# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 118.0' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Very loose to loose brown clayey and silty fine to medium SAND (SC-SM), damp | 1.0 | 18 | | 3 | |
| | | | 2.5 | 14 | | 4 | |
| 113 | | | 5.0 | 14 | | 5 | |
| | | | 7.5 | 14 | | 7 | |
| | 9.0 | | | | | | |
| 108 | | Firm to dense brown-tan fine to medium SAND (SP), moist | 10.0 | 12 | | 11 | |
| 103 | | | 15.0 | 12 | | 19 | |
| 98 | | | 20.0 | 12 | | 25 | |
| 93 | | Some coarse sand below 25 feet | 25.0 | 12 | | 30 | |
| 88 | | | 30.0 | 10 | | 36 | |
| | | | | | | | ⊽ @ 33', 2-13-89 |
| | 34.0 | | | | | | |
| 83 | | Loose light gray to tan clayey and silty fine SAND (SC-SM), moist | 35.0 | 10 | | 9 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

| | | |
|---|---|---|
| 5 | 18 | 10 |
| 10 | 15 | 23 |
| | | 100 NX 30 RQD |

SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

BORING NUMBER DE-1

DATE DRILLED 1-31-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7B (1 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 83' | 35.0 | | | | | | |
| 78 | 40.0 | Firm light gray silty CLAY (CL), moist | 40.0 | 18 | | 8 | |
| 73 | 44.0 | Very loose dark gray silty and clayey fine SAND (SC-SM), moist | 45.0 | 18 | | 4 | c @ 44', 2-13-89 |
| 68 | 49.0 | Firm tan silty fine SAND (SM), wet | 50.0 | 18 | | 13 | |
| | 50.5 | Boring Terminated @ 50.5 Feet 2-1-89 | | | | | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

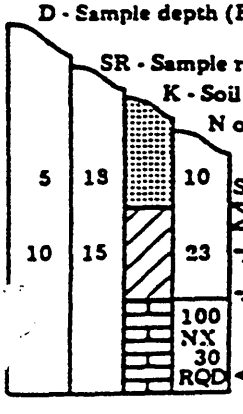
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE-1

DATE DRILLED 1-31-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7B (2 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 111.9' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Soft brown SILT (ML), little to some clay, moist | 1.0 | 15 | | 4 | |
| | 2.0 | | 2.5 | 16 | | 9 | |
| | | Loose brown silty fine to medium SAND (SM), damp | | | | | |
| | 4.0 | | | | | | |
| 106.9 | | Loose to firm light brown to tan fine to medium SAND (SP), moist to wet | 5.0 | 18 | | 9 | |
| | | | 7.5 | 18 | | 13 | |
| 101.9 | | | 10.0 | 16 | | 7 | |
| 96.9 | | | 15.0 | 12 | | 19 | |
| 91.9 | | Some coarse sand below 20 feet | 20.0 | 12 | | 18 | |
| 86.9 | | | 25.0 | 14 | | 13 | |
| | 28.0 | Firm to stiff light gray silty CLAY (CL), moist | | | | | |
| 81.9 | | | 30.0 | 18 | | 10 | @ 32', 2-13-89 |
| 76.9 | | | 35.0 | 18 | | 13 | |

Page 1 of 3

D - Sample depth (Ft.)

SR - Sample recovery (In.)

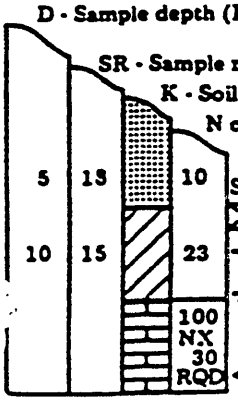
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE-2

DATE DRILLED 2-8-89

JOB NUMBER B8-692

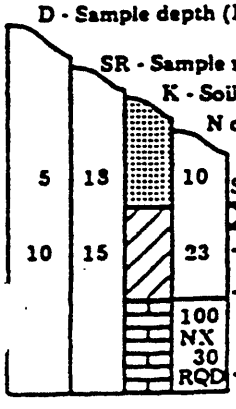
Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7C (1 of 3)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 76.9' | 35.0' | | | | | | |
| | 37.0 | Loose dark gray clayey and silty fine SAND (SC-SM), moist | | | | | |
| 71.9 | | | 40.0 | 18 | | 5 | |
| | 41.0 | Stiff light gray silty CLAY (CL), moist<br>Occasional sand seams | | | | | |
| 66.9 | | | 45.0 | 18 | | 9 | |
| | 49.0 | Loose to firm dark green clayey and silty fine SAND (SC-SM), moist | | | | | |
| 61.9 | | | 50.0 | 18 | | 8 | |
| 56.9 | | | 55.0 | 18 | | 9 | |
| 51.9 | | | 60.0 | 18 | | 12 | c @ 60', 2-13-89 |
| 46.9 | | | 65.0 | 18 | | 22 | |
| 41.9 | | | 70.0 | 18 | | 17 | |






SYMBOLS:
- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

BORING NUMBER DE- 2

DATE DRILLED 2-8-89

JOB NUMBER B8-592

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7C ( 2 of 3 )

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 41.9' | 70.0' | | | | | | |
| 36.9 | | | 75.0 | 18 | | 7 | |
| 31.9 | | | 80.0 | 18 | | 12 | |
| 26.9 | | | 85.0 | 18 | | 19 | |
| 21.9 | | Trace shells below 90 feet | 90.0 | 18 | | 65 | |
| | 92.0 | Dense green silty fine SAND (SM), with shells, moist to wet | | | | | |
| 16.9 | | | 95.0 | 18 | | 36 | |
| 11.9 | 100.5 | Boring Terminated @ 100.5 feet 2-9-89 | 100.0 | 14 | | 27 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

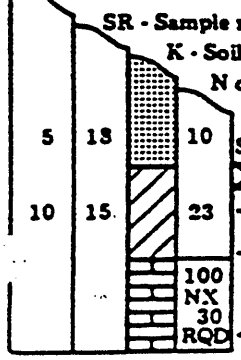
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE- 2

DATE DRILLED 2-8-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7C ( 3 of 3)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 126.5' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Firm to stiff brown fine sandy CLAY (CL), trace silt, damp | 1.0 | 12 | | 5 | |
| | | | 2.5 | 12 | | 10 | |
| | 3.5 | Loose to firm brown silty fine to medium SAND (SM), trace clay, damp | | | | | |
| 121.5 | | | 5.0 | 18 | | 6 | |
| | | | 7.5 | 18 | | 6 | |
| 116.5 | 10.0 | | 10.0 | 16 | | 9 | 10.5 |
| | | Firm light brown to tan silty fine to medium SAND (SP-SM), damp | | | | | 12.5 |
| | | | 13.5 | 18 | | 15 | 14.0 |
| 111.5 | | | | | | | 16.0 |
| | | | 16.5 | 14 | | 13 | |
| | 17.0 | Loose to dense light brown to tan fine to medium SAND (SP), moist to wet | | | | | |
| 106.5 | | | 20.5 | 10 | | 6 | |
| | | | | | | | @ 23', 2-13-89 |
| 101.5 | | More coarse sand between 25 feet and 35 feet | 26.0 | 8 | | 34 | 26.5 |
| | | | | | | | 28.5 |
| | | | 29.5 | 18 | | 34 | 30.0 |
| 96.5 | | | | | | | 32.0 |
| | | | 33.0 | 10 | | 32 | |
| 91.5 | | | 35.0 | 8 | | 40 | |

Page 1 of 2

D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE- 3

DATE DRILLED 2-1-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7D (1 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 91.5' | 35.0' | | | | | | |
| 86.5 | 42.0 | Firm light gray silty CLAY (CL), moist | 40.0 | 8 | | 34 | |
| 81.5 | | | 45.0 | 18 | | 6 | 45.5 C @ 45', 2-13-89; 47.5 |
| 76.5 | | | 48.5 | 18 | | 5 | 49.0; 51.0 |
| | 51.0 | Very loose brown to tan silty fine to medium SAND (SM), wet | 52.0 | 18 | | 3 | |
| | 53.0 | Stiff light gray to tan clayey SAND (SC), moist | | | | | |
| 71.5 | 55.5 | Boring Terminated @ 55.5 Feet 2-2-89 | 55.0 | 18 | | 10 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

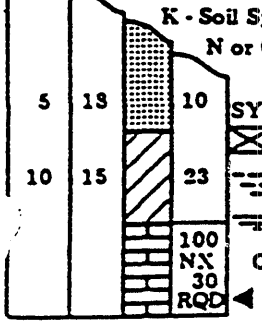
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE-3

DATE DRILLED 2-1-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7D (2 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 116.7' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | 1.5 | Soft brown clayey SILT (ML), damp | 1.0 | 14 | | 4 | |
| | | Loose to very loose brown silty fine SAND (SM), damp | 2.5 | 18 | | 6 | C @ 3', 2-13-89 |
| 111.7 | | | 5.0 | 18 | | 4 | |
| | 7.0 | Firm brown to tan silty fine to medium SAND (SP-SM), moist | 7.5 | 18 | | 16 | |
| 106.7 | | | 10.0 | 15 | | 15 | |
| 101.7 | | | 15.0 | 10 | | 26 | |
| | 17.0 | Firm brown to tan fine to medium SAND (SP), moist to wet | | | | | |
| 96.7 | | Some coarse sand below 20 feet | 20.0 | 6 | | 22 | |
| 91.7 | | | 25.0 | 12 | | 23 | |
| | 29.0 | Firm brown to tan silty fine to medium SAND (SP-SM), wet | 30.0 | 18 | | 19 | |
| 86.7 | | | | | | | |
| | 32.0 | Very soft light gray silty CLAY (CL), with occasional sand seams, moist to wet | | | | | |
| 81.7 | | | 35.0 | 18 | | 1 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE-4

DATE DRILLED 1-31-89

JOB NUMBER 88-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7E (1 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 81.7' | 35.0' | | | | | | |
| 76.7 | 38.0 | Very loose light gray clayey fine SAND (SC), moist | 40.0 | 18 | | 3 | |
| 71.7 | 45.5 | Boring Terminated @ 45.5 Feet 1-31-89 | 45.0 | 18 | | 3 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

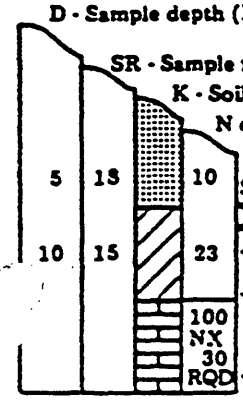
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE-4

DATE DRILLED 1-31-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7E (2 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 121.5' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Soft to very stiff brown sandy CLAY (CL), little silt, damp | 1.0 | 10 | | 4 | |
| | | | 2.5 | 18 | | 10 | |
| 116.5 | | | 5.0 | 15 | | 23 | c @ 5.2', 2-13-89 |
| | 6.8 | Firm brown-tan silty fine to medium SAND (SM), dry to damp | 7.5 | 15 | | 22 | |
| 111.5 | | | 10.0 | 12 | | 19 | |
| | 12.0 | Dense brown to tan silty fine to medium SAND (SP-SM), moist | | | | | |
| 106.5 | | | 15.0 | 10 | | 40 | |
| 101.5 | 20.0 | Firm to dense brown to tan fine to medium SAND (SP), moist | 20.0 | 6 | | 14 | |
| 96.5 | | Some coarse sand below 25 feet | 25.0 | 7 | | 15 | |
| 91.5 | | | 30.0 | 10 | | 35 | |
| 86.5 | | | 35.0 | 8 | | 12 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

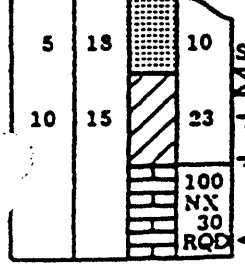
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE- 5

DATE DRILLED 1-31-89

JOB NUMBER 88-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7F ( 1 of 2 )

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 86.5' | 35.0' | | | | | | |
| 81.5 | 39.5 | Loose dark gray silty and clayey fine SAND (SC-SM), moist | 40.0 | 14 | | 8 | |
| 76.5 | 44.0<br>45.5 | Loose light gray to tan clayey fine SAND (SC), moist | 45.0 | 18 | | 5 | |
| | | Boring Terminated @ 45.5 Feet<br>1-31-89 | | | | | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

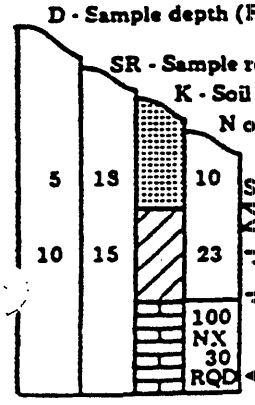
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE-5

DATE DRILLED 1-31-89

JOB NUMBER B8-592

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7F (2 of 2)

# AUGER PROBE BORING RECORD

| ELEV. (ft.) | STRATUM DEPTH (ft.) | VISUAL SOIL DESCRIPTION | REMARKS |
|---|---|---|---|
| | 0.0' | | |
| | 0.1 | TOPSOIL<br>Dark brown sandy CLAY | |
| | 3.0 | Dark brown silty CLAY with trace sand | |
| | 8.0 | Dark red brown silty SAND with trace clay | Cave @ 8.0', 2-1-89 |
| | 10.0 | Auger Probe Terminated @ 10.0 Ft. 2-1-89 | |

NOTES: No Groundwater Encountered

Water level as noted

Water level at time of excavation

PROBE BORING NO. DE- 6

DATE EXCAVATED: 2-1-89

JOB NUMBER: B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7G

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 113.9' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Very soft brown sandy CLAY (CL), some silt, damp | 1.0 | 15 | | 2 | |
| | | | 2.5 | 14 | | 3 | |
| | 3.5 | Firm to very stiff brown silty SAND (SM), dry | | | | | |
| 108.9 | | | 5.0 | 14 | | 8 | |
| | | | 7.5 | 18 | | 22 | |
| | 8.5 | Firm brown to tan fine to medium SAND (SP), moist | | | | | |
| 103.9 | | | 10.0 | 14 | | 12 | |
| 98.9 | | | 15.0 | 12 | | 15 | 15.5 – 17.5 |
| | | | 18.5 | 12 | | 29 | 19.0 – 21.0 |
| 93.9 | | Wet below 20 feet | | | | | |
| | | Some coarse sand below 22 feet | 22.0 | 6 | | 33 | |
| 88.9 | | | | | | | 24.0 – 26.0 ▽ @ 24.5', 2-6-89 |
| | | | 27.0 | 8 | | 32 | |
| | 28.0 | Very loose light gray to tan silty fine SAND (SM), little clay, wet | | | | | 28.0 – 30.0 |
| 83.9 | | | 31.0 | 18 | | 3 | |
| | 32.0 | Very loose tan silty fine SAND (SM), wet | | | | | 32.0 – 34.0 |
| 78.9 | | | 35.0 | 18 | | 6 | c @ 34.3', 2-6-89 |

D - Sample depth (Ft.)

SR - Sample recovery (In.)

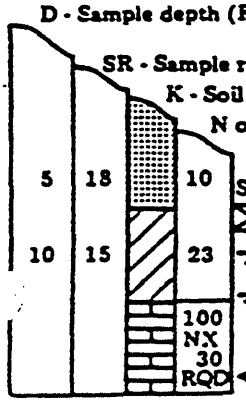
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

Page 1 of 2

BORING NUMBER DE-7

DATE DRILLED 2-2-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7H (1 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 78.9' | 35.0' | | | | | | |
| 73.9 | | | 40.0 | 18 | | 2 | |
| | 43.0 | Firm light gray to tan fine sandy CLAY (CL), moist | | | | | |
| 68.9 | | | 45.0 | 18 | | 6 | 46.0 – 48.0 |
| | 46.0 | Loose dark gray clayey fine SAND (SC), moist | | | | | |
| 63.9 | | | 49.0 | 18 | | 9 | |
| | 51.0 | Firm to very stiff dark gray clayey and sandy SILT (ML), moist | | | | | |
| 58.9 | | | 54.0 | 18 | | 5 | |
| | 58.5 | | 58.0 | 18 | | 22 | |
| 53.9 | | Boring Terminated @ 58.5 Feet 2-3-89 | | | | | |



D - Sample depth (Ft.)
SR - Sample recovery (In.)
K - Soil Symbols
N or CR/RQD where:

| D | SR | K | N or CR/RQD |
|---|---|---|---|
| 5 | 18 | | 10 |
| 10 | 15 | | 23 |
| | | | 100 NX 30 RQD |

N - Penetration in blows per foot (ASTM D-1586)
CR - % core recovery; NX or BX designates bit size (ASTM D-2113)
RQD - Rock Quality Designation

SYMBOLS:
Undisturbed Sample
Water level, time of drilling
Water level
C Caved depth of boring
Loss of Water

BORING NUMBER DE-7
DATE DRILLED 2-2-89
JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7H ( 2 of 2 )

# AUGER PROBE BORING RECORD

| ELEV. (ft.) | STRATUM DEPTH (ft.) | VISUAL SOIL DESCRIPTION | REMARKS |
|---|---|---|---|
| | 0.0' | | |
| | 0.2 | TOPSOIL<br>Dark brown sandy CLAY | |
| | 3.5 | Tan brown silty SAND | Cave @ 7.0', 2-1-89 |
| | 9.0 | Fine to medium tan SAND and medium to coarse GRAVEL | |
| | 10.0 | Auger Probe Terminated @ 10.0 Ft 2-1-89 | |

NOTES: No Groundwater Encountered

Page 1 of 1

Water level as noted

Water level at time of excavation

PROBE BORING NO. DE-8

DATE EXCAVATED: 2-1-89

JOB NUMBER: B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7I

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 118.2' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Soft to stiff brown silty CLAY (CL), damp | 1.0 | 15 | | 4 | |
| | | | 2.5 | 14 | | 9 | |
| 113.2 | | | 5.0 | 16 | | 13 | |
| | 6.0 | Firm brown silty fine SAND (SM), damp | 7.5 | 18 | | 17 | |
| | 9.0 | Loose to dense brown to tan silty fine to medium SAND (SP-SM), moist | | | | | |
| 108.2 | | | 10.0 | 18 | | 8 | |
| 103.2 | 15.0 | Firm to dense brown to tan fine to medium SAND (SP), moist to wet | 15.0 | 0 | | 24 | |
| 98.2 | | | 20.0 | 12 | | 18 | |
| 93.2 | | | 25.0 | 10 | | 39 | |
| | | Wet below 28 feet | | | | | ▽ @ 28', 2-13-89 |
| 88.2 | | | 30.0 | 12 | | 39 | |
| | 32.0 | Firm light gray silty CLAY (CL), damp | | | | | |
| 83.2 | | | 35.0 | 18 | | 7 | |

Page 1 of 3

D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE-9

DATE DRILLED 2-6-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7J (1 of 3)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 83.2' | 35.0' | | | | | | |
| | 36.0 | Firm tan silty fine SAND (SM), wet | | | | | 36.0 – 38.0 |
| | | | 39.0 | 18 | | 11 | |
| 78.2 | | | | | | | |
| | 44.0 | Very loose light gray to tan clayey fine SAND (SC), moist | 45.0 | 18 | | 2 | |
| 73.2 | 46.0 | Loose dark gray clayey fine SAND (SC), moist | | | | | |
| 68.2 | | | 50.0 | 18 | | 6 | |
| | 54.0 | Firm tan silty fine SAND (SM), wet | | | | | C @ 54', 2-13-89 |
| 63.2 | | | 55.0 | 15 | | 21 | |
| | 58.0 | Stiff dark gray clayey and silty fine SAND (SC-SM), moist | | | | | |
| 58.2 | | | 60.0 | 18 | | 10 | 61.0 – 63.0 |
| 54.2 | | | 64.0 | 18 | | 14 | |
| 48.2 | | | 70.0 | 18 | | 16 | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE- 9

DATE DRILLED 2-5-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7J (2 of 3)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 48.2' | 70.0' | | | | | | |
| 43.2 | | | 75.0 | 18 | | 15 | |
| 38.2 | | | 80.0 | 18 | | 10 | 81.0<br>83.0 |
| | | | 84.0 | 18 | | 12 | |
| 33.2 | | | | | | | |
| 28.2 | | | 90.0 | 18 | | 20 | |
| 23.2 | | Trace shells below 94 feet | 94.5 | 10 | | 50/4" | |
| | 97.0 | Firm green silty fine SAND (SM), with shells, wet | | | | | |
| 18.2 | 100.5 | | 100.0 | 16 | | 30 | |
| | | Boring Terminated @ 100.5 Feet 2-8-89 | | | | | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE- 9

DATE DRILLED 2-6-89

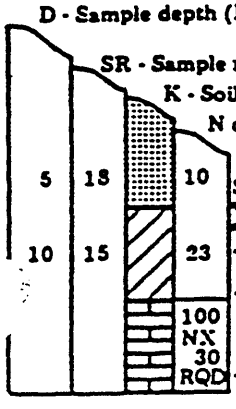
JOB NUMBER 88-592

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7J (3 of 3)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 119.2' | 0.0' | | | | | | |
| | 0.2 | TOPSOIL | | | | | |
| | | Loose to firm brown silty fine SAND (SM), trace clay, dry to damp | 1.0 | 15 | | 6 | |
| | | | 2.5 | 12 | | 19 | |
| 114.2 | | | 5.0 | 16 | | 24 | |
| | | | 7.5 | 16 | | 11 | |
| | 8.0 | Firm brown to tan silty fine to medium SAND (SP-SM), moist | | | | | |
| 109.2 | | | 10.0 | 14 | | 13 | |
| 104.2 | 15.0 | Dense brown to tan fine to medium SAND (SP), damp to moist | 15.0 | 18 | | 28 | |
| | | Wet below 16 feet, some coarse sand below 16 feet | | | | | |
| 99.2 | | | 20.0 | 8 | | 22 | |
| | | | | | | | @ 24', 2-13-89 |
| 94.2 | | | 25.0 | 10 | | 22 | |
| 89.2 | | | 30.0 | 10 | | 48 | |
| | 32.0 | Very loose light gray to tan clayey fine SAND (SC), wet | | | | | |
| 84.2 | | | 35.0 | 12 | | 3 | |




D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

Page 1 of 2

BORING NUMBER DE- 10

DATE DRILLED 2-6-89

JOB NUMBER B8-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7K ( 1 of 2 )

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 84.2' | 35.0' | | | | | | |
| | 37.0 | Firm tan silty fine SAND (SM), moist | | | | | |
| 79.2 | | | 40.0 | 10 | | 13 | |
| | 41.0 | Very loose to loose light gray to tan silty fine SAND (SM), little clay, wet | | | | | |
| 74.2 | | | 45.0 | 18 | | 4 | 46.0 C @ 47', 2-13-89 48.0 |
| 69.2 | | | 50.0 | 18 | | 6 | |
| | 52.0 | Firm tan fine SAND (SM), moist | | | | | |
| 64.2 | | | 55.0 | 18 | | 16 | |
| | 55.5 | Boring Terminated @ 55.5 Feet 2-6-89 | | | | | |



D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or 3X designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE-10

DATE DRILLED 2-6-89

JOB NUMBER B8-592

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7K (2 of 2)

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 123.5' | 0.0' | | | | | | |
| | 1.5 | FILL - sampled as stiff brown fine sandy clay, trace organics, damp | 1.0 | 15 | | 10 | |
| | | FILL - sampled as brown to gray fine sand, damp | 2.5 | 12 | | 18 | |
| 118.5 | | | 5.0 | 18 | | 8 | 6.0 |
| | | | | 24 | | | 8.0 |
| | | | 9.0 | 14 | | 8 | |
| 113.6 | | | | | | | @ 11.5', 2-13-89 |
| | | | 12.0 | 14 | | 5 | |
| | 14.0 | FILL - sampled as very loose gray silty fine sand, moist | 15.0 | 14 | | 1 | |
| 108.5 | | | | | | | 16.0 |
| | 17.0 | Firm brown fine to medium clayey and silty SAND (SC-SM), damp | | 18 | | | 18.0 |
| | | | 19.0 | 16 | | 12 | |
| 103.5 | 20.0 | Firm tan silty fine to medium SAND (SM), damp | 22.0 | 12 | | 21 | |
| 98.6 | | | 25.0 | 10 | | 21 | |
| | | | | | | | C @ 27', 2-13-89 |
| 93.6 | | | 30.0 | 10 | | 28 | |
| | 30.5 | Boring Terminated @ 30.5 Feet 2-10-89 | | | | | |
| 88.6 | | | | | | | |

Page 1 of 1

D - Sample depth (Ft.)

SR - Sample recovery (In.)

K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or BX designates bit size (ASTM D-2113)

RQD - Rock Quality Designation

SYMBOLS:

Undisturbed Sample

Water level, time of drilling

Water level

C Caved depth of boring

Loss of Water

BORING NUMBER DE-11

DATE DRILLED 2-10-89

JOB NUMBER 88-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7L

# LAW ENGINEERING TEST BORING RECORD

| ELEV. | STRATUM DEPTH | VISUAL SOIL DESCRIPTION | D | SR | K | N or CR/RQD | REMARKS |
|---|---|---|---|---|---|---|---|
| 130.9' | 0.0' | FILL - sampled as loose brown silty sand, trace shells below 5 feet, some clay encountered at 8 feet, damp | 1.0 | 14 | | 5 | |
| | | | 2.5 | 14 | | 9 | |
| 125.9 | | | 5.0 | 14 | | 9 | |
| | | | 7.5 | 18 | | 10 | |
| 120.9 | 9.0 | FILL - sampled as stiff gray silt, trace shells, little organics, damp | 10.0 | 15 | | 7 | 11.0 ▽ @ 12', 2-13-89 |
| | 12.0 | Firm gray silty fine SAND (SM), trace shells, little organics, damp | 14.0 | 0 | | 13 | 13.0 |
| 115.9 | 15.0 | Firm brown clayey and silty SAND (SC-SM), damp | 18.0 | 18 | | 21 | 15.0 |
| | | | | 24 | | | 17.0 |
| 110.9 | | | | | | | |
| 105.9 | 26.0 | Firm to dense tan medium to coarse SAND (SP), damp | 27.0 | 18 | | 39 | 24.0 |
| | | | | 24 | | | 26.0 C @ 25', 2-13-89 |
| 100.9 | 30.5 | Boring Terminated @ 30.5 Feet 2-10-89 | 30.0 | 12 | | 29 | |
| 95.9 | | | | | | | |

Page 1 of 1

D - Sample depth (Ft.)

SR - Sample recovery (In.)

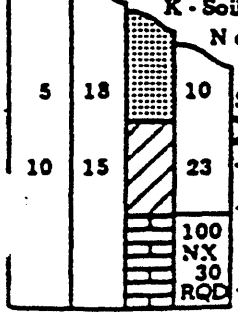
K - Soil Symbols

N or CR/RQD where:

N - Penetration in blows per foot (ASTM D-1586)

CR - % core recovery; NX or 3X designates bit size (ASTM D-2113)

RQD - Rock Quality Designation




SYMBOLS:

- Undisturbed Sample
- Water level, time of drilling
- Water level
- C Caved depth of boring
- Loss of Water

BORING NUMBER DE- 12

DATE DRILLED 2-10-89

JOB NUMBER 88-692

Calvert Cliffs Nuclear Power Plant
ISFSF
Calvert County, Maryland

FIGURE 2.6-7M