with green mottle
	349		76%		@ 128.1-128.4 (1-2 mm), 128.4, 128.5, 128.8, 129.5, 130.0, 130.5, 131.4: gypsum veinlets
	135			R-B	131.9 Lost Core
					133.0 Claystone: Reddish brown with green mottle and gypsum grains
					133.1 Claystone: Silty; reddish brown with green mottle
					@ 133.1-133.3 (2-3 mm), 133.5, 134.7: gypsum veinlets
					134.9 Claystone: Reddish brown with green mottle
					@ 135.0 (4-5 mm), 135.4-135.7 (4-5 mm), 136.3, 136.5: gypsum veinlets

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	135				136.8 Lost Core
	36.8				138.0 Claystone: Silty; reddish brown with green mottle
	38.0				
	38.2				
	38.4		26 66%	R-B R-B G	138.2 Claystone: Reddish brown with green mottle
	39.5				
	39.8				
	40				
	40.4			R-B	138.4 Claystone: Silty; reddish brown with green mottle
	41.8			G	
	42.3				
	44.5				139.5 Claystone: Reddish brown with gypsum nodules
	44.6			G	
	145		27 74%	R-B	139.8 Claystone: Green with brown mottle and gypsum nodules
	46.1			R-B	140.4 Claystone: Silty; reddish brown with green mottle and gypsum nodules
	48.6			G	
	49.7				141.8 Claystone: Green with brown mottle @ 138.1, 139.0, 139.8 (5-6 mm), 140.4 (2 mm), 141.0 (3-4 mm), 141.8 (1-2 mm); gypsum veinlets
	150				142.3 Lost Core
					144.5 Claystone: Silty; green with brown mottle
					144.6 Claystone: Silty; reddish brown with green mottle and gypsum nodules
					146.1 Claystone: Silty; reddish brown with green mottle @ 146.2 (5-6 mm), 146.4-146.5: gypsum veinlets
					148.6 Claystone: Green with brown mottle and gypsum nodules @ 149.2-149.3: gypsum veinlets
					149.7 Lost Core

U. S. P. C. I. BORING LOG

TB-5 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	150	X			151.5 Claystone: Silty; reddish brown with green mottle
	51.5	[Symbol]	28 100%	R-B	153.1 Claystone: Green with brown mottle and gypsum nodules
	53.1 53.5	[Symbol]		G R-B	153.5 Claystone: Reddish brown with green mottle
	155	[Symbol]			@ 153.5, 153.7, 154.3, 155.2, 155.4, 155.6, 155.7, 155.8, 156.1: gypsum nodules @ 155.2 (1-2 mm), 156.1-156.2, 156.3, 156.5, 156.6: gypsum veinlets
	58.5	[Symbol]	29 73%	R-B	158.5 Claystone: Silty; reddish brown with green mottle
	160	[Symbol]			@ 159.0 (3-4 mm), 160.4 (5-6 mm), 161.6 (3-4 mm) @ 159.4, 159.8, 159.9, 160.2, 160.3, 160.8: gypsum nodules
	63.6	X			163.6 Lost Core
	165	[Symbol]	30 100%	R-B G R-B	165.5 Claystone: Silty; reddish brown with green mottle
	65.5 66.0 66.2	[Symbol]			166.0 Claystone: Green with brown mottle
	170	[Symbol]			166.2 Claystone: Silty; reddish brown with green mottle
	TOTAL DEPTH 170.0				@ 167.4, 168.5, 168.6, 169.1, 169.4: gypsum veinlets @ 167.8, 168.0, 170.0: gypsum grains
					170.0 Total Depth

U. S. F. C. I. BORING

PROJECT NO: 3187108

PAGE: 1 OF: 6

DATE STARTED: 4/27/87 DATE ENDED: 5/1/87

BORING NO.: TB-6 (D) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 7828.3 E - 12575.5 N

LOGGER: P. B.

DRILLING METHOD(S): NC CORE

INITIAL STATIC WATER

OTHER

WATER LEVEL: LEVEL: 7.55' 8/13/87

LEVELS:

SURFACE ELEV.: 1412.9' BORING SIZE: 4" BORING DEPTH: 130.0' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS:

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-11.5 Surface Casing (not logged)
	11.3				Claystone: Reddish brown with some green mottle and gypsum nodules
	12.5				Lost Core
	13.0				Claystone: Reddish brown with some green mottle
					o 13.2-13.3: gypsum nodules
					o 13.3-13.6 (vertical); 14.0-14.2 (vertical); 13.2-14.5 (vertical); 13.3-14.6 (vertical); gypsum veinlets
					o 13.6: some disseminated gypsum grains
	11.5		1	R-B	
	12.5		86%		
	13.0			R-B	15.0 Lost Core
	15.3				Claystone: Reddish brown with disseminated gypsum grains
					o 15.7-15.9: gypsum veinlets
	15		2	R-B	16.0 Claystone: Green
	15.3		60%	R-G	
	16.0			R-B	16.1 Claystone: Reddish brown with some green mottle
	16.1			R-B	o 16.4-16.7: disseminated gypsum grains
	16.8		3	R-PG	
	17.5		80%	R-B	16.8 Lost Core
	18.4				Claystone: Reddish brown with some green mottle
					o 17.7-18.0, 18.1 (2-3 mm): gypsum veinlets
	18.6				Claystone: Green with disseminated gypsum grains
	18.7				Claystone: Reddish brown with green mottle and gypsum nodules
					Claystone: Reddish brown
					o 19.3 (8 mm): gypsum veinlet

U. S. P. C. I. BORING LOG

TB-6 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	20			R-B	
	20.3			R-B	
	20.5			G	20.3 Claystone: Reddish brown with gypsum nodules
	21.1		4		
	22.0		100%		20.5 Claystone: Reddish brown with some green mottle
	25			G-B	21.1 Lost Core
	25.2			R-B	22.0 Claystone: Green @ 22.3, 23.5, 24.2 (vertical): gypsum veinlets
	25				25.0 Claystone: Greenish brown
	30				25.2 Claystone: Reddish brown with some green mottle @ 26.4-26.9 (vertical), 27.1, 28.6, 29.2, 29.8, 31.6-32.2 (vertical): gypsum veinlets @ 25.4: gypsum nodule @ 26.9-27.0: disseminated gypsum grains
	33.0		5	G	
	33.0		100%		
	35				33.0 Claystone: Green @ 33.7 (7-8 mm): gypsum veinlet
	35.5		6	R-B	
	35.5		90%		
	40				35.5 Claystone: Reddish brown with some green mottle @ 38.7-8, 40.4-40.8 (vertical), 41.4-41.7: gypsum veinlets @ 38.3-38.5, 38.5-38.6, 39.0: gypsum nodules
	42.3			R-B	
	43.0		7		
	43.0		81%		42.3 Lost Core
	44.5			G-B	43.0 Claystone: Reddish brown with some green mottle
	45			G	44.5 Claystone: Greenish brown
	48.1			R-B	45.0 Claystone: Green
	48.9			R-B	48.1 Claystone Reddish brown with green mottle
	50				48.9 Claystone: Reddish brown with some green mottle
	50.3				50.3 Lost Core
	52.0		8	R-B	
	52.0		100%		52.0 Claystone: Reddish brown with some green mottle @ 52.0 (vertical), 52.2-52.4 (1-4 mm), 52.6, 58.3-58.5, 58.4: gypsum veinlets @ 52.5-52.6, 55.8-55.9, 58.0: gypsum nodules @ 54.2-59.0: disseminated gypsum grains
	55				

U. S. P. C. I. BORING LOG

TB-6 CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 6

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	55				59.0 Claystone: Green with disseminated gypsum grains
	59.0				59.6 Claystone: Reddish brown with some green mottle
	59.6		9	R-B	@ 59.9-60.0 (1-4 mm), 60.8, 60.8-61.8, 62.3, 62.9-63.1, 63.3: gypsum veinlets @ 61.3: gypsum nodule @ 59.6-59.9, 62.6-63.0: gypsum grains
	60		100%		
	65		110	G	63.2 Claystone: Green
	65.2		100%		@ 67.8-68.1 (vertical): gypsum veinlets @ 67.8: gypsum nodule
	68.6				68.6 Claystone: Reddish brown
	69.1				68.6 Claystone: Reddish brown with some green mottle
	69.6			R-B	69.1 Claystone: Green
	69.8			R-B	@ 69.2-69.3: gypsum veinlets
	70		11	R-B	69.8 Claystone: Reddish brown with some green mottle
	70.1		24%	R-B	@ 69.9, 70.0 (1-4 mm): gypsum veinlets
	72.5				70.0 Claystone: Green
	75				70.1 Claystone: Reddish brown with some green mottle
	80		12	R-B	@ 71.2-71.6 (vertical), 71.4, 71.8: gypsum veinlets @ 71.6, 72.1 (30 mm): gypsum nodules
	84.8				72.5 Lost Core
	85		13	R-B	80.0 Claystone: Reddish brown with some green mottle
	85.5		87%		@ 80.1-80.4 (vertical), 80.3, 80.8-80.9, 81.5-81.6 (4-6 mm), 82.1, 82.8, 83.2, 83.6 (3-4 mm), 83.9: gypsum veinlets @ 83.5-84.2: gypsum nodules
	87.3			R-B	84.8 Lost Core
	87.4			R-B	85.5 Claystone: Reddish brown
	88.6			R-B	@ 85.8: gypsum veinlet
	89.0			R-B	@ 86.9: gypsum nodule
	89.5			R-B	87.3 Claystone: Reddish brown with some green mottle
	90				87.4 Claystone: Reddish brown
					@ 88.5-88.6: gypsum veinlet
					88.6 Claystone: Reddish brown with some green mottle
					89.0 Lost Core
					89.5 Claystone: Reddish brown

U. S. P. C. I. BORING LOG

TB-6 CONTINUED

PROJECT NO. 3187108

PAGE 4 OF 6

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	90				
	90.1		14 55%	R RB	90.1 Claystone: Reddish brown with some green mottle
	90.2				90.2 Claystone: Reddish brown @ 90.7: gypsum nodule
	91.3				91.3 Claystone: Reddish brown with some green mottle @ 91.7-92.0: gypsum nodules
	92.0				92.0 Lost Core
	94.0		15 100%	G RB	94.0 Claystone: Green
	94.2				94.2 Claystone: Reddish brown
	94.7				94.7 Claystone: Green @ 94.8: gypsum nodule
	95.0				95.0 Claystone: Reddish brown with some green mottle @ 95.9, 96.3, 96.8 (4 mm), 96.8-97.1, 96.9, 96.9-97.1, 97.2 (8 mm), 97.7, 98.3, 99.0, 99.3, 99.6 (4 mm), 99.8, 100.0: gypsum veinlets @ 95.3: gypsum grains @ 100.0: gypsum nodule
	100		16 71%	R-B	100.5 Lost Core
	005				101.5 Claystone: Reddish brown @ 102.1-102.3, 102.3 (6mm), 102.4 (6mm), 102.4-102.5, 102.6, 102.7, 103.0: gypsum veinlets @ 102.3: gypsum nodule
	01.5				103.5 Lost Core
	03.5				104.0 Claystone: Reddish brown with some green mottle and some disseminated gypsum grains @ 104.1, 104.3, 105.3, 105.8, 106.9 (8 mm): gypsum veinlets @ 104.1, 105.6: gypsum nodules
	04.0		17 80%	R-B	107.1 Claystone: Greenish brown with disseminated gypsum grains @ 107.1, 107.3, 107.4 (10 mm): gypsum veinlets
	105				107.4 Claystone: Green with disseminated gypsum grains @ 107.9-108.3, 108.2 (10 mm): gypsum veinlets
	07.1				108.2 Lost Core
	07.4				
	08.2				
	110				

U. S. P. C. I. BORING LOG

TB-6 CONTINUED

PROJECT NO. 3187108

PAGE 5 OF 6

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	110				
	111.5				111.5 Claystone: Reddish brown with some disseminated gypsum grains
	111.8		19	R-B	
	12.5		95%	R-B	111.8 Claystone: Greenish brown with some disseminated gypsum grains @ 111.9 (10 mm); gypsum veinlet
	14.8				
	115			G	
	15.5		20	R-B	112.5 Claystone: Silty; reddish brown with some green silt @ 112.6 (20 mm), 113.3, 113.5-113.6, 113.8, 114.3 (10 mm), 114.8 (8 mm); gypsum veinlets
	100%				
	19.5			R-B	
	120		21	R-B	114.8 Lost Core
	100%				
	21.5		22	R-B	115.0 Claystone: Green
	73%				
	23.3			G	
	24.0			R-B	115.5 Claystone: Reddish brown with some green silt and some disseminated gypsum grains @ 115.5 (10 mm), 119.3; gypsum veinlets @ 117.2; gypsum nodule
	24.1			G	
	125				
					119.5 Claystone: Reddish brown with some disseminated gypsum grains @ 119.6 (4 mm), 120.1, 120.6, 121.5; gypsum veinlets
					121.5 Claystone: Reddish brown with some green silt @ 121.9-122.0, 122.2, 122.3 (10 mm), 122.5, 122.7, 123.2-123.3; gypsum veinlets @ 121.7-121.9, 123.0; gypsum nodules
					123.3 Claystone: Green @ 123.4-123.5, 123.6, 123.9; gypsum nodules
					124.0 Claystone: Reddish brown @ 124.1; gypsum veinlet
					124.1 Claystone: Green with some disseminated gypsum grains @ 125.3; disseminated gypsum grains

U. S. P. C. I. BORING LOG

PROJECT NO. 3187108

TB-6 CONTINUED

PAGE 6 OF 6

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
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	255	X			125.5	Lost Core
	270	X			127.0	Claystone: Reddish brown
	273	X			127.3	Claystone: Green
	275	X	23		127.5	Claystone: Reddish brown
	278	X	100%			@ 127.6, 127.8: gypsum veinlets
	282	X			127.8	Claystone: Green with some disseminated gypsum grains
	285	X			128.2	Claystone: Reddish brown
	293	X			128.5	Claystone: Reddish brown
	295	X				@ 128.5 (8 mm), 128.9: gypsum veinlets
	TOTAL DEPTH	130.0			129.3	Claystone: Green
						@ 129.3, 129.4, 129.5: gypsum veinlets
					129.5	Claystone: Reddish brown
					130.0	Total Depth

U.S.F.C.I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 4

DATE STARTED: 6/11/87 DATE ENDED: 6/16/87

BORING NO.: TB-7 (E) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9429.2 E - 10753.9 N LOGGER: R.N.

DRILLING METHOD(S): NC CORE

INITIAL STATIC WATER OTHER

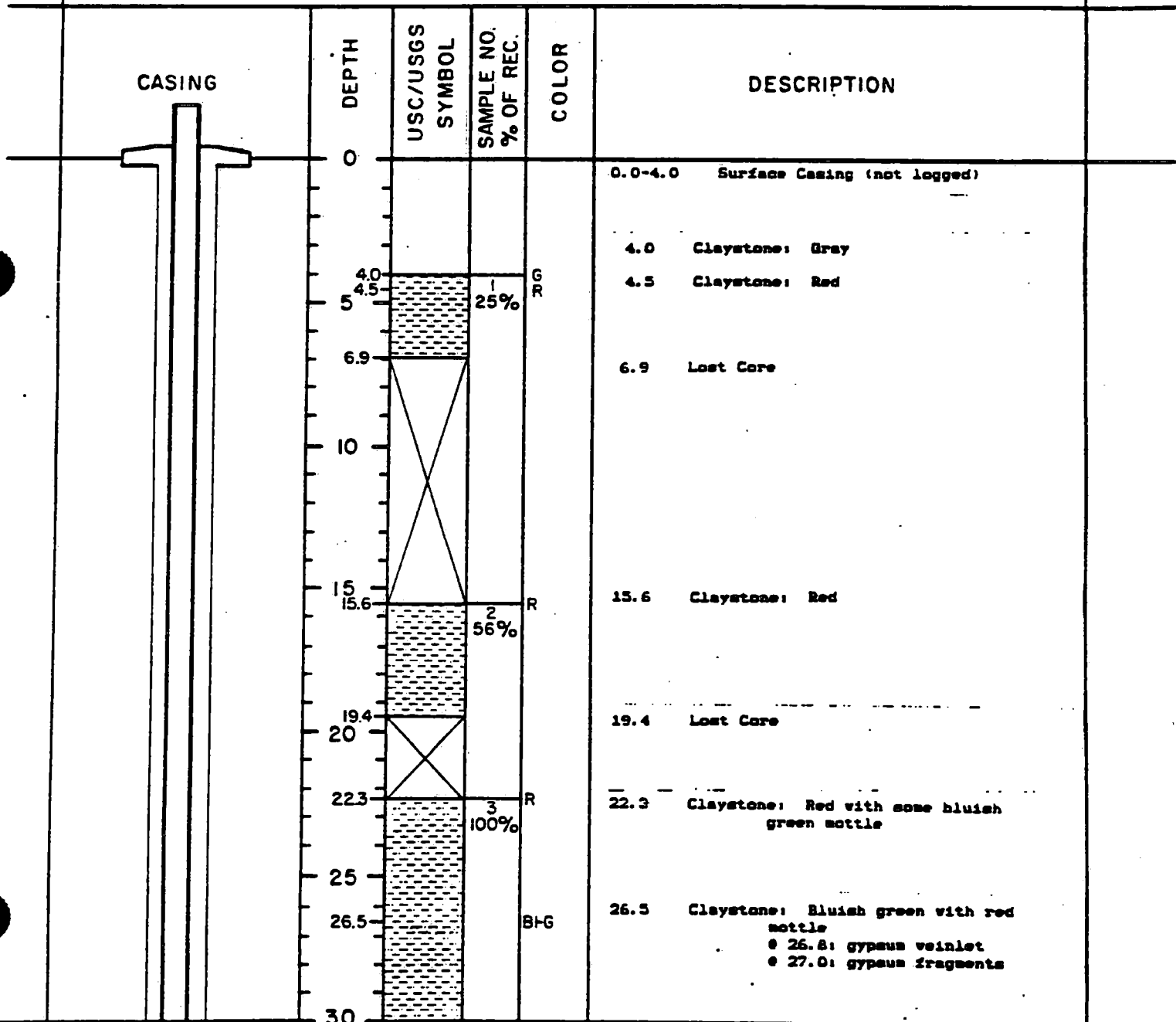
WATER LEVEL: LEVEL LEVELS: 1604' 8/17/87

SURFACE ELEV.: 1413.9' BORING SIZE: 4" BORING DEPTH: 148.5' CASING ELEV.: N/A

WEATHER CONDITIONS: DRIZZLE RAIN TO PARTLY CLOUDY TO CLEAR

CASING DETAILS: N/A

REMARKS: DRUM PIT



U. S. P. C. I. BORING LOG

TB-7 CONTINUED

PROJECT NO. 3187108

PAGE 2 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	32.3		4	R	32.3 Claystone: Red with bluish green mottle
	33.3		15%		@ 32.3: gypsum fragments
	35				33.3 Lost Core
	40				
	41.8			R	41.8 Claystone: Red
	42.3		5	BI-G	42.3 Claystone: Bluish green
	45		100%		
	45.3			R	45.3 Claystone: Red
	46.0-46.2				@ 46.0-46.2: layered gypsum fragments
	47.3		6	R	47.3 Claystone: Red
	48.3		73%	R	48.3 Gypsum: Layered grains
	48.5			R	48.5 Claystone: Red
	50				
	51.4			BI-G	51.4 Claystone: Bluish green
	52.9			R	52.9 Claystone: Red
	55				
	56.5		7	BI-G	56.5 Claystone: Bluish green
	57.1		59%	R	57.1 Claystone: Red
	59.6				@ 59.6 (3 in): gypsum veinlet
	59.9-60.2				@ 59.9-60.2: gypsum grains
	60				
	61.0				61.0 Lost Core
	64.1		8	R-B	64.1 Claystone: Reddish brown
	65		100%		@ 64.1 (3 in), 69.2: gypsum veinlets
	70				

U. S. P. C. I. BORING LOG

TB-7 CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	70				
	72.0			R	
	73.0		9	B+G	72.0 Claystone: Red
	74.1		41%	R	73.0 Claystone: Bluish green
	75				74.1 Claystone: Red @ 74.5, 74.7: gypsum veinlets
	76.3				76.3 Lost Core
	81.2		10	R	81.2 Claystone: Red with some bluish green mottle and some disseminated gypsum fragments @ 83.3-83.8, 84.3, 85.2, 85.2-86.5 (vertical), 87.0-88.9 (vertical), 89.6-89.7: gypsum veinlets
	85				
	89.7				89.7 Lost Core
	91.3		11	R/B+G	91.3 Claystone: Red and bluish green with disseminated gypsum fragments
	92.8		31%		92.8 Lost Core
	95				95.0 Claystone: Red with some disseminated gypsum fragments
	96.0		12	R	96.8 Lost Core
	96.8		85%		
	97.8			R-B/B+G	97.8 Claystone: Reddish brown and bluish green with some disseminated gypsum fragments @ 98.2, 99.8, 100.8, 101.7, 102.4, 103.2 (25 cm), 104.5, 105.9: gypsum veinlets
	100				
	105		13		107.0 Claystone: Reddish brown @ 107.5, 108.5 (5-6 cm): gypsum veinlets
	07.0		14	R-B	109.0 Lost Core
	09.0		26%		
	110				

U. S. P. C. I. BORING LOG

TB-7 CONTINUED

PROJECT NO. 3187108

PAGE 4 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	110				
	115				
	117.6		15 100%	R-B	117.6 Claystone: Reddish brown @ 118.4-118.9 (25 cm): gypsum veinlet
	118.9			BI-GR-B	
	120		16 97%	R-B	118.9 Claystone: Bluish green and reddish brown @ 119.1 (25 cm), 120.0-120.5 (network): gypsum veinlets
	120.5				
	120.5		17 95%	R-B	120.5 Claystone: Reddish brown @ 120.5-121.2 (5-6 cm), 122.3-124.4 (network): gypsum veinlets
	125				
	124.5				124.5 Claystone: Reddish brown with some disseminated gypsum fragments @ 127.6 (20 cm): gypsum veinlet
	128.7		18 100%	R-B	128.7 Lost Core
	130				
	128.9				128.9 Claystone: Reddish brown with bluish green mottle @ 129.3-129.4, 130.9-131.0, 132.0-132.1, 138.6-138.8: gypsum veinlets
	135				
	139.1		19 100%	R-B	139.1 Claystone: Reddish brown with gypsum veinlets
	140				
	145				
	148.5				148.5 Total Depth
	TOTAL DEPTH				

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 3

DATE STARTED: 7/13/87 DATE ENDED: 7/15/87

BORING NO.: TB-B (F) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9602 E- 11516 N LOGGER: P.B.

DRILLING METHOD(S): NC CORE

INITIAL STATIC WATER OTHER

WATER LEVEL: LEVEL LEVELS: 23.6' 8/17/87

SURFACE ELEV.: 1394.3' BORING SIZE: 4" BORING DEPTH: 98.1' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS: CELL 5

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-13.0 Surface Casing (not logged)
	13.0				Claystone: Reddish brown with some green mottle @ 13.5-14.2 (vertical): thin gypsum veinlets @ 15.0: gypsum nodule
	16.3				Claystone: Green
	17.2				Claystone: Silty; green
	17.4				Claystone: Reddish brown
	17.7				Claystone: Silty; reddish brown with some green mottle
	19.9				Claystone: Reddish brown with some green mottle @ 20.9 (4 mm): gypsum veinlet @ 20.0-20.1: gypsum nodule @ 21.3-21.4: gypsum grains
	130		1 100%	R-B	
	15				22.0 Claystone: Silty; reddish brown with some green mottle @ 22.0-22.1, 23.2-23.6 (vertical), 24.4-24.6: gypsum veinlet @ 24.2-24.3, 24.9-25.0: layered gypsum nodules
	16.3			G	
	17.2			G	
	17.4			R-B	
	17.7			R-B	
	19.9		2 100%	R-B	25.7 Claystone: Green
	20				26.3 Claystone: Silty; green
	22.0		3 100%	R-B	26.7 Claystone: Reddish brown with some green mottle
	25		4 64%		27.2 Claystone: Green
	25.7			G	28.6 Claystone: Reddish brown with some green mottle @ 28.7-28.9, 29.2-29.4 (vertical): gypsum veinlets @ 29.0-29.1: gypsum grains
	26.3			G	
	26.7			R-B	
	27.2			G	
	28.6			R-B	
	29.7				29.7 Lost Core
	30				

U. S. P. C. I. BORING LOG

TB-8 CONTINUED

PROJECT NO. 3187108

PAGE 2 OF 3

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30	X			32.8 Claystone: Reddish brown with some green mottle @ 33.0-33.3 (vertical), 34.4-34.6 (network), 34.8, 34.8-34.9, 34.9, 35.6, 35.7, 35.8, 34.9-35.3 (vertical), 39.0 (8 mm), 39.7: gypsum veinlets
	32.8	[Symbol]	5 100%	R-B	
	35	[Symbol]	6 85%		@ 34.5-34.7 (layered), 35.7, 35.8, 35.9-36.0, 36.9: gypsum nodules @ 37.1: gypsiferous green mottle @ 38.5-38.6: gypsum grains
	40	X			40.0 Lost Core
	41.0	[Symbol]	7 79%	R-B	41.0 Claystone: Silty; reddish brown with some green mottle
	42.1	[Symbol]		R-B	42.1 Claystone: Reddish brown with some green mottle @ 42.1, 41.8-42.7 (vertical): gypsum veinlets
	43.4	[Symbol]		R-B	43.4 Claystone: Silty; reddish brown with some green mottle @ 44.0-44.2: gypsum veinlet
	45	[Symbol]		R-B	
	45.3	[Symbol]		R-B	45.3 Claystone: Reddish brown with some green mottle
	46.7	[Symbol]		B/G	
	47.3	[Symbol]		G	46.7 Claystone: Brown and green @ 46.8-46.9: gypsum grains
	48.8	X			47.3 Claystone: Green @ 47.3, 48.5-48.8 (vertical): gypsum veinlets
	50	[Symbol]	8 48%	R-B	48.8 Lost Core
	50.8	[Symbol]			50.8 Claystone: Silty; reddish brown with trace of green mottle @ 51.1-51.6 (vertical), 51.5, 52.2 (4 mm), 53.0-53.4, 53.4, 54.7: gypsum veinlets @ 51.6-51.8: gypsum nodules @ 53.0, 54.8-55.0, 55.4: gypsum grains
	55	X			55.5 Lost Core
	60	[Symbol]	9 80%	R-B	60.6 Claystone: Silty; reddish brown with some green mottle @ 60.7-62.3 (vertical), 60.8, 60.9, 61.3, 61.4, 61.8 (4 mm), 61.4-61.8 (anastomosing), 61.9-62.0, 62.4, 63.0, 63.7: gypsum veinlets @ 60.8: slight vertical displacement (.05 feet)
	60.6	[Symbol]			64.1 Claystone: Brown and green @ 64.4: gypsum veinlets
	64.1	[Symbol]		B/G	
	64.9	[Symbol]		R/B	64.9 Claystone: Silty; reddish brown with some green mottle @ 65.9-66.7 (8 mm): gypsum veinlet @ 65.3-66.1, 67.3-67.6, 67.8, 68.7-68.9: gypsum grains
	65	[Symbol]			

U. S. P. C. I. BORING LOG

TB-8 CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 3

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	65				
	68.9				68.9 Lost Core
	70				70.9 Claystone: Reddish brown @ 71.0-71.1, 71.4-71.5, 72.5-72.6: gypsum veinlets @ 72.7, 72.9: gypsum grains
	70.9		10 85%		
	73.1			R-B	73.1 Claystone: Reddish brown with some green mottle @ 74.2, 74.5-74.5 (vertical), 74.7, 75.3, 75.6 (8 mm): gypsum veinlets @ 73.3, 73.7-73.8, 74.2-74.3: gypsum grains
	75				76.1 Claystone: Green @ 76.1-76.5: gypsum grains
	76.1			G	
	76.8			B	76.8 Claystone: Brown with green mottle
	77.5			G	
	78.0			R-G	77.5 Claystone: Green @ 77.5 (8 mm): gypsum veinlet
	79.3			R-B	
	80				78.0 Claystone: Reddish brown @ 78.5: gypsum veinlet
	81.1		11 100%	R-B	79.1 Claystone: Green with some gypsum grains
	85				79.3 Claystone: Reddish brown
	90				79.6 Lost Core
	91.0		12 100%	R-B	81.1 Claystone: Reddish brown with some green mottle @ 82.0, 82.9, 83.0, 83.4-83.7 (vertical), 89.0-89.1 (6 mm), 89.1 (8 mm): gypsum veinlets @ 87.7, 87.9, 90.4-90.6: gypsum grains @ 89.9: silty
	94.3			R-B	91.0 Claystone: Silty; reddish brown with some green mottle @ 91.1 (10 mm), 91.3-91.4, 91.5, 91.7 (10 mm), 91.9 (10 mm), 92.1, 92.2 (8 mm): gypsum veinlets
	94.8			G	
	95			R-B	94.3 Claystone: Reddish brown @ 94.4: gypsum veinlet
	95.3				94.8 Claystone: Green @ 94.8-94.9, 94.9: gypsum veinlets
	TOTAL DEPTH				95.3 Claystone: Reddish brown @ 95.3 (8 mm), 96.9, 96.9-97.0 (10 mm), 97.1, 97.3, 97.6, 97.7, 97.8, 98.0-98.1: gypsum veinlets
	98.1				98.1 Total Depth

E.F.C.I. BORING

PROJECT NO: 3187108

PAGE: 1 OF: 4

DATE: 7/20/87 DATE ENTERED: 7/22/87

BORING NO.: TE-9 (G) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9417 E - 11773 N LOGGER: P.B.

DRILLING METHOD: NC CORE

INITIAL: SP/MS WATER OTHER:

WATER LEVEL: LEVEL: LEVELS: 14.84' 8/17/87

SURFACE ELEV.: 1393.8' BORE SIZE: 4" BORE DEPTH: 98.9' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR

CASING DETAILS: N/A

REMARKS: CELL 6







CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-8.5 Surface Casing (not logged)
	5				
	8.5		1 33%		8.5 Lost Core
	10				15.1 Claystone: Reddish brown with some green mottle
	15				15.8 Claystone: Green
	15.1			R-B	16.0 Claystone: Silty; reddish brown
	15.8			G	16.9 Claystone: Green
	16.0			R-B	17.4 Claystone: Silty; reddish brown
	16.9			G	18.3 Claystone: Silty; reddish brown with some green mottle
	17.4			R-B	19.9-20.0, 20.9-21.0 (vertical), 19.4-19.6, 19.8: gypsum veinlets
	18.3		2 100%	R-B	19.7-19.8, 20.2, 20.3, 24.2: gypsum nodules
	20				24.9 Claystone: Green
	24.9				26.6 Claystone: Silty; reddish brown with some green mottle
	25			G	28.9 Claystone: Green and brown
	26.6			R-B	29.0 Claystone: Silty; green
	28.9				
	29.0		3 95%	G/B	
	30			G	

U. S. P. C. I. BORING LOG

TB-9 CONTINUED

PROJECT NO. 3187108

PAGE 2 OF 4


















CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	30.8			R-B	30.8 Claystone: Silty; reddish brown with some green mottle @ 32.7-32.8, 33.9, 34.0, 34.1, 34.3, 34.4: gypsum veinlets @ 34.3: gypsum nodules
	34.7				34.7 Lost Core
	35		4 84%	R-B	35.0 Claystone: Silty; reddish brown with some green mottle @ 36.6, 39.5-39.6, 40.0-40.1 (5 mm), 40.4 (10 mm), 40.6-40.7, 41.4-41.5, 41.6: gypsum veinlets @ 35.3-35.4 (25 mm), 36.3, 39.8, 40.1-40.4, 41.5: gypsum nodules @ 40.0-40.3 (vertical): thin open fracture
	40				
	41.7				41.7 Lost Core
	43.0		5 89%	R-B	43.0 Claystone: Silty; reddish brown @ 43.0-43.2, 43.3, 43.5: gypsum veinlets @ 43.6: gypsum grains
	44.3			B B/G G	44.3 Claystone: Reddish brown with some green mottle @ 44.3-44.6: gypsum grains @ 45.3: gypsum nodule
	45				
	45.4				45.4 Claystone: Silty; brown with green mottle
	46.2				46.2 Claystone: Brown and green
	46.7				46.7 Claystone: Silty; green
	49.0			R-B	49.0 Claystone: Silty; reddish brown with some green mottle @ 50.0, 50.1-50.2 (25 mm), 50.3 (25 mm), 51.2 (25 mm), 51.3 (25 mm), 51.7: gypsum nodules @ 50.6: layered gypsum grains
	50				50.0 Lost Core
	51.9				51.9 Lost Core
	53.0		6 100%	R-B	53.0 Claystone: Silty; reddish brown with some green mottle @ 53.7-53.9: gypsum vein @ 55.1-55.2, 55.5-55.6, 56.7 (5 mm), 62.3, 62.3-62.4, 62.6, 62.6-63.0, 62.9-63.0, 63.2, 63.2-63.8, 64.2, 64.3-64.5, 65.2, 65.5: gypsum veinlets @ 54.8, 56.4, 64.7, 65.0-65.2, 66.4, 69.5: gypsum grains @ 63.0-63.5: disseminated gypsum grains
	55				
	55		7 77%		
	60				
	65				
	68.2				68.2 Lost Core
	70				

U. S. P. C. I. BORING LOG

TB-9 CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 4


CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	70		8.0%		
	71.0		9 89%	R-B	71.0 Claystone: Reddish brown with some green mottle
	72.8			R-B	72.8 Claystone: Silty; reddish brown with green mottle
	74.7			G-G	74.7 Claystone: Green with some gypsaun grains
	75.2			G-B	75.2 Claystone: Green with brown mottle
	75.4			R-B	75.4 Claystone: Silty; reddish brown
	75.9			R-B	75.9 Claystone: Green
	76.3			R-B	76.3 Claystone: Silty; reddish brown
	76.8			R-B	76.8 Claystone: Silty; reddish brown with green mottle
	77.1			R-B	77.1 Claystone: Silty; reddish brown
	77.3			R-B	77.3 Claystone: Silty; brown and green
	77.8			R-B	77.8 Claystone: Reddish brown
	80.3		10 9%	R-B	80.3 Claystone: Silty; reddish brown
	81.0				81.0 Lost Core
	85				85 Lost Core
	88.0			R-B	88.0 Claystone: Reddish brown
	88.8		100%	R-B	88.8 Claystone: Reddish brown with green mottle
	90				90 Lost Core

U. S. P. C. I. BORING LOG

TB-9 CONTINUED

PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
	90					
	91.5			G		91.5 Claystone: Green @ 91.8-93.3 (network), 92.4 (10 mm), 92.6-92.7 (15 mm), 93.0 (10 mm): gypsum veinlets @ 91.8-93.3: gypsum grains
	93.3			R-B		
	95					93.3 Claystone: Silty; reddish brown with some green sottle @ 93.4, 93.6, 93.7-94.4, 93.8, 93.9, 94.0, 94.1, 94.2, 94.3, 94.4, 94.5, 94.6, 94.7, 94.9, 95.0, 95.1-95.2, 95.2, 95.3-95.4, 95.7 (10 mm), 96.0, 96.2 (8 mm), 96.2-96.4 (6 mm), 96.4-96.5, 96.6: gypsum veinlets @ 96.0-97.5: disseminated gypsum grains
	TOTAL DEPTH 98.9					98.9 Total Depth

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 4

DATE STARTED: 7/27/87 DATE ENDED: 7/29/87

BORING NO.: TB-10 (H) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9072 E - 11821 N

LOGGER: T.R.

DRILLING METHOD(S): NC CORE

INITIAL STATIC WATER

OTHER

WATER LEVEL: LEVEL:

LEVELS: 29.1' 8/17/87

SURFACE ELEV.: 1394.4' BORING SIZE: 4" BORING DEPTH: 130' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR

CASING DETAILS: N/A

REMARKS: POND 8

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-8.5 Surface Casing (not logged)
	5				
	8.5		1 45%	R-B	8.5 Claystone: Reddish brown @ 14.4-14.5: gypsum grains @ 15.6, 15.8: gypsum veinlets
	10				
	15			B	15.8 Claystone: Brown with green mottle @ 15.9: disseminated gypsum grains
	15.8			B	
	16.7				16.7 Gypsum: Broken vein
	16.8				16.8 Claystone: Brown @ 20.6-21.0, 21.2, 21.4-21.5, 25.4: gypsum grains @ 21.1, 23.8-24.1 (network), 24.5-24.6: gypsum veinlets
	20		2 100%		
	25				26.4 Claystone: Green
	26.4			G	27.6 Claystone: Brown with green mottle
	27.6			B	28.3 Claystone: Brown and green
	28.3			G/B	
	28.8			G	28.8 Claystone: Green
	30				

U. S. P. C. I. BORING LOG

TB-10 CONTINUED

PROJECT NO. 3187108

PAGE 2 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	30.7		3 100%	B	30.7 Claystone: Brown @ 31.1-31.4, 36.0, 36.6: gypsum veinlets @ 33.2-33.3, 34.5, 34.9, 39.2: gypsum nodules @ 38.5-40.6: disseminated gypsum grains
	35		4 51%		
	40				
	40.6				40.6 Lost Core
	44.7		5 100%	B	44.7 Claystone: Brown @ 46.0 (10 mm), 48.2: gypsum veinlets
	45				
	48.7			B	48.7 Claystone: Brown with green mottle
	50				
	50.3			G/B	50.3 Claystone: Green and brown @ 50.4-51.0 (vertical): gypsum veinlet
	51.0			B	
	55		6 100%		51.0 Claystone: Brown with green mottle @ 52.7, 54.5, 54.7, 55.6, 56.0 (15 mm): gypsum veinlets @ 56.1: disseminated gypsum grains
	57.2		7 0%		57.2 Lost Core
	59.0		8 94%	B	59.0 Claystone: Brown @ 59.6, 60.5 (10 mm), 60.8, 61.1, 61.9, 64.2, 65.7 (10 mm): gypsum veinlets @ 60.4-61.0: gypsum grains
	60				
	65				
	66.5				66.5 Lost Core
	67.0		9 54%	B	67.0 Claystone: Brown @ 67.6-68.0 (network), 68.8: gypsum veinlets @ 71.0: gypsum fragments
	70				

U. S. P. C. I. BORING LOG

TB-10 CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 4



CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	70				
	71.3			B	71.3 Claystone: Silty; brown with green mottle
	71.9				71.9 Lost Core
	75		10 0%		78.4 Claystone: Green @ 78.8, 79.0, 79.2: gypsum veinlets
	78.4		11 59%	G	79.5 Claystone: Brown with green mottle @ 81.2, 81.6, 81.8, 82.3, 82.5 (5 mm), 82.6 (5 mm), 83.0 (15 mm), 84.2 (15 mm): gypsum veinlets
	79.5			B	
	80				84.3 Lost Core
	84.3				88.4 Claystone: Brown @ 88.6 (3 mm): gypsum veinlet
	85				88.9 Gypsum: Vain
	88.4				89.0 Claystone: Brown
	88.9				89.1 Gypsum: Layered
	89.0				89.3 Claystone: Brown
	89.1		12 100%	B	89.6 Claystone: Green @ 90.7-90.8, 90.8-90.9: gypsum veinlets
	89.3			B	
	89.6			G	
	90				90.9 Claystone: Brown @ 91.4-91.5 (10 mm): gypsum veinlet
	90.9			B	
	91.6		13 45%	B	91.6 Claystone: Green with thin gypsum veinlets
	92.3				92.3 Claystone: Brown @ 92.5 (10 mm), 92.9 (10 mm), 93.3 (5 mm), 93.7 (10 mm), 92.9 (5 mm), 94.0 (5 mm), 95.3 (10 mm): gypsum veinlets
	95				95.3 Lost Core
	95.3				
	99.1		14 45%	B/G	99.1 Claystone: Brown and green @ 99.7 (10 mm), 100.1, 100.2, 100.4-100.5, 100.5-100.6, 101.0, 101.2, 101.5-101.6, 101.7: gypsum veinlets @ 100.0: gypsum nodule
	100				101.9 Claystone: Green with gypsum veinlets
	01.9			G	102.6 Lost Core
	03.6				
	105				109.0 Claystone: Brown and green @ 111.0-111.5: disseminated gypsum grains
	090		15 62%	B/G	
	110				

U. S. P. C. I. BORING LOG

TB-10 CONTINUED

PROJECT NO. 3187108

PAGE 4 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	110				111.5 Lost Core
	115				113.0 Total Depth
	TOTAL DEPTH 113.0				

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 3

DATE STARTED: 4/21/87 DATE ENDED: 4/23/87

BORING NO.: 7E-11 (I) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9617.4 E - 12600.0 N

LOGGER: R. N.

DRILLING METHOD(S): NC CORE

INITIAL _____ STATIC WATER _____ OTHER _____

WATER LEVEL: _____ LEVEL: 6.53' 8/20/87

LEVELS: _____

SURFACE ELEV.: 1378.8' BORING SIZE: 4" BORING DEPTH: 84.5' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR

CASING DETAILS: N/A

REMARKS: CELL II






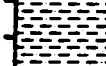



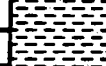





CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-3.8 Surface Casing (not logged)
	3.8				3.8 Claystone: Red with gray mottle and some disseminated gypsum fragments
	4.4		1 77%	R R R	4.4 Claystone: Red @ 5.3: gypsum veinlet
	5.4			R R R	5.4 Claystone: Red with gypsum fragments @ 6.3: gypsum veinlet
	6.3			R R R	6.3 Claystone: Red with some vertical and horizontal gypsum veinlets
	8.3			Gy R	8.3 Claystone: Gray with disseminated gypsum fragments and some horizontal and vertical gypsum veinlets
	9.7		2 91%	BI-G R	9.7 Claystone: Red with gray mottle, disseminated gypsum fragments, and vertical gypsum veinlets
	10.8				10.8 Lost Core
	12.8				12.8 Claystone: Bluish green
	14.4				14.4 Claystone: Red @ 17.5: gypsum veinlet @ 18.0-19.0: disseminated gypsum fragments
	15				
	20				
	21.9				21.9 Lost Core
	22.8		3 54%	R BI-G	22.8 Claystone: Red with some bluish green mottle
	25				25.0 Claystone: Bluish green
	26.0				26.0 Claystone: Bluish green
	27.3				27.3 Lost Core
	30				

U. S. P. C. I. BORING LOG

TB-II CONTINUED

PROJECT NO. 3187108

PAGE 2 OF 3

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	31.0		4 82%	BI-G	31.0 Claystone: Bluish green @ 32.0: gypsum veinlet
	32.9			R	32.9 Claystone: Red @ 34.5, 35.5, 36.3, 38.3-38.5-40.5: gypsum veinlets @ 38.5-41.3: disseminated gypsum fragments
	35				
	40				
	41.3		5 58%	R	41.3 Claystone: Red with some bluish green mottle @ 42.3-43.0, 44.0-44.5: disseminated gypsum fragments
	45				
	46.0				46.0 Lost Core
	49.5		6 91%	R	49.5 Claystone: Red with bluish green mottle @ 53.5: gypsum veinlet
	50				
	55				
	56.2				56.2 Lost Core
	56.8		7 56%	R	56.8 Claystone: Red with bluish green mottle @ 59.0: gypsum veinlet
	60				60.0 Lost Core
	63.0		8 88%	B	63.0 Claystone: Brown with some bluish green mottle and some thin gypsum veinlets
	65				
	66.9		9 74%		66.9 Lost Core
	70				

U. S. P. C. I. BORING LOG

TB-II CONTINUED

PROJECT NO. 3187108

PAGE 3 OF 3

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
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	70.5	[Symbol]		R-B	70.5 Claystone: Silty; reddish brown with some thin gypsum veinlets
	75	[Symbol]			
	76.7	[Symbol]	10 85%	R-B	76.7 Claystone: Reddish brown with some bluish green mottle and some disseminated gypsum fragments @ 79.2, 80.3, 81.5, 82.5; gypsum veinlets
	80	[Symbol]			
	TOTAL DEPTH				84.5 Total Depth
	84.5				

U. S. F. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 2

DATE STARTED: 4/24/87 DATE ENDED: 4/27/87

BORING NO.: TB-12(J) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9790.2 E- 14620.8 N

LOGGER: R.N.

DRILLING METHOD(S): NC CORE

INITIAL: _____ STATIC WATER: _____ OTHER: _____

WATER LEVEL: _____ LEVEL: 2.82 6/8/87 LEVELS: _____

SURFACE ELEV.: 1365.0' BORING SIZE: 4" BORING DEPTH: 67.8' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS: NE AIRSTRIP

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-4.0 Surface Casing (not logged)
	4.0		1 92%	R	4.0 Claystone: Gravelly; red
	4.6			R	
	5.6			BI-G	4.6 Claystone: Red
					5.6 Claystone: Bluish green
					9.8 Claystone: Red with disseminated gypsum fragments and very thin gypsum veinlets
	9.8			R	
	10.4			R-B	10.4 Claystone: Reddish brown with bluish green mottles and disseminated gypsum fragments
	12.5				12.5 Lost Core
	13.2		2 100%	R-B	13.2 Claystone: Reddish brown @ 15.7-18.0: disseminated gypsum fragments
	15				18.0 Claystone: Reddish brown
	18.0			R-B	
	20				
	24.4		3 61%		24.4 Lost Core
	25				
	25.9		4 100%	R-B	25.9 Claystone: Reddish brown with disseminated gypsum fragments @ 27.0, 27.5, 28.0, 30.0: broken gypsum veinlets
	30				

U. S. P. C. I. BORING LOG

PROJECT NO. 3187108

TB-12 CONTINUED

PAGE 2 OF 2

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. OF REC.	COLOR	DESCRIPTION
	30				
	32.0		5 95%	R-B	32.0 Claystone: Reddish brown with bluish green mottle and some gypsum fragments
	35				
	38.5		6 100%	R	38.5 Claystone: Red with some bluish green mottle and some disseminated gypsum fragments @ 41.5, 44.5: gypsum veinlets
	40				
	45				
	48.2			R	48.2 Claystone: Red with some bluish green mottle
	49.0			R	
	49.5		7 21%	Bl-G	49.0 Claystone: Red 49.5 Claystone: Bluish green @ 53.0: gypsum veinlet
	50				
	53.5		8 51%	R-B	53.5 Claystone: Reddish brown
	55				55.0 Lost Core
	60		9 0%		
	65				
	TOTAL DEPTH				67.8 Total Depth
	67.8				

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF 4

DATE STARTED: 4/28/87 DATE ENDED: 4/30

BORING NO.: 75-12 CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9448.6 E - 12044.8 N

LOGGER: R.N

DRILLING METHOD(S): NC CORES

INITIAL

STATIC WATER

OTHER

WATER LEVEL:

LEVEL: 3.8' 6/8/87

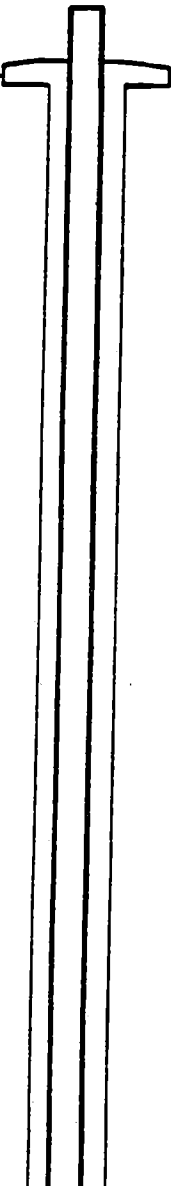
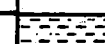

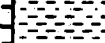


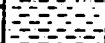
LEVELS:

SURFACE ELEV.: 1384.0' BORING SIZE: 4" BORING DEPTH: 111.5' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS: SURFICIAL GEOPHYSICS CORRELATION

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-4.0 Surface Casing (not logged)
	4.0			B-G	4.0 Claystone: Bluish green
	5				
	6.0		1 81%	R	6.0 Claystone: Red with some bluish green mottle @ 9.5: gypsum veinlet @ 12.5: gypsum nodule
	10				
	12.5			R	12.5 Claystone: Red with disseminated gypsum grains.
	14.3				14.3 Lost Core
	15				
	16.0		2 100%	B-G	16.0 Claystone: Bluish green
	20			R	20.0 Claystone: Red @ 24.2, 28.5, 32.0: gypsum veinlets @ 24.0, 27.0: disseminated gypsum grains
	25				
	30		3 88%		

U. S. P. C. I. BORING LOG

PROJECT NO. 3187108

TB-13 CONTINUED

PAGE 2 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	32.5	X			32.5 Lost Core
	35	X			35.7 Claystone: Reddish brown @ 37.5: disseminated gypsum grains
	35.7		4 15%	R-B	
	37.8			BI-G	37.8 Claystone: Bluish green
	40			R-B	40.0 Claystone: Reddish brown @ 45.2: gypsum veinlet @ 43.0, 44.0: disseminated gypsum grains
	45		5 86%		
	50				
	55		6 84%		
	60				
	61.6	X			61.6 Lost Core
	63.7		7 100%	R-B	63.7 Claystone: Reddish brown with some bluish green mottle
	65				
	70				

U. S. P. C. I. BORING LOG

TB-13 CONTINUED

PROJECT NO. 3187108

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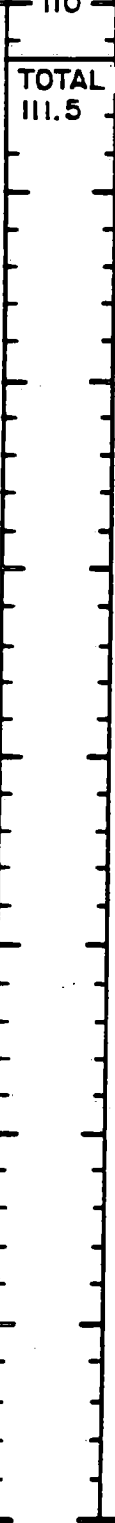
CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION	
	70					
	73.4	[Hatched Pattern]	8 63%	R-B	73.4 Claystone: Reddish brown	
	75					
	78.5	[X Pattern]			78.5 Lost Core	
	80					
	83.6	[Hatched Pattern]	9 58%	R-B	83.6 Claystone: Reddish brown	
	85					
	87.5	[Hatched Pattern]	10 100%	R-B	87.5 Claystone: Reddish brown with some bluish green mottle and some disseminated gypsum grains	
	90		11 100%			
	95					
	100	[Hatched Pattern]	12 91%			
	105					
	110					

U. S. P. C. I. BORING LOG

TB-13 CONTINUED

PROJECT NO. 3187108

PAGE 4 OF 4

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	110				
	TOTAL DEPTH 111.5				111.5 Total Depth
					

U. S. P. C. I. BORING LOG

PROJECT NO: 3187108

PAGE: 1 OF: 11

DATE STARTED: 5/8/87 DATE ENDED: 5/18/87

BORING NO.: TB-14 (K) CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 7345.8 E - 13922.4 N

LOGGER: R.N.

DRILLING METHOD(S): NC CORE

INITIAL

STATIC WATER

OTHER

WATER LEVEL:

LEVEL: 4.9' 8/29/87

LEVELS:

SURFACE ELEV.: 1393.8' BORING SIZE: 4" BORING DEPTH: 418.1' CASING ELEV.:

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: 2" PVC FROM SURFACE TO PVC SCREEN, SET AT 365'-375'

REMARKS: CEDAR HILLS TEST. OW-7 INSTALLED NEARBY.






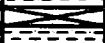



CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-4.0 Surface Casing (not logged)
	4.0		1	R	4.0 Claystone: Red
	5		74%		@ 3.8 (3 mm): gypsum veinlet
					@ 7.0: gypsum grains
	10				10.5 Claystone: Bluish green
	10.5			R BI-G	11.0 Claystone: Red
	11.0				11.7 Lost Core
	11.7				14.4 Claystone: Red
	14.4		2	R	@ 15.0, 18.2, 19.0: gypsum grains
	15		91%		20.0 Lost Core
	20				20.5 Claystone: Red
	20.5		3	R BI-G	21.0 Claystone: Bluish green
	21.0		81%		22.1 Claystone: Red
	22.1			R BI-G	22.7 Claystone: Bluish green
	22.7				27.0 Claystone: Red
	25				@ 27.5: gypsum grains
	27.0			R	@ 28.0-29.1: disseminated gypsum grains
	29.1				29.1 Lost Core
	30				

U. S. P. C. I. BORING LOG

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				
	31.0		4 80%	R	31.0 Claystone: Red with some bluish green mottle @ 31.0-39.0: disseminated gypsum grains @ 31.3, 32.3, 34.3, 35.3: gypsum grains
	35				
	39.0				39.0 Lost Core
	40				
	41.0		5 83%	BHG	41.0 Claystone: Bluish green with red mottle @ 46.0, 47.0: gypsum grains
	45				
	48.9				48.9 Lost Core
	50				
	50.5		6 90%	R	50.5 Claystone: Red with some bluish green mottle and disseminated gypsum grains @ 53.0: gypsum grains
	55				
	55.5				55.5 Lost Core
	56.0		7 83%	R	56.0 Claystone: Red with some disseminated gypsum grains
	60				
	63.2				63.2 Lost Core
	64.6		8 98%	R	64.6 Claystone: Red @ 68.5: gypsum nodules
	65				
	70				

U. S. P. C. I. BORING LOG

PROJECT NO. 3187109

TB-14 CONTINUED

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	70				
	73.1		9 93%	R-B	73.1 Claystone: Reddish brown @ 74.1, 75.0, 77.2, 78.0, 70.0, 80.5: gypsum nodules @ 76.5: gypsum veinlet
	75				
	80				
	81.9				81.9 Lost Core
	82.5		10 79%	R	82.5 Claystone: Red with some bluish green mottle @ 82.5-85.0: disseminated gypsum grains
	85				
	85.5			BI-G	85.0 Claystone: Bluish green
	87.5			R/BG	85.5 Lost Core
	89.5			R	87.5 Claystone: Red and bluish green @ 88.9 (3-4 mm), 89.5 (5-6 mm): gypsum veinlets
	90				
	95		11 100%		89.5 Claystone: Red @ 90.5, 91.0, 91.5, 92.2, 92.5, 94.0, 95.5: gypsum veinlets @ 96.5-98.0: disseminated gypsum grains
	98.0		12 93%	R-B	98.0 Claystone: Reddish brown with bluish green mottle @ 100.5, 101.7, 102.5, 103.2: gypsum veinlets @ 98.0-107.2: disseminated gypsum grains @ 109.5, 110.5-111.0, 112.0: gypsum nodules
	100				
	105				
	110		13 88%		

U. S. P. C. I. BORING LOG

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	110				
	115				
	15.9	X			115.9 Lost Core
	17.8	X	14 100%	R-B	117.8 Claystone: Reddish brown with some bluish green mottle @ 118.5, 119.9, 121.5; gypsum veinlets
	120				
	125				
	26.0	X			126.0 Lost Core
	27.2	X	15 100%	R-B	127.2 Claystone: Reddish brown with disseminated gypsum grains @ 128.8, 132.5, 133.2; gypsum veinlets
	130				
	135				
	37.5		16 53%	Dk.B	137.5 Claystone: Dark brown with some bluish green mottle and disseminated gypsum grains
	140				
	41.8	X			141.8 Lost Core
	145				
	45.6	X	17 75%	R-B	145.6 Claystone: Reddish brown with disseminated gypsum grains @ 146.2, 146.9, 147.7, 148.3, 148.6, 151.0, 151.8, 153.8, 154.7; gypsum veinlets
	150				

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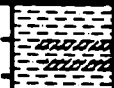








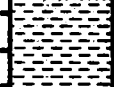




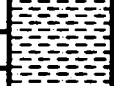
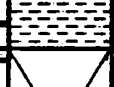

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	150				
	54.9				
	155				154.9 Lost Core
	57.9		18 85%	RB	157.9 Claystone: Reddish brown with disseminated gypsum grains @ 158.1, 158.5, 159.0, 160.5, 161.5, 162.5; gypsum veinlets @ 162.0-163.0; thin sandstone and siltstone stringers
	160				
	63.0			R	163.0 Siltstone with sandstone (very fine grained); red with some bluish green mottle
	165				
	67.3				167.3 Lost Core
	170		19 39%		
	73.5				173.5 Gypsum: Layered
	74.4			R/Gy	174.4 Claystone: Red and gray mottled with disseminated gypsum grains @ 174.8; gypsum veinlet
	175			RB	
	75.6		20 42%		175.6 Claystone: Reddish brown with disseminated gypsum grains @ 177.2, 177.5, 177.8, 178.7; gypsum veinlets
	180				180.3 Lost Core
	80.3				
	185		21 75%	R	185.1 Claystone: Red @ 185.7, 186.2, 186.6, 187.1, 191.1, 191.7; gypsum veinlets @ 190.0-190.2; gypsum grains
	85.1				
	190				

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	190				
	192.6				192.6 Lost Core
	195		22 37%	R	195.0 Claystone: Red with bluish green mottle and disseminated gypsum grains @ 195.4, 195.7, 196.3: gypsum veinlets
	196.6				196.6 Lost Core
	199.3		23 96%	R-B	199.3 Claystone: Reddish brown with gypsum grains
	200			R-B	200.0 Claystone: Reddish brown with some bluish green mottle and some disseminated gypsum grains @ 201.5, 202.3, 203.3, 204.0, 205.5, 206.0: gypsum veinlets
	205				
	207.6		24 86%	B	207.6 Lost Core
	207.9				207.9 Claystone: Brown @ 208.5, 209.0, 210.6, 214.0: gypsum veinlets
	210				
	215				
	216.1				216.1 Lost Core
	217.4		25 65%	B	217.4 Claystone: Brown with some disseminated gypsum grains @ 218.3, 219.5, 220.5, 221.4: gypsum veinlets
	220				
	225				
	225.7				225.7 Lost Core
	230				

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	230		26 95%	B	230.0 Claystone: Brown with some bluish green mottle @ 233.0, 235.5: gypsum veinlets @ 238.0: disseminated gypsum grains
	235				
	395				239.5 Lost Core
	240		27 64%	B	240.0 Claystone: Brown with some disseminated gypsum grains @ 240.7: gypsum veinlet
	245				
	47.2				247.2 Lost Core
	250				
	51.2		28 78%	R-B	251.2 Claystone: Reddish brown with some bluish green mottle @ 255.5: gypsum veinlet and gypsum grains
	255				
	260				
	60.8		29 50%	B	260.8 Claystone: Brown with some bluish green mottle and disseminated gypsum grains
	265				264.3 Lost Core
	64.3				267.8 Sandstone: Friable; very fine-grained; brown
	265				268.5 Sandstone: Friable; reddish brown with sized fragments of very fine-grained sandstone
	67.8		30	B	269.0 Claystone: Sandy; reddish brown with some disseminated gypsum grains
	68.5		20%	R-B	
	69.0			R-B	
	270				

U. S. P. C. I. BORING LOG

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




















CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	270				270.0 Lost Core
	275				
	78.7 79.0 79.4		31 93%	RD B	278.7 Sandstone: Very fine-grained; friable; brown with brown sandstone fragments
	280				279.0 Sandstone: Very fine-grained; brown
					279.4 Claystone: Reddish brown with some bluish green mottle and some disseminated gypsum grains
	285				
	87.3		32 9%		287.3 Lost Core
					291.4 Claystone: Reddish brown
	290				291.9 Claystone: Sandy; reddish brown with gypsum gravel
	91.4 91.9 92.0 92.7			RD DB	292.0 Sandstone: Clayey and silty; fragmented; red
	295				292.7 Lost Core
	300		33 52%	RD R	300.4 Gypsum with red sandstone grains
	00.4 00.7				300.7 Claystone: Red with disseminated gypsum and sandstone fragments @ 302.5; gypsum grains
	305				305.6 Lost Core
	05.6				
	310				

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	310				
	104		34 54%	R	310.4 Sandstone: Friable with silt and clay; red with some gypsum grains and sandstone fragments
	130				313.0 Lost Core
	315				
	152		35 33%	R-B	315.2 Sandstone: Friable; with silt and clay; reddish brown
	158				315.8 Lost Core
	185		36 100%	R-B	318.5 Claystone: Reddish brown with bluish green mottle and disseminated gypsum grains
	320				321.0 Claystone: Red with gypsum fragments
	210		37 56%	R	321.9 Claystone: Bluish green with gypsum fragments
	219			B+G	322.5 Lost Core
	225				
	325				
	255		38 15%		
	325		39 100%	R-B	325.5 Claystone: Reddish brown with bluish green mottle and disseminated gypsum fragments @ 328.5, 329.0: gypsum grains @ 326.5, 330.0, 331.8, 332.5, 333.6: gypsum veinlets
	330		40 100%		
	340				
	340		41	B+G	334.0 Claystone: Bluish green
	342		41 44%	R-B	334.2 Claystone: Reddish brown with disseminated gypsum fragments @ 334.6, 335.1, 335.5: gypsum grains
	335				337.7 Lost Core
	377				
	340				
	42.1		42 14%	R-B	342.1 Claystone: Reddish brown with disseminated gypsum fragments @ 342.1-342.4 gypsum grains
	437				343.7 Lost Core
	345				
	350				

U. S. P. C. I. BORING LOG

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








CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	350				353.0 Gypsum: Layered
	53.0	▨	43	R-B	353.3 Sandstone: Very fine-grained; friable; clayey; reddish brown with some gypsum fragments
	53.3	●	30%		
	54.7				354.7 Lost Core
	355	X			
	590		44	R-B	359.0 Sandstone: Very fine-grained; silty; some disseminated gypsum fragments @ 361.0: gypsum veinlet
	360	●	80%		
	365	S			
	684	X			368.4 Lost Core
	693	X			369.3 Sandstone: Very fine-grained; some small scale cross bedding; reddish brown with some gypsum fragments
	370	●	45 100%		
	375	●			
	79.1			R-B R	379.1 Claystone: Reddish brown
	79.5	▨	46		
	380	▨	80%		379.5 Sandstone and claystone: Red with some gypsum and some halite crystals
	385	▨			
	87.7	X			387.7 Lost Core
	390	X			

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	390				
	91.1		47 100%	R R-B	390.0 Sandstone and claystone: Red with bluish green mottles, some gypsum and some halite crystals
	94.7				391.1 Claystone: Reddish brown with few blue green mottles
	395		48 100%	R-B	392.8-393.4 (vertical): open fracture 394.7 Claystone: Sandy; silty; reddish brown with some gypsum fragments
	400				401.3 Lost Core
	01.3 01.8		49 100%	R-B	401.8 Claystone: Sandy; silty; reddish brown with blue mottles
	405				402.6-403.8: vertical fracture 411.7, 418.0: layered gypsum grains
	410		50 65%		
	415				
			51 100%		418.1 Total Depth
	TOTAL DEPTH 418.1				

U. S. P. C. I. BORING LOG

PROJECT NO.: 3187108

PAGE: 1 OF: 7

DATE STARTED: 5/13 DATE FINISHED: 5/21

BORING NO.: TB-15 CONTRACTOR/DRILLER: BOYLES BROTHERS

BORING LOCATION: 9314.2 E- 14020.5 N

LOGGER: P. B.

DRILLING METHOD(S): NC CORE

INITIAL

STATIC WATER

OTHER

WATER LEVEL

LEVEL: 3.22' 6/2/87

LEVELS: 5' @ 14 Hrs.

SURFACE ELEV.: 1371.8' BORING SIZE: 4" BORING DEPTH: 175.0' CASING ELEV.: N/A

WEATHER CONDITIONS: CLEAR TO PARTLY CLOUDY

CASING DETAILS: N/A

REMARKS: TRACER STUDY

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	0				0.0-11.5 Surface Casing (not logged)
	5				
	10				11.5 Claystone: Silty; reddish brown with some green mottle @ 11.5: gypsum nodule (40 mm diameter) @ 12.2-12.4: gypsum nodule in green mottle @ 12.4: gypsum veinlet
	11.5		1 94%	R-B	
	14.1				14.1 Claystone: Green and brown mottled
	15.0				15.0 Claystone: Green
	14.1			G/B	
	15				17.4 Claystone: Reddish brown with some green mottle @ 18.3: gypsum veinlet (4 mm)
	15			G	
	17.4				18.5 Claystone: Green with disseminated gypsum grains and small gypsum nodules @ 18.6-19.0 (vertical): gypsum veinlet
	17.4			R-B	
	18.5				19.0 Lost Core
	18.5			G	
	19.0				19.5 Claystone: Reddish brown @ 19.2, 20.1, 20.2, 20.0-20.3 (vertical), 22.0-22.5, 23.5-23.6, 25.0, 27.0, 27.8-27.9, 28.8, 29.0, 29.8, 30.0, 30.2, 31.8, 32.0-32.5 network of vertical and horizontal veinlets): gypsum veinlets @ 27.3: layered gypsum grains @ 29.7-30.3: disseminated gypsum grains
	19.5		2 100%	R-B	
	20				
	25				
	25		3 100%		
	30				
	30		4 100%		

U. S. P. C. I. BORING LOG

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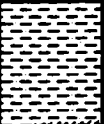





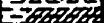



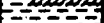






CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	30				32.5 Claystone: Reddish brown with some green mottle and some disseminated gypsum grains @ 32.55, 33.4, 33.6-33.7, 34.6, 35.3: gypsum veinlets
	32.5		6 100%	R-B	35.6 Claystone: Reddish brown
	35				35.8 Claystone: Green with brown mottle @ 36.2: gypsum veinlet
	35.6			R-B	
	35.8			G	
	36.3		7 83%	R-B	36.3 Claystone: Reddish brown @ 36.5-35.6, 36.7-37.1, 37.3: gypsum veinlets
	39.0				39.0 Lost Core
	39.5			R-B	
	40		8 100%	B/G	39.5 Claystone: Reddish brown @ 39.7, 39.9-40.0: gypsum veinlets
	40.5			R-B	
	44.0				40.0 Claystone: Brown and green
	44.3				40.5 Claystone: Reddish brown @ 41.3-41.4, 42.3, 42.5: gypsum veinlets @ 40.1-40.6: disseminated gypsum grains
	44.9		9 100%	G	
	45.5			R-B	
	45.9			G	
	46.1			R-B	
	46.5			G	
	46.8		10 100%	R-B	44.0 Claystone: Green
	47.8			R-B	44.3 Claystone: Reddish brown @ 44.8: gypsum veinlet
	47.9			B	
	50				44.9 Claystone: Green @ 45.2: gypsum grains
					45.5 Claystone: Reddish brown
					45.9 Claystone: Green with some disseminated gypsum grains
					46.1 Claystone: Brown with green mottle
					46.5 Claystone: Green @ 46.5-46.6: disseminated gypsum grains
					46.8 Claystone: Reddish brown
					47.8 Claystone: Reddish brown with green mottle
					47.9 Claystone: Reddish brown @ 48.3-48.8: some silt @ 47.7, 49.2 (4 mm), 50.3 (10 mm), 50.9: gypsum veinlets

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	50				
	53.4			G	53.4 Claystone: Green
	53.5			R-B	@ 53.4: gypsum veinlet
	54.0		12		
	55		69%		53.5 Lost core
	57.6			G	54.0 Claystone: Reddish brown
	57.9			R-B	@ 54.1, 54.3, 54.5, 55.5 (8 mm), 56.0 (8 mm), 56.3: gypsum veinlets
	59.5				@ 54.2: gypsum nodule
	60				57.6 Claystone: Green with brown mottle
	62.0		13	R-B	@ 57.8: gypsum nodule
	65		100%		57.9 Claystone: Reddish brown with some disseminated gypsum grains
	65				@ 58.5: gypsum veinlets
	70		14		59.5 Lost Core
	70		100%		62.0 Claystone: Reddish brown
	75		15		@ 62.2, 62.5, 62.8, 63.1 (10 mm), 63.7-63.8 (10 mm), 63.9-64.0, 64.3, 64.6 (8 mm), 65.5, 65.7, 66.0, 66.2 (8 mm), 66.5, 66.6-66.7, 67.1, 68.7, 68.8, 68.9 (8 mm), 70.0, 71.0, 71.5 (12 mm), 72.0, 72.5-72.6, 72.8, 73.3-73.4 (10 mm), 74.0-74.1, 73.6-73.7 (10 mm): gypsum veinlets
	75		96%		@ 62.4, 65.6, 66.4: gypsum nodules
	75				@ 64.0-64.6: disseminated gypsum grains

U. S. P. C. I. BORING LOG

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PROJECT NO. 3187108

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CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	75				
	75.9			R-B	75.0 Claystone: Reddish brown
	76.4			R-B	@ 75.1 (10 mm): gypsum veinlet
	76.9			R-B	@ 75.2: gypsum nodule
	77.2			R-B	
	77.3			B/G	
	77.4		16	R-B	75.9 Claystone: Green
	77.8		100%	R-B	@ 75.4, 75.5, 75.6, 75.7-75.8, 75.9, 76.0, 76.2, 76.4 (8 mm), 76.4-77.0 (8 mm): gypsum veinlets
	80			G	
	78.5			R-B	76.4 Claystone: Reddish brown with green mottle
	79.1			R-B	
	80.7			G	
	80.9			R-B	76.9 Claystone: Green
	81.3			R-B	@ 77.0, 77.1: gypsum veinlets
	81.4		17	R-B	77.2 Claystone: Reddish brown
	84.0		100%	R-B	77.3 Claystone: Brown and green
	84.2			R-B	77.4 Claystone: Reddish brown
	85			G	@ 77.4, 77.5: gypsum veinlets
	84.5			R-B	@ 77.2, 77.3: gypsum nodules
	84.6			R-B	77.8 Lost Core
					78.0 Claystone: Reddish brown
					@ 78.3, 78.4-78.5: gypsum veinlets
					78.5 Claystone: Green with some disseminated gypsum grains
					@ 78.9 (10 mm): gypsum veinlet
					79.1 Claystone: Reddish brown
					@ 79.4 (8 mm), 80.0, 80.6 (10 mm): gypsum veinlets
					80.7 Claystone: Green
					80.9 Claystone: Reddish brown
					@ 81.0, 81.3: gypsum veinlets
					81.3 Claystone: Green
					81.4 Claystone: Reddish brown
					@ 82.5: gypsum veinlet
					@ 82.6-82.8: layered gypsum grains
					84.0 Claystone: Silty; reddish brown with green mottle
					84.2 Claystone: Reddish brown
					84.5 Siltstone: Clayey and sandy (very fine-grained); soft; friable; green
					84.6 Claystone: Silty and sandy; reddish brown

U. S. P. C. I. BORING LOG

TB-15 CONTINUED

PROJECT NO. 3187108

PAGE 5 OF 7

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. OF REC.	COLOR	DESCRIPTION
	85				
	85.5			R-B	
	85.8			G	85.5 Claystone: Silty interbeds at irregular intervals; reddish brown with green mottle
	86.0			R-B	
	88.9			R-B	85.8 Claystone: Green with brown mottle @ 86.0: gypsum nodule
	90				86.0 Claystone: Reddish brown @ 86.3, 86.4, 87.0-87.7, 88.4: gypsum veinlets @ 87.0, 87.2-87.4, 87.7: green interbeds
	93.5		18 100%	R-B	
	94.2			R-B	
	95			R-B	88.9 Claystone: Reddish brown @ 90.3, 90.8, 91.4, 91.9, 92.4, 93.0 (10 mm): gypsum veinlets @ 90.8, 91.7, 91.9: gypsum nodules @ 91.7-91.9: green interbed
	100		19 100%		93.5 Claystone: Silty with trace of very fine-grained sand; reddish brown @ 93.6: gypsum nodule
	105		20 100%		94.2 Claystone: Reddish brown
	110		21 100%		95.0 Claystone: Reddish brown @ 95.8 (20 mm), 96.3, 97.8, 98.0, 98.8, 99.4-99.8, 100.0, 100.1-100.3, 100.3, 103.4, 103.5-104.2 (approx. 20 mm veinlet interbed), 104.5, 105.1, 105.4, 105.8, 106.0, 106.2, 106.4, 106.6, 106.7-106.8, 107.0, 107.1, 107.5, 107.9, 108.0, 108.1, 108.3, 108.5-108.6, 108.8, 108.9, 109.0, 109.1, 109.2, 110.6, 110.7, 110.9 (10 mm), 111.6, 113.3, 113.9, 115.3, 115.8 (10 mm), 115.9, 116.0, 117.0, 117.0-117.6, 117.6, 118.5, 118.6, 119.0 (8 mm), 119.3: gypsum veinlets @ 101.8-101.9: green interbed
	115		22 79%		
	120.0				120.0 Lost Core
	120				122.0 Claystone: Reddish brown with some green mottle @ 122.5: gypsum veinlet
	22.0			R-B	
	22.5		23 57%	R-B	122.5 Claystone: Very sandy (very fine-grained); reddish brown @ 122.6, 123.2-123.3 (8-15 mm), 123.5: gypsum veinlets
	125				

U. S. P. C. I. BORING LOG

TB-15 CONTINUED

PROJECT NO. 3187108

PAGE 6 OF 7

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	125			R-B	125.6 Claystone: Reddish brown
	25.6			G	
	26.0				126.0 Lost Core
					129.0 Claystone: Reddish brown with gypsum nodules
	29.0			R-B	
	29.6		24	R-B	129.6 Claystone: Very sandy (very fine-grained); reddish brown
	30		20%		
					130.0 Lost Core
					134.0 Claystone: Very sandy (very fine-grained); reddish brown with some green mottle
	34.0		25	R-B	
	135		38%		136.5 Sandstone: Very fine-grained; clayey; soft; friable; reddish brown
	36.5			R-B	
	37.5			R-B	137.5 Claystone: Reddish brown @ 137.7: layered gypsum nodules
	37.8				
					137.8 Lost Core
	140				
					144.0 Claystone: Reddish brown @ 145.1 (10 mm): gypsum veinlet @ 144.4-144.6: layered gypsum nodules
	44.0			R-B	
	44.6			G	
	44.8		26	R-B	144.6 Claystone: Silty; gypsiferous; green
	145		50%		
	45.5			G	144.8 Claystone: Reddish brown
	45.8			R-B	
	46.1			R-B	145.3 Claystone: Sandy (very fine-grained); green
	47.0			R-B	
	47.5			R-B	145.8 Sandstone: Very fine-grained; clayey; reddish brown
	48.1			R-B	
	49.0				
	150				
					146.1 Claystone: Reddish brown @ 146.3, 146.8: gypsum veinlets
					147.0 Sandstone: Very fine-grained; clayey; reddish brown
	54.0		27	R-B	147.5 Claystone: Reddish brown
	155		100%		
					148.1 Claystone: Silty and sandy (very fine-grained); reddish brown
					149.0 Lost Core
					154.0 Claystone: Silty and sandy (very fine-grained); reddish brown @ 155.3, 155.8-155.9, 156.1, 157.3-157.4, 158.1 (8-10 mm), 158.3-158.4 (8 mm), 158.8-158.9 (10 mm), 159.7: gypsum veinlets @ 157.9: gypsum nodule

U. S. P. C. I. BORING LOG

TB-15 CONTINUED

PROJECT NO. 3187108

PAGE 7 OF 7

CASING	DEPTH	USC/USGS SYMBOL	SAMPLE NO. % OF REC.	COLOR	DESCRIPTION
	155				160.0 Claystone: Silty and sandy (very fine-grained); reddish brown with some green mottle @ 160.1, 160.3-160.4: gypsum nodules
	160		28 100%	R-B	163.0 Sandstone: Clayey; reddish brown with some green mottle @ 165.6 (8 mm): gypsum veinlet
	63.0		29 100%	R-B	
	165		30 44%		166.5 Lost Core
	66.5				169.0 Claystone: Some silt and very fine-grained sand; reddish brown
	69.0			R-B	169.3 Claystone: Silty with some very fine-grained sand; green with some brown mottle
	69.3			G	
	69.9		31 90%	R-B	169.9 Claystone: Some silt and very fine-grained sand; reddish brown @ 170.5 (6mm): gypsum veinlet @ 170.0: gypsum nodule
	170				
	70.8			R-B	
	71.0		32 87%	R-B	
	71.6			R-B	
	71.7			R-B	
	72.3		33 28%	R-B	170.8 Lost Core
	72.5				171.0 Claystone: Reddish brown
	73.2				171.6 Claystone: Some silt and very fine-grained sand; reddish brown
	175				171.7 Claystone: Reddish brown @ 171.7-171.8 (20 mm): gypsum veinlets
	TOTAL DEPTH				172.3 Lost Core
	175.0				172.5 Claystone: Reddish brown @ 172.6, 172.7, 172.8-173.0 (vertical), 172.1: gypsum veinlets
					173.2 Lost Core
					175.0 Total Depth

CLIENT: <i>USPCI LONE MOUNTAIN</i>		JOB NO.: <i>98321-09-93</i>	
PROJECT: <i>CELL 5 INTERIM MEASURE</i>		LOCATION: <i>WAYNOKA, OKLAHOMA</i>	
DRILLED BY: <i>A.W. POOL</i>	DRILLER: <i>WAYNE CALDWELL</i>	METHOD: <i>AIR ROTARY</i>	
START DATE: <i>3-16-95</i>	COMP. DATE: <i>3-20-95</i>	SURFACE ELEVATION: <i>FEET</i>	
LOGGED BY: <i>SHAWN LEPPERT</i>		TOTAL DEPTH: <i>32.0 FEET BGS</i>	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	GW SAMPLES / ISOLATED INTERV.	
	0.0' to 3.0'	Red claystone; wet, minor gypsum to 2' Damp from 2' to 3'	CL		
	3.0' to 3.5'	Gypsum from 3' to 3.5', dry	GP		
	3.5' to 4.0'	Red claystone	CL		
	4.0' to 8.0'	Green claystone; dry	CL		
	8.0' to 20.0'	Red claystone; dry, minor green claystone to 8' Damp from 8' to 12' Minor gypsum from 10' to 12' Dry	CL		
	20.0' to 21.0'	Green claystone	CL		
	21.0' to 32.0'	Red claystone; very broken to 27' Large gypsum veins from 23' to 27'	CL		
	32.0'	Green claystone at 32'			
	Total Depth = 32.0 Feet BGS				

PROJECT NO. CO179.01 GEOLOGIST E. Newlin WELL NO. 10-41
LOCATION LONE MOUNTAIN DRILLER Pool Drilling DATE STARTED 10-18-91

DRILLING METHOD (S) Air Rotary DATE COMPLETED 10-18-91
SAMPLING METHOD (S) Cone Barrel TOTAL DEPTH 56.65 ft
dc-dry core

WELL DEVELOPMENT-DATE 10-23-91 (continuing)

METHOD (S) /GALLONS PURGED Bailer Surge/none

PID = photoionization detector

COMMENTS PID values in parts per million, fluid level not static (10/30/91); development continuing

DEPTH (ft)	SAMPLE TYPE/ RECOVERY%	ANALYTICAL SAMPLE	FLUM COUNTS/G.IN	PID SAMPLE	HEADSPACE PID READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
					VALUE ppm	PROFILE -50 -100 -150 -200						
0										TOP OF PROTECTIVE STEEL CASING CONCRETE PAD	0	
0									FILL MATERIAL, SILTY CLAY, reddish brown 5YR 4/4, very slightly moist at 38' to 41'	6.25" BOPING	0	
0										GROUT CEMENT	5	
0				1.1						2" PVC SLAM SCHED 40	18	
0											25.0'	
0										BENTONITE	27.6'	
0										2" PTFE SLAM SCHED 40	40.0'	
0										8-12 SIEVE SAND	45.0'	
0	dc 100			1.2					CLAYEY SILTSTONE, olive gray 5Y 4/2. SILTY CLAYSTONE, reddish brown 2.5YR 4/4, gypsum lenses present from 48.6' to 49' green clay mottled throughout, dry	not static	48.6'	
0	dc 100			1.2					CLAYEY SILTSTONE, olive gray 5Y 4/2, friable, dry SILTY CLAYSTONE, reddish brown 5YR 4/4, dry		55.0'	
0									CLAYEY SILTSTONE, olive gray 5Y 4/2, very slightly moist SILTY CLAYSTONE, reddish brown 5YR 4/4, green clay mottled throughout, dry		56.65'	
									T.D. = 56.65 FEET			

PROJECT NO. 00178-01 GEOLOGIST B. Newlin WELL NO. 13-42
LOCATION LONE MOUNTAIN DRILLER Paul Drilling DATE STARTED 10-20-91

DRILLING METHOD (S) Air Rotary DATE COMPLETED 10-21-91
SAMPLING METHOD (S) Cone Barrel TOTAL DEPTH 66.3 ft.

dry core

WELL DEVELOPMENT-DATE 10-21-91 (continuing)

METHOD (S) /GALLONS PURGED Bailer/16

PID = photoionization detector

COMMENTS PID values in parts per million, fluid level not static (10/30/91); development continuing

DEPTH (ft)	SAMPLE TYPE/ RECOVERY%	ANALYTICAL SAMPLE	BLOW COUNTS/6in	PID SAMPLE	HEADSPACE PID READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA	
					VALUE ppm	PROFILE					DEPTH (ft)
0										TOP OF PROTECTIVE STEEL CASING CONCRETE PAD	0
4										8.25" BORING	4
5										GROUT CEMENT	5
10											10
15											15
20				0.4							20
25											25
30											30
35											35
40											40
43.5										2" PVC BLANK SCHED. 5"	43.5
44.1				0.3							44.1
45.2											45.2
46.0											46.0
47.0											47.0
48.0											48.0
49.0											49.0
50.0											50.0
51.0											51.0
52.0											52.0
53.0											53.0
54.0											54.0
55.0				0.2							55.0
56.0											56.0
57.1											57.1
58.0											58.0
59.0											59.0
60.0											60.0
61.0											61.0
62.0											62.0
63.0											63.0
64.0											64.0
65.0				0.5							65.0
66.3											66.3

PROJECT NO. 00178.01 GEOLOGIST B. Newlin WELL NO. 19-45
LOCATION LONE MOUNTAIN DRILLER Peck Drilling DATE STARTED 10-19-91

DRILLING METHOD (S) Air Rotary DATE COMPLETED 10-19-91
SAMPLING METHOD (S) Cone Barrel TOTAL DEPTH 66.1 ft.
secondary cone

WELL DEVELOPMENT-DATE 10-21-91 (continuing)

METHOD (S) /GALLONS PURGED Bailer/19

PID = photoionization detector

COMMENTS PID values in parts per million, fluid level not static (10/30/91); development continuing

DEPTH (ft)	SAMPLE TYPE/ RECOVERY%	ANALYTICAL SAMPLE	BLM COUNTS/6in	HEADSPACE PID READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft)
				VALUE ppm	PROFILE						
0								FILL MATERIAL, SILTY CLAY, reddish brown 5YR 4/4, slightly moist at 38' to 40'	TOP OF PROTECTIVE STEEL CASING CONCRETE PAD		0
0-40					0.4				8.25' BRINE		5
40-43.5							BR	SILTY CLAYSTONE, reddish brown 2.5YR 3/4, minor green clay mottles	GROUT CEMENT		10
43.5-46.0	BC				0.3		BR	CLAYEY SILTSTONE, olive gray 5Y 6/2, waxy, very slightly moist	2" PVC FLANK SCHEDULE 40		15
46.0-49.95							BR	SILTY CLAYSTONE, reddish brown 2.5YR 4/4, dry	2" STEEL FLANK SCHEDULE 40	not static	20
49.95-54							BR	CLAYEY SILTSTONE, olive gray 5Y 4/2, very slightly moist	8-12 STEEL SAND		25
54-64.95	BC				0.3		BR	SILTY CLAYSTONE, reddish brown 2.5YR 4/4, gypsum lenses present from 54' to 55.5' and 61.1' to 62.7', green clay mottled throughout, dry	2" PTFE SCREEN CAPPED SILET		30
64.95-66.1	BC				0.5						35
I.D. = 66.1 FEET											66.1'

PROJECT NO. 00178-01 GEOLOGIST B. Newlin WELL NO. 10-24
LOCATION LONE MOUNTAIN DRILLER Pool Drilling DATE STARTED 10-28-91

DRILLING METHOD (S) Air Rotary DATE COMPLETED 10-29-91
SAMPLING METHOD (S) Cone Barrel TOTAL DEPTH 59.5' to
secondary cone

WELL DEVELOPMENT-DATE 10-24-91 (containing)

METHOD (S) /GALLONS PURGED Baller/26

PID = photoionization detector

COMMENTS PID values in parts per million, fluid level not static (10/30/91); development continuing

DEPTH (ft)	SAMPLE TYPE/ RECOVERY%	ANALYTICAL SAMPLE	FLOW COUNTS/G/IN	PID SAMPLE	HEADSPACE PID READING		LITHOLOGIC COLUMN	U.S.C.S.	DESCRIPTION	WELL INSTALLATION DATA		DEPTH (ft) BLS
					VALVE PPM	PROFILE PPM						
0										TOP OF PROTECTIVE STEEL CASING CONCRETE PAD	0	
0-5										0.25' BIRING	0	
5-10										GRAUT CEMENT	5	
10-20				0.9							20	
20-25										2" PVC BLANK SCHED. 40	25	
25-30											30	
30-34.9										BENTONITE	34.9	
34.9-37.5										2" PTFE BLANK SCHED. 40	37.5	
37.5-40.0											40.0	
40.0-45.0										6-12 SIEVE SAND	45.0	
45.0-50.0				0.9							50.0	
50.0-55.0										2" PTFE SCREEN 0.25" SLOTT	55.0	
55.0-59.5				1.2							59.5	
59.5									T.D. = 59.5 FEET		59.5	

APPENDIX 3.3

LITHOLOGICAL ANALYSIS

NATIONAL ANALYTICAL LABORATORIES

A Division of



U.S.
POLLUTION
CONTROL, INC.

Dear Valued Customer:

Enclosed is a copy of your analytical data report.

National Analytical Laboratories is proud to submit this data to you. Our laboratory conducts testing using state-of-the-art instrumentation with standardized E.P.A. or other recognized methods. The data in the report you are receiving has been validated using a well documented quality assurance program. Each test is conducted under a standardized method format with a set of quality control checks. These checks include a three - point calibration standard using authentic reference materials, a method blank to validate background and a method control spike to validate accuracy. One in ten samples are run in duplicate to validate precision of the method. Detection limits for all methods have been determined statistically and reflect a value at which the method can no longer generate accurate quantifiable data.

If you have any concerns about the data or need help interpreting the report, please call me at (918) 446-1162.

Respectfully submitted for
National Analytical Laboratories

Bonnie E. Oglesby
Laboratory Manager

BDD/cdr

Enclosure: Report

NATIONAL ANALYTICAL LABORATORIES

A Division of



U.S.
POLLUTION
CONTROL, INC.

DUUG KENT
USPCI - CONE MOUNTAIN
ROUTE 2 BOX 180A

Method 7 OK 73800

REPORT NUMBER: H035024

SAMPLE IDENTIFICATION: 2032-01
VECTOR IDENTIFICATION: TBI 201.5-203.1
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYTE	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	20100 MG/KG
ANTHRACENE (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	4.9 MG/KG
BARIUM (T)	6010	1 MG/KG	130 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
BLEND (T)	6010	1 MG/KG	10200 MG/KG
BORON (T)	6010	1 MG/KG	24 MG/KG
BROMINE (T)	6010	2 MG/KG	11 MG/KG
CA (T)	6010	2 MG/KG	17 MG/KG
CAD (T)	7421	2.0 MG/KG	20800 MG/KG
CAESIUM (T)	6010	1 MG/KG	6.2 MG/KG
CHLORINE (T)	6010	1 MG/KG	12800 MG/KG
CHROMIUM (T)	6010	1 MG/KG	150 MG/KG
COPPER (T)	7074	0.01 MG/KG	0.17 MG/KG
COBALT (T)	6010	10 MG/KG	BDL MG/KG
CORONEL (T)	6010	2 MG/KG	28 MG/KG
CADMIUM (T)	6010	10 MG/KG	BDL MG/KG
DISSOLUBLE SILICA (T)	6010	100 MG/KG	9000 MG/KG
FLUORINE (T)	7740	2.0 MG/KG	BDL MG/KG
GOLD (T)	6010	2 MG/KG	BDL MG/KG
IRON (T)	6010	10 MG/KG	9000 MG/KG
LITHIUM (T)	6010	10 MG/KG	9000 MG/KG
MANGANESE (T)	6010	10 MG/KG	BDL MG/KG
MERCURY (T)	6010	1 MG/KG	35 MG/KG
NICKEL (T)	6010	1 MG/KG	52 MG/KG
NITRIDE	300.0	10 MG/KG	40 MG/KG
FLUORIDE	300.0	10 MG/KG	7700 MG/KG
PERITE	300.0	100 MG/KG	BDL MG/KG
PERMANGANATE	300.0	10 MG/KG	BDL MG/KG
PERMANGANATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	18600 MG/KG

LOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

A Division of

U.S.
POLLUTION
CONTROL, INC.

EDDIE KENT
USPOI - LORE MOUNTAIN
ROUTE 2 BOX 1804

DAYTONA OR 75660

REPORT NUMBER: H035024

PAGE 2

SAMPLE IDENTIFICATION: 2082-02
CUSTOMER IDENTIFICATION: TB1 254.5-256.0 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYZER	ELEM. METHOD	REL. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	26200 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	6.3 MG/KG
BARIUM (T)	6010	1 MG/KG	18 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	20500 MG/KG
CHROMIUM (T)	6010	1 MG/KG	30 MG/KG
COPPER (T)	6010	2 MG/KG	13 MG/KG
COBALT (T)	6010	2 MG/KG	8 MG/KG
CADMIUM (T)	6010	2 MG/KG	37200 MG/KG
LEAD (T)	7421	2.0 MG/KG	7.1 MG/KG
MANGANESE (T)	6010	1 MG/KG	20800 MG/KG
MERCURY (T)	6010	1 MG/KG	280 MG/KG
NICKEL (T)	7074	0.01 MG/KG	0.13 MG/KG
GLYCEROL (T)	6010	10 MG/KG	BDL MG/KG
IRON (T)	6010	2 MG/KG	29 MG/KG
SILICON (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	9900 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	9700 MG/KG
ZINC (T)	6010	10 MG/KG	BDL MG/KG
STRONTIUM (T)	6010	1 MG/KG	28 MG/KG
THALLIUM (T)	6010	1 MG/KG	60 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	9640 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
BROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	18800 MG/KG

BDL BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

A Division of



U.S.
POLLUTION
CONTROL, INC.

DOUG KENT
USPCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

WAYNOKA OK 73860

REPORT NUMBER: H035024

PAGE 3

SAMPLE IDENTIFICATION: 2089-02
CUSTOMER IDENTIFICATION: 151 315.0-316.5 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ELEMENT	REF. METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	24300 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	3.4 MG/KG
BARIUM (T)	6010	1 MG/KG	27 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7181	0.5 MG/KG	BDL MG/KG
BLENDIUM (T)	6010	1 MG/KG	32300 MG/KG
BROMINE (T)	6010	1 MG/KG	48 MG/KG
CADMIUM (T)	6010	2 MG/KG	20 MG/KG
CAESIUM (T)	6010	2 MG/KG	1 MG/KG
CAZ (T)	6010	2 MG/KG	19900 MG/KG
CAZ (T)	7421	2.0 MG/KG	21.5 MG/KG
CERNECIUM (T)	6010	1 MG/KG	35200 MG/KG
CHLORINE (T)	6010	1 MG/KG	260 MG/KG
CHROMIUM (T)	7074	0.01 MG/KG	0.11 MG/KG
COBALT (T)	6010	10 MG/KG	BDL MG/KG
COPPER (T)	6010	2 MG/KG	30 MG/KG
CRANIUM (T)	6010	10 MG/KG	BDL MG/KG
STRASSIUM (T)	6010	100 MG/KG	5800 MG/KG
TELURIUM (T)	7740	2.0 MG/KG	BDL MG/KG
TUNGSTEN (T)	6010	2 MG/KG	BDL MG/KG
THORIUM (T)	6010	10 MG/KG	13600 MG/KG
TALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	46 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	83 MG/KG
FLUORIDE	300.0	10 MG/KG	40 MG/KG
CHLORIDE	300.0	10 MG/KG	15000 MG/KG
TRITE	300.0	100 MG/KG	BDL MG/KG
ONIDE	300.0	10 MG/KG	BDL MG/KG
TRATE	300.0	10 MG/KG	BDL MG/KG
OSPHATE	300.0	10 MG/KG	BDL MG/KG
LFATE	300.0	10 MG/KG	19000 MG/KG

LOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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BOUG KENT
USPCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

WYNGRA OK 73860

REPORT NUMBER: H035024

PAGE 4

SAMPLE IDENTIFICATION: 2082-04
CUSTOMER IDENTIFICATION: T82 135.6-136.9 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECTION LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	35700 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	6.9 MG/KG
BARIUM (T)	6010	1 MG/KG	13 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	5500 MG/KG
CROMIUM (T)	6010	1 MG/KG	35 MG/KG
COPPER (T)	6010	2 MG/KG	14 MG/KG
CADMIUM (T)	6010	2 MG/KG	10 MG/KG
LEAD (T)	6010	2 MG/KG	38100 MG/KG
COBALT (T)	7421	2.0 MG/KG	7.9 MG/KG
CAESIUM (T)	6010	1 MG/KG	24400 MG/KG
COPPER (T)	6010	1 MG/KG	340 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.10 MG/KG
DIBYSDENUM (T)	6010	10 MG/KG	BDL MG/KG
DIETHYL (T)	6010	2 MG/KG	32 MG/KG
DIETHYL (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	13300 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
STRONTIUM (T)	6010	10 MG/KG	7500 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	18 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	69 MG/KG
BROMIDE	300.0	10 MG/KG	20 MG/KG
CHLORIDE	300.0	10 MG/KG	5600 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	6400 MG/KG

BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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DOUG KENT
USPLC - LONE MOUNTAIN
ROUTE 2 BOX 190A

WATNORA OK 73860

REPORT NUMBER: H055074

PAGE 5

SAMPLE IDENTIFICATION: 2002-05
CUSTOMER IDENTIFICATION: TB2 162.5-163.8
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYTE	REF. METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	40400 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7030	2.0 MG/KG	5.8 MG/KG
BARIUM (T)	6010	1 MG/KG	21 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	14300 MG/KG
CHROMIUM (T)	6010	1 MG/KG	39 MG/KG
COPPER (T)	6010	2 MG/KG	14 MG/KG
CADMIUM (T)	6010	2 MG/KG	5 MG/KG
COBALT (T)	6010	2 MG/KG	35100 MG/KG
LEAD (T)	7421	2.0 MG/KG	7.6 MG/KG
CELESIUM (T)	6010	1 MG/KG	28100 MG/KG
CERAMIC (T)	6010	1 MG/KG	400 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.13 MG/KG
GLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
IRON (T)	6010	2 MG/KG	31 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	15800 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	8000 MG/KG
HALLIUM (T)	6010	10 MG/KG	BDL MG/KG
STRONTIUM (T)	6010	1 MG/KG	52 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	77 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	5700 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	13600 MG/KG

BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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USFCI - LONE MOUNTAIN
ROUTE 2 BOX 190A

DAYTONA OK 73840

REPORT NUMBER: H035024

PAGE 6

SAMPLE IDENTIFICATION: 2082-06
CUSTOMER IDENTIFICATION: T82 271.8-273.2'E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	23000 MG/KG
ANTHRONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	16.0 MG/KG
BARIUM (T)	6010	1 MG/KG	8 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
CADMIUM (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	31200 MG/KG
CHROMIUM (T)	6010	1 MG/KG	22 MG/KG
COBALT (T)	6010	2 MG/KG	12 MG/KG
COPPER (T)	6010	2 MG/KG	9 MG/KG
LEAD (T)	6010	2 MG/KG	30300 MG/KG
FEAD (T)	7421	2.0 MG/KG	9.3 MG/KG
AGNESIUM (T)	6010	1 MG/KG	20900 MG/KG
MANGANESE (T)	6010	1 MG/KG	260 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.14 MG/KG
GLYCERUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	30 MG/KG
NIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	7800 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SOLIM (T)	6010	10 MG/KG	3400 MG/KG
TALLIUM (T)	6010	10 MG/KG	BDL MG/KG
THASIIUM (T)	6010	1 MG/KG	25 MG/KG
ZINC (T)	6010	1 MG/KG	60 MG/KG
FLORIDE	300.0	10 MG/KG	40 MG/KG
HLORIDE	300.0	10 MG/KG	7600 MG/KG
TRITE	300.0	100 MG/KG	BDL MG/KG
RONIDE	300.0	10 MG/KG	BDL MG/KG
TRATE	300.0	10 MG/KG	BDL MG/KG
OSPHATE	300.0	10 MG/KG	BDL MG/KG
LFATE	300.0	10 MG/KG	18000 MG/KG

LOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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ROUTE 2 BOX 180A

WAYNOKA OK 75260

REPORT NUMBER: H035024

PAGE 7

SAMPLE IDENTIFICATION: 2052-07
CUSTOMER IDENTIFICATION: TSS 47.5-49.2
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	26700 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	45.8 MG/KG
BARIUM (T)	6010	1 MG/KG	19 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	22300 MG/KG
CHROMIUM (T)	6010	1 MG/KG	36 MG/KG
COPPER (T)	6010	2 MG/KG	17 MG/KG
CADMIUM (T)	6010	2 MG/KG	40 MG/KG
LEAD (T)	7421	2.0 MG/KG	58.9 MG/KG
AGNESIUM (T)	6010	1 MG/KG	22400 MG/KG
MANGANESE (T)	6010	1 MG/KG	390 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.23 MG/KG
MOYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	35 MG/KG
SODIUM (T)	6010	10 MG/KG	BDL MG/KG
STASSIUM (T)	6010	100 MG/KG	10800 MG/KG
TELURIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
ZINC (T)	6010	10 MG/KG	6400 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
THANIUM (T)	6010	1 MG/KG	85 MG/KG
LEAD (T)	6010	1 MG/KG	112 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	5300 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	20900 MG/KG

LOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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USPCI - LONE MOUNTAIN
ROUTE 2 BOX 199A

WAYNOKA OK 73860

SPORT NUMBER: H035024

PAGE #

SAMPLE IDENTIFICATION: 2092-08
CUSTOMER IDENTIFICATION: TBS 72.0-74.0
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYTE	REF. METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	4 MG/KG	34500 MG/KG
ANTIMONY (T)	6010	4 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	5.6 MG/KG
BARIUM (T)	6010	1 MG/KG	7 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	3000 MG/KG
CHROMIUM (T)	6010	1 MG/KG	35 MG/KG
COPPER (T)	6010	2 MG/KG	15 MG/KG
CADMIUM (T)	6010	2 MG/KG	8 MG/KG
LEAD (T)	7421	2.0 MG/KG	8.6 MG/KG
COBALT (T)	6010	1 MG/KG	20200 MG/KG
CAESIUM (T)	6010	1 MG/KG	250 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.09 MG/KG
DYBENIUM (T)	6010	10 MG/KG	BDL MG/KG
ICKEL (T)	6010	2 MG/KG	41 MG/KG
STRONCIUM (T)	6010	10 MG/KG	BDL MG/KG
NISSIUM (T)	6010	100 MG/KG	14900 MG/KG
ELONIUM (T)	7740	2.0 MG/KG	BDL MG/KG
LLVER (T)	6010	2 MG/KG	BDL MG/KG
OGONIUM (T)	6010	10 MG/KG	11700 MG/KG
ALLIUM (T)	6010	10 MG/KG	BDL MG/KG
ANADIUM (T)	6010	1 MG/KG	16 MG/KG
INS (T)	6010	1 MG/KG	80 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
HLORIDE	300.0	10 MG/KG	5300 MG/KG
ITRITE	300.0	100 MG/KG	BDL MG/KG
ROMIDE	300.0	10 MG/KG	BDL MG/KG
ETRATE	300.0	10 MG/KG	BDL MG/KG
OSPHATE	300.0	10 MG/KG	BDL MG/KG
LFATE	300.0	10 MG/KG	3900 MG/KG

BDL BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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USPCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

WARRICKA OK 73860

REPORT NUMBER: H035024

PAGE 9

SAMPLE IDENTIFICATION: 2082-09
CUSTOMER IDENTIFICATION: TB4 41.5-43.0 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECTION LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	34600 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	10.2 MG/KG
BARIUM (T)	6010	1 MG/KG	3 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7101	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	14100 MG/KG
CROMIUM (T)	6010	1 MG/KG	41 MG/KG
COPPER (T)	6010	2 MG/KG	7 MG/KG
CADMIUM (T)	6010	2 MG/KG	8 MG/KG
LEAD (T)	7421	2.0 MG/KG	10.5 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	19800 MG/KG
MANGANESE (T)	6010	1 MG/KG	260 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.16 MG/KG
MOYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	43 MG/KG
NIOBIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	13500 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	3300 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	30 MG/KG
ZINC (T)	6010	1 MG/KG	85 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	5700 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	20900 MG/KG

BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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USPCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

GAYNOKA OK 75360

REPORT NUMBER: HQ35024

PAGE 10

SAMPLE IDENTIFICATION: 2082-10
CUSTOMER IDENTIFICATION: Y84 85.3-67.1 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	35300 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	BDL MG/KG
BARIUM (T)	6010	1 MG/KG	250 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	2 MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	16900 MG/KG
CHROMIUM (T)	6010	1 MG/KG	30 MG/KG
COBALT (T)	6010	2 MG/KG	14 MG/KG
COPPER (T)	6010	2 MG/KG	15 MG/KG
IRON (T)	6010	2 MG/KG	40100 MG/KG
LEAD (T)	7421	2.0 MG/KG	10.1 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	24200 MG/KG
MANGANESE (T)	6010	1 MG/KG	370 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.15 MG/KG
MOLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	30 MG/KG
NILUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	16000 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	7900 MG/KG
TALLIUM (T)	6010	10 MG/KG	BDL MG/KG
THORIUM (T)	6010	1 MG/KG	71 MG/KG
ZINC (T)	6010	1 MG/KG	65 MG/KG
FLUORIDE	300.0	10 MG/KG	40 MG/KG
CHLORIDE	300.0	10 MG/KG	8900 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	36000 MG/KG

BDL BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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BOUG KENT
USPCI - LORE MOUNTAIN
ROUTE 2 BOX 1604

WAYNOKA OK 73560

REPORT NUMBER: H035024

PAGE 11

SAMPLE IDENTIFICATION: 2082-11
CUSTOMER IDENTIFICATION: T85 99.8-101.0 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ELEMENT	REEL METHOD	DETECTION LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	35300 MG/KG
ANTHRONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	BDL MG/KG
BARIUM (T)	6010	1 MG/KG	190 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
BLENDIUM (T)	6010	1 MG/KG	9560 MG/KG
BROMINE (T)	6010	1 MG/KG	41 MG/KG
CELESTIUM (T)	6010	2 MG/KG	11 MG/KG
CHLORINE (T)	6010	2 MG/KG	10 MG/KG
COPPER (T)	6010	2 MG/KG	48900 MG/KG
CAD (T)	7421	2.0 MG/KG	BDL MG/KG
MAGNESIUM (T)	6010	1 MG/KG	26100 MG/KG
MANGANESE (T)	6010	1 MG/KG	380 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.14 MG/KG
MOLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	40 MG/KG
NIOBIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	14300 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	10800 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
SODIUM (T)	6010	1 MG/KG	41 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	80 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	9200 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
FORMIDE	300.0	10 MG/KG	BDL MG/KG
TRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	18700 MG/KG

LOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

A Division of

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CONTROL, INC.

DOUG KENT
USPCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

WAYNOKA OK 73860

REPORT NUMBER: H035024

PAGE 12

AMPLF IDENTIFICATION: 2082-12
CUSTOMER IDENTIFICATION: T86 31.5-33 0 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECTION LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	22000 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	11.8 MG/KG
BARIUM (T)	6010	1 MG/KG	270 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	9190 MG/KG
CHROMIUM (T)	6010	1 MG/KG	25 MG/KG
COPPER (T)	6010	2 MG/KG	10 MG/KG
CADMIUM (T)	6010	2 MG/KG	7 MG/KG
LEAD (T)	6010	2 MG/KG	37200 MG/KG
IRON (T)	7421	2.0 MG/KG	9.6 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	10700 MG/KG
MANGANESE (T)	6010	1 MG/KG	330 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.16 MG/KG
METHYLBENZENE (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	29 MG/KG
NIOBIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	10300 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	7060 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	27 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	56 MG/KG
FLUORIDE	300.0	10 MG/KG	20 MG/KG
CHLORIDE	300.0	10 MG/KG	5200 MG/KG
NITRATE	300.0	100 MG/KG	BDL MG/KG
AMMONIUM	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	5400 MG/KG

BDL = BELOW DETECTION LIMIT

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WYNOKA

OK 73860

REPORT NUMBER: M035024

PAGE 13

APPLE IDENTIFICATION: 2082-13
CUSTOMER IDENTIFICATION: T56 40.4-41.5 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYTE	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	25300 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	18.6 MG/KG
BARIUM (T)	6010	1 MG/KG	300 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CAESIUM (T)	6010	1 MG/KG	5300 MG/KG
CADMIUM (T)	6010	1 MG/KG	31 MG/KG
CAZMIUM (T)	6010	2 MG/KG	9 MG/KG
COBALT (T)	6010	2 MG/KG	10 MG/KG
COPPER (T)	6010	2 MG/KG	34900 MG/KG
CROCODIUM (T)	7421	2.0 MG/KG	14.3 MG/KG
GADOLINIUM (T)	6010	1 MG/KG	19400 MG/KG
GALLIUM (T)	6010	1 MG/KG	320 MG/KG
GERMANIUM (T)	7074	0.01 MG/KG	0.18 MG/KG
HAFNIUM (T)	6010	10 MG/KG	BDL MG/KG
HOLMIUM (T)	6010	2 MG/KG	32 MG/KG
INDIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	11900 MG/KG
LEAD (T)	7740	2.0 MG/KG	BDL MG/KG
LITHIUM (T)	6010	2 MG/KG	BDL MG/KG
LUTETIUM (T)	6010	10 MG/KG	7130 MG/KG
MAGNESIUM (T)	6010	10 MG/KG	BDL MG/KG
MANGANESE (T)	6010	1 MG/KG	28 MG/KG
MERCUURY (T)	6010	1 MG/KG	67 MG/KG
MOLYBDENUM (T)	300.0	10 MG/KG	40 MG/KG
NICKEL (T)	300.0	10 MG/KG	6500 MG/KG
NITRITENITRIDE	300.0	100 MG/KG	BDL MG/KG
NITRIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
PLATE	300.0	10 MG/KG	4600 MG/KG

LOW DETECTION LIMIT

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ROUTE 2 BOX 180A

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REPORT NUMBER: H035024

PAGE 14

SAMPLE IDENTIFICATION: 2062-14
CUSTOMER IDENTIFICATION: TB6 73.5-74.5 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYTE	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	30200 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	7.5 MG/KG
BARIUM (T)	6010	1 MG/KG	390 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
BLEAD (T)	6010	1 MG/KG	22200 MG/KG
BROMINE (T)	6010	1 MG/KG	35 MG/KG
CAESIUM (T)	6010	2 MG/KG	12 MG/KG
CADMIUM (T)	6010	2 MG/KG	17 MG/KG
CHROMIUM (T)	6010	2 MG/KG	35700 MG/KG
COPPER (T)	7421	2.0 MG/KG	12.1 MG/KG
COBALT (T)	6010	1 MG/KG	42200 MG/KG
IRON (T)	6010	1 MG/KG	590 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.19 MG/KG
NIOBIUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	30 MG/KG
NIHON (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	8200 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	9500 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	47 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	80 MG/KG
FLUORIDE	300.0	10 MG/KG	40 MG/KG
CHLORIDE	300.0	10 MG/KG	8300 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	22500 MG/KG

BDL = BELOW DETECTION LIMIT

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REPORT NUMBER: W025024

PAGE 15

SAMPLE IDENTIFICATION: 2092-15
CUSTOMER IDENTIFICATION: T&E 96-97.5
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	38600 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	8.9 MG/KG
BARIUM (T)	6010	1 MG/KG	260 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	15200 MG/KG
CARBON (T)	6010	1 MG/KG	46 MG/KG
CHLORINE (T)	6010	2 MG/KG	13 MG/KG
COPPER (T)	6010	2 MG/KG	10 MG/KG
CHROMIUM (T)	6010	2 MG/KG	48100 MG/KG
LEAD (T)	7421	2.0 MG/KG	10.7 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	34200 MG/KG
MANGANESE (T)	6010	1 MG/KG	410 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.16 MG/KG
MOLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	43 MG/KG
POTASSIUM (T)	6010	10 MG/KG	BDL MG/KG
STRONTIUM (T)	6010	100 MG/KG	14600 MG/KG
TANTALUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	11100 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TITANIUM (T)	6010	1 MG/KG	56 MG/KG
ZINC (T)	6010	1 MG/KG	97 MG/KG
FLUORIDE	300.0	10 MG/KG	90 MG/KG
CHLORIDE	300.0	10 MG/KG	11100 MG/KG
NITRATE	300.0	100 MG/KG	BDL MG/KG
BROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	29500 MG/KG

BELOW DETECTION LIMIT

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REPORT NUMBER: H035024

PAGE 16

SAMPLE IDENTIFICATION: 2092-16
CUSTOMER IDENTIFICATION: T86 106.5-107.7 E
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	25900 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7050	2.0 MG/KG	6.9 MG/KG
BARIUM (T)	6010	1 MG/KG	390 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
CADMIUM (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	21300 MG/KG
CHROMIUM (T)	6010	1 MG/KG	28 MG/KG
COPPER (T)	6010	2 MG/KG	11 MG/KG
COBALT (T)	6010	2 MG/KG	70 MG/KG
IRON (T)	6010	2 MG/KG	28700 MG/KG
LEAD (T)	7421	2.0 MG/KG	7.7 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	41300 MG/KG
MANGANESE (T)	6010	1 MG/KG	570 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.82 MG/KG
NIOBENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	29 MG/KG
PHOSPHORUS (T)	6010	10 MG/KG	BDL MG/KG
NIOBIUM (T)	6010	100 MG/KG	6500 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	10700 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	34 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	73 MG/KG
FLUORIDE	300.0	10 MG/KG	40 MG/KG
CHLORIDE	300.0	10 MG/KG	5200 MG/KG
NITRIDE	300.0	100 MG/KG	BDL MG/KG
SULFIDE	300.0	10 MG/KG	BDL MG/KG
CYANIDE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	18400 MG/KG

BELOW DETECTION LIMIT

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REPORT NUMBER: H035024

PAGE 17

SAMPLE IDENTIFICATION: 2082-17
CUSTOMER IDENTIFICATION: T814 71.0-72.2
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ELEMENT	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	32300 MG/KG
ANTHRONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	2.1 MG/KG
BARIUM (T)	6010	1 MG/KG	160 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	6250 MG/KG
CERMIUM (T)	6010	1 MG/KG	37 MG/KG
CELEST (T)	6010	2 MG/KG	11 MG/KG
CHLORINE (T)	6010	2 MG/KG	8 MG/KG
CHROMIUM (T)	6010	2 MG/KG	3200 MG/KG
COPPER (T)	7421	2.0 MG/KG	6.3 MG/KG
CYANIDE (T)	6010	1 MG/KG	28100 MG/KG
DIAPHRASE (T)	6010	1 MG/KG	300 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.20 MG/KG
DIETHYLENE (T)	6010	10 MG/KG	BDL MG/KG
COCKEL (T)	6010	2 MG/KG	35 MG/KG
COBALT (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	6300 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
IODINE (T)	6010	10 MG/KG	9200 MG/KG
LITHIUM (T)	6010	10 MG/KG	BDL MG/KG
RADIUM (T)	6010	1 MG/KG	51 MG/KG
LEAD (T)	6010	1 MG/KG	75 MG/KG
FLUORIDE	300.0	10 MG/KG	60 MG/KG
CHLORIDE	300.0	10 MG/KG	3700 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
CHROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	9600 MG/KG

LOW DETECTION LIMIT

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ROUTE 2 BOX 180A

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REPORT NUMBER: H035024

PAGE 18

SAMPLE IDENTIFICATION: 2082-18
CUSTOMER IDENTIFICATION: T814 91.5-93.0
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	27100 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	7.0 MG/KG
BARIUM (T)	6010	1 MG/KG	510 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	22100 MG/KG
CHROMIUM (T)	6010	1 MG/KG	32 MG/KG
COPPER (T)	6010	2 MG/KG	15 MG/KG
CADMIUM (T)	6010	2 MG/KG	13 MG/KG
LEAD (T)	6010	2 MG/KG	31100 MG/KG
COBALT (T)	7421	2.0 MG/KG	6.0 MG/KG
IRON (T)	6010	1 MG/KG	41600 MG/KG
MANGANESE (T)	6010	1 MG/KG	340 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.18 MG/KG
NICKEL (T)	6010	10 MG/KG	BDL MG/KG
ZINC (T)	6010	2 MG/KG	28 MG/KG
SILICON (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	6900 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	12100 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TITANIUM (T)	6010	1 MG/KG	37 MG/KG
URANIUM (T)	6010	1 MG/KG	74 MG/KG
FLUORIDE	300.0	10 MG/KG	80 MG/KG
CHLORIDE	300.0	10 MG/KG	5700 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	17800 MG/KG

BDL BELOW DETECTION LIMIT

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REPORT NUMBER: H035024

PAGE 19

SAMPLE IDENTIFICATION: 2082-19
CUSTOMER IDENTIFICATION: TB14 108.5-110.0
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

ANALYTE	REEL...METHOD	DET...LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	19200 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	3.8 MG/KG
BARIUM (T)	6010	1 MG/KG	130 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	22900 MG/KG
CERMIUM (T)	6010	1 MG/KG	28 MG/KG
COBALT (T)	6010	2 MG/KG	9 MG/KG
COPPER (T)	6010	2 MG/KG	66 MG/KG
CHROMIUM (T)	6010	2 MG/KG	21700 MG/KG
LEAD (T)	7421	2.0 MG/KG	22.1 MG/KG
MANGANESE (T)	6010	1 MG/KG	26100 MG/KG
MANGANESE (T)	6010	1 MG/KG	230 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.20 MG/KG
MOLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	17 MG/KG
NIOBIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	5600 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	12300 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
TANTALUM (T)	6010	1 MG/KG	40 MG/KG
TUNGSTEN (T)	6010	1 MG/KG	59 MG/KG
FLUORIDE	300.0	10 MG/KG	90 MG/KG
CHLORIDE	300.0	10 MG/KG	13600 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	18200 MG/KG

BELOW DETECTION LIMIT

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ROUTE 2 BOX 180A

WYBOKA OK 73860

REPORT NUMBER: H035024

PAGE 20

SAMPLE IDENTIFICATION: 2082-20
CUSTOMER IDENTIFICATION: TB14 163.0-164.5
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DETECTION LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	6940 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	2.0 MG/KG
BARIUM (T)	6010	1 MG/KG	17 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
CADMIUM (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	9550 MG/KG
CERMIUM (T)	6010	1 MG/KG	34 MG/KG
COBALT (T)	6010	2 MG/KG	9 MG/KG
CHROMIUM (T)	6010	2 MG/KG	11 MG/KG
COPPER (T)	6010	2 MG/KG	10200 MG/KG
LEAD (T)	7421	2.0 MG/KG	5.2 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	14000 MG/KG
MANGANESE (T)	6010	1 MG/KG	380 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.17 MG/KG
MOLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	15 MG/KG
POTASSIUM (T)	6010	10 MG/KG	BDL MG/KG
STRONTIUM (T)	6010	100 MG/KG	2300 MG/KG
TANTALUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	22300 MG/KG
THALLIUM (T)	6010	10 MG/KG	BDL MG/KG
TUNGSTEN (T)	6010	1 MG/KG	19 MG/KG
ZINC (T)	6010	1 MG/KG	24 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	19000 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	2300 MG/KG

BDL BELOW DETECTION LIMIT

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REPORT NUMBER: H035024

PAGE 21

SAMPLE IDENTIFICATION: 2082-21
CUSTOMER IDENTIFICATION: TB14 227.5-229.0
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	10900 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	3.7 MG/KG
BARIUM (T)	6010	1 MG/KG	30 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	43300 MG/KG
CHROMIUM (T)	6010	1 MG/KG	22 MG/KG
COPPER (T)	6010	2 MG/KG	4 MG/KG
CADMIUM (T)	6010	2 MG/KG	11 MG/KG
LEAD (T)	7421	2.0 MG/KG	17900 MG/KG
MAGNESIUM (T)	7421	2.0 MG/KG	9.0 MG/KG
MANGANESE (T)	6010	1 MG/KG	27200 MG/KG
MERCURY (T)	6010	1 MG/KG	700 MG/KG
MOLYBDENUM (T)	7074	0.01 MG/KG	0.18 MG/KG
NICKEL (T)	6010	10 MG/KG	BDL MG/KG
COBALT (T)	6010	2 MG/KG	11 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	3400 MG/KG
SELENIUM (T)	6010	2.0 MG/KG	BDL MG/KG
SILVER (T)	7740	2.0 MG/KG	BDL MG/KG
SODIUM (T)	6010	2 MG/KG	BDL MG/KG
THALLIUM (T)	6010	10 MG/KG	15700 MG/KG
TANTALUM (T)	6010	10 MG/KG	BDL MG/KG
VANADIUM (T)	6010	1 MG/KG	24 MG/KG
ZINC (T)	6010	1 MG/KG	40 MG/KG
FLUORIDE	300.0	10 MG/KG	30 MG/KG
CHLORIDE	300.0	10 MG/KG	22900 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
BROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	22900 MG/KG

BDL BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

A Division of

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POLLUTION
CONTROL, INC.

DOUG KENT
USFCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

WAYNOKA OK 73860

REPORT NUMBER: H038024

PAGE 22

SAMPLE IDENTIFICATION: 2062-22
CUSTOMER IDENTIFICATION: T814 328.0-329.5
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	16500 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	8.0 MG/KG
BARIUM (T)	6010	1 MG/KG	120 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BORON (T)	7131	0.5 MG/KG	BDL MG/KG
CALCIUM (T)	6010	1 MG/KG	24900 MG/KG
CHROMIUM (T)	6010	1 MG/KG	25 MG/KG
COBALT (T)	6010	2 MG/KG	11 MG/KG
COPPER (T)	6010	2 MG/KG	9 MG/KG
IRON (T)	6010	2 MG/KG	24200 MG/KG
LEAD (T)	7421	2.0 MG/KG	16.5 MG/KG
MAGNESIUM (T)	6010	1 MG/KG	25500 MG/KG
MANGANESE (T)	6010	1 MG/KG	350 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.18 MG/KG
MOLYBDENUM (T)	6010	10 MG/KG	BDL MG/KG
NICKEL (T)	6010	2 MG/KG	18 MG/KG
NIOBIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	5000 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	17700 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
TUNGSTEN (T)	6010	1 MG/KG	30 MG/KG
ZINC (T)	6010	1 MG/KG	51 MG/KG
FLUORIDE	300.0	10 MG/KG	40 MG/KG
CHLORIDE	300.0	10 MG/KG	27900 MG/KG
NITRITE	300.0	100 MG/KG	BDL MG/KG
BROMIDE	300.0	10 MG/KG	BDL MG/KG
NITRATE	300.0	10 MG/KG	BDL MG/KG
PHOSPHATE	300.0	10 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	16700 MG/KG

BDL BELOW DETECTION LIMIT

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OSPCI - LORE MOUNTAIN
ROUTE 2 BOX 180A

WAYNOKA OK 73800

REPORT NUMBER: R035024

PAGE 23

SAMPLE IDENTIFICATION: 2081-23
CUSTOMER IDENTIFICATION: T514 363.0-364.5
DATE SAMPLED:
TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
DATE COMPLETED: 8/31/87

PARAMETER	REEL METHOD	DETECT. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	10900 MG/KG
ANTIMONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	BDL MG/KG
BARIUM (T)	6010	1 MG/KG	23 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7151	0.5 MG/KG	BDL MG/KG
CADMIUM (T)	6010	1 MG/KG	30100 MG/KG
CAESIUM (T)	6010	1 MG/KG	29 MG/KG
COBALT (T)	6010	2 MG/KG	11 MG/KG
COPPER (T)	6010	2 MG/KG	26 MG/KG
CHROMIUM (T)	6010	2 MG/KG	15600 MG/KG
LEAD (T)	7421	2.0 MG/KG	BDL MG/KG
GHANESE (T)	6010	1 MG/KG	12600 MG/KG
GERMANIUM (T)	6010	1 MG/KG	170 MG/KG
MERCURY (T)	7074	0.01 MG/KG	0.15 MG/KG
GLYCEROL (T)	6010	10 MG/KG	BDL MG/KG
IRON (T)	6010	2 MG/KG	21 MG/KG
STRONTIUM (T)	6010	10 MG/KG	BDL MG/KG
POTASSIUM (T)	6010	100 MG/KG	3500 MG/KG
SELENIUM (T)	7740	2.0 MG/KG	BDL MG/KG
SILVER (T)	6010	2 MG/KG	BDL MG/KG
SODIUM (T)	6010	10 MG/KG	60700 MG/KG
TALLIUM (T)	6010	10 MG/KG	BDL MG/KG
THALLIUM (T)	6010	1 MG/KG	26 MG/KG
ZINC (T)	6010	1 MG/KG	35 MG/KG
FLUORIDE	300.0	50 MG/KG	160 MG/KG
CHLORIDE	300.0	10 MG/KG	98600 MG/KG
NITRITE	300.0	500 MG/KG	BDL MG/KG
NITRATE	300.0	50 MG/KG	BDL MG/KG
PHOSPHATE	300.0	50 MG/KG	BDL MG/KG
SULFATE	300.0	10 MG/KG	28000 MG/KG

BDL BELOW DETECTION LIMIT

NATIONAL ANALYTICAL LABORATORIES

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BOUD MENT
USPCI - LONE MOUNTAIN
ROUTE 2 BOX 180A

WAYNOKA OK 73860

LABOR NUMBER: H085024

PAGE 24

SAMPLE IDENTIFICATION: 2082-24
 SYSTEM IDENTIFICATION: T814 391.0-392.5
 DATE SAMPLED:
 TYPE OF MATERIAL: SOIL

DATE RECEIVED: 8/14/87
 DATE COMPLETED: 8/31/87

ANALYTE	REF. METHOD	DET. LIMIT	RESULT
ALUMINUM (T)	6010	6 MG/KG	14200 MG/KG
ANTHRONY (T)	6010	6 MG/KG	BDL MG/KG
ARSENIC (T)	7060	2.0 MG/KG	BDL MG/KG
BARIUM (T)	6010	1 MG/KG	110 MG/KG
BERYLLIUM (T)	6010	1 MG/KG	BDL MG/KG
BISMUTH (T)	7131	0.5 MG/KG	BDL MG/KG
BLENDIUM (T)	6010	1 MG/KG	33100 MG/KG
BROMINE (T)	6010	1 MG/KG	25 MG/KG
BORON (T)	6010	2 MG/KG	9 MG/KG
CAESIUM (T)	6010	2 MG/KG	15 MG/KG
CADMIUM (T)	6010	2 MG/KG	21000 MG/KG
CAD (T)	7421	2.0 MG/KG	500 MG/KG
CALCIUM (T)	6010	1 MG/KG	21500 MG/KG
CARBON (T)	6010	1 MG/KG	300 MG/KG
CERURIUM (T)	7074	0.01 MG/KG	0.17 MG/KG
CHLORINE (T)	6010	10 MG/KG	200 MG/KG
CHROMIUM (T)	6010	2 MG/KG	24 MG/KG
COBALT (T)	6010	10 MG/KG	BDL MG/KG
COPPER (T)	6010	100 MG/KG	3700 MG/KG
CROMIUM (T)	7740	2.0 MG/KG	500 MG/KG
CYANIDE (T)	6010	2 MG/KG	BDL MG/KG
DIAPHR (T)	6010	10 MG/KG	41000 MG/KG
GALLIUM (T)	6010	10 MG/KG	BDL MG/KG
GERMIUM (T)	6010	1 MG/KG	30 MG/KG
GOLD (T)	6010	1 MG/KG	46 MG/KG
IODIDE	300.0	50 MG/KG	120 MG/KG
FLORIDE	300.0	10 MG/KG	72500 MG/KG
TRITE	300.0	500 MG/KG	BDL MG/KG
OMIDE	300.0	50 MG/KG	BDL MG/KG
TRATE	300.0	50 MG/KG	BDL MG/KG
OSPHATE	300.0	50 MG/KG	BDL MG/KG
LFATE	300.0	10 MG/KG	27400 MG/KG

LOW DETECTION LIMIT

TABLE 3
WHOLE ROCK ELEMENTAL ANALYSIS

ELEMENTS	RANGE OF DETECTABLES (MG/KG)
Aluminum	6940.0 to 40400.0
Arsenic	BDL to 45.3
Barium	3 to 510.0
Beryllium	BDL to 2.0 (1 Sample)
Calcium	3000.0 to 43300.0
Chromium	22.0 to 46.0
Cobalt	4.0 to 20.0
Copper	5.0 to 70.0
Iron	3200.0 to 48100.0
Lead	BDL to 58.9
Magnesium	12600.0 to 42200.0
Manganese	150.0 to 700.0
Mercury	0.09 to 0.82
Nickel	11.0 to 46.0
Potassium	2300.0 to 16000.0
Sodium	6400.0 to 60700.0
Vanadium	16.0 to 85.0
Zinc	24.0 to 112.0
Fluoride	20.0 to 160.0
Chloride	3700.0 to 98600.0
Sulfate	2300.0 to 36000.0

ELEMENTAL ANALYSIS

MEAN CONCENTRATIONS OF ELEMENTS

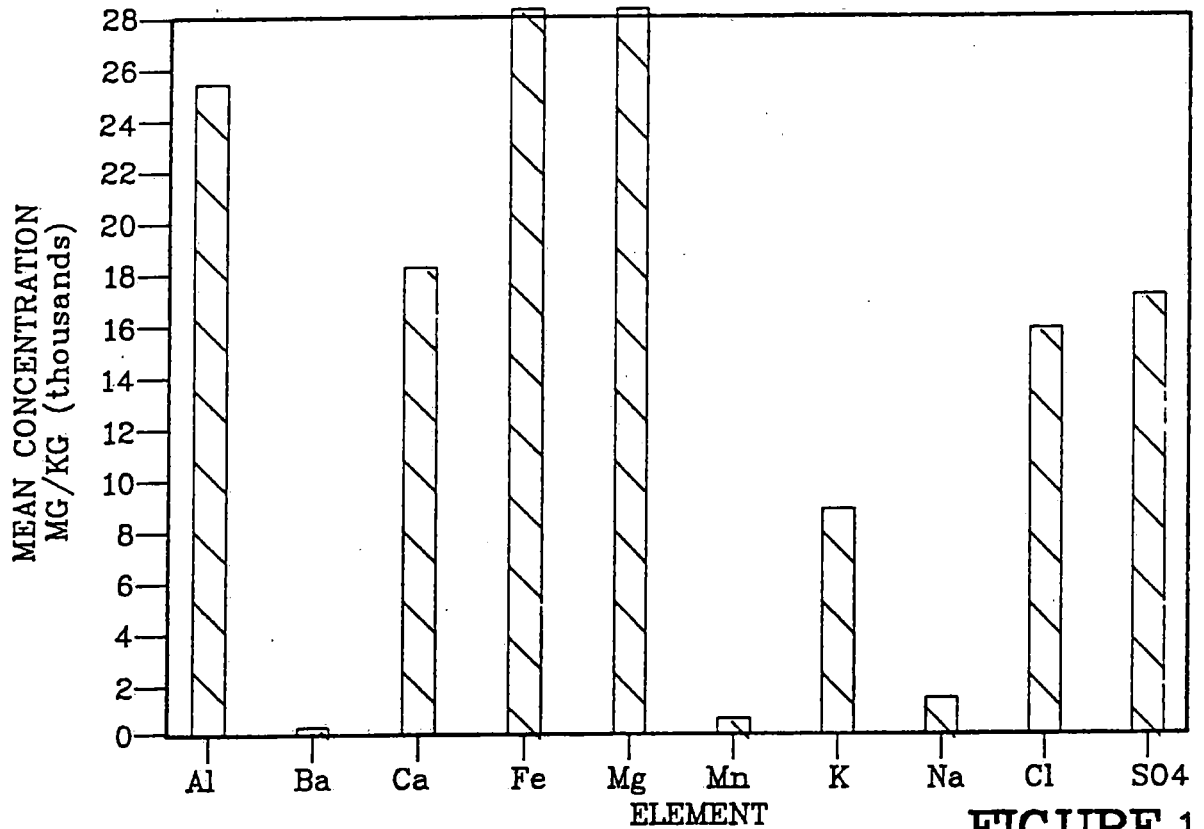


FIGURE 1

ELEMENTAL ANALYSIS

MEAN CONCENTRATIONS OF ELEMENTS

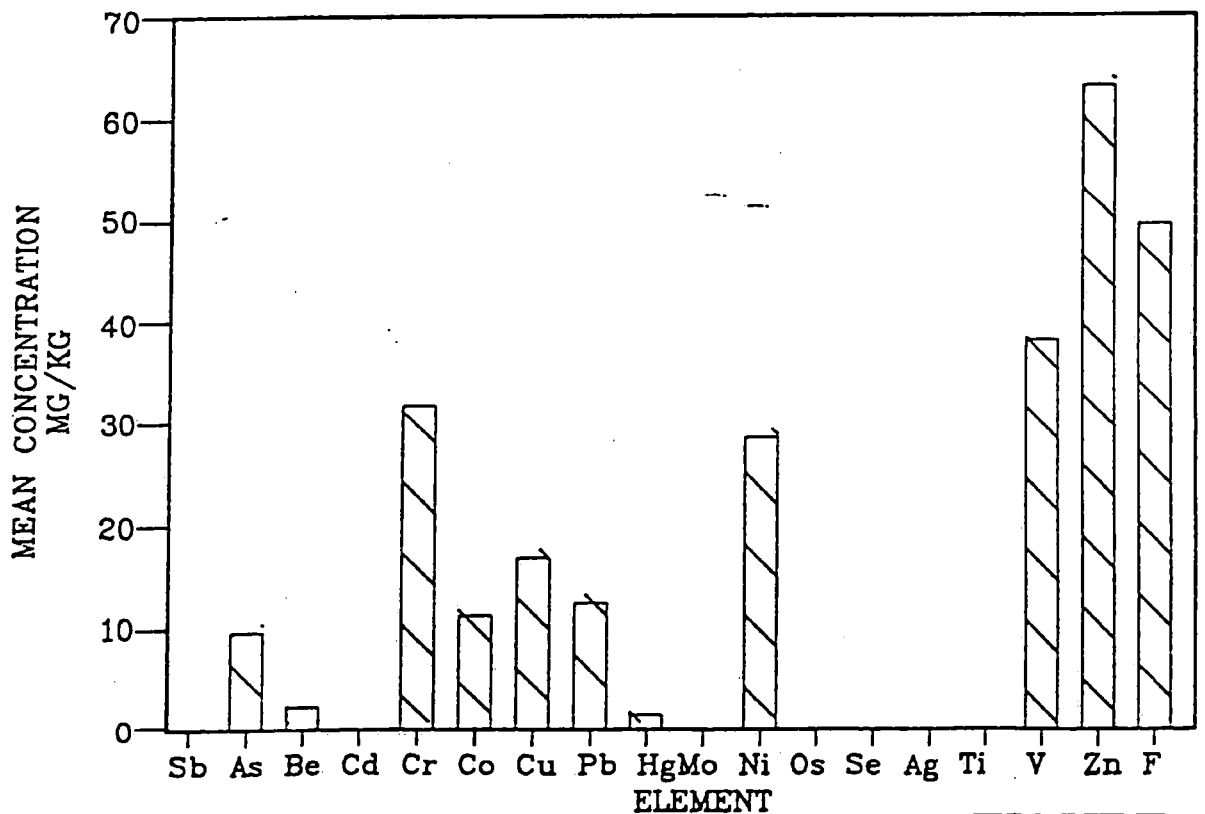


FIGURE 2

TABLE 7
X-Ray Diffraction
Analysis of Core Samples From LB-3

Sample ID		Clay Minerals				Non-Clay Minerals					
No.	Depth	Illite	Mixed-layer Clay (Illite-Smectite and Swelling Clay)	Montmorillonite	Kaolinite	Quartz	Plagioclase	K-feldspar	Ferrous Carbonate	Gypsum	Calcite
1	14.0'	31	≤ 10	0	Tr	31	7	3	15	3	0
2	21.5'	48	≤ 10	0	Tr	31	11	0	0	0	0
3	29.5'	56	≤ 10	0	0	25	4	0	Tr	5	0
4	44.0'	40	≤ 10	0	Tr	36	14	0	Tr	0	0
5	76.0'	44	≤ 10	0	Tr	38	8	Tr	Tr	0	0
6	82.0'	11	≤ 10	0	0	28	7	3	19	8	15
7	14-19'	30	≤ 10	0	0	52	5	3	Tr	0	0
8	34-38'	25	0	0	0	53	12	0	Tr	0	0

RECEIVED SEP 5 1987

September 1, 1987

Dr. Doug Kent
MDK Consultants Inc.
Rt 3, P.O. Box 83
Stillwater, OK 74074

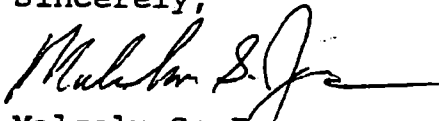
Dear Dr. Kent,

As you requested, here are the visual estimates by thin section of the silt-size particles in the samples (Site Characterization No. 3187108) on which we did X-ray diffraction:

TB - 1 (314.7') : 1% silt
TB - 3 (73.3') : 4% silt
TB - 4 (71.0') : 1 - 2% silt
TB - 6 (24.5') : 4 - 6% silt.

If you have any questions regarding the thin section data or X-ray data or if you have any problems, please do not hesitate to call.

Sincerely,



Malcolm S. Jones
X-ray Diffraction Specialist
Core Lab

Litton

Core Lab

X-RAY DIFFRACTION ANALYSES

FOR

**UNITED STATES POLLUTION CONTROL, INC.
SITE CHARACTERIZATION NO.: 3187108**

Litton

Core Lab

August 26, 1987

United States Pollution Control, Inc.
2000 Classen Blvd., Suite 400 South
Oklahoma City, OK 73106

Attention: Mr. Roy Murphey

Subject: X-Ray Diffraction Analyses
File: 187131
Site Characterization No.: 3187108

Dear Mr. Murphey:

This report presents the results of X-Ray Diffraction (XRD) analyses performed on four (4) samples. The samples were received by the Reservoir Geology/Petrographic Services Group, Geological Sciences Department, Core Laboratories, Irving, Texas on August 12, 1987.

XRD DATA


The XRD analyses were performed in order to identify and quantify the minerals in the whole-rock and clay fractions. The X-Ray Diffraction data are presented in Table 1. The analytical procedures for these analyses are outlined in Appendix 1.


Our policy is to store the samples received for XRD analyses for six months free of charge. Unless we receive other instructions from you, we will discard these samples in one hundred eighty days. Please advise us if you want the samples returned C.O.D. to you, or we can arrange to store them for a small monthly charge.

It has been a pleasure performing this study for United States Pollution Control, Inc.. Should any questions arise, or if we can be of further assistance, please feel free to contact us.

Sincerely,

CORE LABORATORIES


Malcolm S. Jones
XRD Specialist


Dan Powell
Supervisor

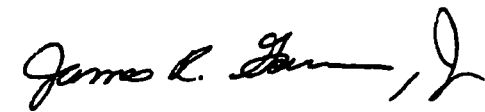

James R. Garrison, Jr., Ph.D.
Senior Research Geologist

TABLE 1

QUANTITATIVE X-RAY DIFFRACTION ANALYSES

SAMPLE I.D.	TB-1	TB-3	TB-4	TB-6
DEPTH (Feet)	314.7	73.3	71.0	24.5

CALCULATED WHOLE-ROCK COMPOSITION

QUARTZ	20.4	27.1	12.1	22.1
FELDSPAR	5.2	7.6	2.7	6.4
PLAGIOCLASE	5.2	5.9	2.7	4.9
ALKALI FELDSPAR	0.0	1.8	0.0	1.5
DOLOMITE	0.0	0.0	4.1	0.0
SIDERITE	0.0	0.0	0.0	0.3
BASSANITE	12.6	0.0	0.0	0.0
CLAY MINERALS	61.9	65.2	81.0	71.2
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

RELATIVE CLAY ABUNDANCE (Normalized to 100)

ILLITE	68.7	94.4	90.8	94.3
CHLORITE	9.3	5.6	9.3	5.7
CHLORITE/SMECTITE	22.0(45)	0.0	0.0	0.0
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

% EXPANDABLE INTERLAYERS OF MIXED-LAYER CHLORITE/SMECTITE IN ().

APPENDIX 1

Analytical Procedures

The sample fraction selected for quantitative X-Ray Diffraction (XRD) analysis is first cleaned of hydrocarbon residue, then weighed and disaggregated using standard techniques. The sample is then centrifugally size-fractionated, in water, into a clay-size (less than 4 microns) and a sand/silt-size fraction. The clay-size fraction is then suspended in water and deposited on a porous silver substrate. Each clay-size fraction is analyzed dry (RH=50%) and then after treatment with ethylene glycol. The sand/silt-size fraction is made into a pellet using standard powder techniques.

Quantitative XRD analyses are done utilizing an automated Philips APD 3600/3620 System. The weight percents of the rock-forming minerals (in both size fractions) are determined by an empirical matrix correction procedure with external standard normalization (Jenkins et al., 1979). The detectability limit is 0.1-0.5 weight percent in the fractions analyzed. The relative weight percents of the various clay mineral species are determined according to an empirical peak-area-ratio model (Garrison et al., 1986a) utilizing a Lorentzian profile fitting algorithm (Schreiner and Jenkins, 1983; Garrison et al., 1986b). Compositions and species of the clay minerals are determined according to procedures outlined by Weaver (1956), Jonas and Brown (1959), Srodon (1980), Reynolds (1980), and Srodon (1984). The weight percent of the total clay minerals in the whole-rock sample is estimated by determining and subtracting the total weight percent of rock-forming minerals in the clay-size fraction from the total weight of the clay-size fraction. The whole-rock composition is calculated by mathematically combining the XRD data from both size fractions.

References

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- Weaver, G.E. (1956) The distribution and identification of mixed layer clays in sedimentary rocks. *American Mineralogist* 41, 202-221.