

# BORING C-21

SURFACE ELEVATION 432.9  
CO-ORDINATES N 472,726.77  
E 1,904,793.5

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |

| SYMBOLS |       | DESCRIPTIONS                                                                                       |
|---------|-------|----------------------------------------------------------------------------------------------------|
| 24      | CL    | REDDISH BROWN SILTY CLAY. (VERY STIFF)                                                             |
|         |       | GRADES SANDY WITH MICA.                                                                            |
| 8       | ML    | BROWN MICACEOUS CLAYEY SANDY SILT. (MEDIUM DENSE)                                                  |
|         | SM-ML | BROWN MICACEOUS SILTY SAND TO SANDY SILT. (MEDIUM DENSE)                                           |
| 18      |       |                                                                                                    |
| 29      | ML    | OLIVE MICACEOUS SANDY SILT. (DENSE)                                                                |
| 60      | SM    | MULTI-COLORED MICACEOUS SILTY SAND. (VERY DENSE)                                                   |
| 99      |       |                                                                                                    |
| 100     | 72    | LIGHT TO DARK GREY MODERATELY JOINTED TO MASSIVE FINE TO MEDIUM GRAINED CONTACT BRECCIA MIGMATITE. |
|         | 1     | 95' TO 107' MASSIVE FRESH ROCK.                                                                    |
|         |       | 6" SLIGHTLY WEATHERED JOINT ZONE AT 96'.                                                           |
|         |       | 6" SLIGHTLY WEATHERED JOINT ZONE AT 99'.                                                           |
|         |       | 6" SLIGHTLY WEATHERED JOINT ZONE AT 100'.                                                          |
|         |       | 6" MODERATELY WEATHERED JOINT ZONE AT 107'.                                                        |
| 100     | 55    | 3" JOINT ZONE AT 104'.                                                                             |
|         | 2     | 107' TO 110' MODERATELY JOINTED.                                                                   |
|         | 1     | 110' TO 113' MASSIVE.                                                                              |

BORING TERMINATED 5' - 72'.

NOTE:  
BORING DRILLED WITH HOLLOW-STEM AUGER RIG.  
WATER LEVEL NOT MEASURED.  
☐ INDICATES STANDARD PENETRATION TEST.

## LOG OF BORING C-21

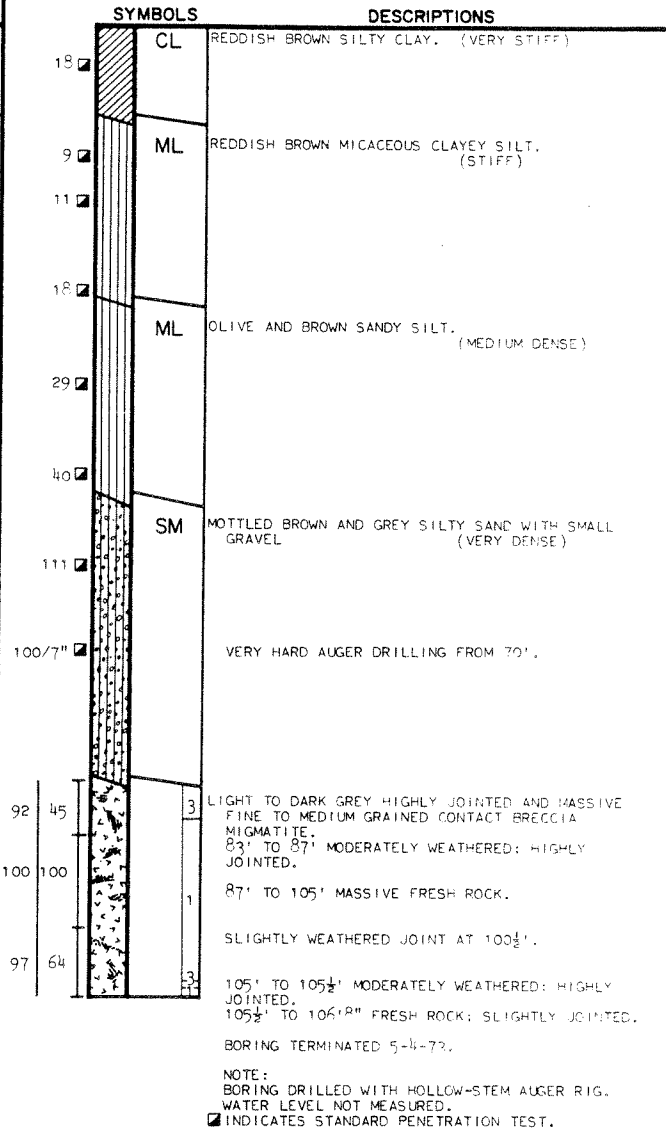
Amendment 0  
August 1984

Figure 2E-1

# BORING C-22

SURFACE ELEVATION 426.3  
CO-ORDINATES N 4,727.77  
E 1,904,855.5

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST DATA |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------------|--|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                |  |                                  |                           |
| 0             |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 10            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 20            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 30            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 40            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 50            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 60            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 70            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 80            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 90            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 100           |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 110           |             |                       |                      |                          |                       |                                |  |                                  |                           |

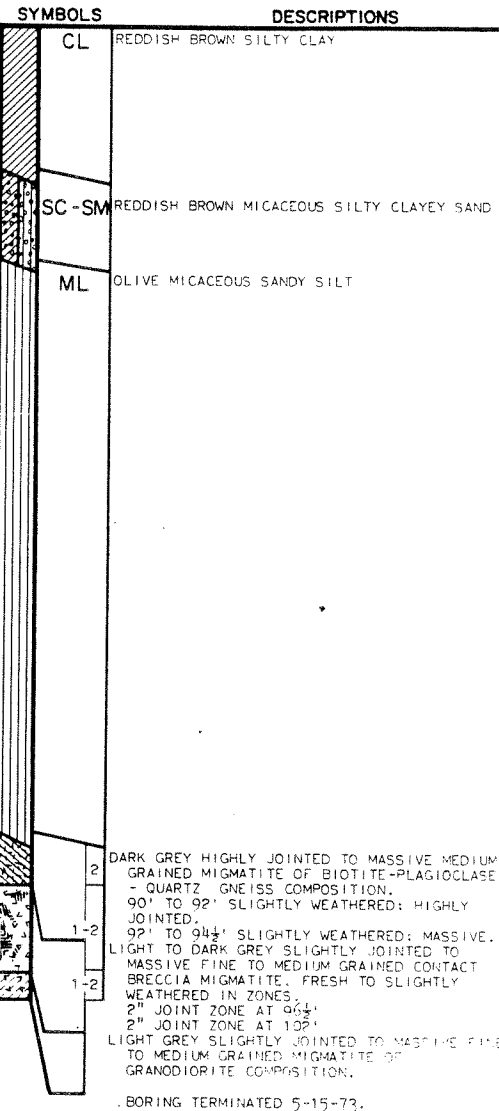


## LOG OF BORING C-22

# BORING C-23

SURFACE ELEVATION 478.8  
CO-ORDINATES N 472,521.50  
E 1,904,565.00

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |



## LOG OF BORING C-23

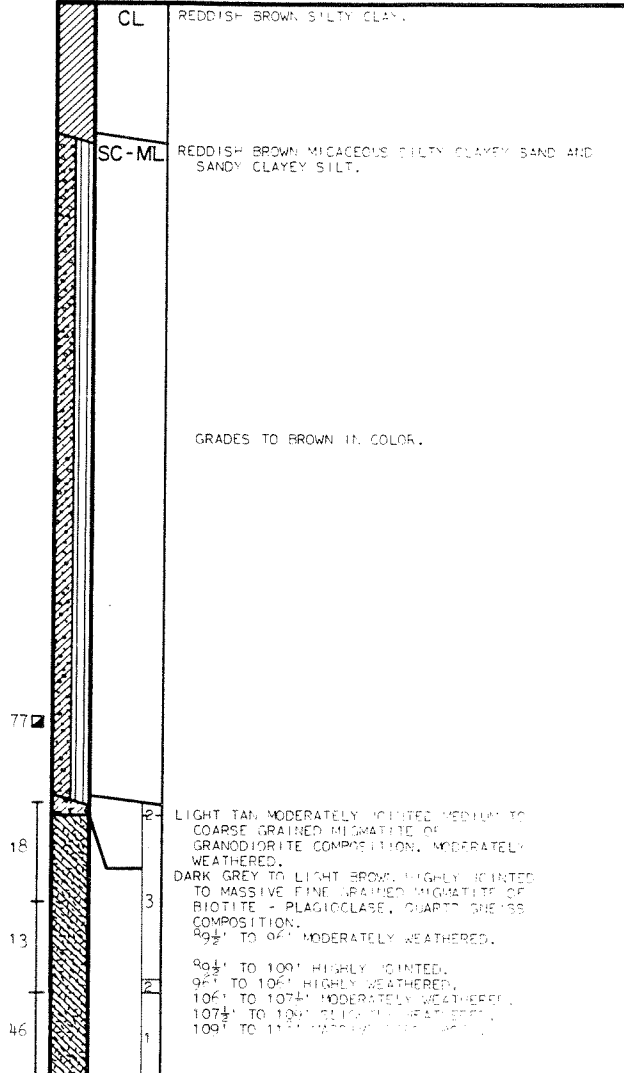
# BORING C-24

SURFACE ELEVATION 488.5  
CO-ORDINATES N 472,854.25  
E 1,934,565.00

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |

## SYMBOLS

## DESCRIPTIONS



BORING TERMINATED 5'-1" - 70'.

NOTE:  
BORING DRILLED WITH HOLLOW-STEM AUGER RIG.  
WATER LEVEL NOT MEASURED.  
■ INDICATES STANDARD PENETRATION TEST.

## LOG OF BORING C-24

# BORING C-25

SURFACE ELEVATION 471.1  
CO-ORDINATES N 472,509.50  
E 1,904,691.63

| OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0           |                       |                      |                                |                       |                                  |                           |
| 10          |                       |                      |                                |                       |                                  |                           |
| 20          |                       |                      |                                |                       |                                  |                           |
| 30          |                       |                      |                                |                       |                                  |                           |
| 40          |                       |                      |                                |                       |                                  |                           |
| 50          |                       |                      |                                |                       |                                  |                           |
| 60          |                       |                      |                                |                       |                                  |                           |
| 70          |                       |                      |                                |                       |                                  |                           |
| 80          |                       |                      |                                |                       |                                  |                           |
| 90          |                       |                      |                                |                       |                                  |                           |
| 100         |                       |                      |                                |                       |                                  |                           |
| 110         |                       |                      |                                |                       |                                  |                           |
| 120         |                       |                      |                                |                       |                                  |                           |
| 130         |                       |                      |                                |                       |                                  |                           |

DEPTH IN FEET

## SYMBOLS

## DESCRIPTIONS

|       |                                                                                                              |
|-------|--------------------------------------------------------------------------------------------------------------|
| CL    | REDDISH BROWN SILTY CLAY.                                                                                    |
| SC-SM | BROWN FINE MICACEOUS CLAYEY SAND.                                                                            |
| SM    | BROWN SILTY MICACEOUS SAND.                                                                                  |
|       | GRADING WITH ZONES OF HIGHLY WEATHERED AND DECOMPOSED ROCK.                                                  |
| 3     | LIGHT GREY TO BROWN JOINTED MEDIUM TO COARSE GRAINED GRANODIORITE.                                           |
| 2     | 90' TO 90 1/2' HIGHLY WEATHERED.                                                                             |
| 3     | 90' TO 91 1/2' HIGHLY JOINTED.                                                                               |
| 1     | 90 1/2' TO 91 1/2' MODERATELY WEATHERED.                                                                     |
| 2     | 91 1/2' TO 92' SLIGHTLY TO MODERATELY WEATHERED; MODERATELY JOINTED.                                         |
| 3     | 92' TO 95' HIGHLY WEATHERED; HIGHLY JOINTED.                                                                 |
| 1     | 95 1/2' TO 97 1/2' FRESH ROCK; NOT JOINTED.                                                                  |
| 3     | 97 1/2' TO 100' SLIGHTLY WEATHERED; MODERATELY JOINTED.                                                      |
| 1     | 100' TO 105 1/2' MODERATELY WEATHERED.                                                                       |
| 2     | 105 1/2' TO 109' VERY HIGHLY WEATHERED.                                                                      |
| 1     | 109' TO 109 1/2' HIGHLY JOINTED.                                                                             |
| 1     | 10 1/2" HIGHLY WEATHERED ZONE AT 109 1/2'.                                                                   |
| 1     | 14" SLIGHTLY WEATHERED ZONE AT 109 1/2'.                                                                     |
| 3     | 14" SLIGHTLY WEATHERED AND SLIGHTLY JOINTED ZONE AT 109 1/2'.                                                |
| 3     | LIGHT BROWN TO GREY HIGHLY JOINTED AND MASSIVE FINE TO COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. |
| 1     | 109' TO 115' FRESH ROCK SLIGHTLY JOINTED TO MASSIVE.                                                         |
| 3     | CONTAINS MASSIVE ENCLAVES.                                                                                   |
| 1     | 115' TO 115 1/2' MODERATELY WEATHERED; HIGHLY JOINTED.                                                       |
| 3     | 116 1/2' TO 120 1/2' MASSIVE FRESH ROCK.                                                                     |
| 1     | 4" HIGHLY WEATHERED AND HIGHLY JOINTED ZONE AT 118'.                                                         |
| 1     | 10" FINE GRAINED ZONE AT 119'.                                                                               |
| 1     | 6" HIGHLY WEATHERED AND HIGHLY JOINTED ZONE AT 121'.                                                         |
| 3     | 121' TO 127' MODERATELY WEATHERED; HIGHLY JOINTED.                                                           |
| 1     | 6" HIGHLY WEATHERED ZONE AT 124'.                                                                            |
| 3     | 126' TO 127' MASSIVE FRESH ROCK.                                                                             |
| 1     | 127' TO 129' MODERATELY WEATHERED; HIGHLY JOINTED.                                                           |

93 44  
100 16  
100 69  
100 47

BORING TERMINATED 5-27-83.

NOTE:  
BORING DRILLED WITH ROTARY WASH RIG.  
WATER LEVEL NOT MEASURED.

## LOG OF BORING C-25

Amendment 0  
August 1984

Figure 2E-5

# BORING C-26

SURFACE ELEVATION 461.9  
CO-ORDINATES N 472,509.25  
E 1,904,799.25

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |

## SYMBOLS

## DESCRIPTIONS

CL

REDDISH BROWN SILTY CLAY.

SM-SC

BROWN MICACEOUS SILTY TO CLAYEY SAND.

GRADING MULTI-COLORED.

HARD DRILLING.

100/3"

91 51

92 61

2  
3  
2-3  
1  
2  
LIGHT TAN AND LIGHT GREY HIGHLY JOINTED TO MASSIVE FINE TO VERY COARSE GRAINED (SOME PHENOCRYSTS) MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS SOME INCLUSIONS AND OCCASIONAL FOLIATION. 89' TO 95' MODERATELY WEATHERED; SLIGHTLY JOINTED.  
95' TO 97' HIGHLY WEATHERED; HIGHLY JOINTED.  
97' TO 102' MODERATELY TO SLIGHTLY WEATHERED; MODERATELY TO HIGHLY JOINTED.  
102' TO 104' MASSIVE FRESH ROCK.  
104' TO 107 1/2' SLIGHTLY WEATHERED; MASSIVE.  
2" MODERATELY WEATHERED JOINTED ZONE AT 104 1/2'.  
107 1/2' TO 109 1/3' SLIGHTLY WEATHERED; HIGHLY JOINTED.

BORING TERMINATED 5-10-73.

NOTE:  
BORING DRILLED WITH HOLLOW-STEM AUGER RIG.  
WATER LEVEL NOT MEASURED.

■ INDICATES STANDARD PENETRATION TEST.

## LOG OF BORING C-26

SURFACE ELEVATION 461.3  
CO-ORDINATES N 472.482.50  
E 1.904.873.75

| SYMBOLS                                                                             |    | DESCRIPTIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | CL | REDDISH BROWN SILTY CLAY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|    | ML | BROWN MICACEOUS SANDY SILT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|    | SM | BROWN MICACEOUS SILTY SAND.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|   | ML | BROWN MICACEOUS SANDY SILT.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|  |    | GRADING GREENISH GREY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|  | 2  | LIGHT TO DARK GREY SLIGHTLY TO MODERATELY JOINTED FINE TO MEDIUM GRAINED CONTACT BRECCIA MIGMATITE. SLIGHTLY WEATHERED.                                                                                                                                                                                                                                                                                                                                                                            |
|  | 1  | 10" MODERATELY WEATHERED AND JOINTED ZONE AT 87'.<br>LIGHT GREY MASSIVE MEDIUM TO COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS SOME INCLUSIONS. FRESH ROCK.<br>2" SLIGHTLY WEATHERED AND JOINTED ZONE AT 89 1/2'.<br>2" SLIGHTLY WEATHERED AND JOINTED ZONE AT 90'.<br>2" SLIGHTLY WEATHERED AND JOINTED ZONE AT 91'.<br>2" SLIGHTLY WEATHERED AND JOINTED ZONE AT 97'.<br>2" SLIGHTLY WEATHERED AND JOINTED ZONE AT 97 1/2'.<br>2" SLIGHTLY WEATHERED AND JOINTED ZONE AT 100'. |

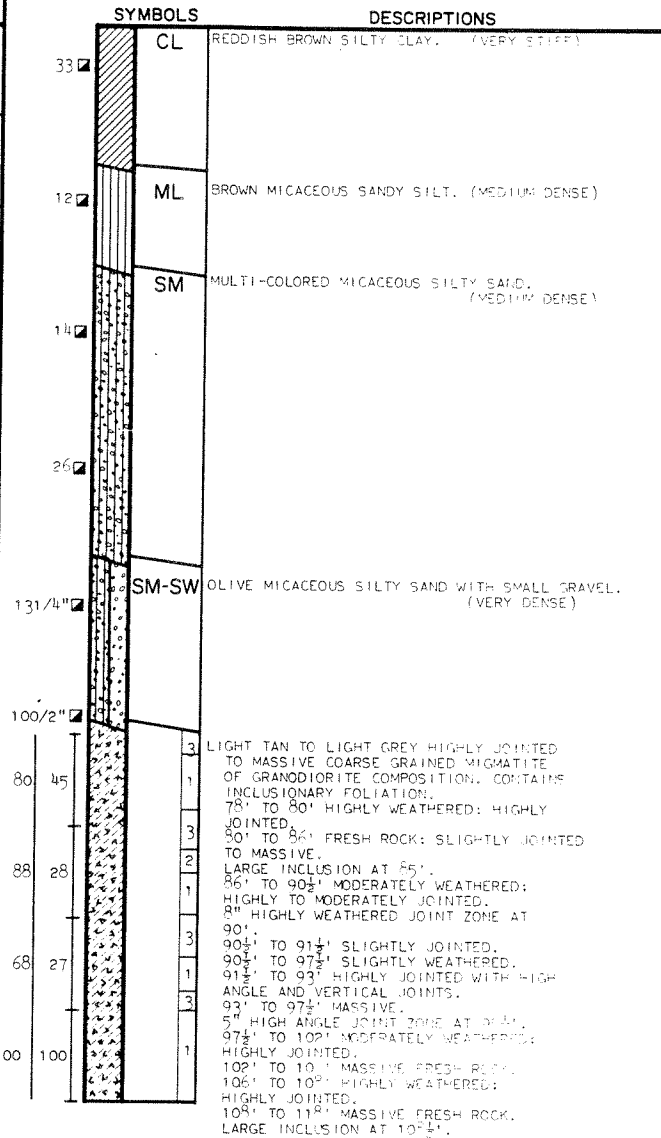
NOTE:  
BORING DRILLED WITH HOLLOW-STEM AUGER RIG.  
WATER LEVEL NOT MEASURED.

LOG OF BORING C-27

# BORING C-28

SURFACE ELEVATION 447.2  
CO-ORDINATES N 472,570.0  
E 1,904,026.75

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |



NOTE:  
BORING DRILLED WITH HOLLOW-STEM AUGER RIG.  
WATER LEVEL NOT MEASURED.  
■ INDICATES STANDARD PENETRATION TEST.

## LOG OF BORING C-28



# BORING C-29

SURFACE ELEVATION 477.0  
CO-ORDINATES N 472,454.25  
E 1,904,491.42

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |
| 130           |             |                       |                      |                                |                       |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |

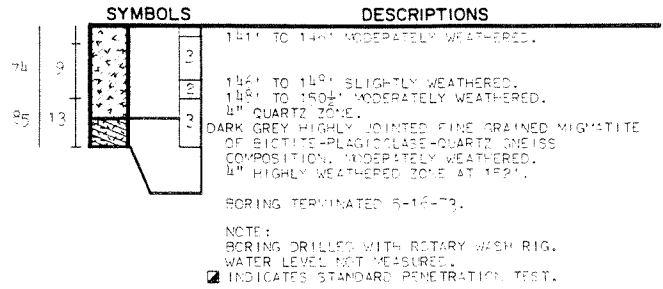
| SYMBOLS | DESCRIPTIONS                                                                                 |
|---------|----------------------------------------------------------------------------------------------|
| CL      | REDDISH-BROWN SILTY CLAY.                                                                    |
| SC-SM   | BROWN MICACEOUS SILTY CLAYE SAND.                                                            |
| SM      | OLIVE MICACEOUS SILTY SAND.                                                                  |
| ML      | OLIVE MICACEOUS SANDY SILT.                                                                  |
| 158 2   |                                                                                              |
| 15 0    | 3 LIGHT GREY HIGHLY TO SLIGHTLY JOINTED MEDIUM TO COARSE GRAINED GRANODIORITE.               |
| 38 22   | 2 98' TO 101' VERY HIGHLY WEATHERED; HIGHLY JOINTED.                                         |
|         | 101' TO 102' HIGHLY JOINTED.                                                                 |
|         | 102' TO 104' SLIGHTLY JOINTED.                                                               |
|         | 101' TO 104' SLIGHTLY WEATHERED.                                                             |
| 40 0    | 3 LIGHT TAN TO BROWN SILTY TO SANDY JOINTED FINE TO COARSE GRAINED GRANODIORITE COMPOSITION. |
| 73 20   | 104' TO 112' HIGHLY WEATHERED; HIGHLY JOINTED.                                               |
|         | 104' TO 121' MEDIUM TO COARSE GRAINED.                                                       |
|         | 4" BLACK GNEISSIC INCLUSION AT 112'.                                                         |
| 75 0    | 2 112' TO 119' HIGHLY TO MODERATELY WEATHERED; HIGHLY TO MODERATELY JOINTED.                 |
|         | LIGHT GREY HIGHLY JOINTED MEDIUM GRAINED QUARTZ ZONE, FRESH ROCK.                            |
| 63 3    | 3 LIGHT GREY TO LIGHT TAN MEDIUM GRAINED COARSE GRAINED MIGMATITE; FA. GRAINED COMPOSITION.  |
|         | 121' TO 129' MODERATELY WEATHERED.                                                           |
|         | 129' TO 134' HIGHLY TO MODERATELY WEATHERED.                                                 |
| 73 0    |                                                                                              |
| 69 21   | 134' TO 139' MODERATELY WEATHERED.                                                           |
| 100 46  | 2 139' TO 141' SLIGHTLY TO MODERATELY WEATHERED.                                             |

BORING CONTINUED

## LOG OF BORING C-29

# BORING C-29 CONT'D

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 140           |             |                        |                      |                                |                       |                                  |                           |
| 150           |             |                        |                      |                                |                       |                                  |                           |
| 160           |             |                        |                      |                                |                       |                                  |                           |



## LOG OF BORING C-29

# BORING C-30

SURFACE ELEVATION 544.1

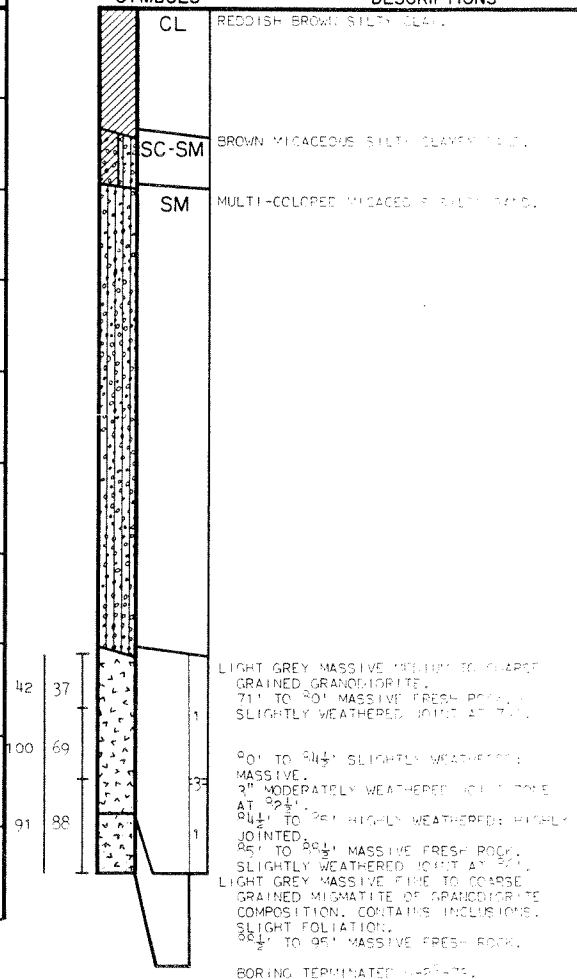
CO-ORDINATES N 472,444.25  
E 1,904,791.00

| OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0           |                       |                      |                                |                       |                                  |                           |
| 10          |                       |                      |                                |                       |                                  |                           |
| 20          |                       |                      |                                |                       |                                  |                           |
| 30          |                       |                      |                                |                       |                                  |                           |
| 40          |                       |                      |                                |                       |                                  |                           |
| 50          |                       |                      |                                |                       |                                  |                           |
| 60          |                       |                      |                                |                       |                                  |                           |
| 70          |                       |                      |                                |                       |                                  |                           |
| 80          |                       |                      |                                |                       |                                  |                           |
| 90          |                       |                      |                                |                       |                                  |                           |
| 100         |                       |                      |                                |                       |                                  |                           |

DEPTH IN FEET

## SYMBOLS

## DESCRIPTIONS



NOTE:  
BORING DRILLED WITH ROTARY DRILL.  
WATER LEVEL 1.7 FEET DOWN.

## LOG OF BORING C-30

# BORING N-14

SURFACE ELEVATION 462.9  
 COORDINATES N 471,336.9  
 E 1,904,102.5

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            | B           |                       |                      | 1500*                          | 4630*                 | 29                               | 85                        |
|               |             |                       |                      | 3000*                          | 7220*                 | 22                               | 88                        |
| 20            |             | 1500*                 | 1240*                | 6000*                          | 8300*                 | 21                               | 92                        |
|               |             | 3000*                 | 2160*                |                                |                       |                                  |                           |
| 30            |             | 500*                  | 1580*                |                                |                       | 22                               | 86                        |
|               |             | 5000*                 | 3320*                |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       |                                  |                           |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |
| 130           |             |                       |                      |                                |                       |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |

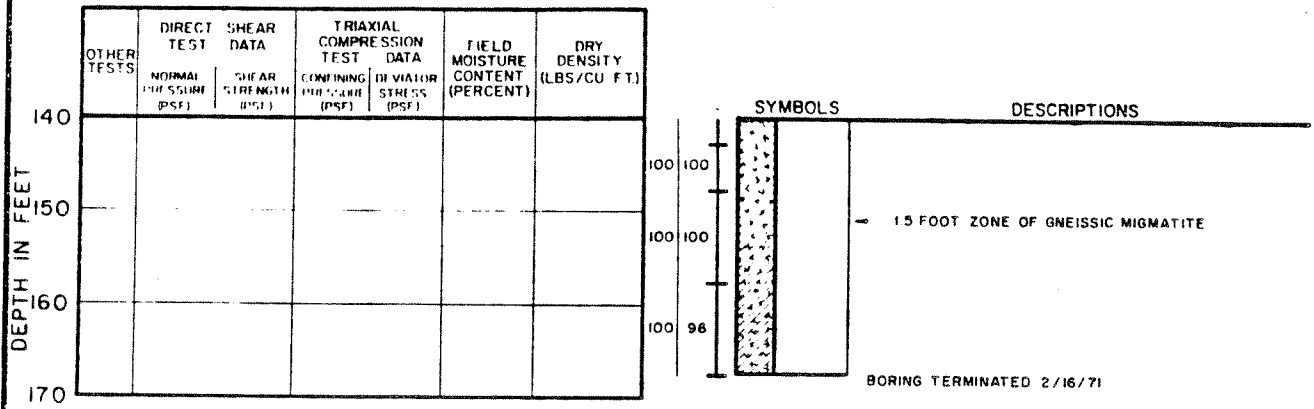
\*EFFECTIVE STRESS PARAMETER

| SYMBOLS | DESCRIPTIONS                                                                                                                                                                                                                                           |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12 ML   | REDDISH-BROWN SILT WITH MICA (VERY STIFF)                                                                                                                                                                                                              |
| 14 ML   | REDDISH-BROWN MICACEOUS FINE SANDY SILT (MEDIUM DENSE)                                                                                                                                                                                                 |
| 12      |                                                                                                                                                                                                                                                        |
| 17      | GRADES TO GRAY AND VERY MICACEOUS                                                                                                                                                                                                                      |
| 21      | GRADES TO YELLOWISH-GRAY                                                                                                                                                                                                                               |
| 60 SM   | GRAYISH-BROWN MICACEOUS FINE SILTY SAND (VERY DENSE)                                                                                                                                                                                                   |
| 67      |                                                                                                                                                                                                                                                        |
| 100     |                                                                                                                                                                                                                                                        |
| 83 44   | GRADES WITH SOME COARSE SAND<br>DARK GRAY FINE GRAINED MIGMATITE COMPOSED OF A LIGHT GRAY FINE GRAINED GRANODIORITE MATRIX CONTAINING ANGULAR BIOTITE GNEISS FRAGMENTS; A CONTACT BRECCIA TYPE MIGMATITE.<br>SOME SLIGHT WEATHERING<br>SOME WATER LOSS |
| 75 47   | LIGHT GRAY AND BLACK FINE TO COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION.<br>CONTAINS ZONED FELDSPARS.                                                                                                                                        |
| 73 61   | FRESH ROCK<br>1 FOOT FRACTURED ZONE WITH IRON STAINING<br>1.5 FOOT WEATHERED ZONE ALONG HORIZONTAL JOINTS<br>1 FOOT WEATHERED ZONE ALONG HORIZONTAL JOINTS<br>GRADES COARSE GRAINED AND MASSIVE<br>SOME PINK FELDSPARS                                 |
| 70 60   |                                                                                                                                                                                                                                                        |
| 87 83   |                                                                                                                                                                                                                                                        |
| 100 100 |                                                                                                                                                                                                                                                        |
| 100 92  | SOME FOLIATION<br>DARK GRAY MASSIVE FINE GRAINED MIGMATITE OF BIOTITE - PLAGIOCLASE - QUARTZ GNEISS COMPOSITION.                                                                                                                                       |
| 100 100 | LIGHT GRAY AND BLACK MASSIVE MEDIUM GRAINED MIGMATITE OF GRANODIORITE COMPOSITION.<br>CONTAINS ZONED FELDSPARS.                                                                                                                                        |
| 100 100 | 1 FOOT ZONE OF GNEISSIC MIGMATITE                                                                                                                                                                                                                      |
| 100 100 | LIGHT AND DARK GRAY MASSIVE FINE GRAINED MIGMATITE OF BIOTITE - PLAGIOCLASE - QUARTZ GNEISS COMPOSITION.                                                                                                                                               |
| 97 97   | LIGHT GRAY AND BLACK MASSIVE MEDIUM GRAINED MIGMATITE OF GRANODIORITE COMPOSITION.<br>CONTAINS ZONED FELDSPARS                                                                                                                                         |
| 97 95   | GRADES COARSE GRAINED                                                                                                                                                                                                                                  |

BORING CONTINUED

LOG OF BORING N-14

# BORING N-14 (CONTD.)



## NOTES:

1. ELEVATIONS REFER TO MEAN SEA LEVEL DATUM.
2. CO-ORDINATES REFER TO SOUTH CAROLINA CO-ORDINATE SYSTEM.
3. LABORATORY TESTS ARE DISCUSSED IN THE TEXT.
4. FOR THE KEY OF SYMBOLS REFER TO FIGURE 2.5.1-89.
5. "A" INDICATES GRAIN SIZE TEST RESULTS PRESENTED ON FIGURES 2.5.1-104 THROUGH 2.5.1-107.
6. "B" INDICATES CONSOLIDATION TEST RESULTS PRESENTED IN FIGURES 2.5.1-95 THROUGH 2.5.1-103.
7. "C" INDICATES ATTERBERG LIMIT EVALUATION RESULTS PRESENTED ON TABLE 2.5.1-5.
8. "D" INDICATES PERMEABILITY EVALUATION RESULTS PRESENTED ON TABLE 2.5.1-4.
9. STRENGTH PARAMETERS IDENTIFIED WITH \* STARS, ARE EFFECTIVE STRESS; OTHERS REFLECT TOTAL STRESS.
- \*\* NOT USED TO IDENTIFY TESTS ON "N"-SERIES BORINGS.

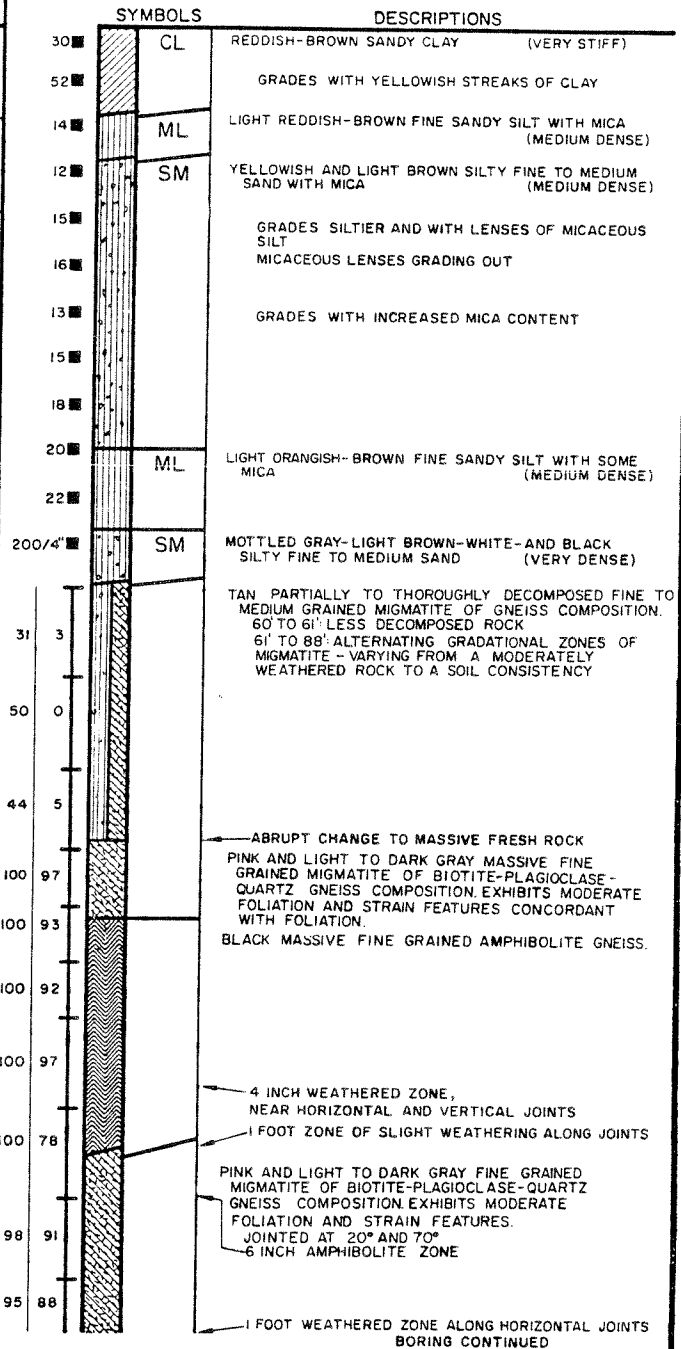
LOG OF BORING N-14

# BORING N-15

SURFACE ELEVATION 493.9  
 COORDINATES N 472,012.2  
 E 1,904,156.9

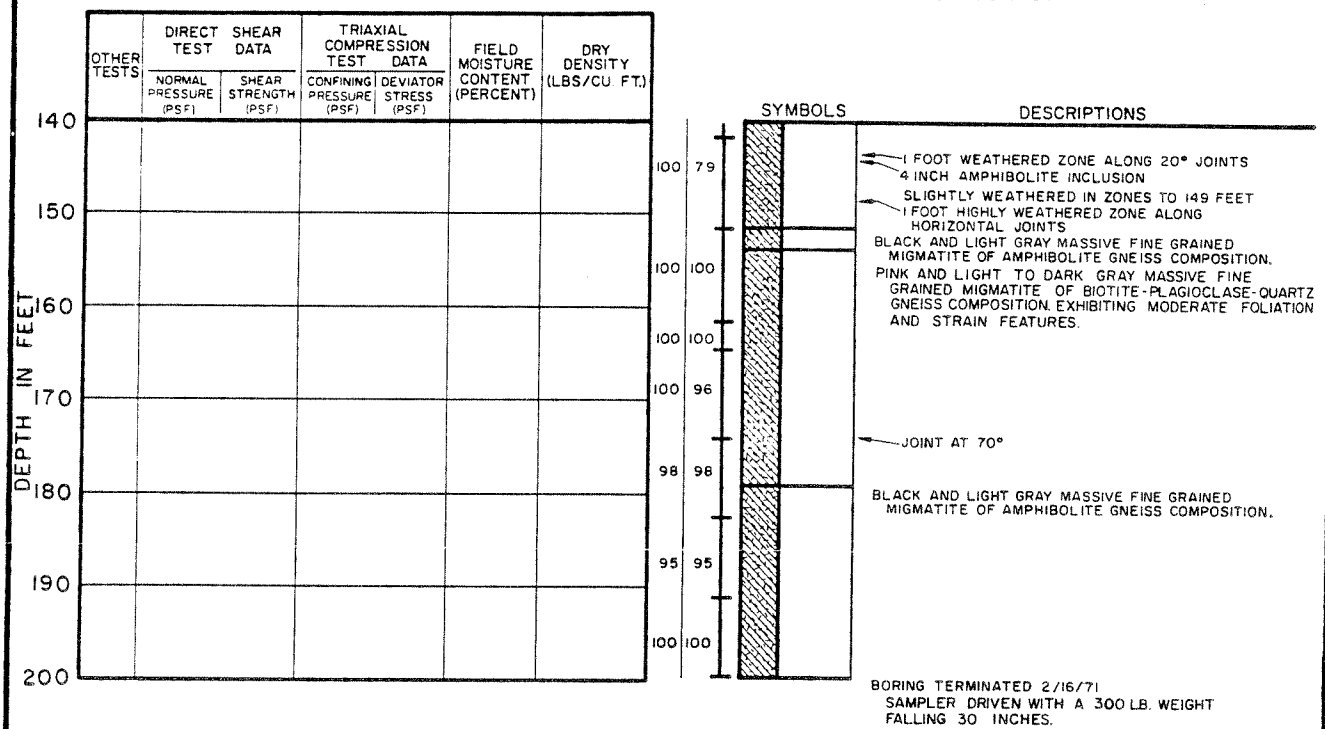
| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                                |                       |                                  |                           |
| 10            |             |                       |                      |                                |                       |                                  |                           |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             | 500*                  | 600*                 |                                |                       | 15                               | 95                        |
|               |             | 3000*                 | 2320*                |                                |                       | 15                               | 96                        |
| 40            |             | 11000                 | 1420                 |                                |                       | 15                               | 98                        |
|               |             | 5000                  | 4550                 |                                |                       |                                  |                           |
| 50            | B           |                       |                      |                                |                       | 23                               | 91                        |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |
| 130           |             |                       |                      |                                |                       |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |

\*EFFECTIVE STRESS PARAMETER



LOG OF BORING N-15

# BORING N-15 (CONTD)



GROUND WATER LEVEL AT DEPTH 85.4 FEET, ON 3-29-71.

LOG OF BORING N-15

# BORING N-16

SURFACE ELEVATION 439.4  
 COORDINATES N 471,438.8  
 E 1,905,353.3

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|-------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             | B           |                       |                      |                               |                       | 23                               | 94                        |
| 10            |             |                       |                      |                               |                       |                                  |                           |
| 20            |             |                       |                      |                               |                       |                                  |                           |
| 30            |             |                       |                      |                               |                       | 18                               | 98                        |
| 35            |             | 2000                  | 1950                 |                               |                       | 22                               | 88                        |
| 40            |             | 5000                  | 3670                 |                               |                       | 21                               | 94                        |
| 45            |             | 2000                  | 2000                 |                               |                       | 25                               | 89                        |
| 50            |             | 5000                  | 3700                 |                               |                       | 23                               | 94                        |
| 60            |             |                       |                      |                               |                       | 11                               | 106                       |
| 70            |             |                       |                      |                               |                       |                                  |                           |
| 80            |             |                       |                      |                               |                       |                                  |                           |
| 90            |             |                       |                      |                               |                       |                                  |                           |
| 100           |             |                       |                      |                               |                       |                                  |                           |
| 110           |             |                       |                      |                               |                       |                                  |                           |
| 120           |             |                       |                      |                               |                       |                                  |                           |
| 130           |             |                       |                      |                               |                       |                                  |                           |
| 140           |             |                       |                      |                               |                       |                                  |                           |

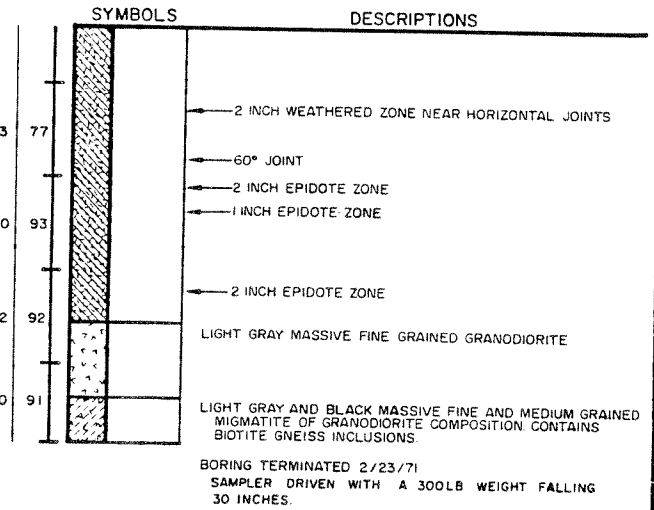
| SYMBOLS   | DESCRIPTIONS                                                                                                                                                                 |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16 ■      | ML REDDISH-BROWN CLAYEY SILT (VERY STIFF)                                                                                                                                    |
| 10 ■      | GRADES WITH MICA                                                                                                                                                             |
| 8 ■       | ML-SM REDDISH-BROWN MICACEOUS SANDY SILT (LOOSE)                                                                                                                             |
| 9 ■       | SM MOTTLED GRAY-WHITE-LIGHT BROWN AND BLACK MICACEOUS SILTY FINE TO MEDIUM SAND (LOOSE)                                                                                      |
| 19 ■      | ML-SM MOTTLED GRAY-LIGHT GRAY AND BROWN MICACEOUS FINE SANDY SILT (MEDIUM DENSE)                                                                                             |
| 17 ■      |                                                                                                                                                                              |
| 18 ■      |                                                                                                                                                                              |
| 20 ■      |                                                                                                                                                                              |
| 34 ■      | SM-ML GRAY MICACEOUS SILTY FINE SAND (MEDIUM DENSE)                                                                                                                          |
| 22 ■      |                                                                                                                                                                              |
| 100/6" ■  | SM MOTTLED GRAY-LIGHT GRAY-WHITE AND LIGHT BROWN MICACEOUS SILTY FINE TO COARSE SAND (VERY DENSE)                                                                            |
| 50/3" □   | CEMENTED FROM 55 FEET TO 58 FEET                                                                                                                                             |
| 100/11" ■ |                                                                                                                                                                              |
| 50/4" ■   | GRADES WITH FREQUENT CEMENTED LAYERS                                                                                                                                         |
| 60/5" ■   |                                                                                                                                                                              |
| 60/3" ■   |                                                                                                                                                                              |
| 70 48     | LIGHT TAN MASSIVE FINE GRAINED APLITE DIKE WITH ZONES OF SLIGHT FOLIATION. SOME SLIGHT WEATHERING. 4 INCH WEATHERED ZONE AT 81 FEET                                          |
| 64 19     | LOST CIRCULATION 1 FOOT GNEISSIC MIGMATITE ZONE                                                                                                                              |
| 90 20     | LIGHT TO DARK GRAY HIGHLY JOINTED FINE GRAINED MIGMATITE OF BIOTITE - PLAGIOCLASE - QUARTZ GNEISS COMPOSITION. 92.3' TO 100.2' ZONES OF PARTIAL DECOMPOSITION ALONG JOINTING |
| 98 60     | 97' TO 99' : MIGMATITE OF GRANODIORITE COMPOSITION REGAIN CIRCULATION                                                                                                        |
| 58 44     | GRADES MASSIVE. FRESH ROCK                                                                                                                                                   |
| 100 63    | 4 INCH EPIDOTE ZONE                                                                                                                                                          |
| 100 41    | 4 INCH EPIDOTE ZONE                                                                                                                                                          |
| 100 86    | GRAY MASSIVE FINE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION.                                                                                                             |
|           | BLACK AND GRAY MASSIVE FINE GRAINED MIGMATITE OF BIOTITE - PLAGIOCLASE - QUARTZ GNEISS COMPOSITION. 2 INCH QUARTZ-MUSCOVITE VEINS AT 121' AND 121.5'                         |
|           | 126' TO 184.5' : ORIGINAL FOLIATION HIGHLY CONTORTED BY PLASTIC DEFORMATION                                                                                                  |
|           | 1 INCH WEATHERED ZONE ALONG 30° JOINTS                                                                                                                                       |
|           | 2 INCH WEATHERED ZONE ALONG 30° JOINTS                                                                                                                                       |
|           | 1 INCH WEATHERED ZONE ALONG 30° JOINTS                                                                                                                                       |
|           | 1 INCH WEATHERED ZONE ALONG 30° JOINTS                                                                                                                                       |

LOG OF BORING N-16



# BORING N-16 (CONTD)

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |
| 150           |             |                       |                      |                                |                       |                                  |                           |
| 160           |             |                       |                      |                                |                       |                                  |                           |
| 170           |             |                       |                      |                                |                       |                                  |                           |
| 180           |             |                       |                      |                                |                       |                                  |                           |
| 190           |             |                       |                      |                                |                       |                                  |                           |



GROUND WATER LEVEL AT DEPTH 58.3 FEET, ON 3-29-71.

LOG OF BORING N-16

SURFACE ELEVATION 440.6  
COORDINATES N 472,981.8  
E 1,903,775.1

| SYMBOLS |    | DESCRIPTIONS                                                                                                                                                      |
|---------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 25      | CL | REDDISH-BROWN SILTY CLAY WITH MICA (HARD)                                                                                                                         |
| 33      |    |                                                                                                                                                                   |
| 39      | ML | REDDISH-BROWN MICACEOUS FINE SANDY SILT (DENSE)                                                                                                                   |
| 23      |    | GRADES SANDIER                                                                                                                                                    |
| 15      | SM | MOTTLED GRAY, LIGHT GRAY, WHITE AND LIGHT TAN MICACEOUS SILTY FINE TO MEDIUM SAND (MEDIUM DENSE)                                                                  |
| 14      |    | GRADES WITH COARSE SAND AND SMALL GRAVEL                                                                                                                          |
| 17      |    |                                                                                                                                                                   |
| 39      |    | GRADES TO DENSE                                                                                                                                                   |
| 67      |    | GRADES TO VERY DENSE                                                                                                                                              |
| 102     |    | GRADES WITH LESS SILT                                                                                                                                             |
| 173     |    |                                                                                                                                                                   |
| 26      |    | LIGHT GRAY AND BLACK MASSIVE TO MEDIUM GRAINED GRANODIORITE, CONTAINS ZONED FELDSPARS AND INFREQUENT INCLUSIONS.<br>55' TO 67': WEATHERED ALONG HORIZONTAL JOINTS |
| 54      |    | GRADES MASSIVE                                                                                                                                                    |
| 90      |    |                                                                                                                                                                   |
| 00      |    | LARGE BIOTITE GNEISS INCLUSIONS AT 85' AND 87'<br>GRADES COARSE GRAINED                                                                                           |
| 96      |    | LARGE BIOTITE GNEISS INCLUSION                                                                                                                                    |
| 93      |    | SLIGHT WEATHERING ALONG JOINTS                                                                                                                                    |
| 70      |    | SMALL BIOTITE GNEISS INCLUSION                                                                                                                                    |
| 91      |    | 7 INCH ZONE OF HIGHLY STRAINED HEALED FRACTURES<br>5 INCH ZONE OF HIGHLY STRAINED HEALED FRACTURES<br>3 INCH WEATHERED ZONE OF HIGHLY STRAINED HEALED FRACTURES   |
| 36      |    | LIGHT GRAY TO GRAY MASSIVE FINE GRAINED MIGMATITE OF BIOTITE-PLAGIOCLASE-QUARTZ GNEISS COMPOSITION.                                                               |

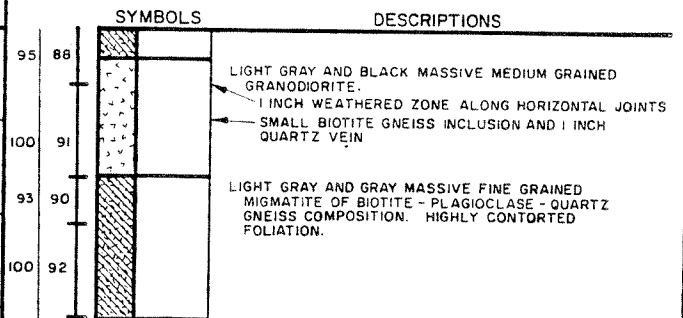
BORING CONTINUED

Amendment 0  
August 1984

Figure 2E-14

# BORING N-17 (CONTD)

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |
| 150           |             |                       |                      |                                |                       |                                  |                           |
| 160           |             |                       |                      |                                |                       |                                  |                           |
| 170           |             |                       |                      |                                |                       |                                  |                           |
| 180           |             |                       |                      |                                |                       |                                  |                           |



BORING TERMINATED 2/23/71  
SAMPLER DRIVEN WITH A 300LB. WEIGHT FALLING 26 INCHES.

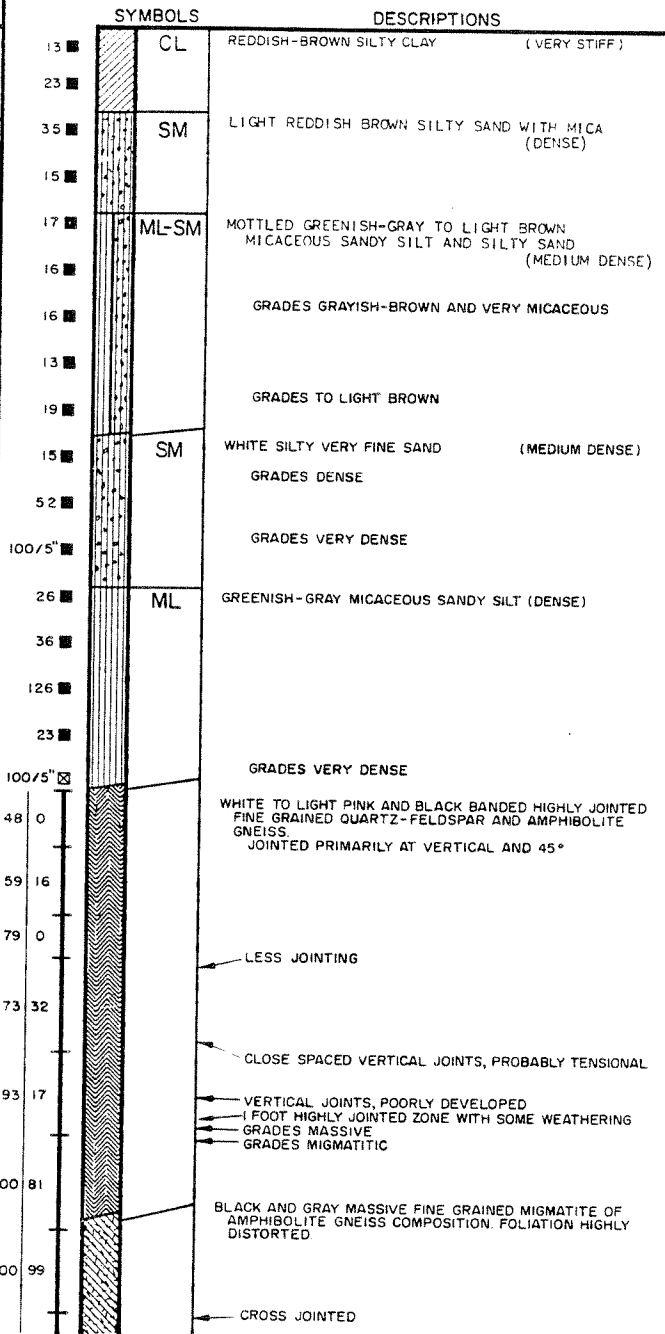
GROUND WATER LEVEL AT DEPTH 61.8 FEET, ON 3-29-71.

LOG OF BORING N-17

# BORING N-18

SURFACE ELEVATION 456.5 FEET  
 COORDINATES N 470,667.4  
 E 1,903,596.4

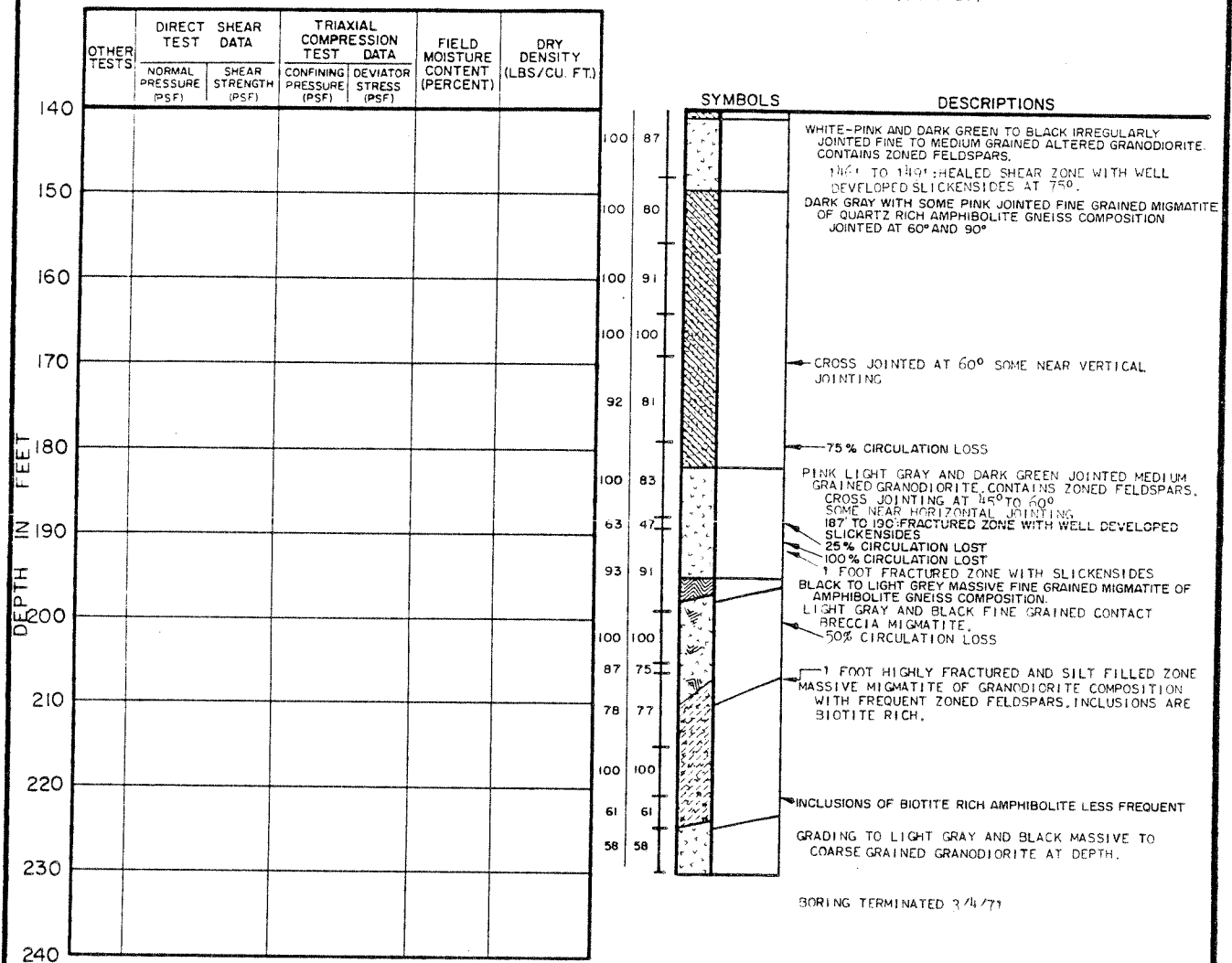
| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       | 25                               | 95                       |
|               |             |                       |                      | 0                              | 6230                  | 25                               | 100                      |
| 10            | A           | 1000<br>6000          | 230<br>5830          |                                |                       | 24<br>24                         | 96<br>94                 |
| 20            | B           |                       |                      |                                |                       | 20                               | 89                       |
| 30            | A           |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            | A           |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       | 27                               | 91                       |
| 70            | B           |                       |                      |                                |                       | 28                               | 95                       |
| 80            | A           |                       |                      |                                |                       | 29                               | 96                       |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |
| 130           |             |                       |                      |                                |                       |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |



BORING CONTINUED

## LOG OF BORING N-18

# BORING N-18 (CONTD.)



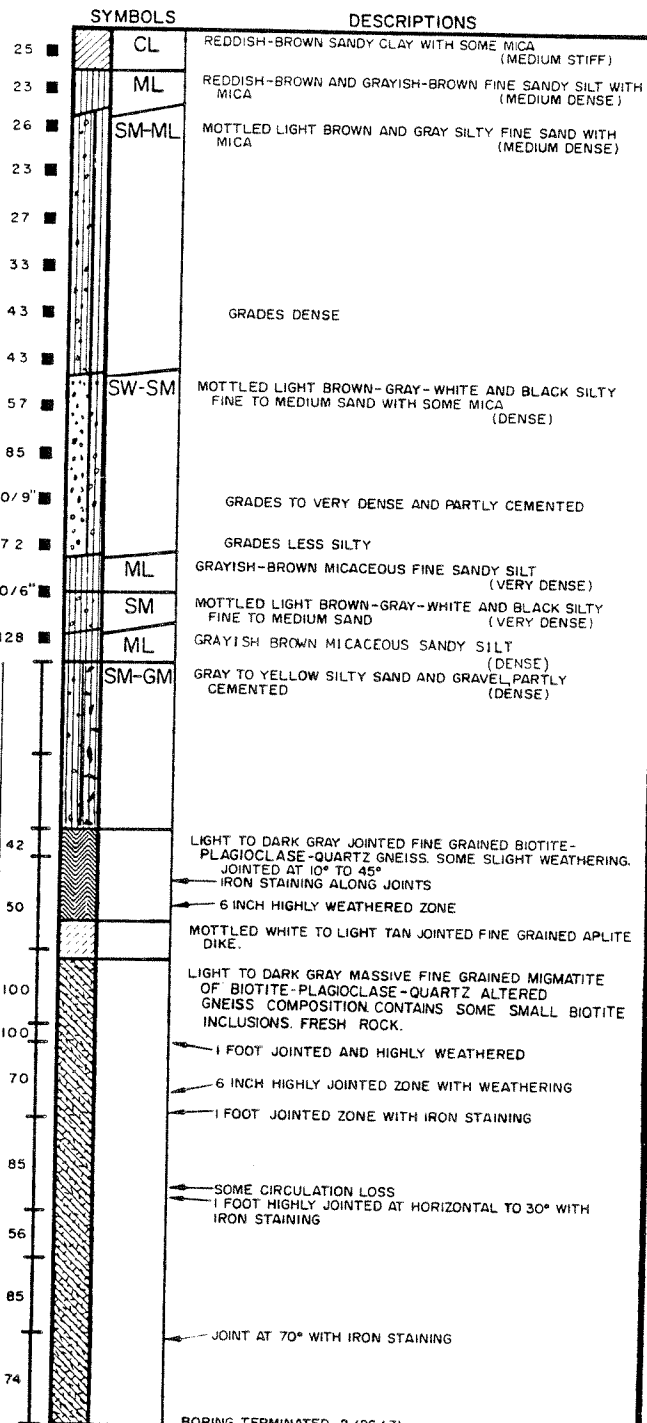
NO GROUND WATER LEVEL AVAILABLE

LOG OF BORING N-18

# BORING N-19

SURFACE ELEVATION 4864  
 COORDINATES N 472,378.8  
 E 1,904,260.3

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|-------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                               |                       | 28                               | 93                        |
| 10            |             |                       |                      |                               |                       | 20                               | 93                        |
| 20            |             |                       |                      |                               |                       |                                  |                           |
| 30            |             | 2000                  | 2300                 |                               |                       | 15                               | 93                        |
| 40            | A           |                       |                      |                               |                       | 13                               | 99                        |
| 50            |             | 5000                  | 4500                 |                               |                       | 12                               | 108                       |
| 60            |             |                       |                      |                               |                       |                                  |                           |
| 70            | A B         | 4000                  | 3400                 |                               |                       | 31                               | 93                        |
| 80            |             |                       |                      |                               |                       |                                  |                           |
| 90            |             |                       |                      |                               |                       |                                  |                           |
| 100           |             |                       |                      |                               |                       |                                  |                           |
| 110           |             |                       |                      |                               |                       |                                  |                           |
| 120           |             |                       |                      |                               |                       |                                  |                           |
| 130           |             |                       |                      |                               |                       |                                  |                           |
| 140           |             |                       |                      |                               |                       |                                  |                           |
| 150           |             |                       |                      |                               |                       |                                  |                           |



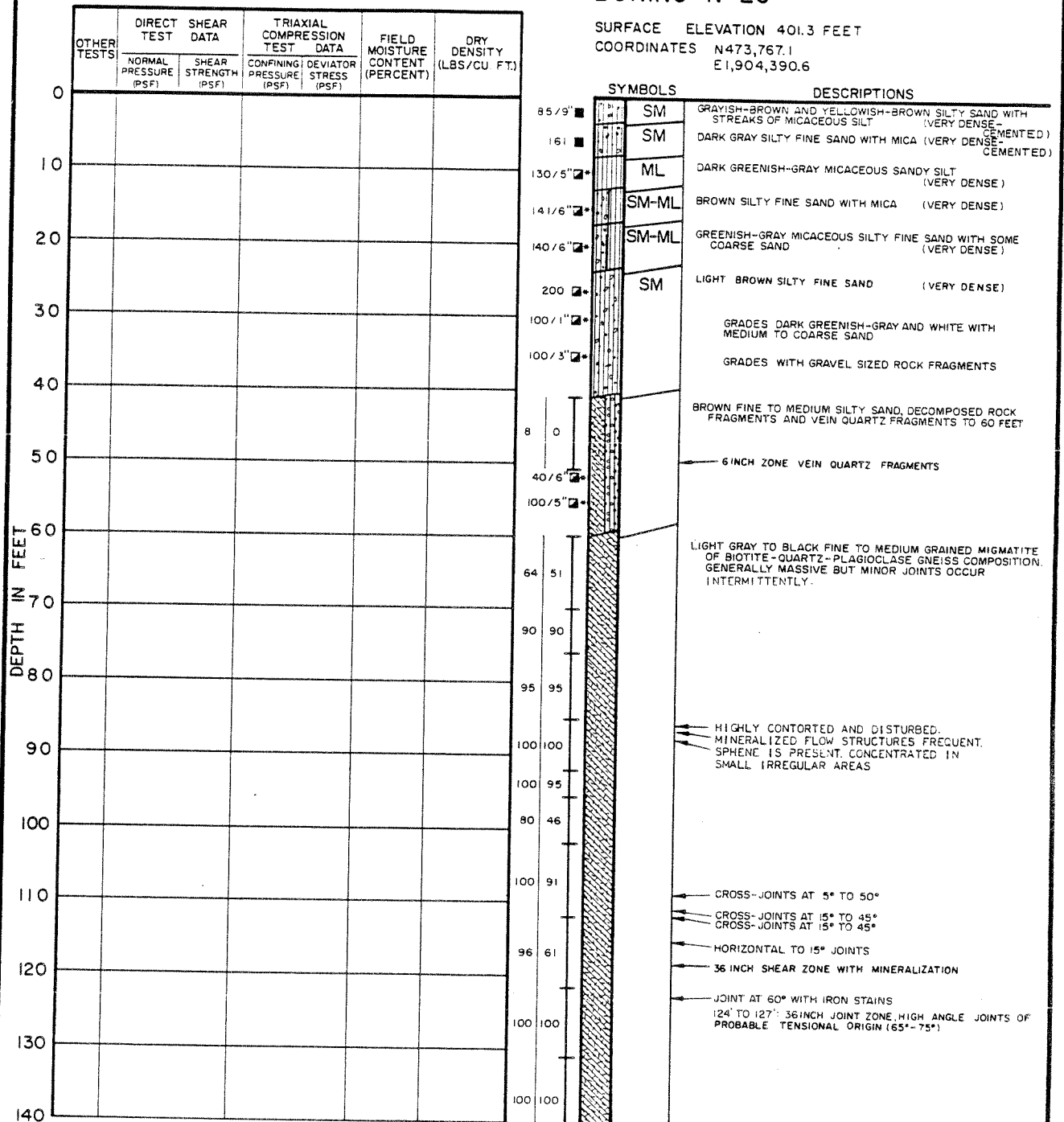
BORING TERMINATED 2/26/71  
 SAMPLER DRIVEN BY A 140 LB WEIGHT  
 FALLING 30 INCHES.

GROUND WATER LEVEL AT DEPTH 86.3 FEET, ON 3-29-71.

LOG OF BORING N-19

# BORING N-20

SURFACE ELEVATION 401.3 FEET  
 COORDINATES N473,767.1  
 E1,904,390.6



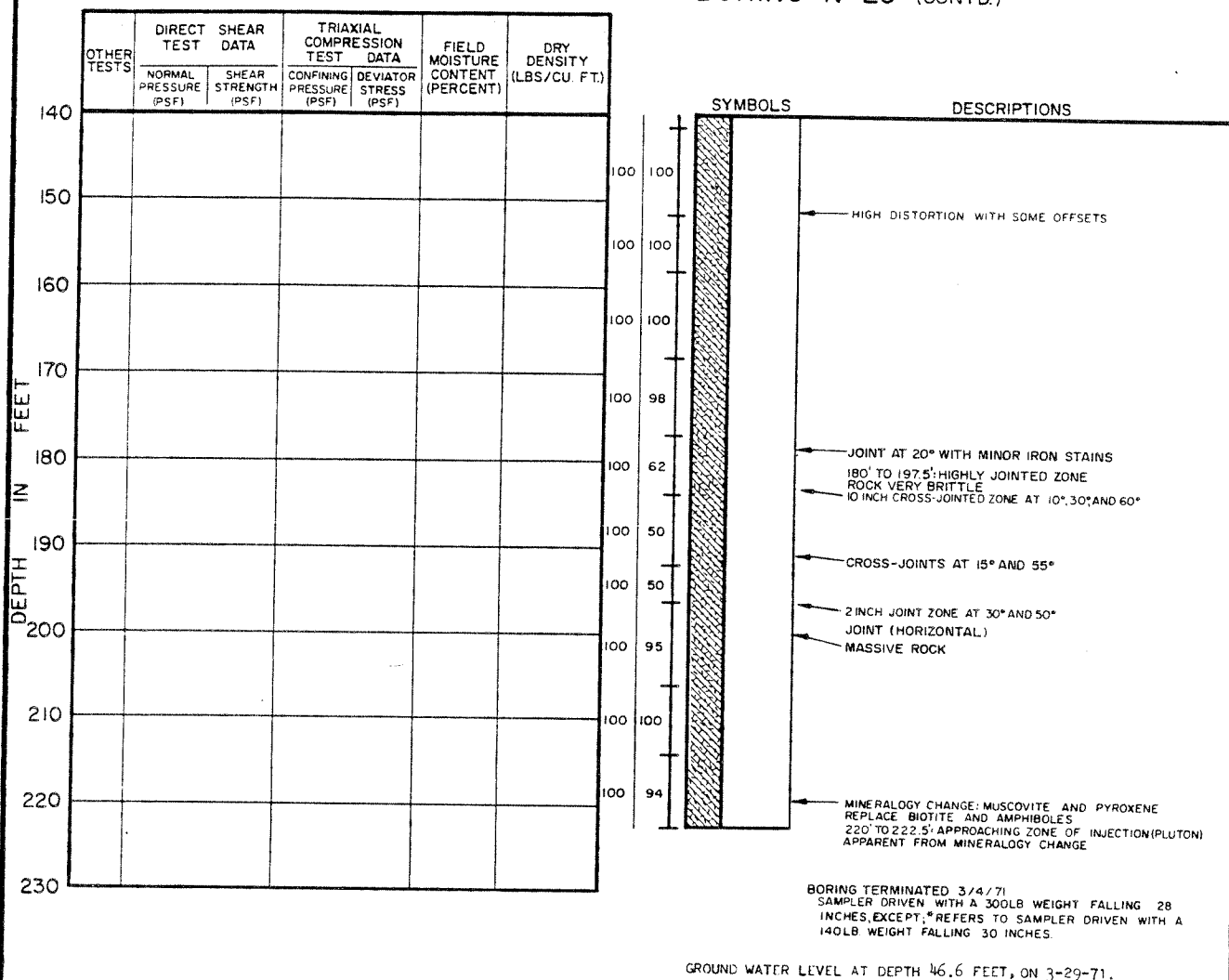
BORING CONTINUED

LOG OF BORING N-20

Amendment 0  
 August 1984

Figure 2E-17

# BORING N-20 (CONTD.)

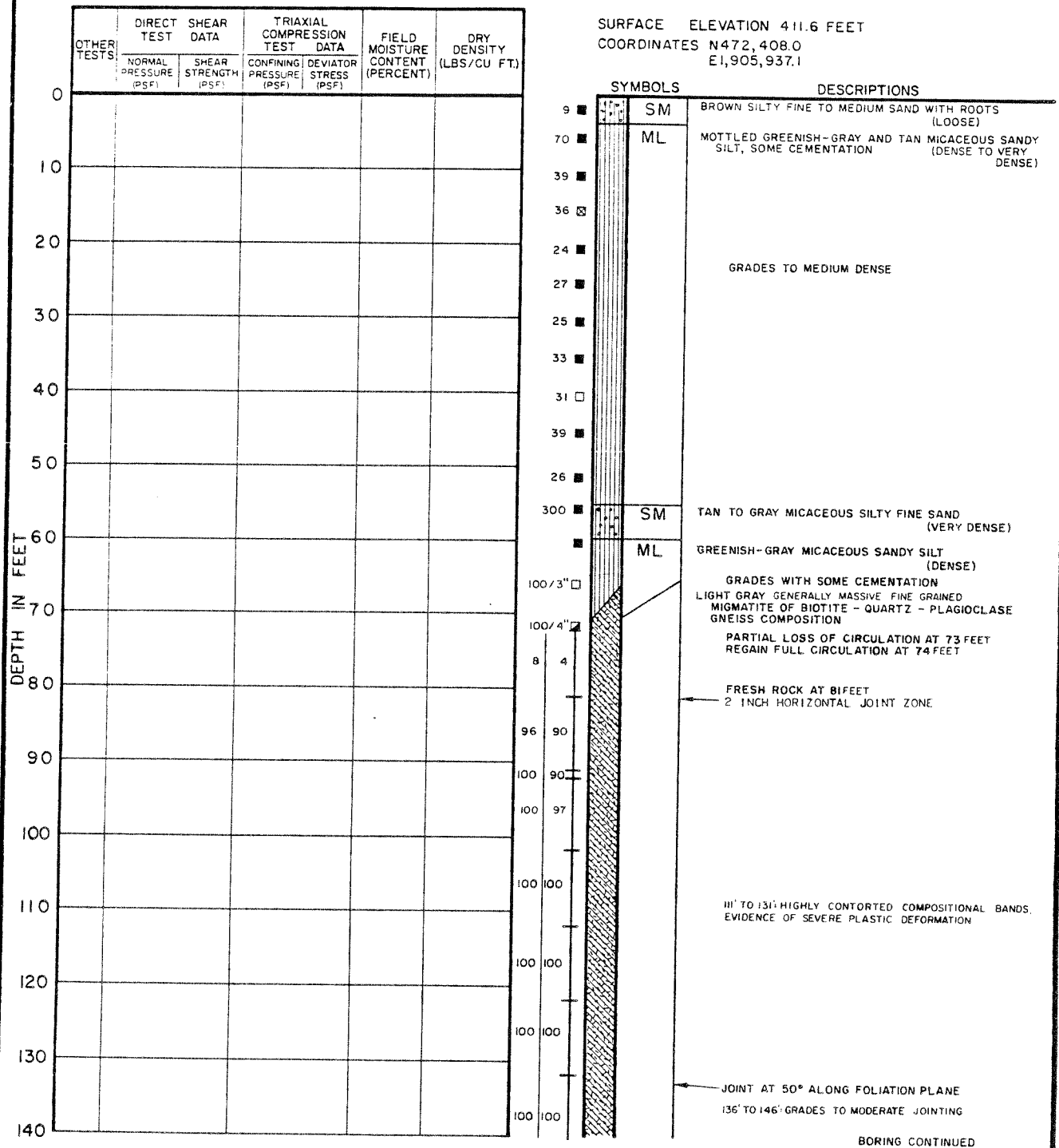


LOG OF BORING N-20



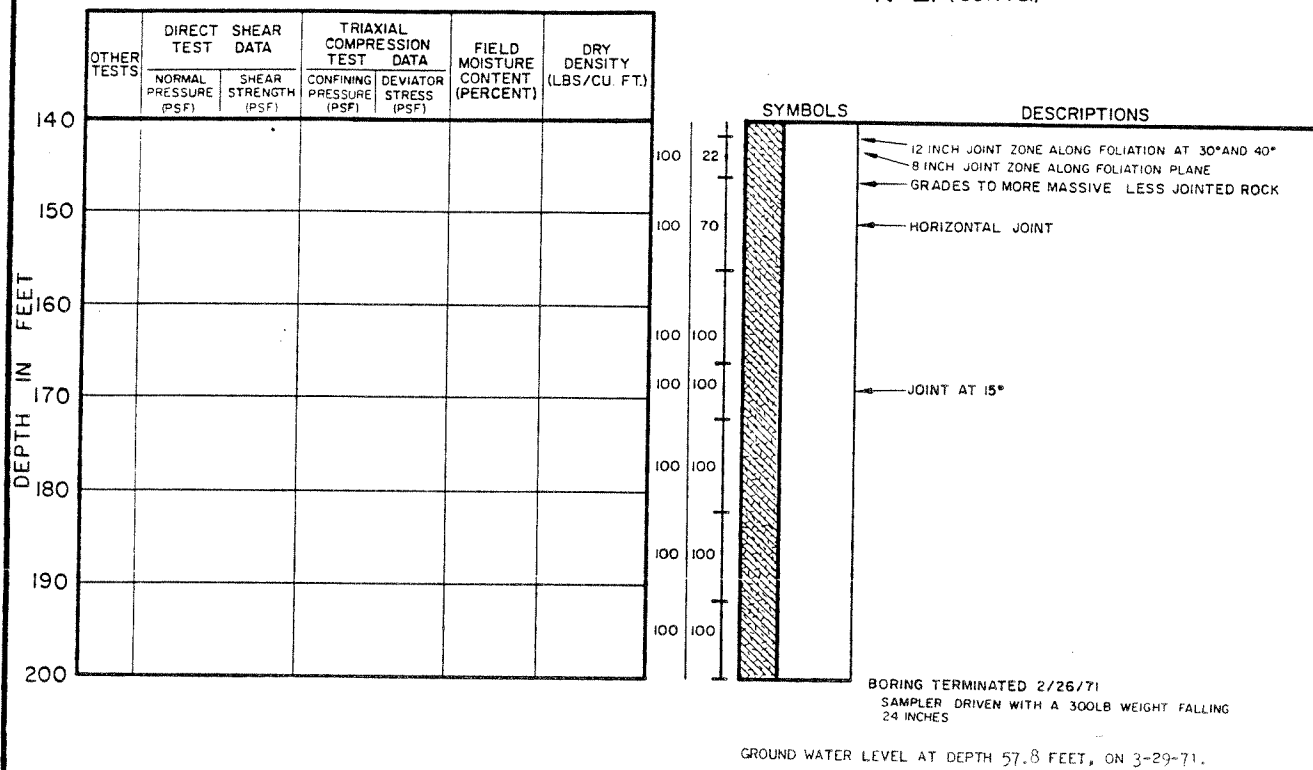
# BORING N-21

SURFACE ELEVATION 411.6 FEET  
 COORDINATES N472,408.0  
 E1,905,937.1



LOG OF BORING N-21

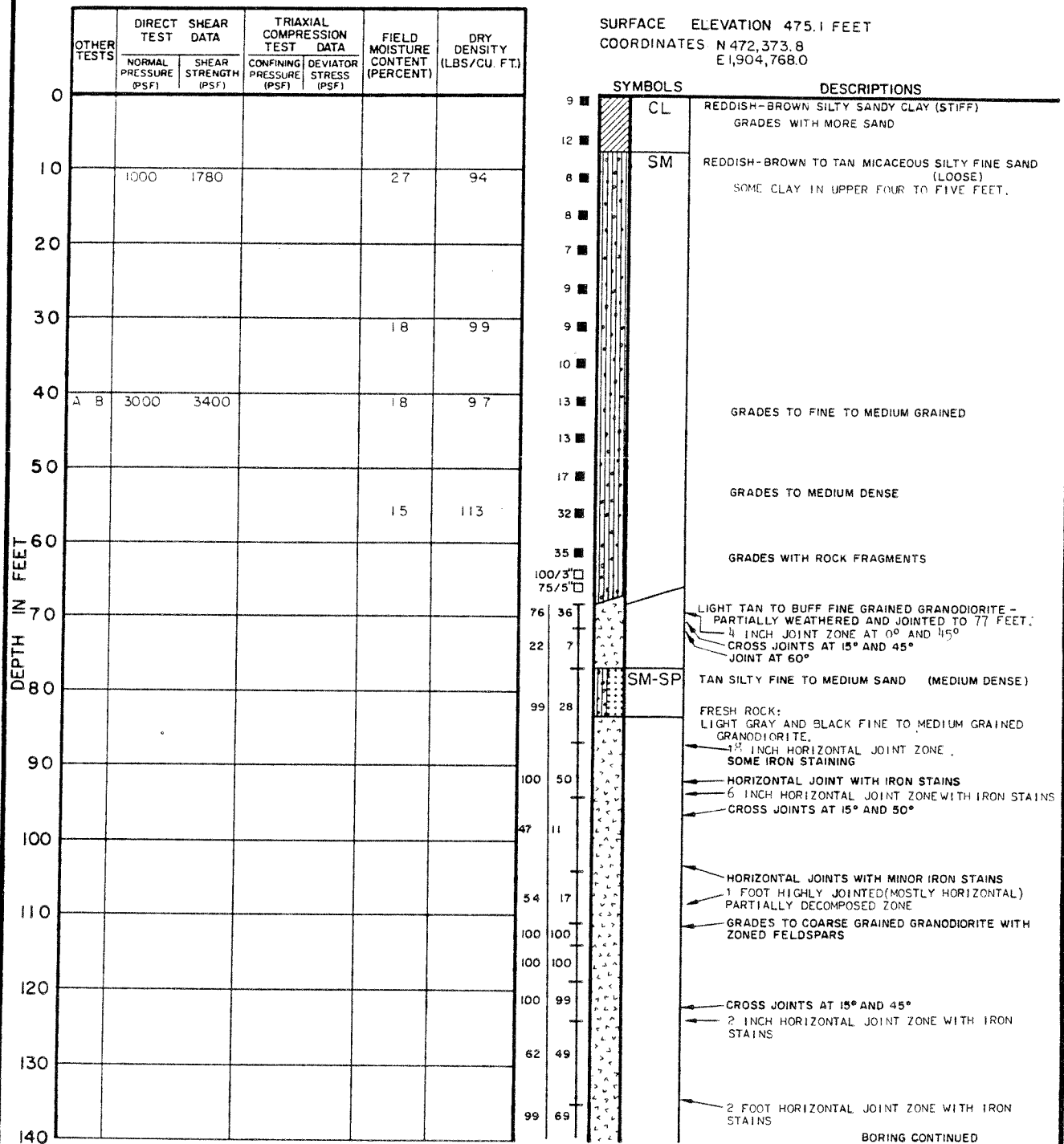
# BORING N-21 (CONTD.)



LOG OF BORING N-21

# BORING N-22

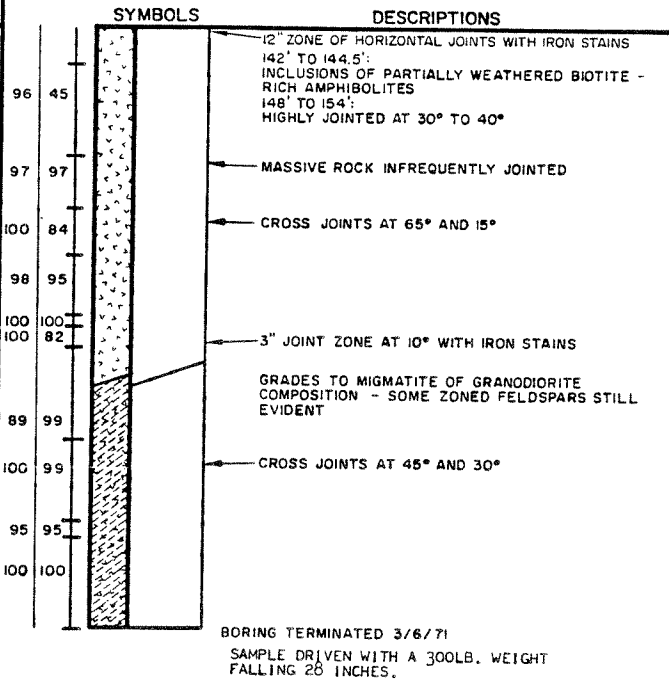
SURFACE ELEVATION 475.1 FEET  
 COORDINATES N 472,373.8  
 E 1,904,768.0



LOG OF BORING N-22

# BORING N-22 (CONTD.)

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |
| 150           |             |                       |                      |                                |                       |                                  |                           |
| 160           |             |                       |                      |                                |                       |                                  |                           |
| 170           |             |                       |                      |                                |                       |                                  |                           |
| 180           |             |                       |                      |                                |                       |                                  |                           |
| 190           |             |                       |                      |                                |                       |                                  |                           |
| 200           |             |                       |                      |                                |                       |                                  |                           |
| 210           |             |                       |                      |                                |                       |                                  |                           |

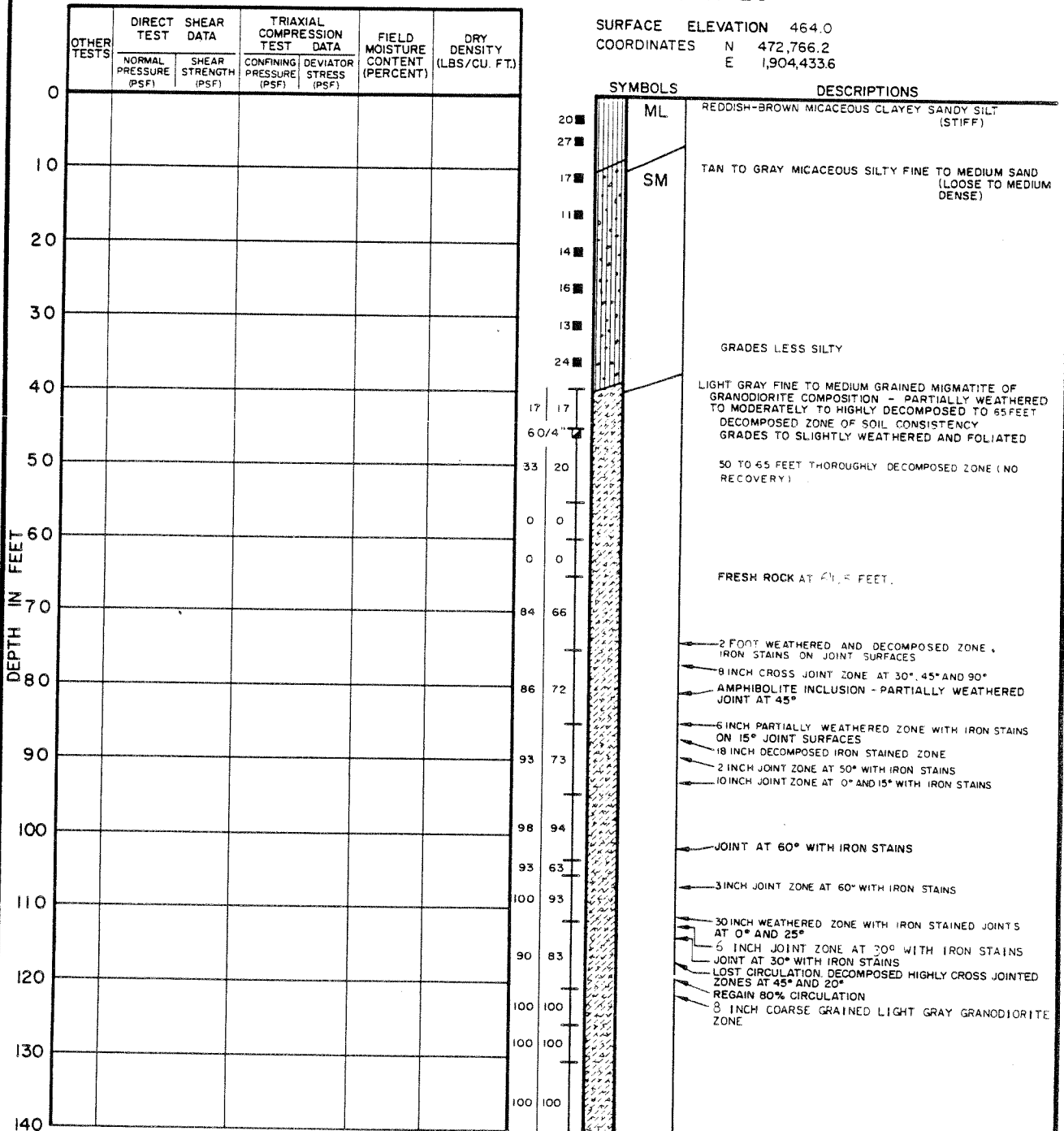


GROUND WATER LEVEL AT DEPTH 81.0 FEET, ON 3-29-71.

LOG OF BORING N-22

# BORING N-23

SURFACE ELEVATION 464.0  
 COORDINATES N 472,766.2  
 E 1,904,433.6



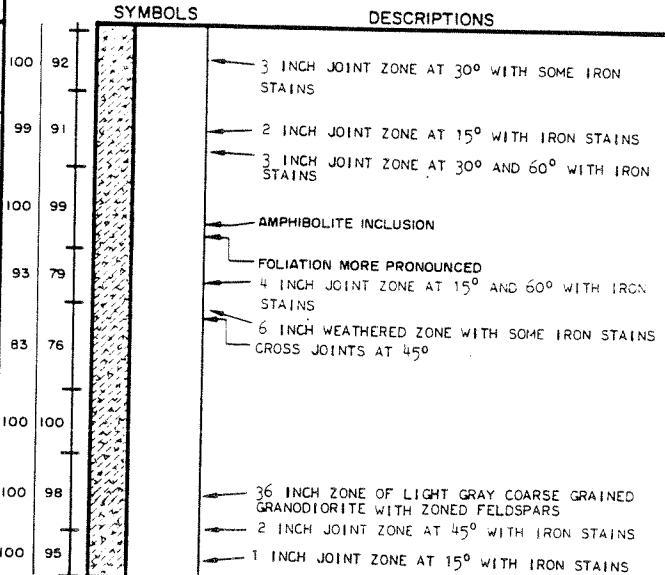
BORING CONTINUED

LOG OF BORING N-23

# BORING N-23 (CONTD)

SURFACE ELEVATION  
COORDINATES

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |
| 150           |             |                       |                      |                                |                       |                                  |                           |
| 160           |             |                       |                      |                                |                       |                                  |                           |
| 170           |             |                       |                      |                                |                       |                                  |                           |
| 180           |             |                       |                      |                                |                       |                                  |                           |
| 190           |             |                       |                      |                                |                       |                                  |                           |
| 200           |             |                       |                      |                                |                       |                                  |                           |
| 210           |             |                       |                      |                                |                       |                                  |                           |



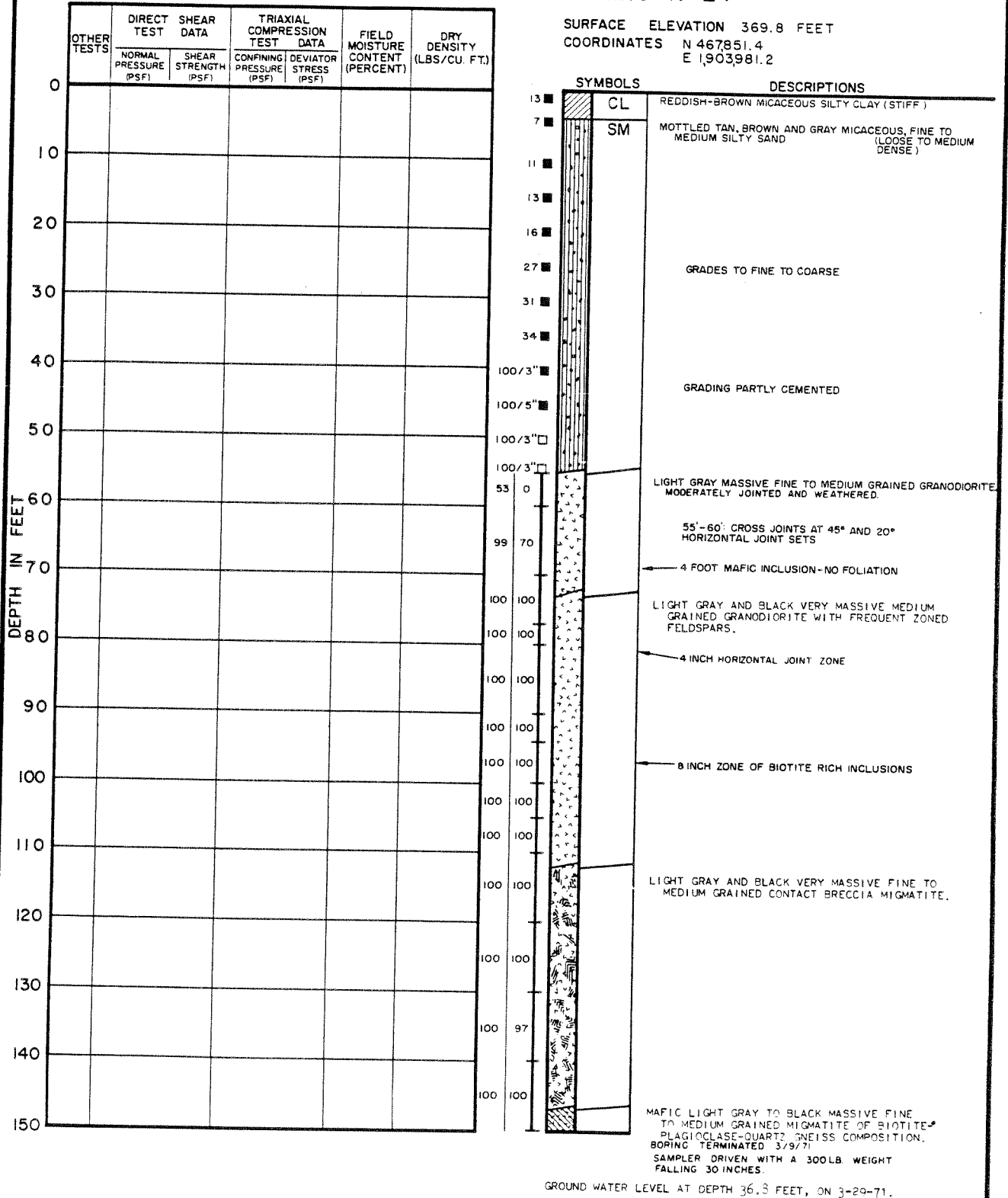
BORING TERMINATED 3/17/71  
SAMPLER DRIVEN WITH A 300LB WEIGHT  
FALLING 30 INCHES.

GROUND WATER LEVEL AT DEPTH 67.0 FEET, ON 3-29-71.

LOG OF BORING N-23

# BORING N-24

SURFACE ELEVATION 369.8 FEET  
 COORDINATES N 467851.4  
 E 1903981.2

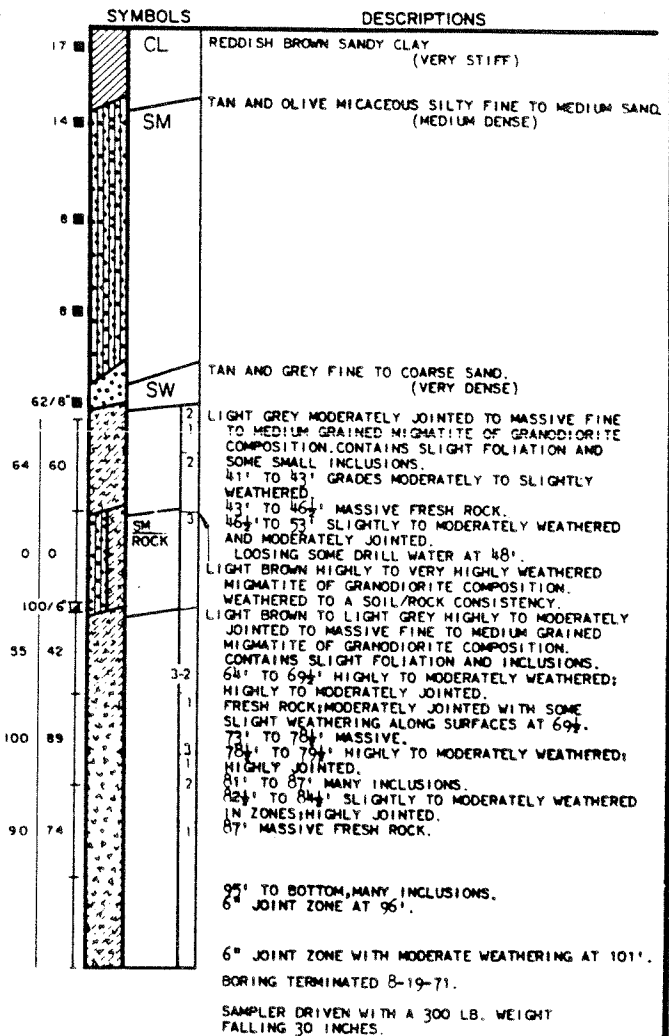


LOG OF BORING N-24

# BORING I-1

SURFACE ELEVATION 461.0  
CO-ORDINATES N 472,766  
E 1,904,204

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|---------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                           |  |                                  |                          |
| 0             |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 10            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 20            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 30            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 40            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 50            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 60            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 70            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 80            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 90            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 100           |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 110           |             |                       |                      |                          |                       |                           |  |                                  |                          |



## LOG OF BORING I-1

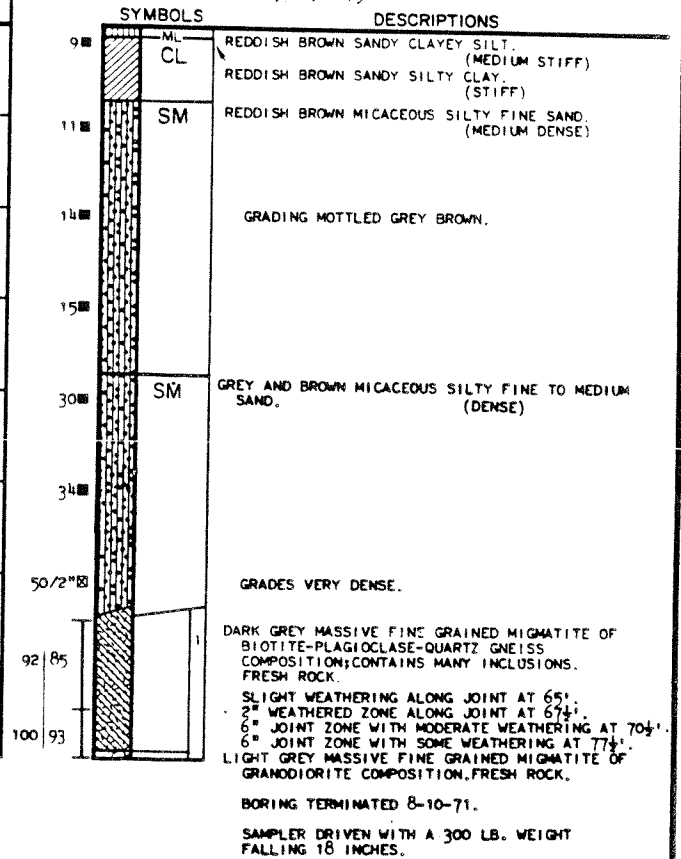


# BORING I-2

SURFACE ELEVATION 463.9  
CO-ORDINATES N 472,660.5

E 1,904,081.5

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR DATA     |                      | TRIAxIAL COMPRESSION DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|---------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)  | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                           |                       |                                  |                          |
| 10            |             |                       |                      |                           |                       |                                  |                          |
| 20            |             |                       |                      |                           |                       |                                  |                          |
| 30            |             |                       |                      |                           |                       |                                  |                          |
| 40            |             |                       |                      |                           |                       |                                  |                          |
| 50            |             |                       |                      |                           |                       |                                  |                          |
| 60            |             |                       |                      |                           |                       |                                  |                          |
| 70            |             |                       |                      |                           |                       |                                  |                          |
| 80            |             |                       |                      |                           |                       |                                  |                          |



## LOG OF BORING I-2

# BORING I-3

SURFACE ELEVATION 467.4  
CO-ORDINATES N 472,741.5  
E 1,904,322

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |

## SYMBOLS

## DESCRIPTIONS

|    |                                                                                                                              |
|----|------------------------------------------------------------------------------------------------------------------------------|
| SC | ORANGE RED SILTY CLAYEY SAND WITH SOME MICA. (STIFF)                                                                         |
| SM | YELLOW TAN MICACEOUS SILTY FINE SAND. (MEDIUM DENSE)                                                                         |
|    | GRADES COARSER.                                                                                                              |
| SP | TAN TO BROWN MICACEOUS FINE TO MEDIUM SAND. (DENSE)                                                                          |
|    | GRADES VERY DENSE.                                                                                                           |
|    | LIGHT GREY MASSIVE MEDIUM GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS SOME INCLUSIONS AND REMNANTS OF FOLIATION. |
|    | 66' TO 71 1/2' SLIGHTLY WEATHERED.                                                                                           |
|    | 69 1/2' TO 69 3/4' FRACTURED ZONE.                                                                                           |
|    | 71 1/2' TO 73' MODERATELY WEATHERED.                                                                                         |
|    | FRESH ROCK AT 73'.                                                                                                           |
|    | 3" FRACTURED ZONE AT 77'.                                                                                                    |
|    | 6" FRACTURED ZONE AT 83 1/2'.                                                                                                |
|    | 6" JOINT ZONE WITH WEATHERED SURFACES.                                                                                       |
|    | BORING TERMINATED 8-5-71.                                                                                                    |

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK(\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES. \*INDICATES STANDARD PENETRATION TESTS.

# LOG OF BORING I-3

SURFACE ELEVATION 453.9  
CO-ORDINATES N 472,600  
E 1,904,000

| SYMBOLS |       | DESCRIPTIONS                                                                                                                                                          |                |
|---------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| 1.1     | CL    | RED CLAY, FILL FOR ACCESS.                                                                                                                                            |                |
|         | SM-ML | REDDISH BROWN SILTY CLAY.                                                                                                                                             | (STIFF)        |
| 1.7     |       | MOTTLED REDDISH BROWN MICACEOUS VERY SILTY FINE SAND.                                                                                                                 | (MEDIUM DENSE) |
|         |       | GRADES TO OLIVE COLOR.                                                                                                                                                |                |
| 1.9     |       |                                                                                                                                                                       |                |
| 4.1     | SM    | MOTTLED BROWN MICACEOUS SILTY FINE SAND WITH LITTLE SILT.                                                                                                             | (VERY DENSE)   |
| 3.4     |       | GRADING OLIVE IN COLOR.                                                                                                                                               |                |
| 116/8   |       |                                                                                                                                                                       |                |
| 5.8     |       |                                                                                                                                                                       |                |
| 0.1     | 3     | DARK GREY MODERATE TO HIGHLY JOINTED FINE GRAINED MIGMATITE OF BIOTITE-PLAGIOCLASE - QUARTZ GNEISS COMPOSITION; HIGHLY CONTORTED FOLIATION, CONTAINS SOME INCLUSIONS. |                |
| 0.1     |       | 58' TO 60' HIGHLY WEATHERED; HIGHLY JOINTED.                                                                                                                          |                |
| 20/0    | 2     | 60' TO 70' HIGHLY JOINTED.                                                                                                                                            |                |
| 8.8     |       | 60' TO 61' MODERATELY WEATHERED ZONE.                                                                                                                                 |                |
|         |       | 61' TO 65' SLIGHTLY WEATHERED.                                                                                                                                        |                |
|         |       | 65' TO 67' FRESH ROCK.                                                                                                                                                |                |
| 9.5     | 1     | 67' TO 70' SLIGHTLY WEATHERED.                                                                                                                                        |                |
|         |       | 70' TO 74' MASSIVE.                                                                                                                                                   |                |
|         |       | 70' TO 76' FRESH ROCK.                                                                                                                                                |                |
|         |       | 76' TO 80' HIGHLY JOINTED.                                                                                                                                            |                |
| 100     | 2     | 76' TO 78' SLIGHTLY WEATHERED.                                                                                                                                        |                |
|         |       | 78' TO 80' MODERATELY WEATHERED.                                                                                                                                      |                |
|         |       | 6" HIGHLY WEATHERED ZONE AT 78'.                                                                                                                                      |                |
| 110     | 1     | MASSIVE FRESH ROCK, LESS CONTORTED FOLIATION AT 81'.                                                                                                                  |                |
|         |       |                                                                                                                                                                       |                |
| 100     |       | LIGHT GREY MASSIVE COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION; CONTAINS SOME INCLUSIONS.                                                                    |                |
|         |       | LIGHT GREY MASSIVE COARSE GRAINED GRANODIORITE. CONTAINS ZONED FELDSPARS.                                                                                             |                |

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES. \*INDICATES STANDARD PENETRATION TESTS.

GROUND WATER LEVEL AT DEPTH 55 FEET, ON 10-14-71.

## Figure 2E-25

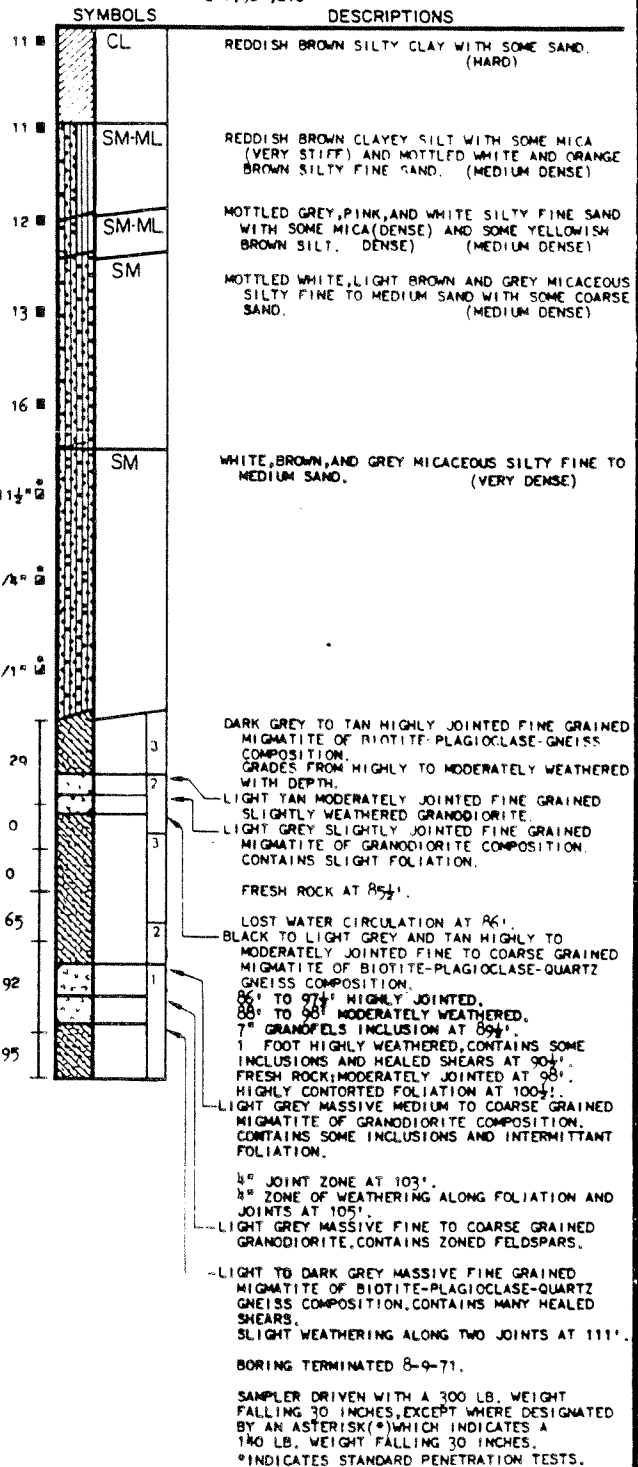
# BORING I-5

SURFACE ELEVATION 474.2

CO-ORDINATES N 472,603

E 1,904,210

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |
| 130           |             |                       |                      |                                |                       |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |



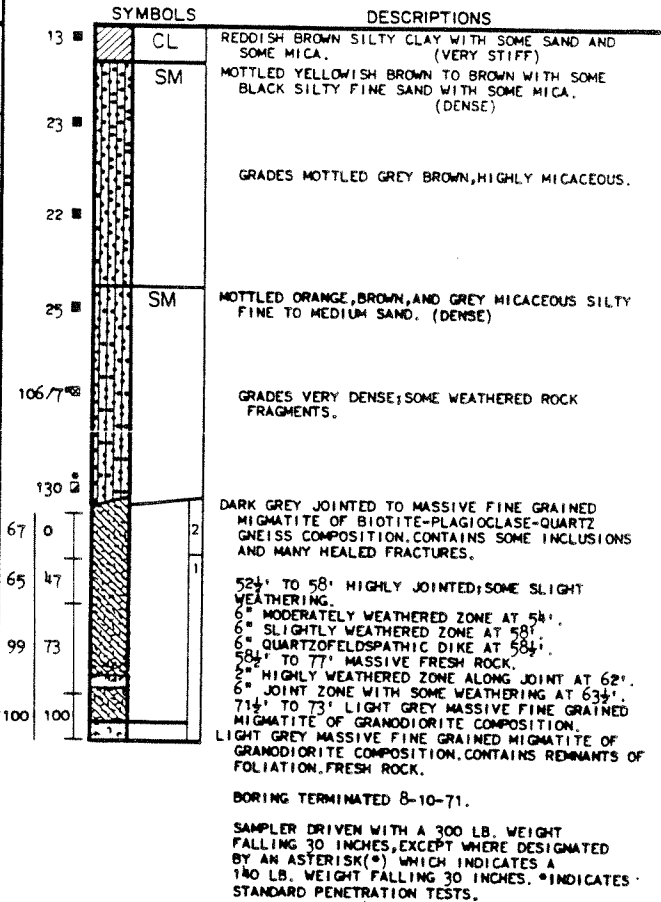
GROUND WATER LEVEL AT DEPTH 73 FEET, ON 10-14-71.

## LOG OF BORING I-5

# BORING I-6

SURFACE ELEVATION 459.4  
CO-ORDINATES N 472,500  
E 1,904,105

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|-------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                               |                       |                                  |                          |
| 10            |             |                       |                      |                               |                       |                                  |                          |
| 20            |             |                       |                      |                               |                       |                                  |                          |
| 30            |             |                       |                      |                               |                       |                                  |                          |
| 40            |             |                       |                      |                               |                       |                                  |                          |
| 50            |             |                       |                      |                               |                       |                                  |                          |
| 60            |             |                       |                      |                               |                       |                                  |                          |
| 70            |             |                       |                      |                               |                       |                                  |                          |
| 80            |             |                       |                      |                               |                       |                                  |                          |

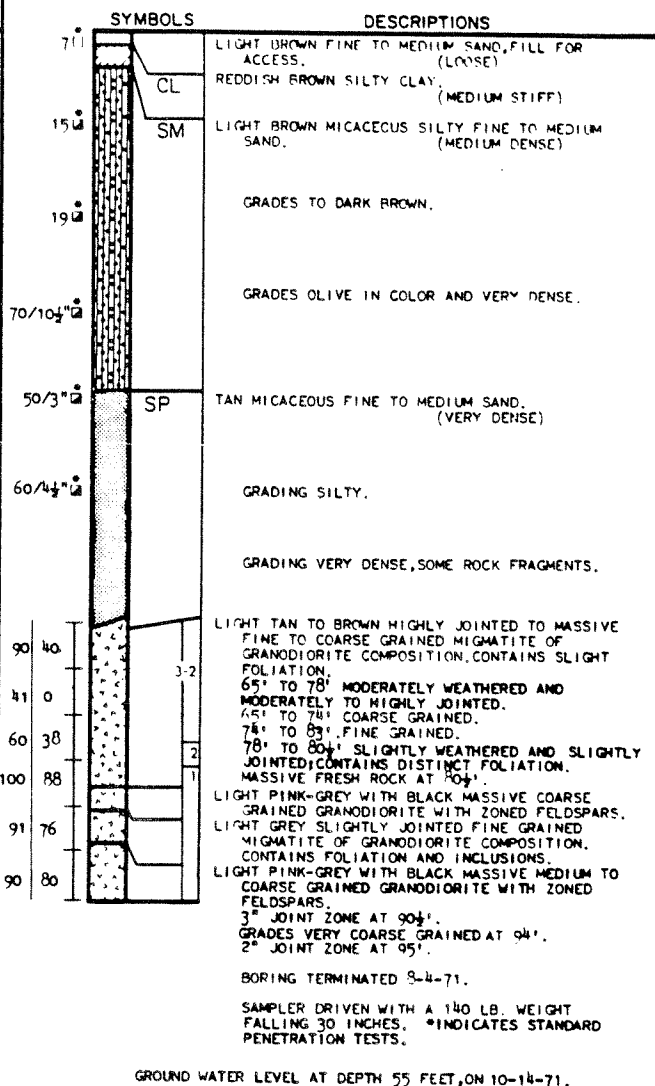


## LOG OF BORING I-6

# BORING I-7

SURFACE ELEVATION 456.0  
CO-ORDINATES N 472,561  
E 1,904,277

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAXIAL COMPRESSION TEST DATA |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                |  |                                  |                          |
| 0             |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 10            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 20            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 30            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 40            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 50            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 60            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 70            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 80            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 90            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 100           |             |                       |                      |                          |                       |                                |  |                                  |                          |



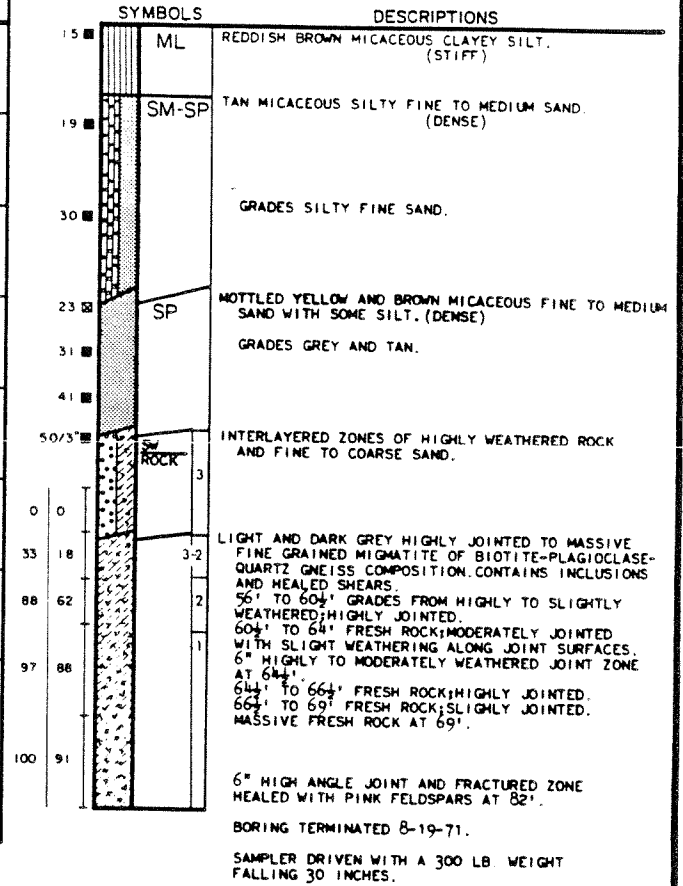
## LOG OF BORING I-7

# BORING I-8

SURFACE ELEVATION 466.3

CO-ORDINATES N 472,384  
E 1,904,000

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|-------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                         |
| 0             |             |                       |                      |                                |                       |                                  |                         |
| 10            |             |                       |                      |                                |                       |                                  |                         |
| 20            |             |                       |                      |                                |                       |                                  |                         |
| 30            |             |                       |                      |                                |                       |                                  |                         |
| 40            |             |                       |                      |                                |                       |                                  |                         |
| 50            |             |                       |                      |                                |                       |                                  |                         |
| 60            |             |                       |                      |                                |                       |                                  |                         |
| 70            |             |                       |                      |                                |                       |                                  |                         |
| 80            |             |                       |                      |                                |                       |                                  |                         |
| 90            |             |                       |                      |                                |                       |                                  |                         |

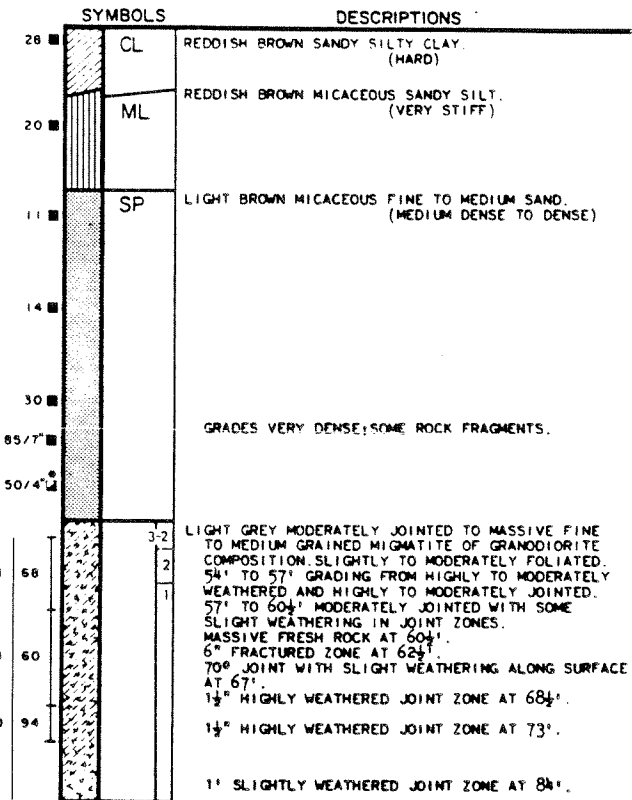


## LOG OF BORING I-8

# BORING I-9

SURFACE ELEVATION 481.3  
CO-ORDINATES N 472,318  
E 1,904,100

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|---------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                           |  |                                  |                          |
| 0             |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 10            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 20            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 30            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 40            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 50            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 60            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 70            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 80            |             |                       |                      |                          |                       |                           |  |                                  |                          |
| 90            |             |                       |                      |                          |                       |                           |  |                                  |                          |



BORING TERMINATED 8-16-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES. \*INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING I-9



# BORING I-10

SURFACE ELEVATION 496.7

CO-ORDINATES N 472,320

E 1,904,300

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            |             |                        |                      |                                |                       |                                  |                          |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            |             |                        |                      |                                |                       |                                  |                          |
| 40            |             |                        |                      |                                |                       |                                  |                          |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       |                                  |                          |
| 70            |             |                        |                      |                                |                       |                                  |                          |
| 80            |             |                        |                      |                                |                       |                                  |                          |

| SYMBOLS |    | DESCRIPTIONS                                                                                                                                                                                                                                                                                   |
|---------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 19      | CL | REDDISH BROWN SANDY CLAY (VERY STIFF)                                                                                                                                                                                                                                                          |
| 14      | SM | ORANGE BROWN MICACEOUS SILTY FINE SAND (MEDIUM DENSE TO DENSE)                                                                                                                                                                                                                                 |
| 11      |    | GRADES LIGHT BROWN AND WHITE IN COLOR.                                                                                                                                                                                                                                                         |
| 26      |    |                                                                                                                                                                                                                                                                                                |
| 19      |    | GRADES GREY IN COLOR.                                                                                                                                                                                                                                                                          |
| 29      | SM | BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. (VERY DENSE)                                                                                                                                                                                                                                        |
| 93      | 76 | HIGHLY WEATHERED ROCK, MIGMATITE INDICATED.                                                                                                                                                                                                                                                    |
| 96      | 93 | LIGHT GREY TO PINK MODERATELY JOINTED TO MASSIVE FINE TO MEDIUM GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS SLIGHT TO MODERATE FOLIATION IN ZONES. 58' TO 62' SLIGHTLY WEATHERED. 62' TO 70' HIGHLY FOLIATED. 70' MODERATELY WEATHERED ZONE AT 60 1/2'. MASSIVE FRESH ROCK AT 62'. |
| 92      | 92 | LIGHT TAN MASSIVE MEDIUM GRAINED QUARTZ OF ELDSPATHIC ROCK. LIGHT TO MEDIUM GREY MASSIVE FINE TO MEDIUM GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. 74' TO 75' MODERATELY FOLIATED; MEDIUM GRAINED. 75' TO 77' SLIGHTLY FOLIATED; FINE GRAINED.                                             |

BORING TERMINATED 8-13-71.

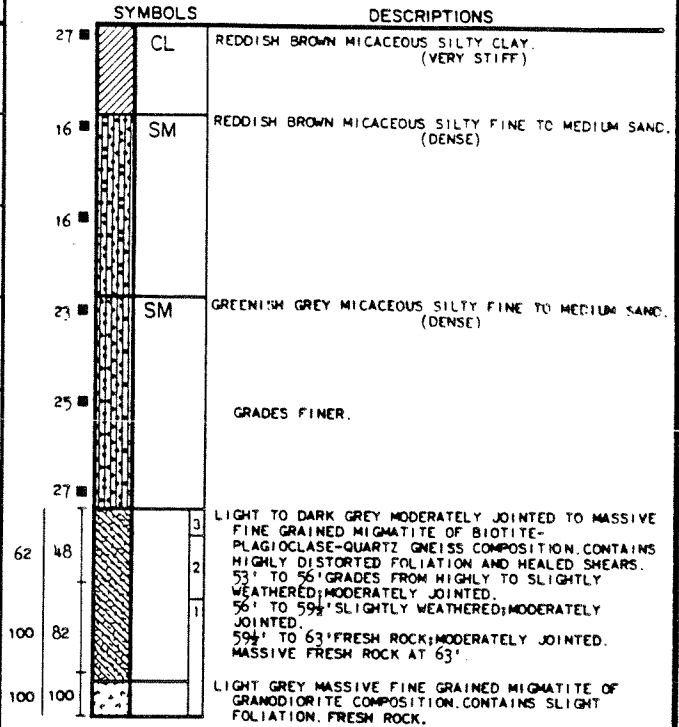
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING I-10

# BORING I-II

SURFACE ELEVATION 455.7  
CO-ORDINATES N 472,766  
E 1,904,095

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |



BORING TERMINATED 8-18-71.

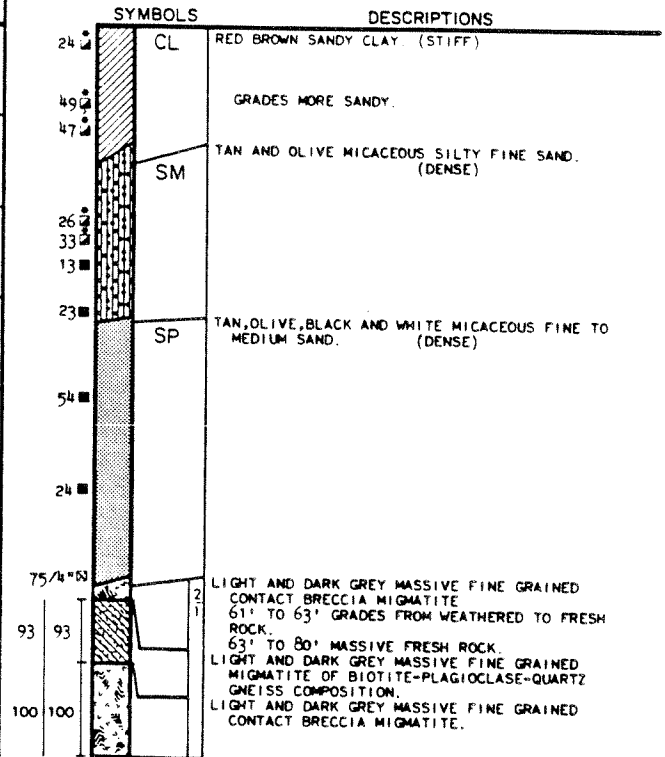
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING I-II

# BORING I-12

SURFACE ELEVATION 400.6  
CO-ORDINATES N 473,150  
E 1,904,000

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |



BORING TERMINATED 8-20-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES. \* INDICATES STANDARD PENETRATION TESTS.

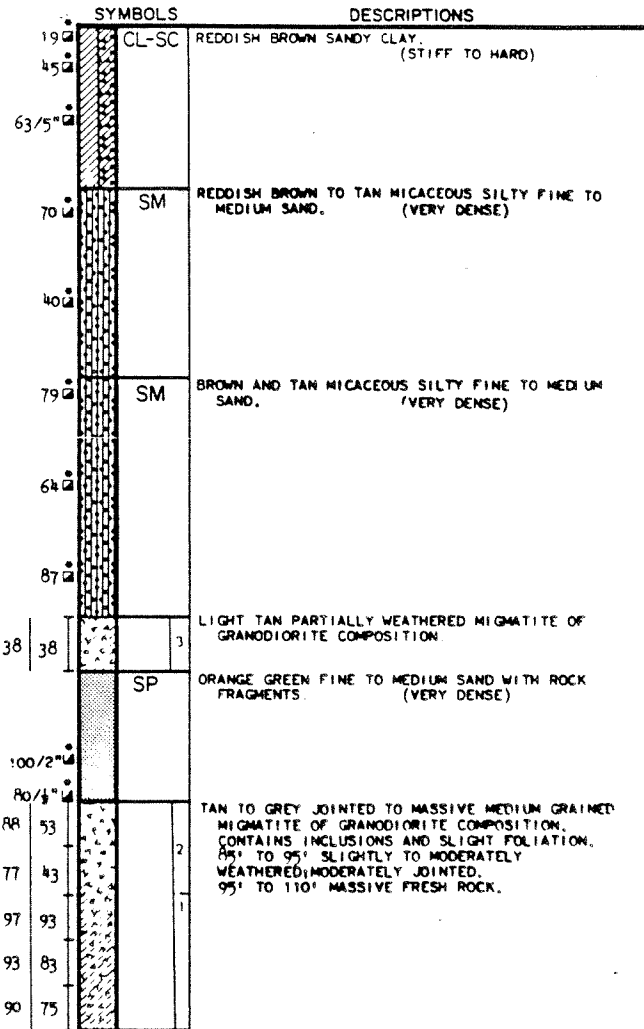
GROUND WATER LEVEL AT DEPTH 31 FEET, ON 10-14-71.

## LOG OF BORING I-12

# BORING 2-1

SURFACE ELEVATION 479.8  
CO-ORDINATES N 472,610  
E 1,904,400

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |



BORING TERMINATED 7-30-71.

SAMPLER DRIVEN WITH A 140 LB. WEIGHT FALLING 30 INCHES. \*INDICATES STANDARD PENETRATION TESTS.

NOTE:  
BORING LOG IS A COMPOSITE OF TWO ADJACENT BORINGS, ONE OF WHICH WAS TERMINATED AT A SHALLOW DEPTH DUE TO EQUIPMENT PROBLEMS.

## LOG OF BORING 2-1

# BORING 2-2

SURFACE ELEVATION 471.7  
CO-ORDINATES N 472,600  
E 1,904,590

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            |             |                        |                      |                                |                       |                                  |                          |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            |             |                        |                      |                                |                       |                                  |                          |
| 40            |             |                        |                      |                                |                       |                                  |                          |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       |                                  |                          |
| 70            |             |                        |                      |                                |                       |                                  |                          |
| 80            |             |                        |                      |                                |                       |                                  |                          |
| 90            |             |                        |                      |                                |                       |                                  |                          |
| 100           |             |                        |                      |                                |                       |                                  |                          |
| 110           |             |                        |                      |                                |                       |                                  |                          |
| 120           |             |                        |                      |                                |                       |                                  |                          |
| 130           |             |                        |                      |                                |                       |                                  |                          |
| 140           |             |                        |                      |                                |                       |                                  |                          |

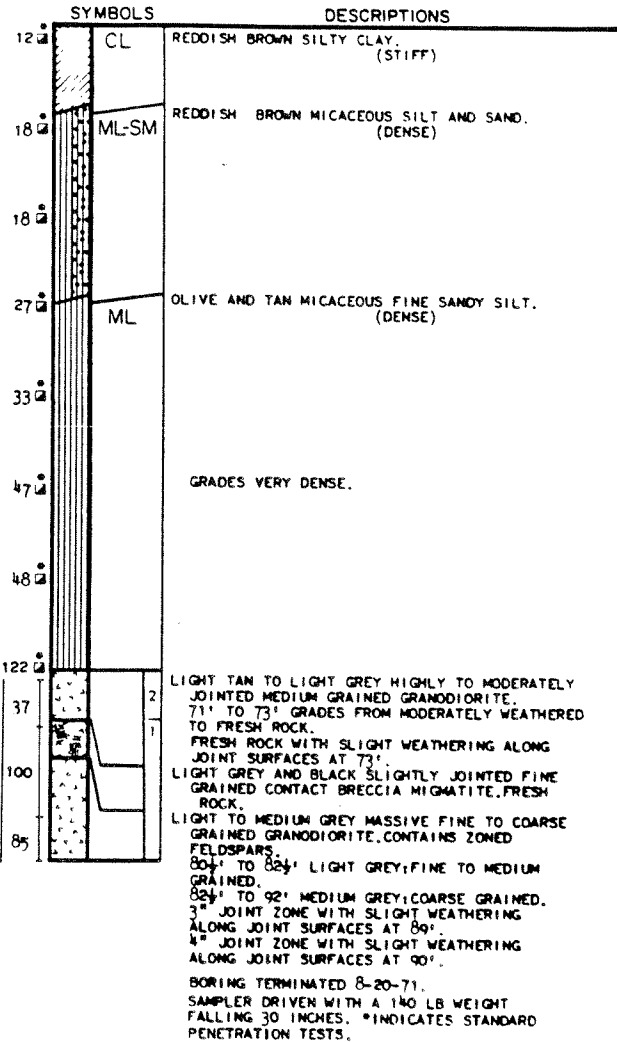
| SYMBOLS                       | DESCRIPTIONS                                                                                                                                                                    |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 13' CL                        | REDDISH BROWN SANDY CLAY. (STIFF)                                                                                                                                               |
| 31' SM                        | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND (DENSE)                                                                                                                       |
|                               | GRADES MORE SANDY                                                                                                                                                               |
| 25' 33' 35' 52'               | GRADES BROWN AND TAN IN COLOR.                                                                                                                                                  |
| 93' SM                        | OCCASIONAL ROCK FRAGMENTS.                                                                                                                                                      |
|                               | OLIVE BROWN MICACEOUS FINE TO MEDIUM SAND. (VERY DENSE)                                                                                                                         |
| 136' 100/3" 100/4" 100/2 1/2" | GRADES LESS SILT                                                                                                                                                                |
|                               | OCCASIONAL ZONES OF ROCK FRAGMENTS.                                                                                                                                             |
| 100/4" 8 82 100 100 100 85    | GREY JOINTED TO MASSIVE FINE GRAINED CONTACT BRECCIA MIGMATITE WITH AMPHIBOLITE INCLUSIONS. 110' TO 115' HIGHLY WEATHERED; MODERATELY JOINTED. 115' TO 129' MASSIVE FRESH ROCK. |
|                               | 10" ZONE OF HEALED JOINTS AT 128'. 6" ZONE OF WEATHERED AMPHIBOLITE AT 127 1/2'.                                                                                                |
|                               | BORING TERMINATED 7-30-71.                                                                                                                                                      |
|                               | SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.                                                                                                                         |

## LOG OF BORING 2-2

# BORING 2-3

SURFACE ELEVATION 454.1  
CO-ORDINATES N 472,766  
E 1,904,580

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            |             |                        |                      |                                |                       |                                  |                          |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            |             |                        |                      |                                |                       |                                  |                          |
| 40            |             |                        |                      |                                |                       |                                  |                          |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       |                                  |                          |
| 70            |             |                        |                      |                                |                       |                                  |                          |
| 80            |             |                        |                      |                                |                       |                                  |                          |
| 90            |             |                        |                      |                                |                       |                                  |                          |
| 100           |             |                        |                      |                                |                       |                                  |                          |



## LOG OF BORING 2-3

# BORING 2-4

SURFACE ELEVATION 494.1  
CO-ORDINATES N 472,318  
E 1,904,580

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |
| 130           |             |                       |                      |                                |                       |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |

| SYMBOLS   | DESCRIPTIONS                                                                                                                                       |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 17' CL    | REDDISH BROWN SANDY SILTY CLAY. (VERY STIFF)                                                                                                       |
| 41'       | GRADES MORE SILTY AND HARD.                                                                                                                        |
| 18' SM-ML | REDDISH BROWN AND TAN SILTY SAND TO SANDY SILT. (MEDIUM DENSE)                                                                                     |
| 23' ML    | REDDISH BROWN AND TAN MICACEOUS SILT WITH LITTLE SAND. (STIFF)                                                                                     |
| 20'       |                                                                                                                                                    |
| 46'       | GRADES MORE SANDY AND VERY STIFF.                                                                                                                  |
| 72' SM-ML | LAYERED BROWN SILTY SAND AND SANDY SILT. (VERY DENSE)                                                                                              |
| 56'       |                                                                                                                                                    |
| 65' SM    | TAN AND WHITE SILTY FINE TO MEDIUM SAND. (VERY DENSE)                                                                                              |
|           | GRADES HARDER.                                                                                                                                     |
| 75 1/4'   |                                                                                                                                                    |
| 75 1/3'   |                                                                                                                                                    |
| 35' 23'   | LIGHT TAN TO GREY AND BLACK HIGHLY JOINTED FINE TO MEDIUM GRAINED CONTACT BRECCIA HIGHMITE. 108' TO 119 1/2' GRADING HIGHLY TO SLIGHTLY WEATHERED. |
| 100' 98'  | MASSIVE FRESH ROCK AT 119 1/2'. LIGHT GREY MASSIVE MEDIUM TO COARSE GRAINED HIGHMITE OF GRANODIORITE COMPOSITION. CONTAINS SOME INCLUSIONS.        |
| 100' 100' | 60° SLIGHTLY WEATHERED JOINT SURFACES AT 130'. 60° JOINT AT 133'.                                                                                  |

BORING TERMINATED 8-16-71.

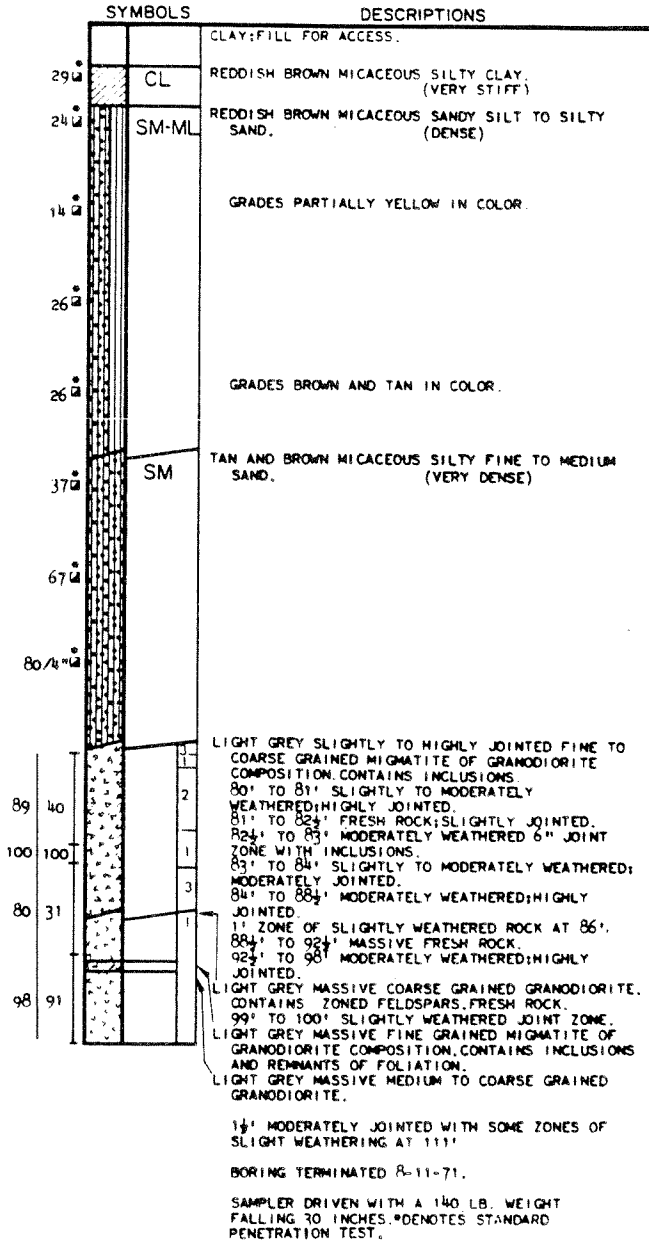
SAMPLER DRIVEN WITH A 140 LB. WEIGHT FALLING 30 INCHES. \*INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING 2-4

# BORING 3-1

SURFACE ELEVATION 457.6  
CO-ORDINATES N 472,600  
E 1,904,740

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |



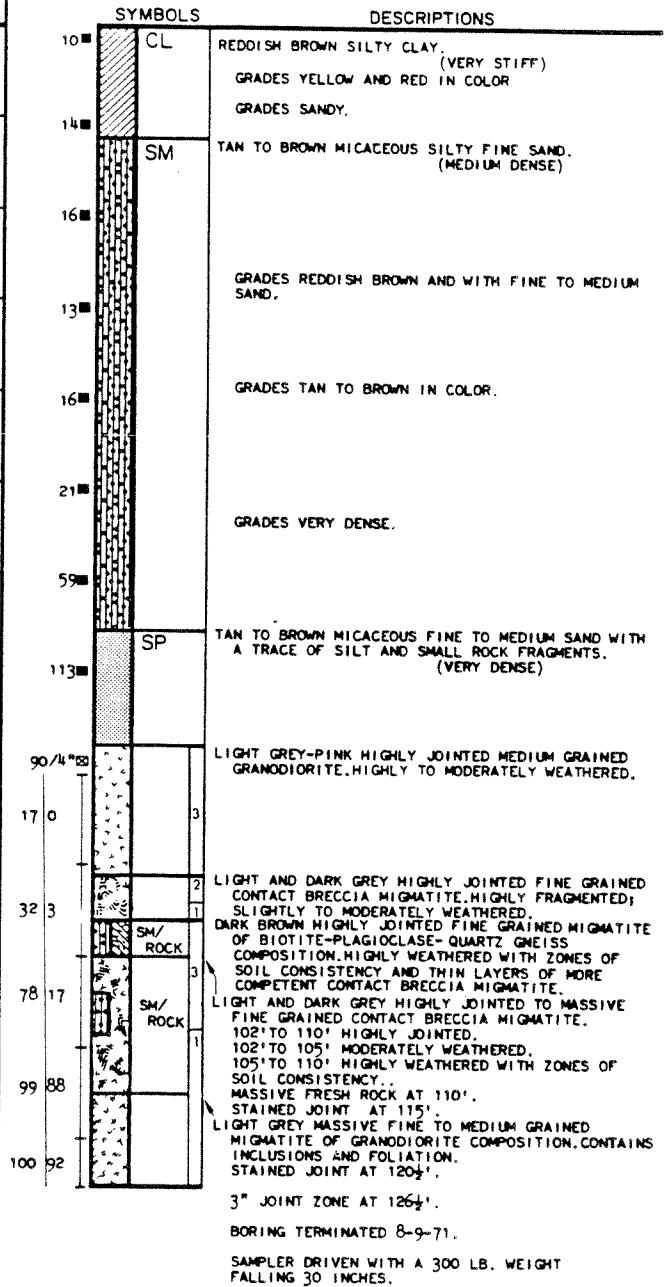
## LOG OF BORING 3-1



# BORING 3-2

SURFACE ELEVATION 443.7  
CO-ORDINATES N 472,600  
E 1,904,900

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            | A<br>D      |                       |                      |                                |                       | 18                               | 104                      |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            | B           |                       |                      |                                |                       | 12                               | 115                      |
| 70            |             | 3000                  | 4380                 |                                |                       | 14                               | 116                      |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |
| 130           |             |                       |                      |                                |                       |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |



GROUND WATER LEVEL AT A DEPTH OF 65 FEET ON 10-14-71.

## LOG OF BORING 3-2

Amendment 0  
August 1984

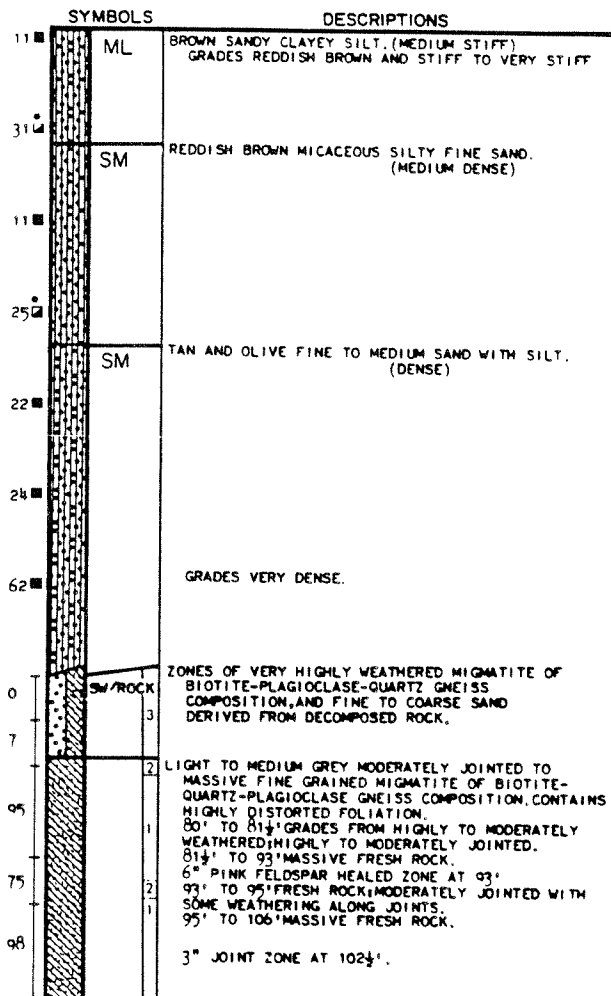
Figure 2E-39

# BORING 3-3

SURFACE ELEVATION 425.4

CO-ORDINATES N 472,742  
E 1,904,900

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST DATA |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                |  |                                  |                          |
| 0             | C           |                       |                      |                          |                       |                                |  | 23                               |                          |
| 10            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 20            |             | 2500                  | 2050                 |                          |                       |                                |  | 19                               | 86                       |
| 30            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 40            | B           | 1500                  | 1560                 |                          |                       |                                |  | 20                               | 94                       |
| 50            | B           |                       |                      |                          |                       |                                |  | 20                               | 102                      |
| 60            | A, D        |                       |                      |                          |                       |                                |  | 19                               | 112                      |
| 70            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 80            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 90            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 100           |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 110           |             |                       |                      |                          |                       |                                |  |                                  |                          |



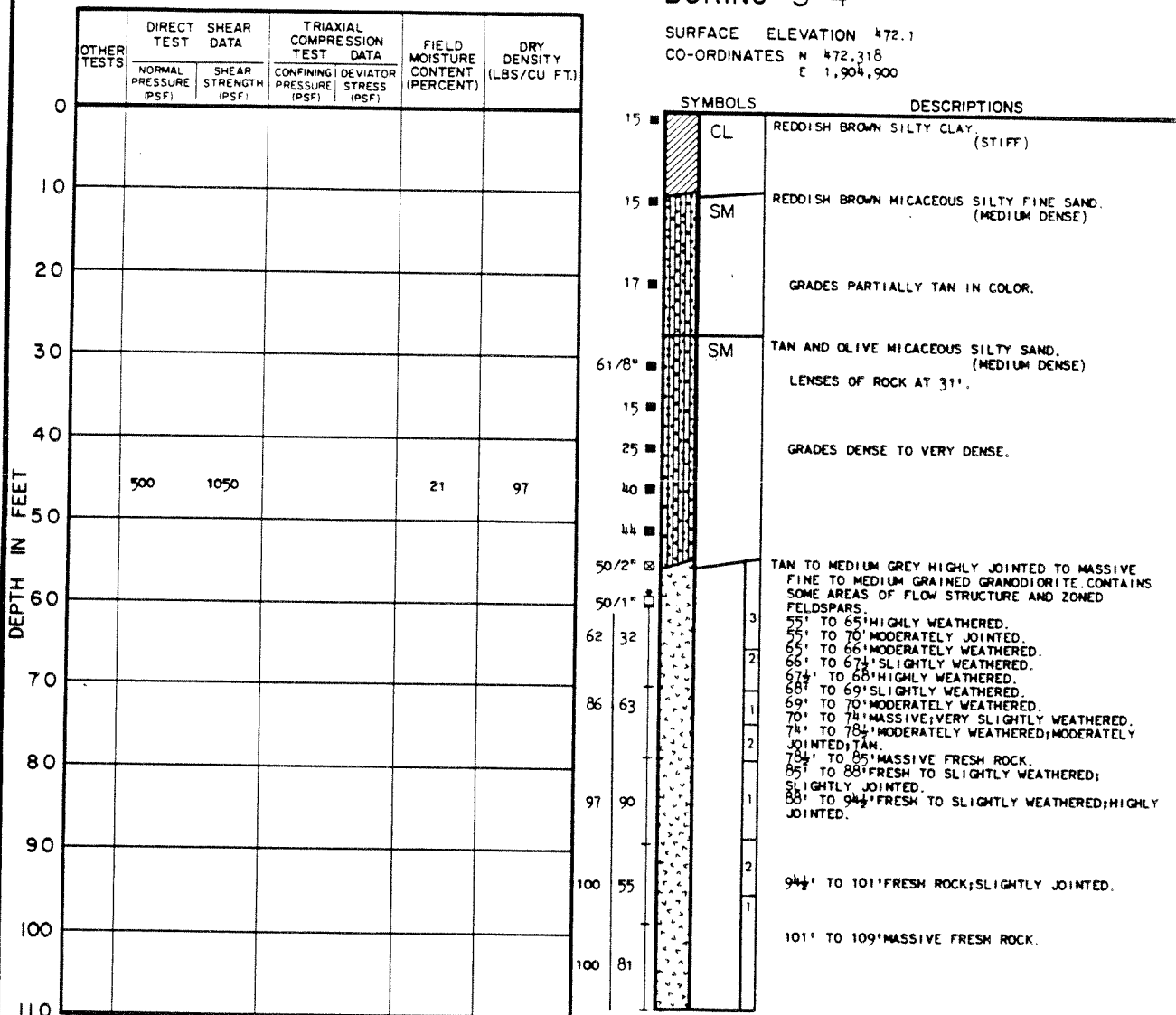
BORING TERMINATED 8-23-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES. \* DENOTES STANDARD PENETRATION TEST.

## LOG OF BORING 3-3

# BORING 3-4

SURFACE ELEVATION 472.1  
CO-ORDINATES N 472,318  
E 1,904,900



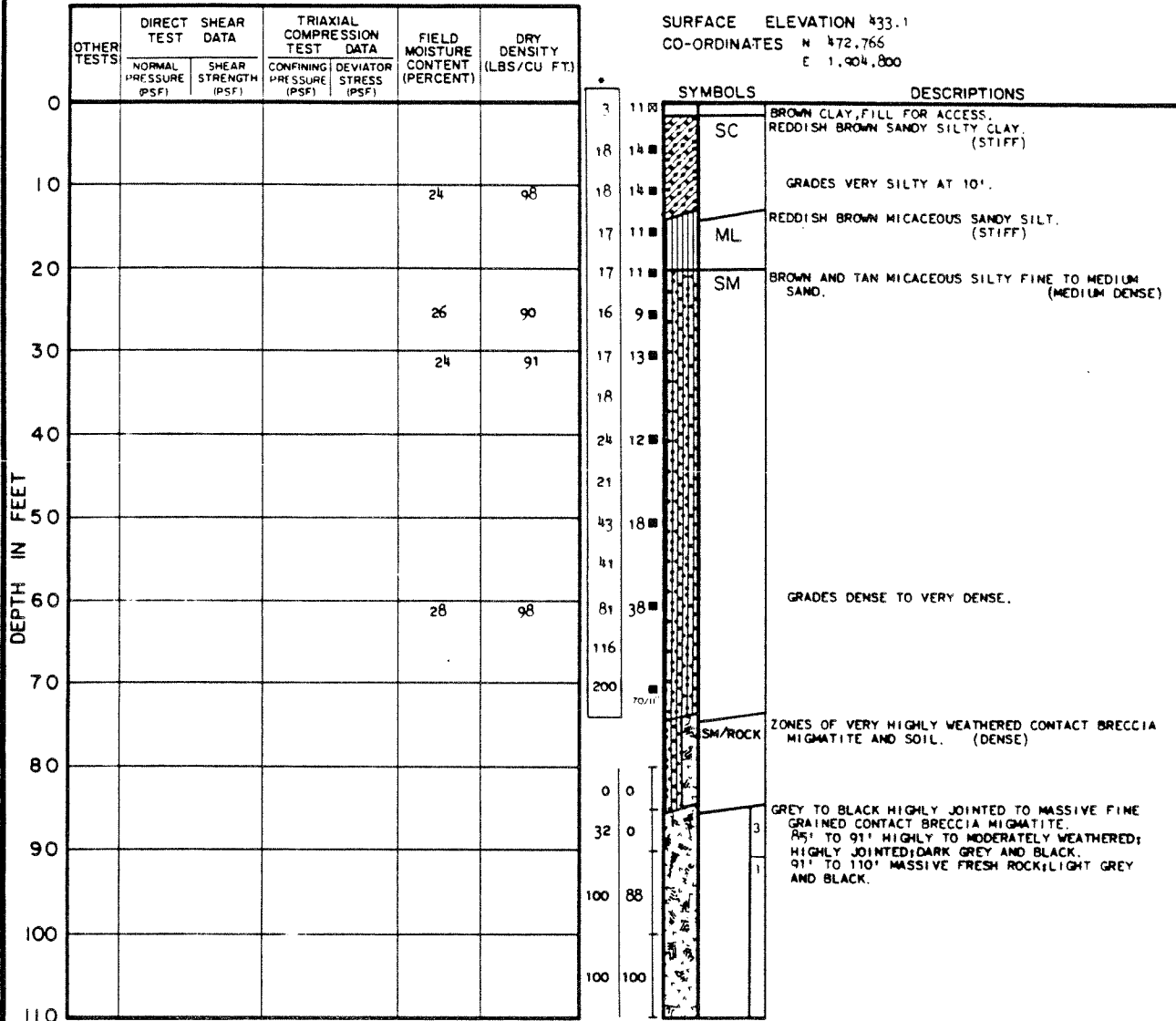
BORING TERMINATED 8-23-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING 3-4

# BORING 3-5

SURFACE ELEVATION 433.1  
CO-ORDINATES N 472.766  
E 1,904,800



BORING TERMINATED 9-2-71.

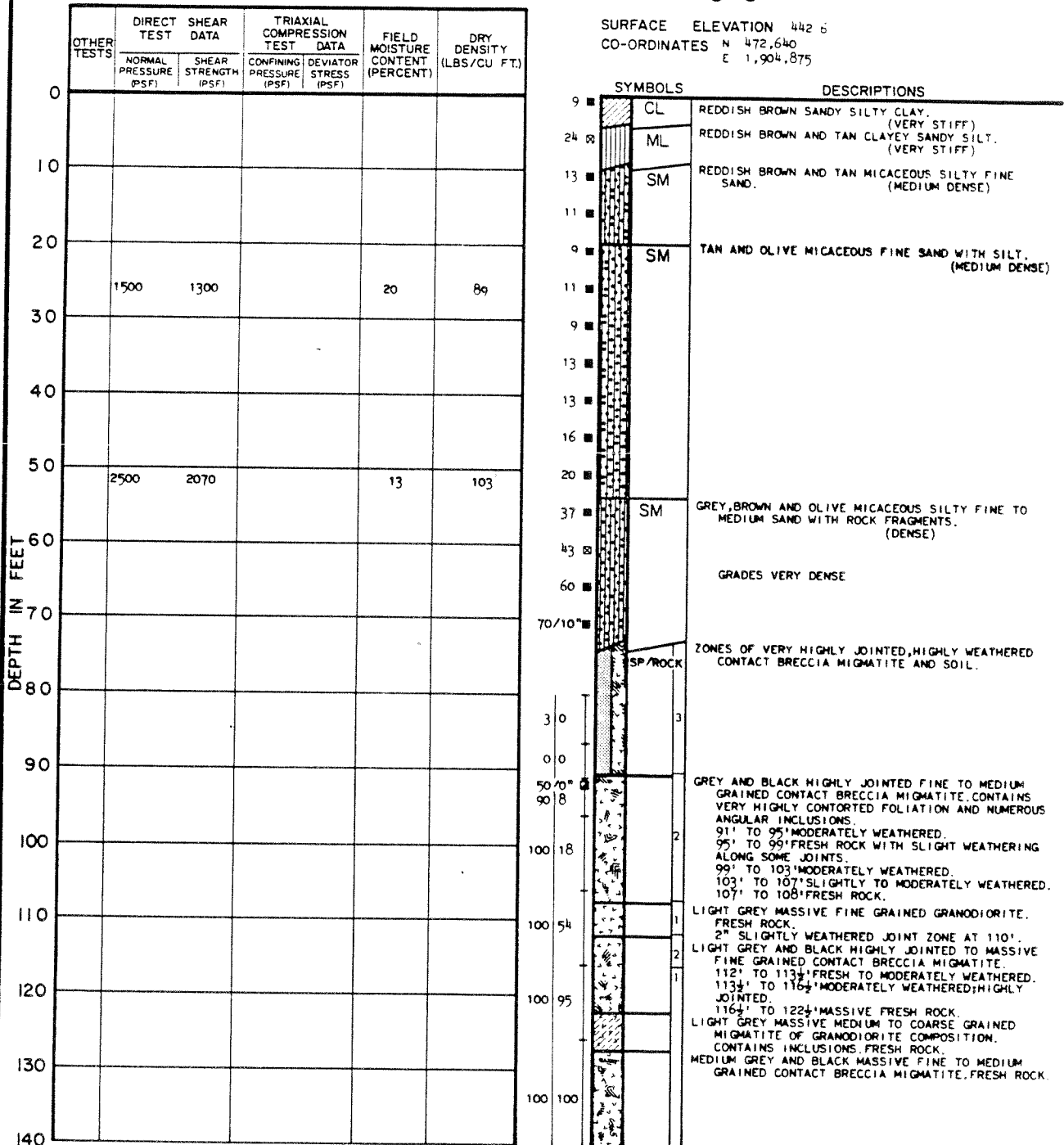
NUMBERS ENCLOSED WITHIN THE COLUMN DESIGNATED BY ASTERISK (\*) INDICATE BLOWCOUNTS OBTAINED FROM AN ADJACENT BORING UTILIZING STANDARD PENETRATION EQUIPMENT.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE ENCLOSED WITHIN THE COLUMN DESIGNATED BY ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES.  
\*INDICATES STANDARD PENETRATION TEST.

## LOG OF BORING 3-5

# BORING 3-6

SURFACE ELEVATION 442.6  
CO-ORDINATES N 472,640  
E 1,904,875



BORING CONTINUED

## LOG OF BORING 3-6

Amendment 0  
August 1984

Figure 2E-43

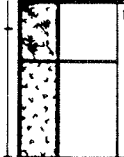
# BORING 3-6 CONT'D.

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|-------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                          |
| 140           |             |                       |                      |                               |                       |                                  |                          |
| 150           |             |                       |                      |                               |                       |                                  |                          |
| 160           |             |                       |                      |                               |                       |                                  |                          |
| 170           |             |                       |                      |                               |                       |                                  |                          |

100 100

## SYMBOLS

## DESCRIPTIONS



MEDIUM GREY MASSIVE FINE TO COARSE GRAINED  
MIGMATITE OF GRANODIORITE COMPOSITION  
CONTAINS SOME INCLUSIONS  
GRADING TO GRANODIORITE AT 155'

BORING TERMINATED R-31-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT  
FALLING 30 INCHES.

# LOG OF BORING 3-6

# BORING 3-7

SURFACE ELEVATION 466.9  
CO-ORDINATES N 472,500  
E 1,904,740

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             | 3500                  | 3230                 |                                |                       | 20                               | 98                       |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |
| 130           |             |                       |                      |                                |                       |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |

| SYMBOLS | DESCRIPTORS                                                          |
|---------|----------------------------------------------------------------------|
| 21      | MH REDDISH BROWN SANDY CLAYEY SILT. (VERY STIFF)                     |
| 13      | SM TAN AND OLIVE MICACEOUS SILTY FINE TO COARSE SAND. (MEDIUM DENSE) |
| 14      |                                                                      |
| 14      |                                                                      |
| 13      |                                                                      |
| 13      |                                                                      |
| 16      | GRADES MORE MICACEOUS.                                               |
| 17      |                                                                      |
| 21      | SM OLIVE AND TAN MICACEOUS SILTY FINE TO COARSE SAND. (DENSE)        |
| 22      |                                                                      |
| 28      |                                                                      |
| 56      | GRADING VERY DENSE                                                   |
| 0       |                                                                      |
| 0       |                                                                      |
| 95      | 40                                                                   |
| 100     | 61                                                                   |
| 100     | 48                                                                   |
| 100     | 93                                                                   |
| 95      | 75                                                                   |

TAN TO GREY HIGHLY JOINTED TO MASSIVE MEDIUM TO COARSE GRAINED GRANODIORITE. CONTAINS ZONED FELDSPARS.  
80' TO 90' HIGHLY WEATHERED; HIGHLY JOINTED; TAN.  
90' TO 92' MODERATELY WEATHERED; MODERATELY JOINTED; TAN.  
92' TO 93 1/2' MODERATELY TO HIGHLY WEATHERED; HIGHLY JOINTED; TAN.  
93 1/2' TO 95' FINE GRAINED FRAGMENTED QUARTZ ZONE.  
95' TO 96 1/2' FRESH ROCK.  
96 1/2' TO 104 1/2' MODERATELY WEATHERED; MODERATELY TO HIGHLY JOINTED; SOME THIN HIGHLY WEATHERED ZONES.  
104 1/2' TO 112' FRESH ROCK; SLIGHTLY TO MODERATELY JOINTED.  
112' MODERATELY WEATHERED JOINT ZONE AT 107'.  
112' MODERATELY WEATHERED JOINT ZONE AT 108'.  
112' MODERATELY WEATHERED JOINT ZONE AT 111'.  
112' TO 113 1/2' SLIGHTLY WEATHERED; MODERATELY JOINTED.  
113 1/2' TO 115 1/2' FRESH ROCK; SLIGHTLY JOINTED.  
115 1/2' TO 119' MODERATELY WEATHERED; HIGHLY JOINTED; SOME THIN HIGHLY WEATHERED ZONES.  
119' TO 135' MASSIVE FRESH ROCK.  
135' TO 136' SLIGHTLY WEATHERED; HIGHLY JOINTED.  
136' TO 138 1/2' MASSIVE FRESH ROCK.  
138 1/2' TO 140' MODERATELY TO HIGHLY WEATHERED; HIGHLY JOINTED.  
140' TO 141' MODERATELY WEATHERED; MODERATELY JOINTED.  
141' TO 149 1/2' MASSIVE FRESH ROCK.

BORING CONTINUED

## LOG OF BORING 3-7

# BORING 3-7 CONT'D

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 140           |             |                        |                      |                                |                       |                                  |                          |
| 150           |             |                        |                      |                                |                       |                                  |                          |
| 160           |             |                        |                      |                                |                       |                                  |                          |
| 170           |             |                        |                      |                                |                       |                                  |                          |

93 85

## SYMBOLS



## DESCRIPTIONS

BORING TERMINATED AT 27 FT.  
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

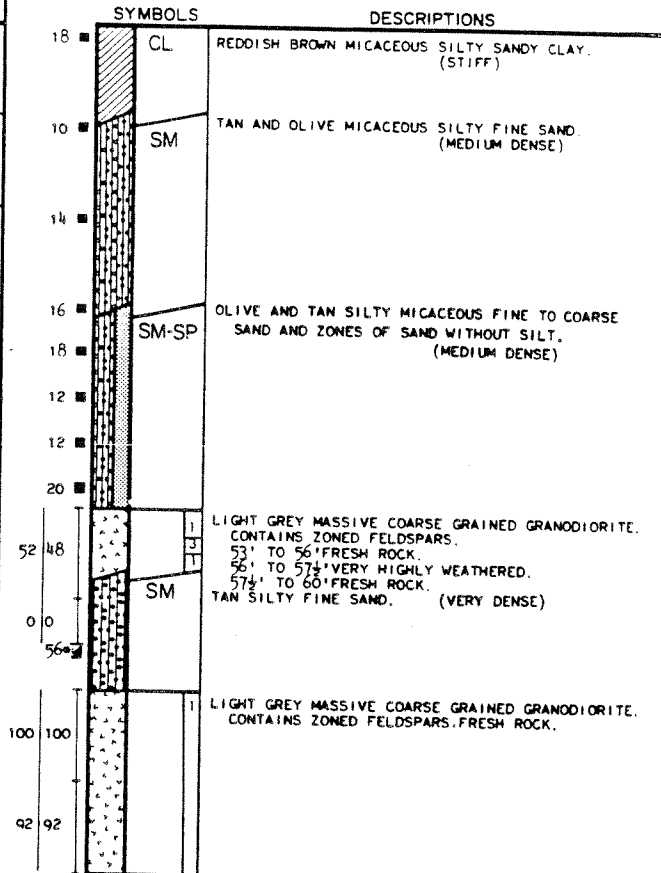
# LOG OF BORING 3-7



# BORING 3-8

SURFACE ELEVATION 453.0  
CO-ORDINATES N 472,500  
E 1,904,900

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             | 2000                  | 1800                 |                                |                       | 15                               | 98                       |
| 40            | B           |                       |                      |                                |                       | 15                               | 95                       |
| 50            |             | 3000                  | 2420                 |                                |                       | 21                               | 96                       |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |



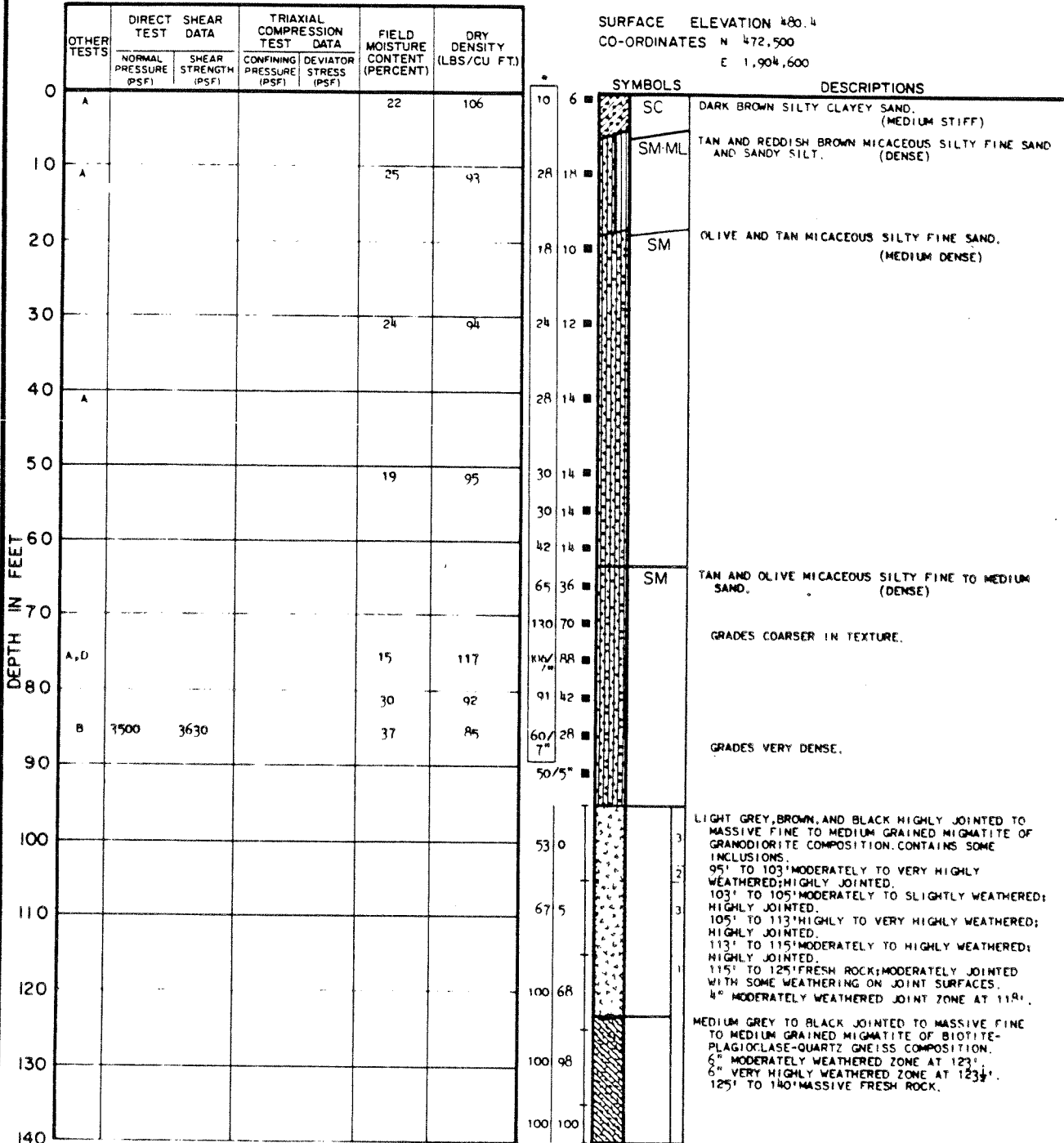
BORING TERMINATED 8-25-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES  
\* INDICATES STANDARD PENETRATION TEST.

## LOG OF BORING 3-8

# BORING 3-9

SURFACE ELEVATION 480.4  
CO-ORDINATES N 472,500  
E 1,904,600



BORING TERMINATED 8-26-71.

NUMBERS ENCLOSED WITHIN THE COLUMN DESIGNATED BY ASTERISK (\*) INDICATE BLOWCOUNTS OBTAINED FROM AN ADJACENT BORING UTILIZING STANDARD PENETRATION EQUIPMENT.

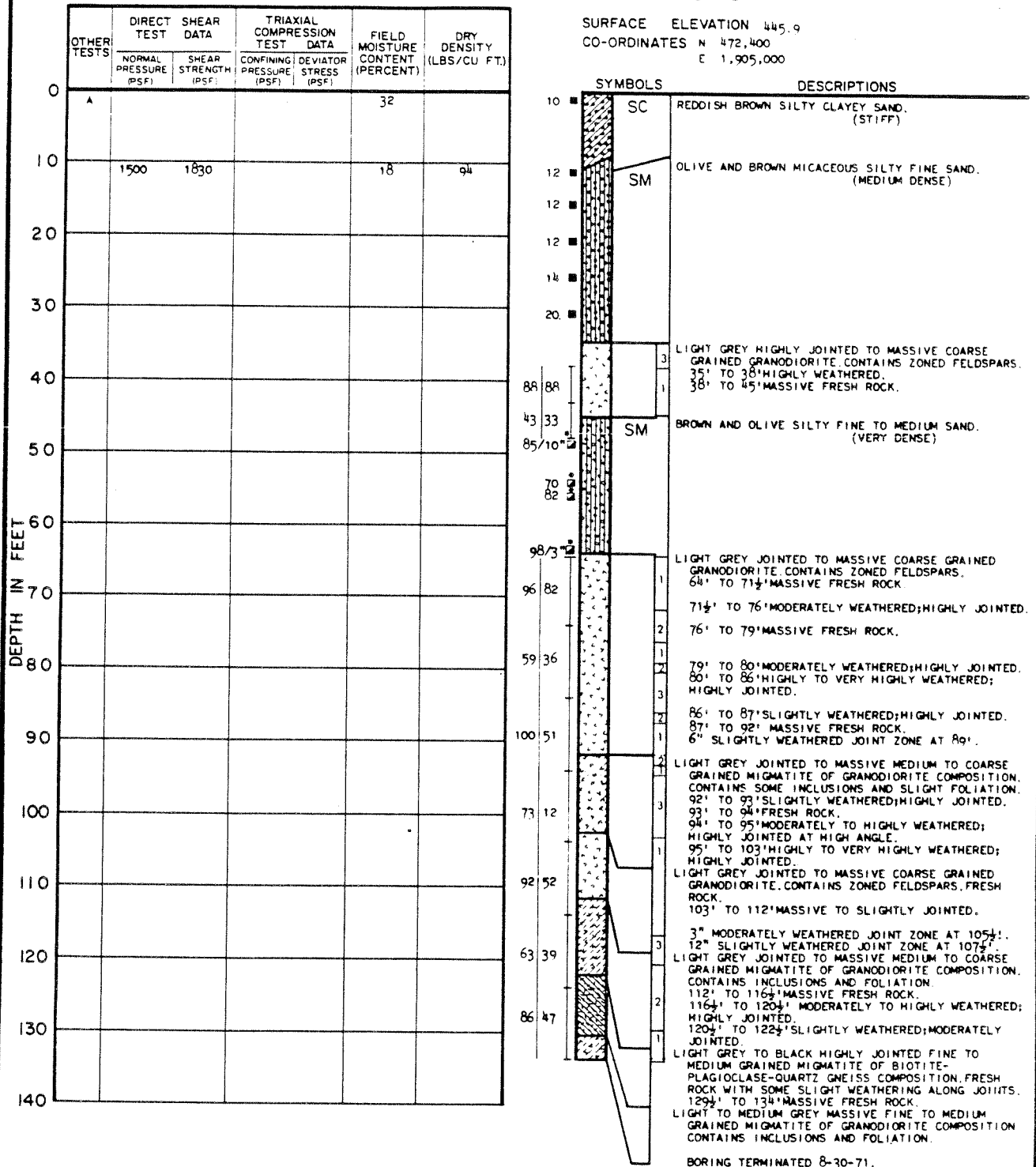
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE ENCLOSED WITHIN THE COLUMN DESIGNATED BY ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES.

\* INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING 3-9

# BORING 3-10

SURFACE ELEVATION 445.9  
CO-ORDINATES N 472,400  
E 1,905,000

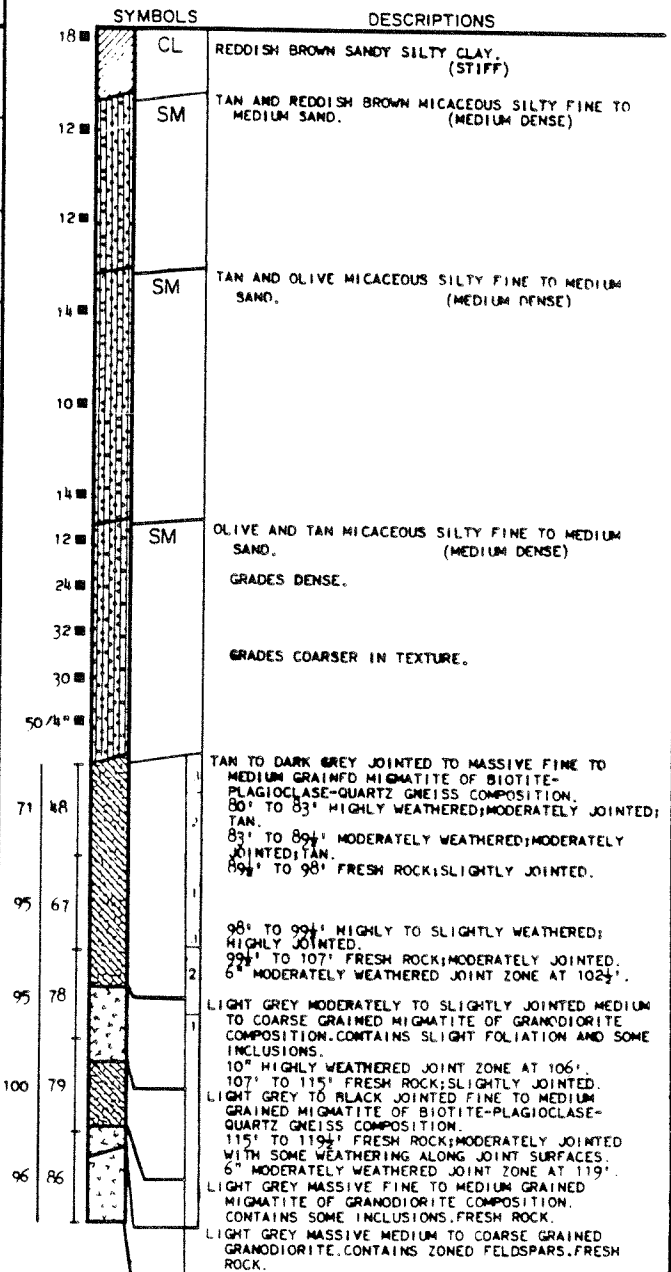


## LOG OF BORING 3-10

# BORING 3-II

SURFACE ELEVATION 482.1  
CO-ORDINATES N 472,318  
E 1,904,740

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       | 20                               | 90                       |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       | 18                               | 100                      |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       | 16                               | 111                      |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |
| 100           |             |                       |                      |                                |                       |                                  |                          |
| 110           |             |                       |                      |                                |                       |                                  |                          |
| 120           |             |                       |                      |                                |                       |                                  |                          |
| 130           |             |                       |                      |                                |                       |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |



BORING TERMINATED 8-26-71.

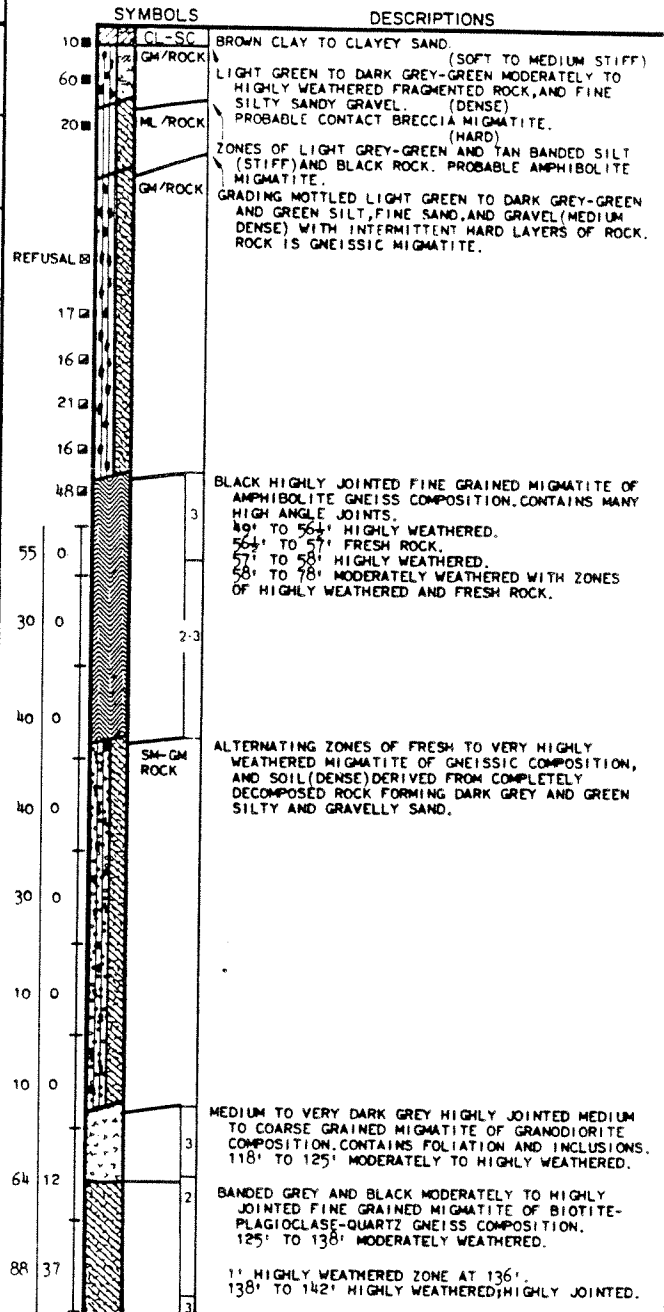
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING 3-II

# BORING 3-12

SURFACE ELEVATION 417.7  
CO-ORDINATES N 473,075  
E 1,905,000

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|-------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                         |
| 0             |             |                       |                      |                                |                       |                                  |                         |
| 10            |             |                       |                      |                                |                       |                                  |                         |
| 20            |             |                       |                      |                                |                       |                                  |                         |
| 30            |             |                       |                      |                                |                       |                                  |                         |
| 40            |             |                       |                      |                                |                       |                                  |                         |
| 50            |             |                       |                      |                                |                       |                                  |                         |
| 60            |             |                       |                      |                                |                       |                                  |                         |
| 70            |             |                       |                      |                                |                       |                                  |                         |
| 80            |             |                       |                      |                                |                       |                                  |                         |
| 90            |             |                       |                      |                                |                       |                                  |                         |
| 100           |             |                       |                      |                                |                       |                                  |                         |
| 110           |             |                       |                      |                                |                       |                                  |                         |
| 120           |             |                       |                      |                                |                       |                                  |                         |
| 130           |             |                       |                      |                                |                       |                                  |                         |
| 140           |             |                       |                      |                                |                       |                                  |                         |



BORING CONTINUED

## LOG OF BORING 3-12

# BORING 3-12 CONT'D

DEPTH IN FEET

| OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|-------------|------------------------|----------------------|-------------------------------|-----------------------|----------------------------------|--------------------------|
|             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                          |
|             |                        |                      |                               |                       |                                  |                          |
|             |                        |                      |                               |                       |                                  |                          |
|             |                        |                      |                               |                       |                                  |                          |

RR

37

100

26

## SYMBOLS

## DESCRIPTIONS

142' TO 145' MODERATELY WEATHERED; MODERATELY JOINTED.  
 LIGHT GREY JOINTED MEDIUM GRAINED HIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS FOLIATION AND INCLUSIONS.  
 145' TO 147 1/2' FRESH ROCK; MODERATELY JOINTED.  
 147 1/2' TO 152 1/2' SLIGHTLY WEATHERED; MODERATELY JOINTED.  
 152 1/2' TO 157' MODERATELY WEATHERED; MODERATELY JOINTED.  
 DARK GREY TO BLACK HIGHLY JOINTED FINE GRAINED HIGMATITE OF BIOTITE-PLAGIOCLASE-QUARTZ GNEISS COMPOSITION.  
 157' TO 160' HIGHLY TO MODERATELY WEATHERED.

BORING TERMINATED 9-7-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

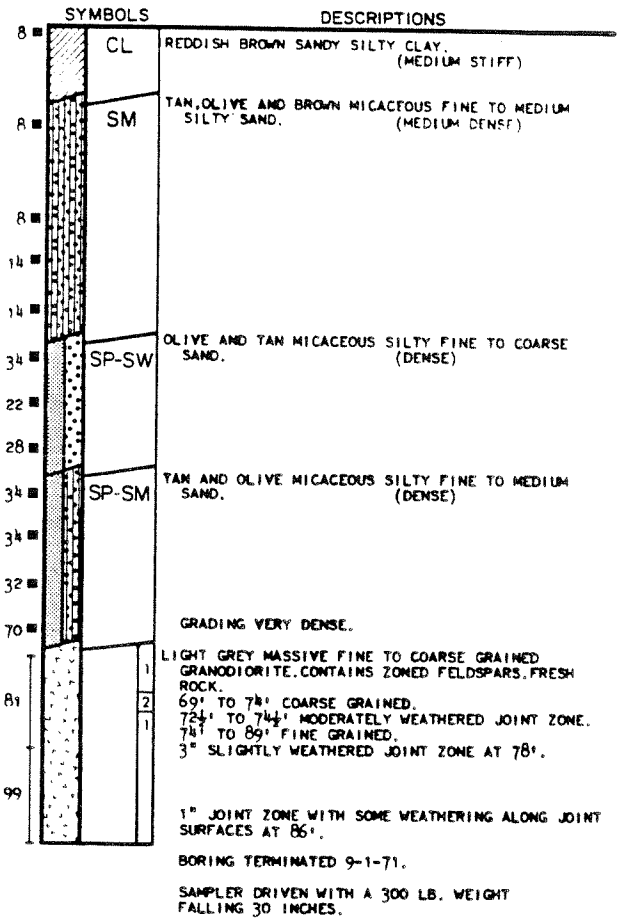
GROUND WATER LEVEL AT DEPTH 62 FEET, ON 10-14-71.

# LOG OF BORING 3-12

# BORING 3-13

SURFACE ELEVATION 457.0  
CO-ORDINATES N 472,275  
E 1,905,000

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            |             |                        |                      |                                |                       | 20                               | 92                       |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            |             |                        |                      |                                |                       |                                  |                          |
| 40            | A           |                        |                      |                                |                       | 15                               | 109                      |
| 50            | A           |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       |                                  |                          |
| 70            |             |                        |                      |                                |                       |                                  |                          |
| 80            |             |                        |                      |                                |                       |                                  |                          |
| 90            |             |                        |                      |                                |                       |                                  |                          |



## LOG OF BORING 3-13

# BORING 3-14

SURFACE ELEVATION 447.9  
CO-ORDINATES N 472,670  
E 1,904,770

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             | C           |                        |                      |                                |                       | 24                               |                          |
| 10            |             |                        |                      |                                |                       | 30                               | 94                       |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            |             |                        |                      |                                |                       | 28                               | 90                       |
| 40            |             |                        |                      |                                |                       |                                  |                          |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       | 27                               | 86                       |
| 70            |             |                        |                      |                                |                       | 27                               | 96                       |
| 80            |             |                        |                      |                                |                       |                                  |                          |
| 90            |             |                        |                      |                                |                       |                                  |                          |
| 100           |             |                        |                      |                                |                       |                                  |                          |
| 110           |             |                        |                      |                                |                       |                                  |                          |
| 120           |             |                        |                      |                                |                       |                                  |                          |
| 130           |             |                        |                      |                                |                       |                                  |                          |
| 140           |             |                        |                      |                                |                       |                                  |                          |

| SYMBOLS            | DESCRIPTIONS                                                                                                                                                                                                                                                                                                                             |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10' SC             | REDDISH BROWN CLAYEY SAND, (STIFF)                                                                                                                                                                                                                                                                                                       |
| 12' SM-ML          | REDDISH BROWN MICACEOUS FINE SILTY SAND WITH SOME SANDY SILT. (MEDIUM DENSE)                                                                                                                                                                                                                                                             |
| 6' SM              | TAN AND BROWN MICACEOUS SILTY FINE TO MEDIUM SAND, (MEDIUM DENSE)                                                                                                                                                                                                                                                                        |
| 10' SM-ML          | TAN AND BROWN MICACEOUS FINE TO MEDIUM SILTY SAND AND SANDY SILT. (MEDIUM DENSE)                                                                                                                                                                                                                                                         |
| 36' 50' 10" 50' 2" | MEDIUM GREY JOINTED TO MASSIVE MEDIUM TO COARSE GRAINED GRANODIORITE, CONTAINS ZONED FELDSPARS. 68' TO 85' HIGHLY TO MODERATELY WEATHERED; HIGHLY JOINTED.                                                                                                                                                                               |
| 50' 46'            | 85' TO 92' FRESH ROCK; SLIGHTLY JOINTED. 1' SLIGHTLY WEATHERED JOINT ZONE AT 86'. 3" HIGHLY WEATHERED JOINT ZONE AT 89'.                                                                                                                                                                                                                 |
| 95' 48'            | 92' TO 97' MODERATELY TO HIGHLY WEATHERED; HIGHLY JOINTED. 97' TO 98' MASSIVE FRESH ROCK.                                                                                                                                                                                                                                                |
| 98' 98'            | MEDIUM GREY JOINTED TO MASSIVE MEDIUM TO COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS SLIGHT FOLIATION AND INCLUSIONS. 98' TO 99' FRESH ROCK; MODERATELY JOINTED WITH SOME SLIGHT WEATHERING ALONG JOINT SURFACES. 99' TO 120' MASSIVE FRESH ROCK. SLIGHTLY WEATHERED JOINT AT 104'. SLIGHTLY WEATHERED JOINT AT 108'. |
| 100' 95'           | 5" MODERATELY TO HIGHLY WEATHERED JOINT ZONE AT 116'. SLIGHTLY WEATHERED JOINT AT 118'. SLIGHTLY WEATHERED HEALED JOINTS AT 119'. 120' TO 125' SLIGHTLY WEATHERED; MODERATELY JOINTED WITH HIGH ANGLE OR VERTICAL JOINTS.                                                                                                                |
| 99' 51'            | 125' TO 128' MODERATELY WEATHERED; MODERATELY TO HIGHLY JOINTED. 128' TO 141' MASSIVE FRESH ROCK.                                                                                                                                                                                                                                        |
| 100' 100'          |                                                                                                                                                                                                                                                                                                                                          |

BORING CONTINUED

## LOG OF BORING 3-14



# BORING 3-14 CONT'D

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 140           |             |                       |                      |                                |                       |                                  |                          |
| 150           |             |                       |                      |                                |                       |                                  |                          |
| 160           |             |                       |                      |                                |                       |                                  |                          |
| 170           |             |                       |                      |                                |                       |                                  |                          |
| 180           |             |                       |                      |                                |                       |                                  |                          |

| SYMBOLS | DESCRIPTIONS                                                                                     |
|---------|--------------------------------------------------------------------------------------------------|
| 100 74  | 1414' TO 1444' MODERATELY TO SLIGHTLY WEATHERED; MODERATELY JOINTED WITH SOME HIGH ANGLE JOINTS. |
| 100 82  | 1' HIGHLY JOINTED ZONE AT 144'.                                                                  |
| 100 100 | 1444' TO 1464' SLIGHTLY WEATHERED TO FRESH ROCK; MODERATELY JOINTED.                             |
| 100 99  | 1464' TO 175' MASSIVE FRESH ROCK.                                                                |
|         | 1' SLIGHTLY WEATHERED HIGH ANGLE JOINT ZONE AT 153'.                                             |
|         | 5" MODERATELY WEATHERED JOINT ZONE AT 160'.                                                      |
|         | 3" MODERATELY WEATHERED JOINT ZONE AT 166'.                                                      |

BORING TERMINATED 9-10-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

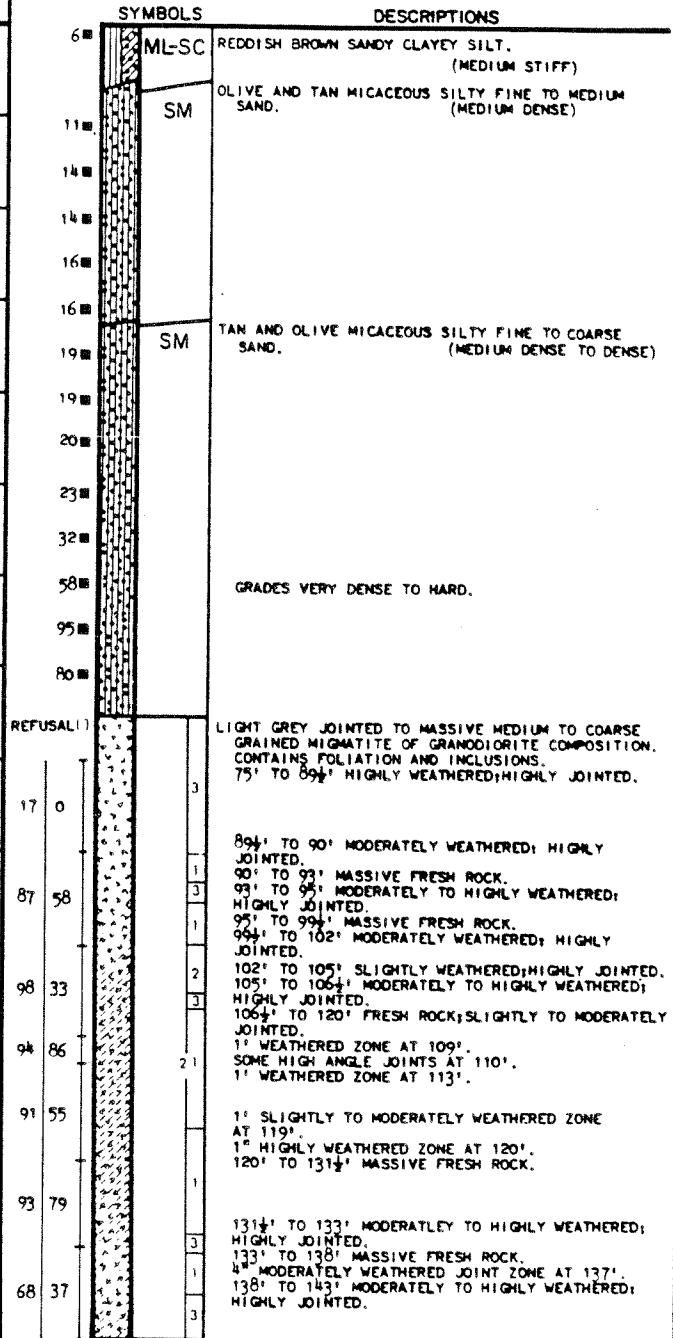
GROUND WATER LEVEL AT A DEPTH OF 62 FEET ON 10-14-71.

## LOG OF BORING 3-14

# BORING 3-15

SURFACE ELEVATION 451.9  
CO-ORDINATES N 472,570  
E 1,904,840

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             | C           |                       |                      |                                |                       | 22                               |                           |
| 10            |             |                       |                      |                                |                       | 22                               | 89                        |
| 20            |             |                       |                      |                                |                       |                                  |                           |
| 30            |             |                       |                      |                                |                       |                                  |                           |
| 40            |             |                       |                      |                                |                       | 21                               | 85                        |
| 50            |             |                       |                      |                                |                       |                                  |                           |
| 60            |             |                       |                      |                                |                       |                                  |                           |
| 70            |             |                       |                      |                                |                       |                                  |                           |
| 80            |             |                       |                      |                                |                       |                                  |                           |
| 90            |             |                       |                      |                                |                       |                                  |                           |
| 100           |             |                       |                      |                                |                       |                                  |                           |
| 110           |             |                       |                      |                                |                       |                                  |                           |
| 120           |             |                       |                      |                                |                       |                                  |                           |
| 130           |             |                       |                      |                                |                       |                                  |                           |
| 140           |             |                       |                      |                                |                       |                                  |                           |
| 150           |             |                       |                      |                                |                       |                                  |                           |



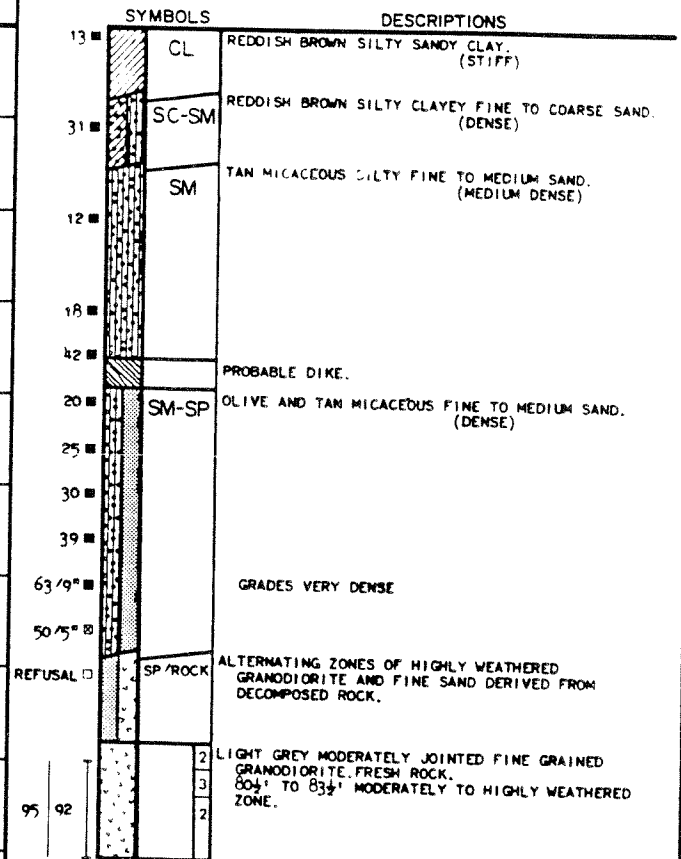
## LOG OF BORING 3-15

# BORING 3-16

SURFACE ELEVATION 468.1

CO-ORDINATES N 472,390  
E 1,904,840

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAXIAL COMPRESSION TEST DATA |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                |  |                                  |                          |
| 0             |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 10            |             |                       |                      |                          |                       |                                |  | 20                               | 105                      |
| 20            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 30            |             |                       |                      |                          |                       |                                |  | 16                               | 99                       |
| 40            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 50            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 60            | B           | 3500                  | 3700                 |                          |                       |                                |  | 11                               | 117                      |
| 70            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 80            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 90            |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 100           |             |                       |                      |                          |                       |                                |  |                                  |                          |



BORING TERMINATED 9-10-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING 3-16

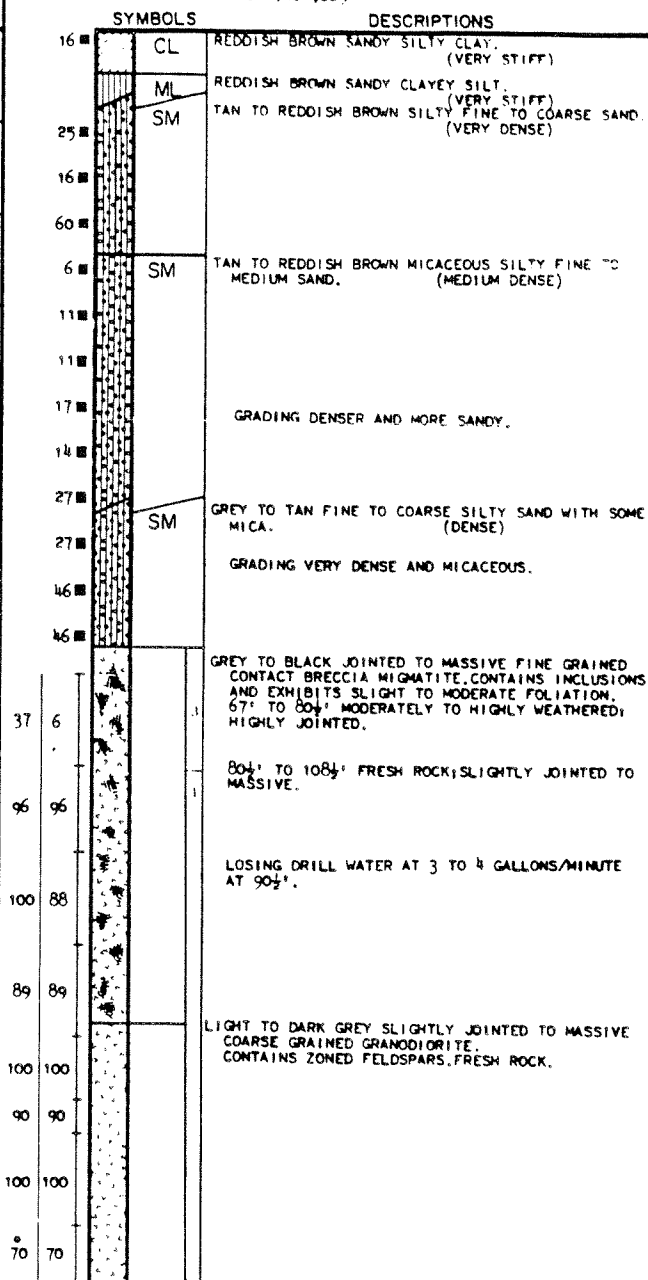
# BORING 3-17

SURFACE ELEVATION 449.8

CO-ORDINATES N 472,725

E 1,904,665

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            | A           | 1500                   | 2420                 |                                |                       | 28                               | 94                       |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            | A           | 3000                   | 2200                 |                                |                       | 28                               | 71                       |
| 40            | D, A        |                        |                      |                                |                       | 23                               | 94                       |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       | 23                               | 107                      |
| 70            |             |                        |                      |                                |                       |                                  |                          |
| 80            |             |                        |                      |                                |                       |                                  |                          |
| 90            |             |                        |                      |                                |                       |                                  |                          |
| 100           |             |                        |                      |                                |                       |                                  |                          |
| 110           |             |                        |                      |                                |                       |                                  |                          |
| 120           |             |                        |                      |                                |                       |                                  |                          |
| 130           |             |                        |                      |                                |                       |                                  |                          |
| 140           |             |                        |                      |                                |                       |                                  |                          |



BORING TERMINATED 9-16-71

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

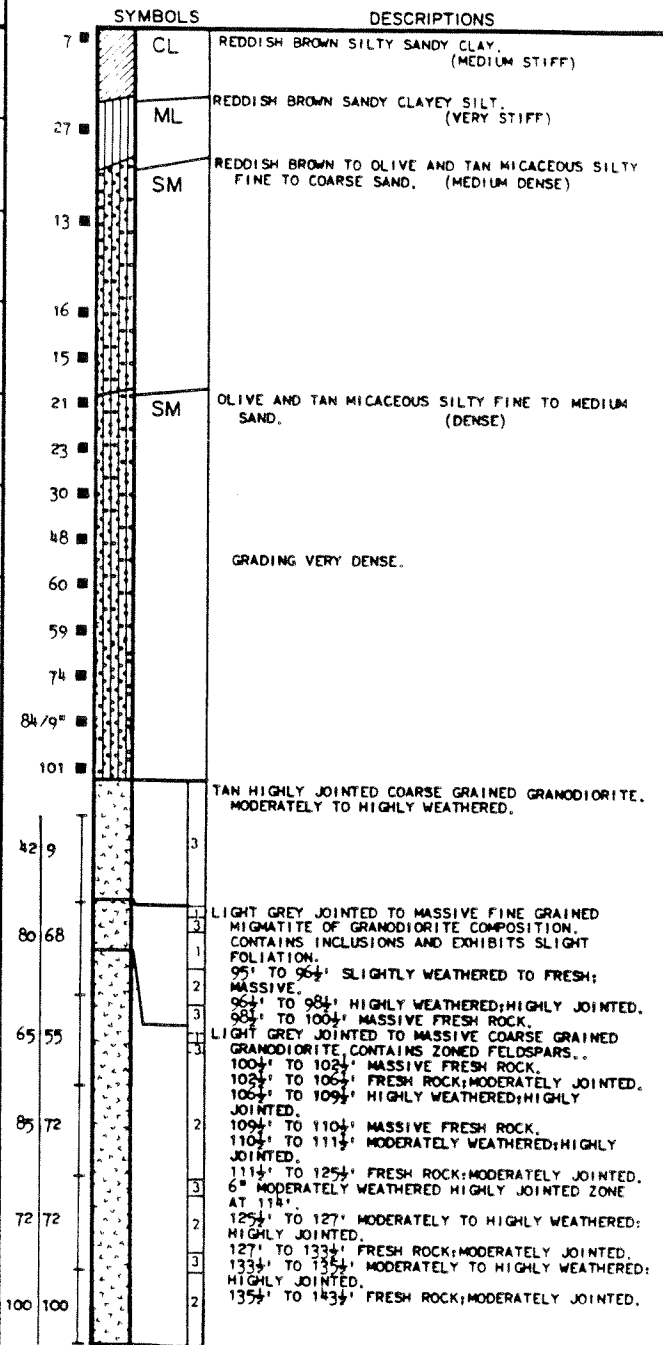
\*PORTION OF ROCK CORE LEFT IN BORING, THEREFORE ACTUAL RECOVERY AND R.Q.D. ARE GREATER THAN INDICATED.

## LOG OF BORING 3-17

# BORING 3-18

SURFACE ELEVATION 467.1  
CO-ORDINATES N 472,600  
E 1,904,665

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            |             |                        |                      |                                |                       | 25                               | 99                       |
| 20            | B           | 2000                   | 2050                 |                                |                       | 20                               | 95                       |
| 30            |             |                        |                      |                                |                       |                                  |                          |
| 40            |             |                        |                      |                                |                       | 20                               | 97                       |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       |                                  |                          |
| 70            | C           |                        |                      |                                |                       | 14                               |                          |
| 80            |             |                        |                      |                                |                       | 15                               | 116                      |
| 90            |             |                        |                      |                                |                       |                                  |                          |
| 100           |             |                        |                      |                                |                       |                                  |                          |
| 110           |             |                        |                      |                                |                       |                                  |                          |
| 120           |             |                        |                      |                                |                       |                                  |                          |
| 130           |             |                        |                      |                                |                       |                                  |                          |
| 140           |             |                        |                      |                                |                       |                                  |                          |
| 150           |             |                        |                      |                                |                       |                                  |                          |



BORING TERMINATED 9-17-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING 3-18

# BORING 3-19

SURFACE ELEVATION 822.6  
CO-ORDINATES N 472,545  
E 1,904,960

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA    |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|---------------------|----------------------|--------------------------------|-----------------------|----------------------------------|-------------------------|
|               |             | NORMAL STRESS (PSF) | SHEAR STRENGTH (PSF) | CONFINING STRESS (PSF)         | DEVIATOR STRESS (PSF) |                                  |                         |
| 0             |             |                     |                      |                                |                       |                                  |                         |
| 10            |             |                     |                      |                                |                       |                                  |                         |
| 20            |             |                     |                      |                                |                       |                                  |                         |
| 30            |             | 2000                | 1200                 |                                |                       | 31                               | 76                      |
| 40            |             |                     |                      |                                |                       | 22                               | 84                      |
| 50            |             |                     |                      |                                |                       | 27                               | 78                      |
| 60            |             |                     |                      |                                |                       |                                  |                         |
| 70            |             |                     |                      |                                |                       |                                  |                         |
| 80            |             |                     |                      |                                |                       |                                  |                         |
| 90            |             |                     |                      |                                |                       |                                  |                         |
| 100           |             |                     |                      |                                |                       |                                  |                         |
| 110           |             |                     |                      |                                |                       |                                  |                         |
| 120           |             |                     |                      |                                |                       |                                  |                         |

| SYMBOLS |       | DESCRIPTIONS                                                                                                                                                                           |
|---------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10      | ML-CL | REDDISH BROWN CLAYEY SILT TO SILTY CLAY. (STIFF)                                                                                                                                       |
| 23      | SM    | DARK BROWN, TAN, AND ORANGE-BROWN MICACEOUS SILTY FINE SAND. (MEDIUM DENSE)                                                                                                            |
| 17      | 8     |                                                                                                                                                                                        |
| 21      | ML-SM | GREY AND BROWN MICACEOUS FINE SANDY SILT AND SILTY SAND. (STIFF TO MEDIUM DENSE)                                                                                                       |
| 28      | 12    |                                                                                                                                                                                        |
| 29      | 14    |                                                                                                                                                                                        |
| 29      | 12    |                                                                                                                                                                                        |
| 27      | 14    |                                                                                                                                                                                        |
| 39      | 24    | GRADES DENSE.                                                                                                                                                                          |
| 40      | 28    |                                                                                                                                                                                        |
| 60      | 32    | TAN AND LIGHT GREY MICACEOUS SILTY FINE SAND. (DENSE TO VERY DENSE)                                                                                                                    |
| RR      | 36    |                                                                                                                                                                                        |
| 80      | 41    |                                                                                                                                                                                        |
| 120     | 61    |                                                                                                                                                                                        |
| 30      | 23    | LIGHT GREY, DARK GREY, AND BLACK HIGHLY JOINTED TO MASSIVE FINE GRAINED CONTACT BRECCIA MIGMATITE. 82' TO 89 1/2' HIGHLY WEATHERED; HIGHLY JOINTED. 89 1/2' TO 91' MASSIVE FRESH ROCK. |
| 93      | 84    | LIGHT GREY MASSIVE FINE TO MEDIUM GRAINED MIGMATITE OF GRANODIORITE COMPOSITION, CONTAINS NUMEROUS INCLUSIONS, FRESH ROCK. 3" JOINT ZONE WITH MODERATELY WEATHERED SURFACES AT 93'.    |
| 86      | 85    | 6" JOINT ZONE WITH SLIGHTLY WEATHERED SURFACES AT 100'.                                                                                                                                |

BORING TERMINATED 9-13-71.

NUMBERS ENCLOSED WITHIN THE COLUMN DESIGNATED BY ASTERISK (\*) INDICATE BLOWCOUNTS FROM AN ADJACENT BORING UTILIZING STANDARD PENETRATION EQUIPMENT.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE ENCLOSED WITHIN THE COLUMN DESIGNATED BY ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES.

\*INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING 3-19

SURFACE ELEVATION 483.4  
CO-ORDINATES N 472,390  
E 1,904,680

| SYMBOLS |         | DESCRIPTIONS                                                                                                                                                                                                                     |
|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16      | ML      | REDDISH BROWN CLAYEY SANDY SILT.<br>(VERY STIFF)                                                                                                                                                                                 |
| 31      |         |                                                                                                                                                                                                                                  |
| 19      | SM      | OLIVE AND TAN MICACEOUS SILTY FINE TO MEDIUM SAND.<br>(MEDIUM DENSE)                                                                                                                                                             |
| 17      |         |                                                                                                                                                                                                                                  |
| 29      | SP-SM   | TAN TO YELLOW-BROWN FINE TO MEDIUM SAND WITH LITTLE SILT.<br>(DENSE)                                                                                                                                                             |
| 27      |         |                                                                                                                                                                                                                                  |
| 30      |         |                                                                                                                                                                                                                                  |
| 27      |         |                                                                                                                                                                                                                                  |
| 48      |         |                                                                                                                                                                                                                                  |
| 70/9    |         |                                                                                                                                                                                                                                  |
| 90      | SW/ROCK | ALTERNATING ZONES OF HIGHLY JOINTED AND HIGHLY WEATHERED MIGMATITE OF GNEISSIC COMPOSITION, AND FINE TO COARSE SAND DERIVED FROM THE DECOMPOSED ROCK. ROCK CONTAINS SOME THIN QUARTZ VEINS.<br>73½' TO 91½' SOME QUARTZ PRESENT. |
| 5       |         |                                                                                                                                                                                                                                  |
| 0       |         |                                                                                                                                                                                                                                  |
| 0       |         |                                                                                                                                                                                                                                  |
| 0       |         |                                                                                                                                                                                                                                  |
| 13      | 3       | TAN TO BROWN HIGHLY JOINTED FINE GRAINED MIGMATITE OF GNEISSIC COMPOSITION. CONTAINS HIGHLY DISTORTED FOLIATION. MODERATELY TO VERY HIGHLY WEATHERED. MUCH HIGH ANGLE JOINTING.                                                  |
| 0       |         |                                                                                                                                                                                                                                  |
| 0       |         |                                                                                                                                                                                                                                  |
| 30      | 3       | GREY TO TAN HIGHLY JOINTED COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. MODERATELY TO HIGHLY WEATHERED. MUCH HIGH ANGLE JOINTING.                                                                                       |

BORING TERMINATED 9-13-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

Figure 2E-57

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|---------------------------|--|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                           |  |                                  |                           |
| 0             |             |                       |                      |                          |                       |                           |  | 17                               | 109                       |
|               |             |                       |                      |                          |                       |                           |  | 21                               | 102                       |
| 10            |             |                       |                      |                          |                       |                           |  |                                  |                           |
| 20            |             |                       |                      |                          |                       |                           |  |                                  |                           |

## BORING AR-1

SURFACE ELEVATION TO BE SURVEYED

CO-ORDINATES N 471,824  
E 1,904,576

| SYMBOLS                                                 |       | DESCRIPTIONS                                       |
|---------------------------------------------------------|-------|----------------------------------------------------|
| 25                                                      | CL-SC | REDDISH BROWN SILTY SANDY CLAY.                    |
| 16                                                      |       | (HARD)                                             |
| 20                                                      | ML-MH | REDDISH BROWN SANDY CLAYEY SILT.                   |
|                                                         |       | (HARD)                                             |
| 15                                                      |       |                                                    |
| 21                                                      | SM    | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. |
|                                                         |       | (DENSE)                                            |
| BORING TERMINATED 10-16-71.                             |       |                                                    |
| SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES. |       |                                                    |

|    |     |  |   |      |    |     |
|----|-----|--|---|------|----|-----|
| 0  | A,C |  | 0 | 8700 | 20 | 107 |
|    | A,C |  |   |      | 22 | 106 |
| 10 |     |  |   |      |    |     |
| 20 |     |  |   |      |    |     |

## BORING AR-2

SURFACE ELEVATION TO BE SURVEYED

CO-ORDINATES N 471,480  
E 1,905,428

|                                                         |       |                                                    |
|---------------------------------------------------------|-------|----------------------------------------------------|
| 24                                                      | CL-ML | RED-BROWN SANDY SILTY CLAY.                        |
|                                                         |       | (HARD)                                             |
| 62                                                      | SC-MH | RED-BROWN CLAYEY SILT AND CLAYEY SAND.             |
|                                                         |       | (HARD)                                             |
| 21                                                      | SM    | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. |
|                                                         |       | (DENSE)                                            |
| 20                                                      |       |                                                    |
| BORING TERMINATED 10-16-71.                             |       |                                                    |
| SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES. |       |                                                    |

|    |     |  |  |  |    |     |
|----|-----|--|--|--|----|-----|
| 0  | A,C |  |  |  | 21 | 101 |
|    |     |  |  |  | 21 | 95  |
| 10 |     |  |  |  |    |     |
| 20 |     |  |  |  |    |     |

## BORING AR-3

SURFACE ELEVATION TO BE SURVEYED

CO-ORDINATES N 471,547  
E 1,906,425

|                                                         |       |                                                              |
|---------------------------------------------------------|-------|--------------------------------------------------------------|
| 26                                                      |       | RED-BROWN CLAYEY SILT. (FILL)                                |
|                                                         |       | RED-BROWN SANDY CLAYEY SILT.                                 |
| 16                                                      | ML-MH | (HARD)                                                       |
|                                                         | SM    | REDDISH BROWN AND BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. |
| 18                                                      |       | (MEDIUM DENSE)                                               |
| 14                                                      |       |                                                              |
| BORING TERMINATED 10-16-71.                             |       |                                                              |
| SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES. |       |                                                              |

# LOG OF BORINGS AR-1 AR-2 & AR-3



| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       | 4                                | 120                      |
| 10            |             |                        |                      |                                |                       |                                  |                          |
| 20            |             |                        |                      |                                |                       |                                  |                          |

## BORING AR-4

SURFACE ELEVATION TO BE SURVEYED

CO-ORDINATES N 471,526  
E 1,907,306

| SYMBOLS |    | DESCRIPTIONS                                                            |
|---------|----|-------------------------------------------------------------------------|
| 25      | ML | REDDISH BROWN CLAYEY SILT TO BROWN (FILL) SAND. (DENSE)                 |
| 49      |    | REDDISH BROWN SANDY CLAYEY SILT TO SANDY CLAY. (HARD)                   |
| 15      | SM | RED-BROWN AND BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. (MEDIUM DENSE) |
| 15      |    |                                                                         |

BORING TERMINATED 10-16-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

| DEPTH IN FEET |  |  |    |     |  |
|---------------|--|--|----|-----|--|
|               |  |  |    |     |  |
| 0             |  |  | 24 | 98  |  |
|               |  |  | 22 | 105 |  |
| 10            |  |  |    |     |  |
| 20            |  |  |    |     |  |

## BORING AR-5

SURFACE ELEVATION TO BE SURVEYED

CO-ORDINATES N 471,699  
E 1,908,130

|    |       |                                                                            |
|----|-------|----------------------------------------------------------------------------|
| 39 | CL-ML | REDDISH BROWN SANDY SILTY CLAY TO CLAYEY SILT. (HARD)                      |
| 50 |       |                                                                            |
| 21 | SM    | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. (MEDIUM DENSE TO DENSE) |
| 19 |       | GRADES COARSER AND PARTIALLY GREY AND WHITE IN COLOR.                      |

BORING TERMINATED 10-16-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

| DEPTH IN FEET |          |  |       |    |     |
|---------------|----------|--|-------|----|-----|
|               |          |  |       |    |     |
| 0             | A<br>A,C |  | 0     | 12 | 119 |
|               |          |  | 4600* | 20 | 99  |
| 10            |          |  |       |    |     |
| 20            |          |  |       |    |     |

\*FAILED ALONG DESICCATION CRACKS

## BORING AR-6

SURFACE ELEVATION TO BE SURVEYED

CO-ORDINATES N 471,534  
E 1,909,101

|    |       |                                                            |
|----|-------|------------------------------------------------------------|
| 28 |       | REDDISH BROWN CLAYEY SILTY SAND. (FILL) (DENSE)            |
| 32 | SM-CH | REDDISH BROWN SANDY CLAYEY SILT. (HARD)                    |
| 34 | SM    | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. (DENSE) |
| 20 |       | GRADES TAN AND BROWN.                                      |

BORING TERMINATED 10-15-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

# LOG OF BORINGS AR-4 AR-5 & AR-6

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             | A           |                       |                      |                                |                       | 16                               | 109                      |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |

## BORING AR-7

SURFACE ELEVATION TO BE SURVEYED  
CO-ORDINATES N 470,950  
E 1,909,772

| SYMBOLS |       | DESCRIPTIONS                                                |
|---------|-------|-------------------------------------------------------------|
| 37      |       | REDDISH BROWN CLAYEY SAND AND SAND. (FILL) (STIFF TO DENSE) |
| 38      | SC    | REDDISH BROWN CLAYEY SAND. (DENSE)                          |
|         | SM-ML | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. (DENSE)  |
|         | 3     | ROCK (WEATHERED)                                            |

BORING TERMINATED 10-15-71.  
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

| DEPTH IN FEET |  |  |  |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|--|--|--|--|----------------------------------|--------------------------|
|               |  |  |  |  |                                  |                          |
| 0             |  |  |  |  | 22                               | 102                      |
| 10            |  |  |  |  |                                  |                          |
| 20            |  |  |  |  |                                  |                          |

## BORING AR-8

SURFACE ELEVATION TO BE SURVEYED  
CO-ORDINATES N 470,309  
E 1,910,450

|    |       |                                                                  |
|----|-------|------------------------------------------------------------------|
| 19 | SC-SM | REDDISH BROWN AND WHITE SILTY CLAYEY SAND. (DENSE TO VERY DENSE) |
| 20 |       |                                                                  |
| 23 | SM    | REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND. (DENSE)       |
|    | 3     | ROCK (WEATHERED)                                                 |

BORING TERMINATED 10-15-71.  
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

| DEPTH IN FEET |      |  |   |       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|------|--|---|-------|----------------------------------|--------------------------|
|               |      |  |   |       |                                  |                          |
| 0             | A, C |  | 0 | 1100* | 17                               | 109                      |
| 10            |      |  |   |       | 14                               | 107                      |
| 20            |      |  |   |       |                                  |                          |

\*SAMPLE FAILED ALONG VERTICAL SAND LENSES

## BORING AR-9

SURFACE ELEVATION TO BE SURVEYED  
CO-ORDINATES N 470,565  
E 1,911,051

|    |       |                                                                                    |
|----|-------|------------------------------------------------------------------------------------|
| 21 | SM-ML | REDDISH BROWN CLAYEY SILTY SAND. (DENSE)                                           |
| 24 |       | GRADING LESS CLAYEY AND VERY MICACEOUS.                                            |
| 24 |       |                                                                                    |
| 29 | SP-SM | TAN AND BROWN FINE TO MEDIUM SAND WITH LITTLE SILT. GRADES WHITE IN COLOR. (DENSE) |

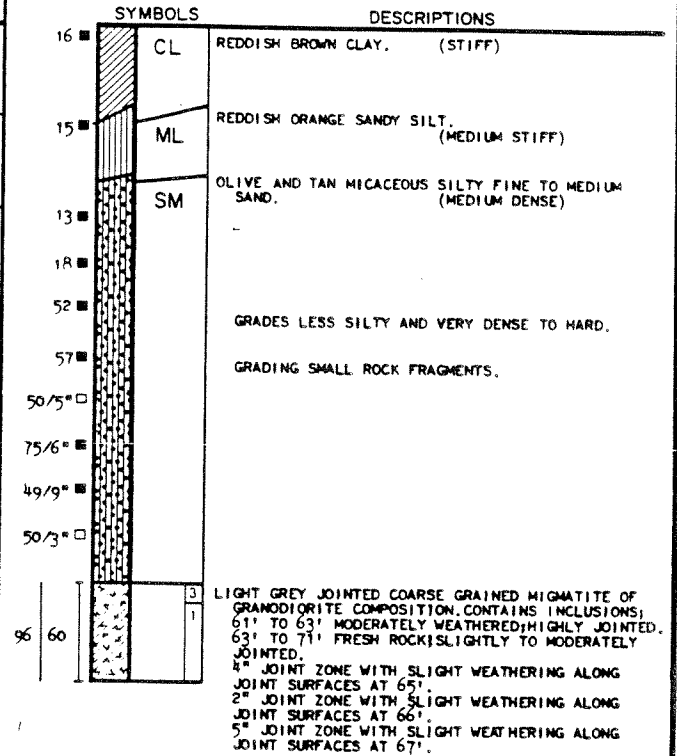
BORING TERMINATED 10-15-71.  
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

# LOG OF BORINGS AR-7 AR-8 & AR-9

# BORING CT-4

SURFACE ELEVATION 456.0  
CO-ORDINATES N 472,318  
E 1,903,700

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             | 4000                  | 5260                 |                                |                       | 6                                | 133                      |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |

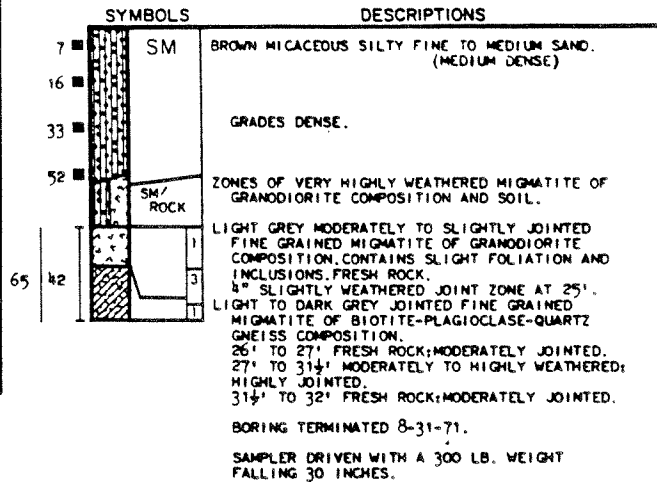


## LOG OF BORING CT-4

## BORING CT-5

SURFACE ELEVATION 416.1  
CO-ORDINATES N 472,318  
E 1,903,200

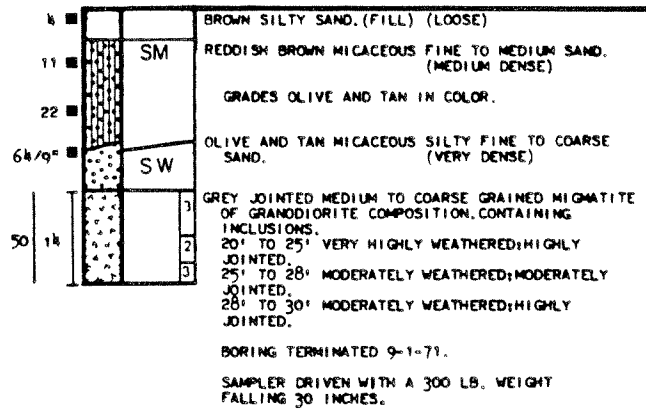
| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             | 2000                  | 2200                 |                                |                       | 10                               | 122                      |
| 10            |             | 2000                  | 2680                 |                                |                       | 15                               | 114                      |
| 20            |             | 4000                  | 5060                 |                                |                       | 10                               | 124                      |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |



## BORING CT-6

SURFACE ELEVATION 422.5  
CO-ORDINATES N 472,000  
E 1,903,500

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             | 2000                  | 2090                 |                                |                       | 10                               | 115                      |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |



## LOG OF BORINGS CT-5 & CT-6

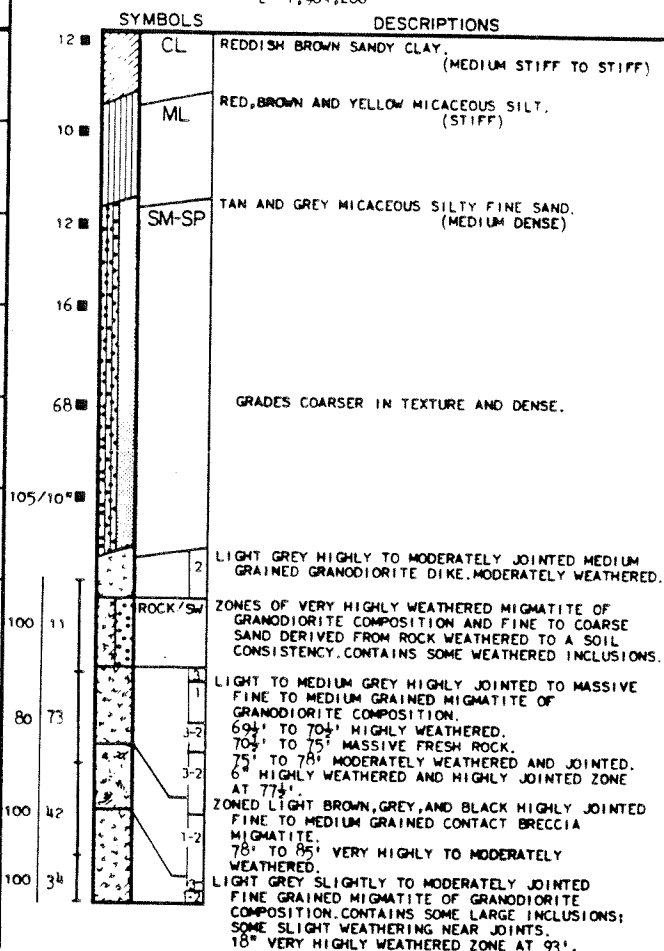
# BORING DP-1

SURFACE ELEVATION 495.0

CO-ORDINATES N 472,130

E 1,904,200

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST |                       | FIELD                      | DRY                  |
|---------------|-------------|-----------------------|----------------------|---------------------------|-----------------------|----------------------------|----------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)  | DEVIATOR STRESS (PSF) | MOISTURE CONTENT (PERCENT) | DENSITY (LBS/CU FT.) |
| 0             |             |                       |                      |                           |                       |                            |                      |
| 10            |             |                       |                      |                           |                       |                            |                      |
| 20            |             |                       |                      |                           |                       |                            |                      |
| 30            |             |                       |                      |                           |                       |                            |                      |
| 40            |             |                       |                      |                           |                       |                            |                      |
| 50            |             |                       |                      |                           |                       |                            |                      |
| 60            |             |                       |                      |                           |                       |                            |                      |
| 70            |             |                       |                      |                           |                       |                            |                      |
| 80            |             |                       |                      |                           |                       |                            |                      |
| 90            |             |                       |                      |                           |                       |                            |                      |
| 100           |             |                       |                      |                           |                       |                            |                      |



BORING TERMINATED 8-23-71.

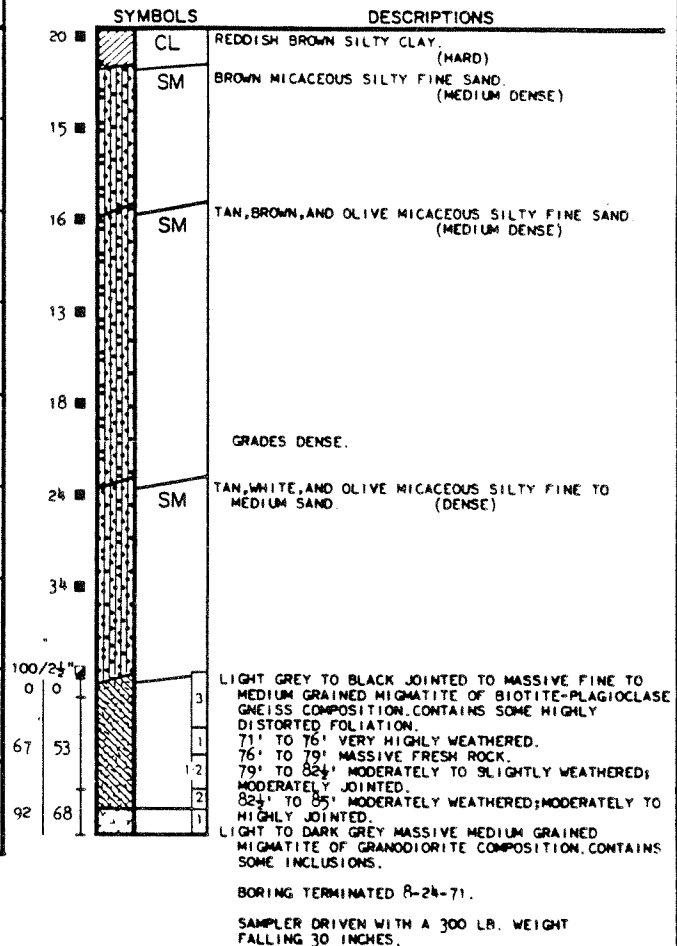
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING DP-1

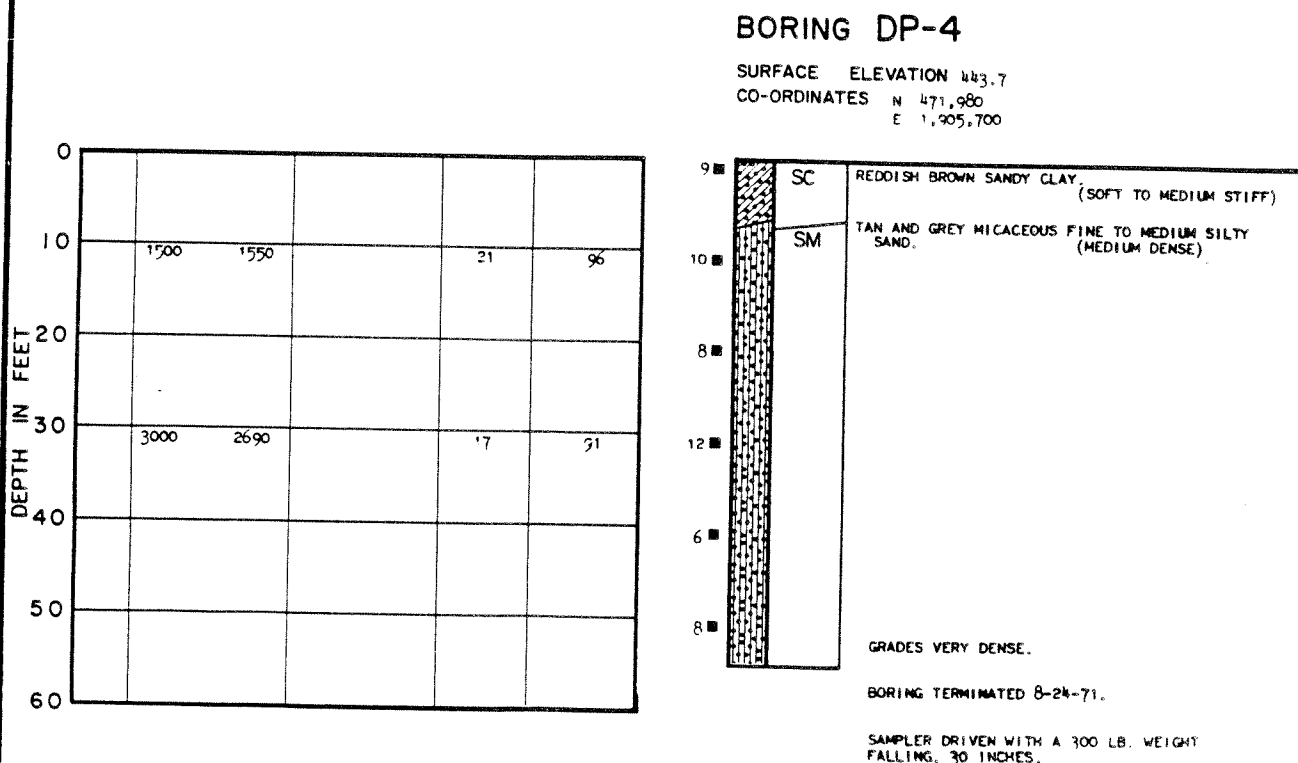
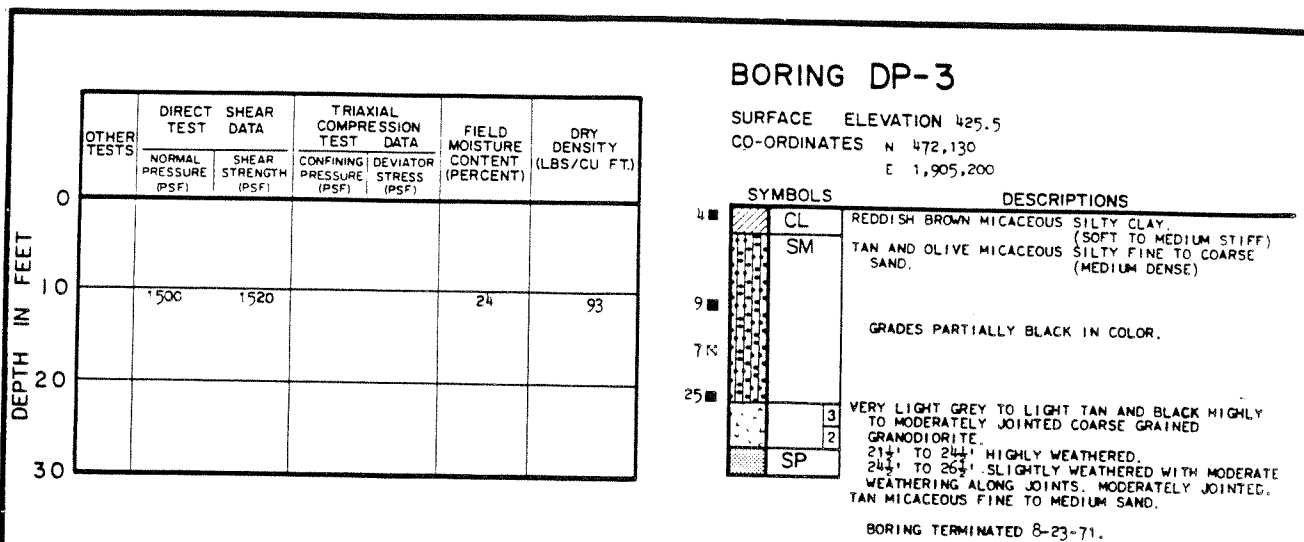
# BORING DP-2

SURFACE ELEVATION 488.2  
CO-ORDINATES N 472,150  
E 1,904,700

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       | 20                               | 87                       |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       | 17                               | 94                       |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       | 12                               | 108                      |
| 60            |             | 3500                  | 3860                 |                                |                       | 12                               | 113                      |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |



## LOG OF BORING DP-2



## LOG OF BORINGS DP-3 & DP-4

# BORING DP-5

SURFACE ELEVATION 426.9  
CO-ORDINATES N 471,750  
E 1,906,300

| OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
|             | 2200                  | 2740                 |                                |                       | 20                               | 74                       |
|             |                       |                      |                                |                       | 20                               | 38                       |
|             |                       |                      |                                |                       |                                  |                          |
|             |                       |                      |                                |                       |                                  |                          |

DEPTH IN FEET

| SYMBOLS |    | DESCRIPTIONS                                               |
|---------|----|------------------------------------------------------------|
| 5       |    | REDDISH BROWN CLAYEY SAND (FILL)<br>(SOFT)                 |
| 19      | ML | REDDISH BROWN AND TAN MICACEOUS FINE SANDY SILT<br>(DENSE) |
| 13      |    |                                                            |
| 42      | SM | ORANGE AND GREY MICACEOUS SILTY FINE SAND<br>(DENSE)       |
| 17      |    |                                                            |
| 28      |    |                                                            |

GRADES MORE SILTY.  
REFUSAL AT 30', ROCK INDICATED.  
BORING TERMINATED 8-24-71.  
SAMPLER DRIVEN WITH A 300 LB. WEIGHT  
FALLING 30 INCHES.

## LOG OF BORING DP-5



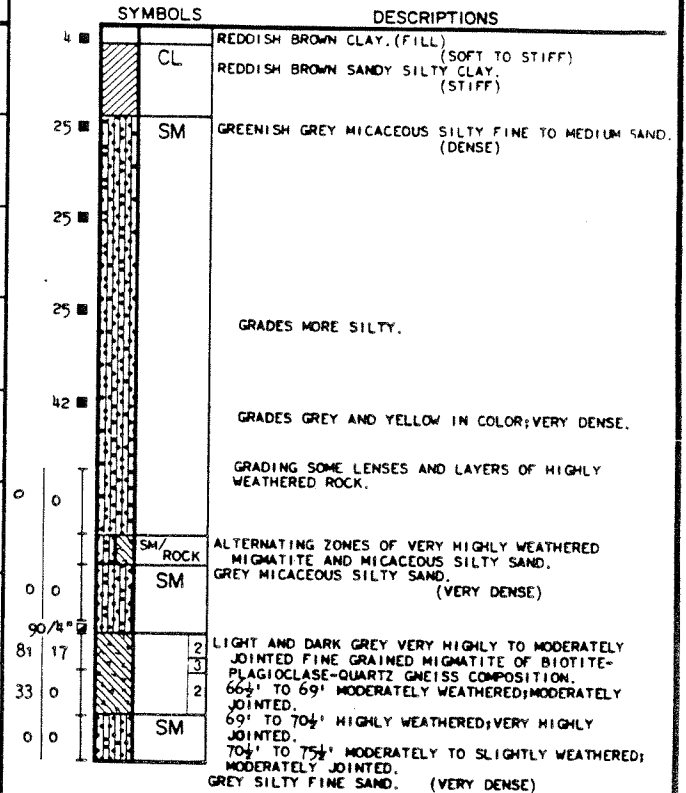
# BORING ECP-1

SURFACE ELEVATION 367.1

CO-ORDINATES N 472,600

E 1,905,350

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             | 2000                  | 2540                 |                                |                       | 16                               | 114                      |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             | 4000                  | 3730                 |                                |                       | 30                               | 95                       |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |
| 90            |             |                       |                      |                                |                       |                                  |                          |



BORING TERMINATED 8-25-71.

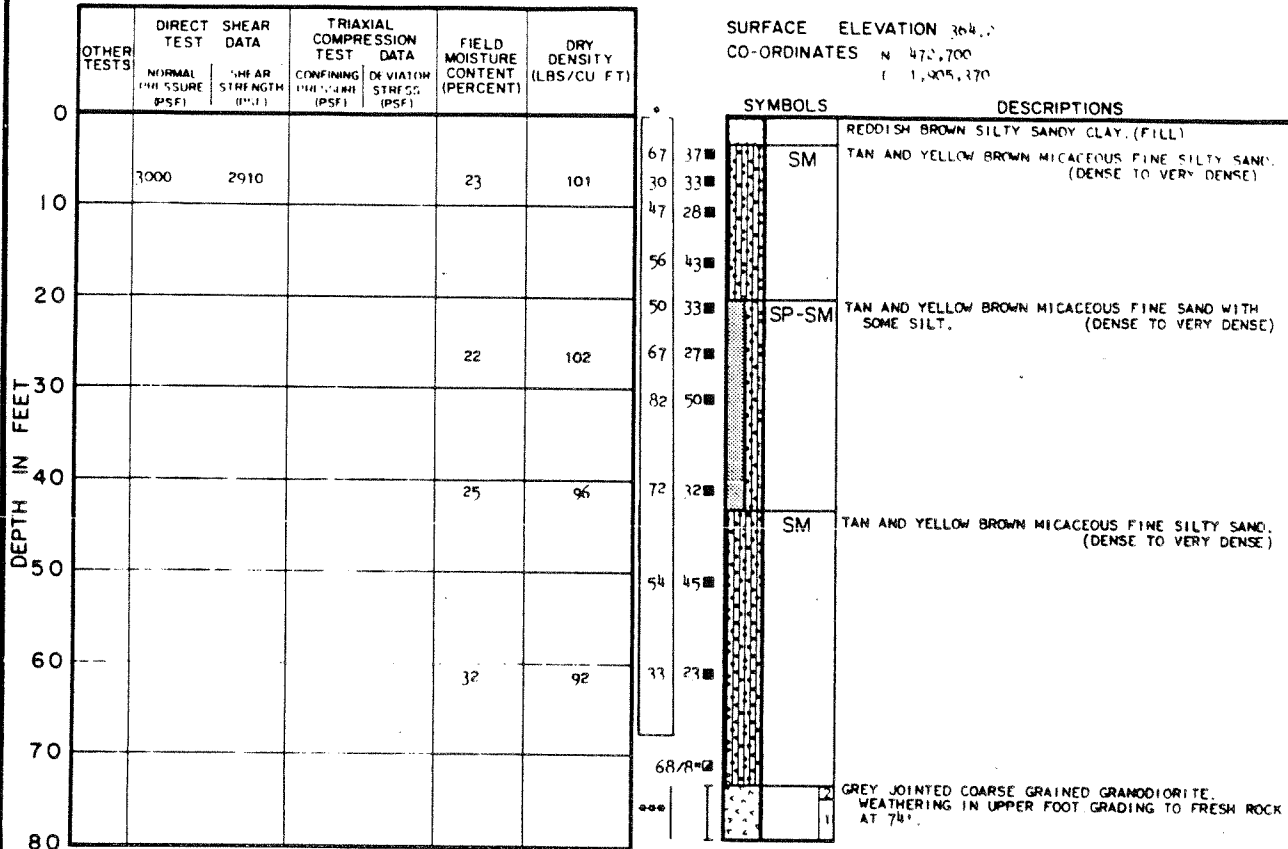
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

GROUND WATER LEVEL AT DEPTH 3 FEET, ON 10-14-71.

## LOG OF BORING ECP-1

# BORING ECP-2

SURFACE ELEVATION 364.2  
CO-ORDINATES N 472,700  
E 1,905,370



BORING TERMINATED 9-20-71.

NUMBERS ENCLOSED WITHIN THE COLUMN DESIGNATED BY ONE ASTERISK(\*) INDICATE BLOWCOUNTS OBTAINED FROM AN ADJACENT BORING UTILIZING STANDARD PENETRATION EQUIPMENT.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE ENCLOSED WITH THE COLUMN DESIGNATED BY ONE ASTERISK(\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES.

\*INDICATES STANDARD PENETRATION TESTS.

\*\*\* CORE BARREL NOT RECOVERED.

## LOG OF BORING ECP-2

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST DATA |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                |  |                                  |                          |
| 0             |             |                       |                      |                          |                       |                                |  |                                  |                          |
| 10            |             | 2000                  | 2340                 |                          |                       |                                |  | 16                               | 108                      |
| 20            |             | 3000                  | 4290                 |                          |                       |                                |  | 15                               | 116                      |
| 30            |             |                       |                      |                          |                       |                                |  |                                  |                          |

### BORING ECP-3

SURFACE ELEVATION 354.8  
CO-ORDINATES N 472,800  
E 1,905,500

| SYMBOLS |       | DESCRIPTIONS                                                |
|---------|-------|-------------------------------------------------------------|
| 5       | CL-SC | REDDISH BROWN TO YELLOW SILTY SANDY CLAY (FILL) (STIFF)     |
| 17      |       | BROWN SILTY SAND AND CLAY (MEDIUM DENSE)                    |
| 49      | SP-SM | GREY TO TAN FINE SAND WITH SOME MICA AND SILT. (VERY DENSE) |
| 88/7"   |       |                                                             |
| 60/2"   |       | WEATHERED ROCK.                                             |

BORING TERMINATED 9-21-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

| DEPTH IN FEET |  |  |  |  |  |
|---------------|--|--|--|--|--|
| 0             |  |  |  |  |  |
| 10            |  |  |  |  |  |

### BORING ECP-4

SURFACE ELEVATION 434.0  
CO-ORDINATES N 472,502  
E 1,905,035

| SYMBOLS |    | DESCRIPTIONS                                            |
|---------|----|---------------------------------------------------------|
| 14      | CL | REDDISH BROWN SILTY SANDY CLAY. (STIFF)                 |
| 15      | MI | TAN TO REDDISH BROWN SANDY SILT WITH SOME MICA. (DENSE) |
| 26      | SM | TAN MICACEOUS SILTY FINE TO MEDIUM SAND. (DENSE)        |

BORING TERMINATED 10-5-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

| DEPTH IN FEET |  |  |  |  |  |
|---------------|--|--|--|--|--|
| 0             |  |  |  |  |  |
| 10            |  |  |  |  |  |
| 20            |  |  |  |  |  |

### BORING ECP-5

SURFACE ELEVATION 427.6  
CO-ORDINATES N 472,360  
E 1,905,062

|    |       |                                                           |
|----|-------|-----------------------------------------------------------|
| 18 | CL-SC | REDDISH BROWN SILTY SANDY CLAY. (STIFF TO VERY STIFF)     |
| 18 |       |                                                           |
| 20 |       |                                                           |
| 25 | ML-SM | REDDISH BROWN SANDY SILT WITH SOME CLAY AND MICA. (DENSE) |
| 14 |       |                                                           |

BORING TERMINATED 10-5-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORINGS ECP-3 ECP-4 & ECP-5

## BORING ECP-6

SURFACE ELEVATION 438.1  
CO-ORDINATES N 472,219  
E 1,905,090

DEPTH IN FEET

| OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
|             |                        |                      |                                |                       |                                  |                          |
|             |                        |                      |                                |                       |                                  |                          |

7 ■ SM REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND.

12 ■

11 ■

BORING TERMINATED 10-5-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## BORING ECP-7

SURFACE ELEVATION 427.3  
CO-ORDINATES N 472,089  
E 1,905,143

DEPTH IN FEET

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

16 ■ CL-SC REDDISH BROWN MICACEOUS SILTY SANDY CLAY. (VERY STIFF)

24 ■

10 ■

SM REDDISH BROWN MICACEOUS SILTY FINE TO MEDIUM SAND.

BORING TERMINATED 10-5-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## BORING ECP-8

SURFACE ELEVATION 428.2  
CO-ORDINATES N 471,972  
E 1,905,194

DEPTH IN FEET

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

11 ■ MI REDDISH BROWN MICACEOUS SANDY CLAYEY SILT. (STIFF)

12 ■

15 ■

ML-SM REDDISH BROWN MICACEOUS CLAYEY SILT AND SAND. (MEDIUM DENSE)

SM REDDISH BROWN MICACEOUS SILTY FINE TO COARSE SAND. (MEDIUM DENSE)

BORING TERMINATED 10-6-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

# LOG OF BORINGS ECP-6 ECP-7 & ECP-8

### BORING IP-3

SURFACE ELEVATION 420.7  
CO-ORDINATES N 473,000  
E 1,905,000

DEPTH IN FEET

| OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAIAL COMPRESSION TEST |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|-------------|-----------------------|----------------------|--------------------------|-----------------------|----------------------------------|--------------------------|
|             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                  |                          |
|             |                       |                      |                          |                       |                                  |                          |
|             |                       |                      |                          |                       |                                  |                          |

| SYMBOLS |       | DESCRIPTIONS                                            |
|---------|-------|---------------------------------------------------------|
| 16      | CL-ML | BROWN AND OLIVE SILTY CLAY TO SILTY SAND (DENSE)        |
| 18/6    | SM    | BLACK JOINTED FINE GRAINED ULTRA MAFIC INTRUSIVE ROCK.  |
|         | SM    | BROWN AND OLIVE SILTY SAND. (DENSE)                     |
|         | SM    | BLACK JOINTED FINE GRAINED ULTRA MAFIC INTRUSIVE ROCK.  |
|         | SM    | HARD FRESH HIGHLY FRAGMENTED ROCK WITH WEATHERED ZONES. |
|         | SM    | 12' TO 13' VERY HIGHLY WEATHERED.                       |
|         | SM    | 16' TO 18' VERY HIGHLY WEATHERED.                       |

BORING TERMINATED F-30-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

### BORING IP-4

SURFACE ELEVATION 424.0  
CO-ORDINATES N 472,800  
E 1,905,000

DEPTH IN FEET

|    |      |      |  |   |    |
|----|------|------|--|---|----|
| 0  |      |      |  |   |    |
| 10 |      |      |  |   |    |
| 20 | 2500 | 1930 |  | 9 | 89 |
| 30 |      |      |  |   |    |

|    |    |                                                         |
|----|----|---------------------------------------------------------|
| 17 | CL | REDDISH BROWN SILTY CLAY. (STIFF)                       |
| 15 | SM | REDDISH BROWN MICACEOUS SILTY FINE SAND. (MEDIUM DENSE) |
| 16 |    | GRADES TAN AND OLIVE IN COLOR.                          |
| 16 |    |                                                         |
| 12 |    |                                                         |
| 14 |    |                                                         |

BORING TERMINATED 8-30-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORINGS IP-3 & IP-4

| OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|-------------|-----------------------|----------------------|-------------------------------|-----------------------|----------------------------------|--------------------------|
|             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                          |
| 0           |                       |                      |                               |                       |                                  |                          |
| 10          |                       |                      |                               |                       |                                  |                          |
| 20          |                       |                      |                               |                       |                                  |                          |
| 30          |                       |                      |                               |                       |                                  |                          |
| 40          |                       |                      |                               |                       |                                  |                          |

### BORING J-1

SURFACE ELEVATION 417.2  
CO-ORDINATES N 476,970  
E 1,905,800

| SYMBOLS |    | DESCRIPTIONS                                                                                                                                          |
|---------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 16      | SM | REDDISH BROWN SILTY FINE TO COARSE SAND WITH SOME CLAY IN UPPER 3'. (MEDIUM DENSE) GRADING SOME OLIVE COLOR, SOME MICA AND OCCASIONAL CEMENTED ZONES. |
| 16      |    |                                                                                                                                                       |
| 20      | ML | TAN TO BROWN MICACEOUS FINE SANDY SILT. (MEDIUM DENSE)                                                                                                |
| 12      |    |                                                                                                                                                       |
| 20      | SM | TAN AND BROWN FINE TO COARSE SAND WITH SOME MICA. (MEDIUM DENSE TO DENSE)                                                                             |
| 31      |    |                                                                                                                                                       |
| 28      |    |                                                                                                                                                       |

BORING TERMINATED 10-1-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

### BORING J-2

SURFACE ELEVATION 430.2  
CO-ORDINATES N 474,306  
E 1,906,831

|    |  |  |  |  |  |
|----|--|--|--|--|--|
| 0  |  |  |  |  |  |
| 10 |  |  |  |  |  |
| 20 |  |  |  |  |  |
| 30 |  |  |  |  |  |

|      |         |                                                                                                                                     |
|------|---------|-------------------------------------------------------------------------------------------------------------------------------------|
| 22   | SM      | REDDISH BROWN TO TAN SILTY FINE TO MEDIUM SAND WITH SOME MICA. (DENSE) GRADING PARTLY CEMENTED.                                     |
| 47/6 |         |                                                                                                                                     |
| 51/3 | ROCK/SM | ALTERNATING ZONES OF HIGHLY WEATHERED AND JOINTED GREY TO BLACK FINE GRAINED MIGMATITE AND GREY TO BLACK SILTY FINE TO COARSE SAND. |
| 50/3 |         |                                                                                                                                     |
| 26   |         |                                                                                                                                     |
| 1    |         |                                                                                                                                     |
| 8    |         |                                                                                                                                     |

BORING TERMINATED 9-30-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

### BORING J-3

SURFACE ELEVATION 408.9  
CO-ORDINATES N 475,498  
E 1,906,773

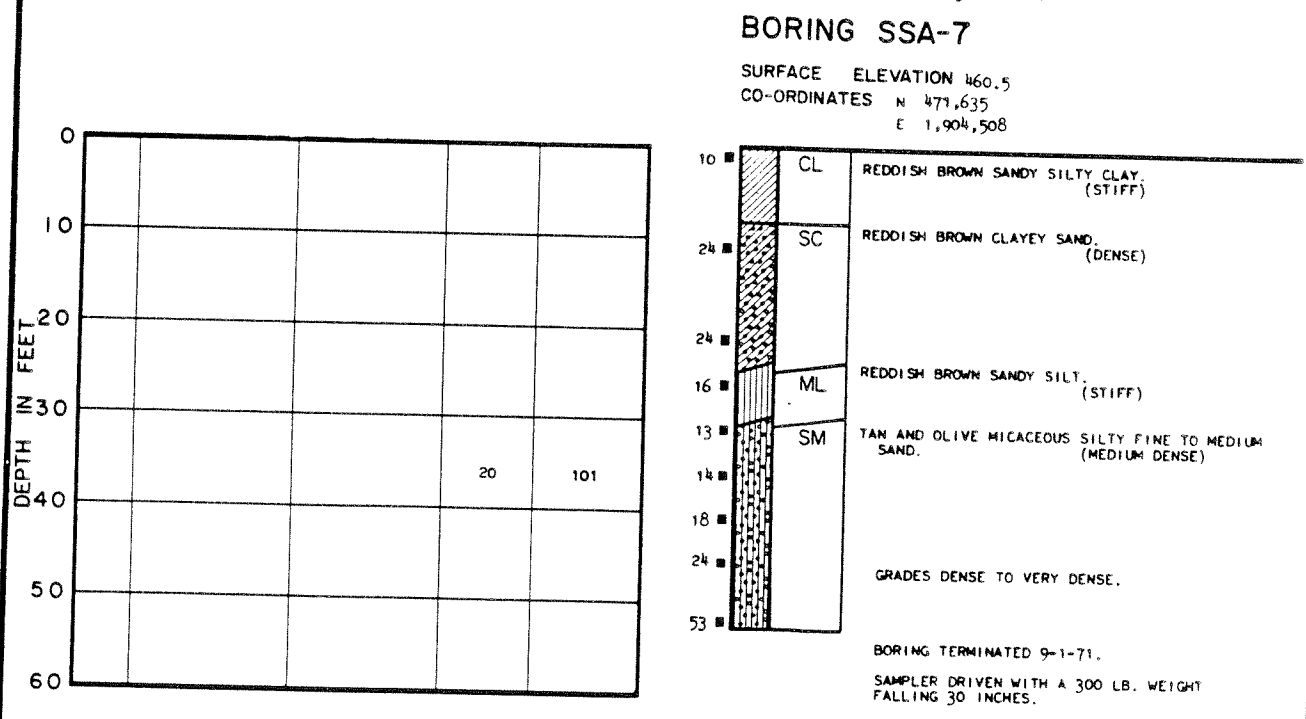
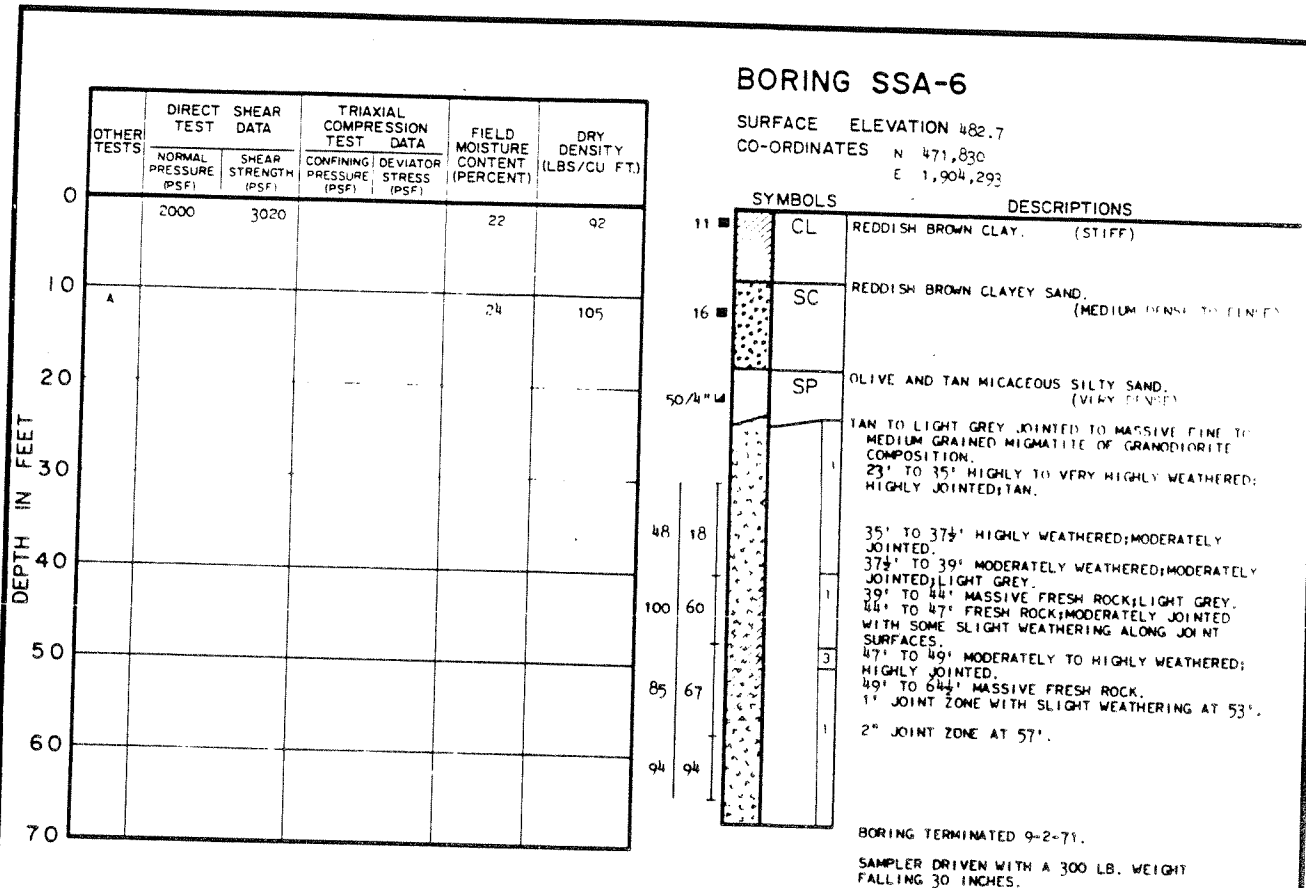
|    |  |  |  |  |  |
|----|--|--|--|--|--|
| 0  |  |  |  |  |  |
| 10 |  |  |  |  |  |
| 20 |  |  |  |  |  |
| 30 |  |  |  |  |  |

|      |       |                                                                                   |
|------|-------|-----------------------------------------------------------------------------------|
| 25   | CL    | REDDISH BROWN, SILTY SANDY CLAY. (VERY STIFF)                                     |
| 35   | ML    | REDDISH BROWN SANDY CLAYEY SILT. (DENSE)                                          |
| 15   |       |                                                                                   |
| 15   | SM    | REDDISH BROWN TO TAN MICACEOUS SILTY FINE TO MEDIUM SAND. (MEDIUM DENSE TO DENSE) |
| 13   |       |                                                                                   |
| 26   |       |                                                                                   |
| 57   | SM-SP | TAN AND GREY MICACEOUS SILTY FINE TO MEDIUM SAND. (VERY DENSE)                    |
| 57/6 |       |                                                                                   |

BORING TERMINATED 9-30-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORINGS J-1 J-2 & J-3



LOG OF BORINGS SSA-6  
& SSA-7

## BORING SSA-8

SURFACE ELEVATION 478.6  
CO-ORDINATES N 471,895  
E 1,904,550

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       | 22                               | 97                       |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             | 3000                  | 2830                 |                                |                       | 14                               | 109                      |
| 60            |             |                       |                      |                                |                       | 19                               | 103                      |
| 70            |             |                       |                      |                                |                       |                                  |                          |

### SYMBOLS

### DESCRIPTIONS

|    |    |                                                                      |
|----|----|----------------------------------------------------------------------|
| 6  | CL | REDDISH BROWN SILTY CLAY.<br>(MEDIUM STIFF)                          |
| 18 | ML | REDDISH BROWN SANDY CLAYEY SILT.<br>(HARD)                           |
| 12 | SM | OLIVE AND TAN MICACEOUS SILTY FINE TO MEDIUM SAND.<br>(MEDIUM DENSE) |
| 12 |    |                                                                      |
| 16 |    |                                                                      |
| 24 |    | GRADES DENSE AND COARSER IN TEXTURE.                                 |
| 40 |    |                                                                      |
| 22 |    |                                                                      |
| 34 |    |                                                                      |
| 20 |    |                                                                      |

BORING TERMINATED 9-1-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT  
FALLING 30 INCHES.

## BORING SSA-9

SURFACE ELEVATION 443.9  
CO-ORDINATES N 471,545  
E 1,904,703

| DEPTH IN FEET | OTHER TESTS | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|----------------------------------|--------------------------|
| 0             |             |                       |                      |                          |                       |                                  |                          |
| 10            |             |                       |                      |                          |                       | 15                               | 101                      |
| 20            |             |                       |                      |                          |                       |                                  |                          |
| 30            |             |                       |                      |                          |                       |                                  |                          |
| 40            |             |                       |                      |                          |                       |                                  |                          |

|    |    |                                                              |
|----|----|--------------------------------------------------------------|
| 4  | SM | BROWN MICACEOUS SILTY FINE TO MEDIUM SAND.<br>(MEDIUM DENSE) |
| 16 |    |                                                              |
| 16 |    | GRADES OLIVE AND TAN AND FINER.                              |
| 16 |    |                                                              |
| 18 |    |                                                              |
| 34 |    | GRADES DENSE TO VERY DENSE.                                  |
| 40 |    |                                                              |
| 54 |    |                                                              |

BORING TERMINATED 9-1-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT  
FALLING 30 INCHES.

## LOG OF BORINGS SSA-8 & SSA-9



## BORING SSA-10

SURFACE ELEVATION 467.0

CO-ORDINATES N 471,795  
E 1,904,850

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|-------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                         |
| 0             |             |                       |                      |                                |                       |                                  |                         |
| 10            | A           |                       |                      |                                |                       | 18                               | 94                      |
| 20            |             |                       |                      |                                |                       |                                  |                         |
| 30            | A           | 4000                  | 5480                 |                                |                       | 10                               | 113                     |
| 40            |             |                       |                      |                                |                       |                                  |                         |
| 50            |             |                       |                      |                                |                       | 13                               | 116                     |
| 60            |             |                       |                      |                                |                       |                                  |                         |

| SYMBOLS | DESCRIPTIONS                                                             |
|---------|--------------------------------------------------------------------------|
| CL      | REDDISH BROWN SANDY SILTY CLAY. (STIFF)                                  |
| SM      | TAN AND OLIVE MICACEOUS SILTY FINE TO MEDIUM SAND.                       |
| SM      | OLIVE AND TAN MICACEOUS SILTY FINE TO MEDIUM SAND. (DENSE TO VERY DENSE) |
| 90/10"  |                                                                          |
| 50/4"   |                                                                          |
| 50/5"   |                                                                          |
| 87/9"   |                                                                          |

BORING TERMINATED 9-1-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## BORING SSA-II

SURFACE ELEVATION 444.0

CO-ORDINATES N 471,635  
E 1,905,090

| DEPTH IN FEET | OTHER TESTS | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|----------------------------------|-------------------------|
| 0             |             |                       |                      |                          |                       |                                  |                         |
| 10            |             |                       |                      |                          |                       |                                  |                         |
| 20            |             |                       |                      |                          |                       | 23                               | 87                      |
| 30            |             |                       |                      |                          |                       |                                  |                         |
| 40            |             |                       |                      |                          |                       |                                  |                         |

|       |                                                                          |
|-------|--------------------------------------------------------------------------|
| SC    | REDDISH BROWN SILTY SANDY CLAY. (MEDIUM STIFF)                           |
| SM-ML | OLIVE, BROWN AND TAN MICACEOUS SILTY SAND AND SANDY SILT. (MEDIUM DENSE) |
| 14    |                                                                          |
| 11    |                                                                          |
| 12    |                                                                          |
| 15    |                                                                          |
| 14    |                                                                          |
| 17    |                                                                          |
| 13    |                                                                          |

BORING TERMINATED 9-2-71.

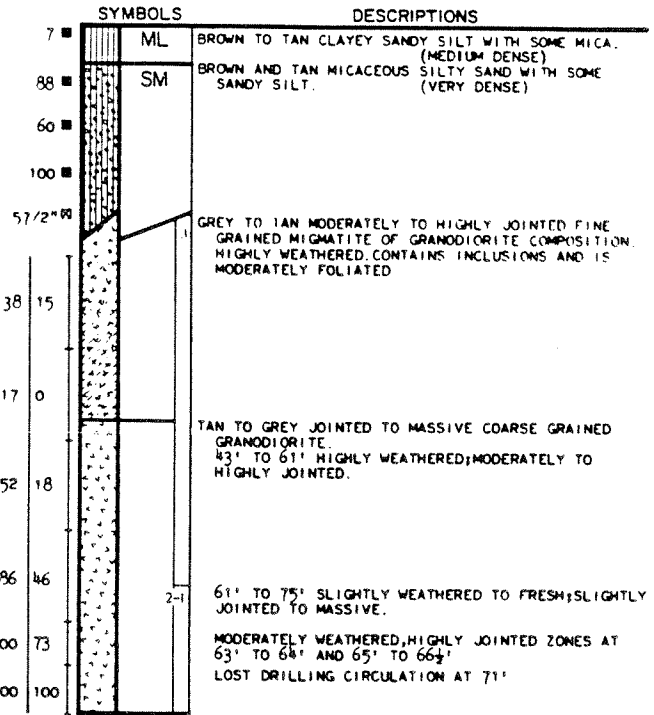
SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORINGS SSA-10 & SSA-II

# BORING SWP-1

SURFACE ELEVATION 382.8  
CO-ORDINATES N 473,100  
E 1,905,480

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                        |                      |                                |                       |                                  |                          |
| 10            |             |                        |                      |                                |                       |                                  |                          |
| 20            |             |                        |                      |                                |                       |                                  |                          |
| 30            |             |                        |                      |                                |                       |                                  |                          |
| 40            |             |                        |                      |                                |                       |                                  |                          |
| 50            |             |                        |                      |                                |                       |                                  |                          |
| 60            |             |                        |                      |                                |                       |                                  |                          |
| 70            |             |                        |                      |                                |                       |                                  |                          |
| 80            |             |                        |                      |                                |                       |                                  |                          |



BORING TERMINATED 9-24-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## LOG OF BORING SWP-1

# BORING SWP-2

SURFACE ELEVATION 340.3

CO-ORDINATES N 473,170  
E 1,005,750

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |
| 80            |             |                       |                      |                                |                       |                                  |                          |

| SYMBOLS   | DESCRIPTIONS                                                                                                                                                                          |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | CLAY (FILL FOR ACCESS)                                                                                                                                                                |
| 2 30      | SP<br>BROWN FINE TO MEDIUM SAND WITH SOME MICA AND SILT. (SOFT TO LOOSE)<br>GRADING WITH LESS SILT.                                                                                   |
| 2 31      |                                                                                                                                                                                       |
| 2 32      | GRADING SOME GRAVEL AND COBBLES.                                                                                                                                                      |
| 17 33     |                                                                                                                                                                                       |
| 31 34     | SM<br>GREY TO BROWN MICACEOUS SILTY FINE TO COARSE SAND (DENSE)<br>23' TO 52' OCCASSIONAL HIGHLY WEATHERED ROCK ZONES.                                                                |
| 50 35     |                                                                                                                                                                                       |
| 100 36    | LIGHT TO DARK GREY SLIGHTLY JOINTED TO MASSIVE, COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS INCLUSIONS AND EXHIBITS SLIGHT FOLIATION. SLIGHTLY WEATHERED TO FRESH. |
| 57/9" 37  |                                                                                                                                                                                       |
| 67/9" 38  | HIGHLY WEATHERED JOINT ZONE AT 58' AND 70' TO 72'.<br>4" HIGHLY WEATHERED JOINT ZONE AT 64'.<br>6" HIGHLY WEATHERED JOINT ZONE AT 67'.<br>2" HIGHLY WEATHERED JOINT ZONE AT 71'.      |
| 24 39     |                                                                                                                                                                                       |
| 85/8" 40  | BORING TERMINATED 9-22-71.<br>SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.                                                                                                 |
| 63/11" 41 |                                                                                                                                                                                       |
| 94 76     |                                                                                                                                                                                       |
| 100 95    |                                                                                                                                                                                       |
| 95 66     |                                                                                                                                                                                       |

## LOG OF BORING SWP-2

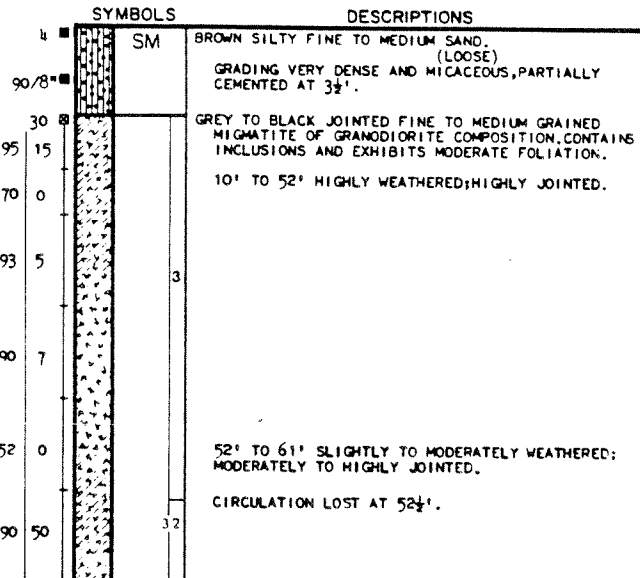
# BORING SWP-3

SURFACE ELEVATION 393.2

CO-ORDINATES N 473,250

E 1,906,050

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |



BORING TERMINATED 9-28-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

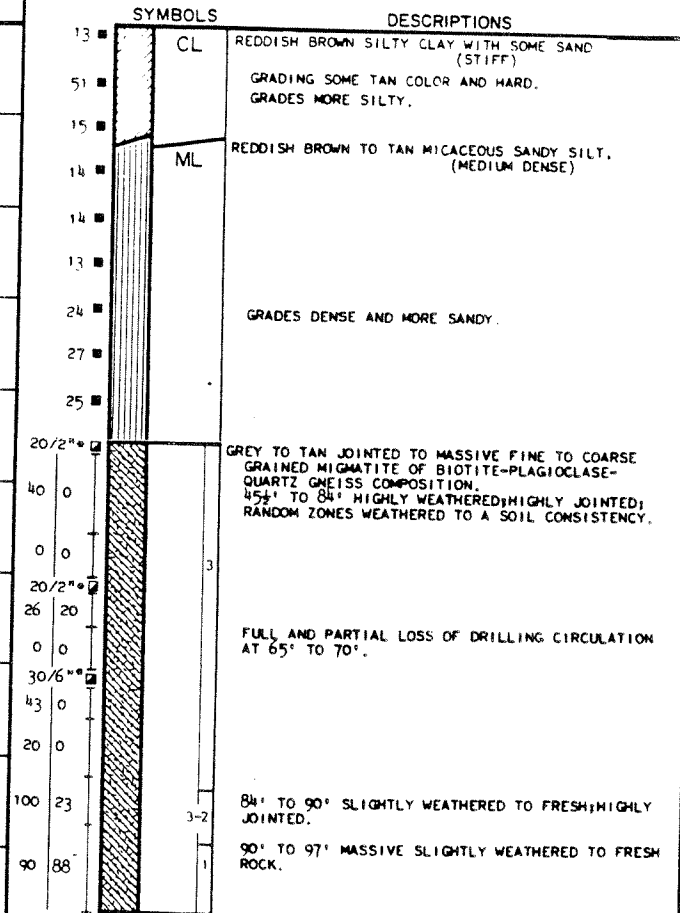
## LOG OF BORING SWP-3

# BORING SWP-4

SURFACE ELEVATION 418.0

CO-ORDINATES N 473,430  
E 1,907,110

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|-------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                         |
| 0             |             |                       |                      |                                |                       |                                  |                         |
| 10            |             |                       |                      |                                |                       |                                  |                         |
| 20            |             |                       |                      |                                |                       |                                  |                         |
| 30            |             |                       |                      |                                |                       |                                  |                         |
| 40            |             |                       |                      |                                |                       |                                  |                         |
| 50            |             |                       |                      |                                |                       |                                  |                         |
| 60            |             |                       |                      |                                |                       |                                  |                         |
| 70            |             |                       |                      |                                |                       |                                  |                         |
| 80            |             |                       |                      |                                |                       |                                  |                         |
| 90            |             |                       |                      |                                |                       |                                  |                         |
| 100           |             |                       |                      |                                |                       |                                  |                         |



BORING TERMINATED 9-30-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES, EXCEPT WHERE DESIGNATED BY AN ASTERISK (\*) WHICH INDICATES A 140 LB. WEIGHT FALLING 30 INCHES.

\*INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING SWP-4

## BORING SWP-5

SURFACE ELEVATION 370.9  
CO-ORDINATES N 472,140  
E 1,906,670

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR DATA     |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |

| SYMBOLS |       | DESCRIPTIONS                                                                                                                                                                                                             |
|---------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4       | SM    | REDDISH BROWN CLAYEY SILTY FINE TO MEDIUM SAND WITH SOME MICA. (MEDIUM DENSE)                                                                                                                                            |
| 14      | CL-SC | GREY SILTY SANDY CLAY. (STIFF)                                                                                                                                                                                           |
| 18      |       |                                                                                                                                                                                                                          |
| 38      | SP-SM | GREY MICACEOUS FINE TO COARSE SAND WITH LITTLE SILT. (VERY DENSE)                                                                                                                                                        |
| 56/8"   |       |                                                                                                                                                                                                                          |
| 84      |       |                                                                                                                                                                                                                          |
| 50/6"   |       |                                                                                                                                                                                                                          |
| 85      |       | LIGHT TO DARK GREY SLIGHTLY JOINTED TO MASSIVE COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. FRESH ROCK CONTAINS INCLUSIONS AND EXHIBITS SLIGHT FOLIATION. HIGHLY WEATHERED HIGHLY JOINTED ZONE AT 334' TO 351'. |
| 100     |       | 2" PEGMATITE ZONE AT 404'.                                                                                                                                                                                               |
| 100     |       |                                                                                                                                                                                                                          |
| 100     |       |                                                                                                                                                                                                                          |

BORING TERMINATED 9-29-71.

SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

## BORING SWP-6

SURFACE ELEVATION 410.9  
CO-ORDINATES N 471,964  
E 1,906,511

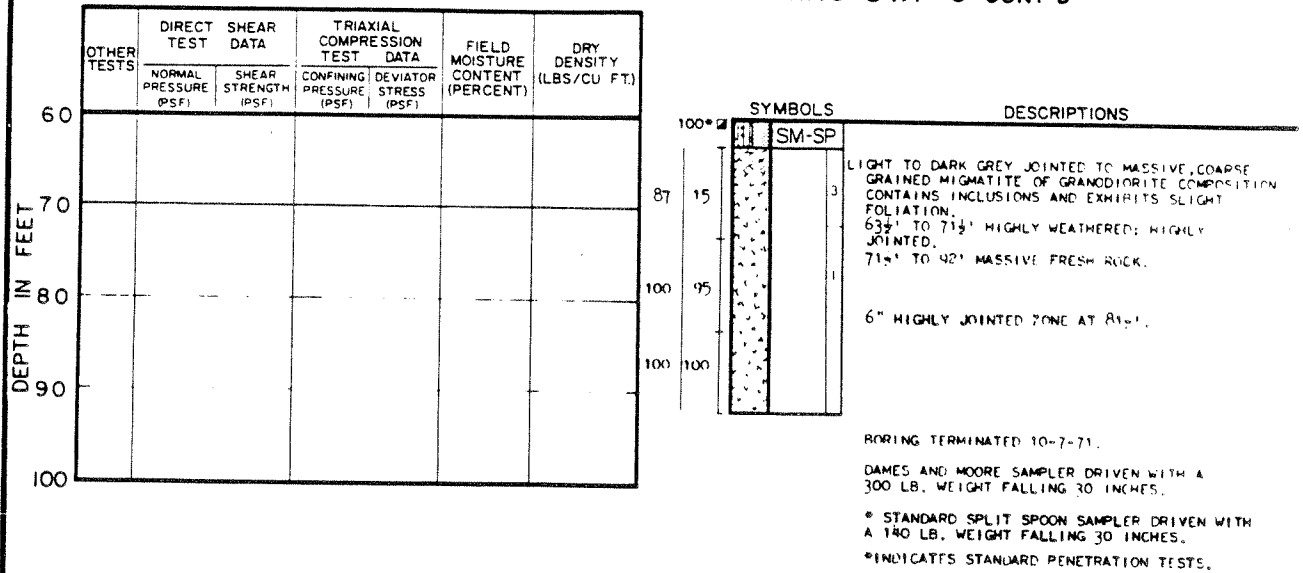
| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR DATA     |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |

|        |       |                                                                             |
|--------|-------|-----------------------------------------------------------------------------|
| 8      | CL    | REDDISH BROWN SILTY CLAY WITH SOME SAND. (STIFF)                            |
| 16     |       |                                                                             |
| 21     |       |                                                                             |
| 65     | SM    | TAN TO GREY SILTY FINE TO MEDIUM SAND WITH SOME MICA AND CLAY. (VERY DENSE) |
| 46     |       |                                                                             |
| 49     |       |                                                                             |
| 36     |       |                                                                             |
| 61     | SM    | GREY TO TAN MICACEOUS SILTY FINE TO MEDIUM SAND. (VERY DENSE)               |
| 54     |       |                                                                             |
| 100    |       | GRADES OCCASIONAL CEMENTED ZONES.                                           |
| 55     |       |                                                                             |
| 52     |       |                                                                             |
| 62/10" |       |                                                                             |
| 52     |       |                                                                             |
| 37     |       |                                                                             |
| 100    |       |                                                                             |
| 60/3"  | SM-SP | TAN AND BROWN FINE TO MEDIUM SAND WITH SOME SILT, SOME CEMENTED ZONES.      |
| 100/5" |       |                                                                             |
| 100    |       |                                                                             |
| 67/6"  |       |                                                                             |
| 50/6"  |       |                                                                             |
| 89/2"  |       |                                                                             |
| 30/0"  |       |                                                                             |
| 70/7"  |       |                                                                             |

BORING CONTINUED

## LOG OF BORINGS SWP-5 & SWP-6

# BORING SWP-6 CONT'D



## LOG OF BORING SWP-6

# BORING SWP-7

SURFACE ELEVATION 410.4

CO-ORDINATES N 472,206

E 1,906,810

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAXIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |
| 70            |             |                       |                      |                                |                       |                                  |                          |

## SYMBOLS

## DESCRIPTIONS

|        |       |                                                                                                                                         |
|--------|-------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 40     | SM    | YELLOW TAN MICACEOUS SILTY FINE TO MEDIUM SAND, (DENSE)                                                                                 |
| 81     | SP-SM | GREY TO TAN MICACEOUS FINE TO MEDIUM SAND WITH LITTLE SILT, (VERY DENSE)                                                                |
| 50     |       | GRADING SOME CEMENTATION AT 75'.                                                                                                        |
| 102    |       |                                                                                                                                         |
| 83/9   |       |                                                                                                                                         |
| 125    |       |                                                                                                                                         |
| 112    |       |                                                                                                                                         |
| 100/6  |       |                                                                                                                                         |
| 120    |       |                                                                                                                                         |
| 105/7  |       |                                                                                                                                         |
| 70/6   |       |                                                                                                                                         |
| 164/10 |       |                                                                                                                                         |
| 174/7  |       |                                                                                                                                         |
| 100/6  |       |                                                                                                                                         |
| 120/4  |       |                                                                                                                                         |
| 100/2  |       |                                                                                                                                         |
| 50     | J     | GREY TO TAN JOINTED TO MASSIVE COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION, CONTAINS INCLUSIONS AND EXHIBITS SLIGHT FOLIATION. |
| 100    |       | 40' TO 52' HIGHLY WEATHERED; HIGHLY JOINTED.                                                                                            |
| 95     | I     | 52' TO 70': SLIGHTLY WEATHERED TO FRESH; SLIGHTLY JOINTED TO MASSIVE.                                                                   |
|        |       | HIGHLY WEATHERED JOINTS AT 58 1/2' TO 59'.                                                                                              |
| 79     | I     | HIGHLY WEATHERED, HIGHLY JOINTED ZONE AT 68' TO 66'.                                                                                    |

BORING TERMINATED 10-13-71

DAMES AND MOORE SAMPLER DRIVEN WITH A 300 LB. WEIGHT FALLING 30 INCHES.

\*SPLIT SPOON DRIVEN WITH A 140 LB. WEIGHT FALLING 30 INCHES.

\*INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING SWP-7



# BORING SWP-8

SURFACE ELEVATION 420.5

CO-ORDINATES N 471,450  
E 1,906,960

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAIAL COMPRESSION TEST |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------|--|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                          |  |                                  |                          |
| 0             |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 10            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 20            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 30            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 40            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 50            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 60            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 70            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 80            |             |                       |                      |                          |                       |                          |  |                                  |                          |
| 90            |             |                       |                      |                          |                       |                          |  |                                  |                          |

| SYMBOLS |           | DESCRIPTIONS                                                                                                                                                         |
|---------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 18      | CL        | REDDISH BROWN SILTY SANDY CLAY. (VERY STIFF)                                                                                                                         |
| 38      | SM        | REDDISH BROWN TO TAN MICACEOUS SILTY SAND. (MEDIUM DENSE)                                                                                                            |
| 19      |           |                                                                                                                                                                      |
| 17      |           |                                                                                                                                                                      |
| 12      |           |                                                                                                                                                                      |
| 14      |           |                                                                                                                                                                      |
| 14      |           |                                                                                                                                                                      |
| 17      |           |                                                                                                                                                                      |
| 21      |           |                                                                                                                                                                      |
| 27      |           |                                                                                                                                                                      |
| 21      | ML        | YELLOW TAN SILT WITH SOME MICA AND SAND. (DENSE)                                                                                                                     |
| 26      |           |                                                                                                                                                                      |
| 37      | SM        | TAN TO BROWN MICACEOUS SILTY FINE TO COARSE SAND. (DENSE)                                                                                                            |
| 28      |           |                                                                                                                                                                      |
| 32      | ML-SM     | GREY MICACEOUS SILT AND FINE SAND. (VERY DENSE)                                                                                                                      |
| 35      |           |                                                                                                                                                                      |
| 60      |           |                                                                                                                                                                      |
| 60/8    |           |                                                                                                                                                                      |
| 77/6    |           |                                                                                                                                                                      |
| 11      | ROCK / SM | ZONES OF HIGHLY WEATHERED MIGMATITE OF GRANODIORITE COMPOSITION AND SOIL.                                                                                            |
| 40      |           |                                                                                                                                                                      |
| 100     | 2         | TAN TO BROWN MODERATELY TO HIGHLY JOINTED COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION. CONTAINS INCLUSIONS AND EXHIBITS SLIGHT FOLIATION. HIGHLY WEATHERED. |
| 100     | 3         | MODERATELY WEATHERED ZONE AT 60' TO 62'.                                                                                                                             |
| 100     | 2         | MODERATELY WEATHERED ZONE AT 77' TO 80'.                                                                                                                             |
| 100     | 3         |                                                                                                                                                                      |

BORING TERMINATED 10-11-71

SAMPLER DRIVEN WITH 300 LB. WEIGHT FALLING 30 INCHES.

\*SPLIT SPOON DRIVEN WITH A 140 LB. WEIGHT FALLING 30 INCHES.

\*INDICATES STANDARD PENETRATION TESTS.

## LOG OF BORING SWP-8

# BORING 4-1

SURFACE ELEVATION 436  
CO-ORDINATES N 472.420  
E 1,905.020

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAXIAL COMPRESSION TEST |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|---------------------------|--|----------------------------------|-------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                           |  |                                  |                         |
| 0             |             |                       |                      |                          |                       |                           |  | 15                               |                         |
| 10            |             |                       |                      |                          |                       |                           |  | 15                               |                         |
| 20            |             |                       |                      | 1500                     | 2015                  |                           |  | 14                               |                         |
|               |             |                       |                      | 3000                     | 4601                  |                           |  | 12                               | 86                      |
|               |             |                       |                      | 6000                     | 7051                  |                           |  | 9                                |                         |
| 30            |             |                       |                      |                          |                       |                           |  | 9                                |                         |
| 40            |             |                       |                      |                          |                       |                           |  | 12                               | 87                      |
| 50            |             |                       |                      |                          |                       |                           |  | 11                               | 101                     |
|               |             |                       |                      |                          |                       |                           |  | 10                               |                         |
|               |             |                       |                      |                          |                       |                           |  | 7                                |                         |
| 60            |             |                       |                      |                          |                       |                           |  |                                  |                         |
| 70            |             |                       |                      |                          |                       |                           |  |                                  |                         |
| 80            |             |                       |                      |                          |                       |                           |  |                                  |                         |

## SYMBOLS

## DESCRIPTIONS

|       |                                                                                                                            |
|-------|----------------------------------------------------------------------------------------------------------------------------|
| SC    | REDDISH BROWN SILTY CLAYEY SAND GRADES WITH MICA                                                                           |
| SM-SC | OLIVE AND BROWN MICACEOUS SILTY SAND TO CLAYEY SAND (MEDIUM DENSE TO STIFF)                                                |
| SM    | BROWN MICACEOUS SILTY FINE TO MEDIUM COARSE SAND (SAPROLITE) (LOOSE)                                                       |
|       | GRADES MEDIUM DENSE                                                                                                        |
|       | GRADES MOTTLED BROWN, GRAY AND BLACK - BLACK BANDS                                                                         |
|       | GRADES WITH TRACE OF COARSE SAND                                                                                           |
|       | GRADES DENSE                                                                                                               |
|       | GRADES VERY DENSE                                                                                                          |
|       | LIGHT GRAY, JOINTED AND MASSIVE, MEDIUM TO COARSE GRAINED MIGMATITE OF GRANODIORITE COMPOSITION.                           |
|       | 55.5' TO 63' SLIGHTLY TO MODERATELY WEATHERED WITH BROWN STAINING. ABUNDANT MEDIUM TO HIGH ANGLE WEATHERED JOINTS.         |
|       | 63' TO 66.8' - HIGHLY WEATHERED                                                                                            |
|       | 66.8' TO 68.5' - SLIGHTLY WEATHERED WITH OCCASIONAL LOW TO HIGH ANGLE OPEN JOINTS                                          |
|       | 68.5' TO 71' - UNWEATHERED AND MASSIVE                                                                                     |
|       | 71' TO 73.5' - SLIGHTLY WEATHERED ZONES WITH OCCASIONAL OPEN JOINTS AND OCCASIONAL INCLUSIONS OF ALTERED GNEISSIC MATERIAL |
|       | BORING TERMINATED AT 73.5' ON 4-21-76                                                                                      |
|       | GROUNDWATER LEVEL NOT ENCOUNTERED                                                                                          |

## NOTES:

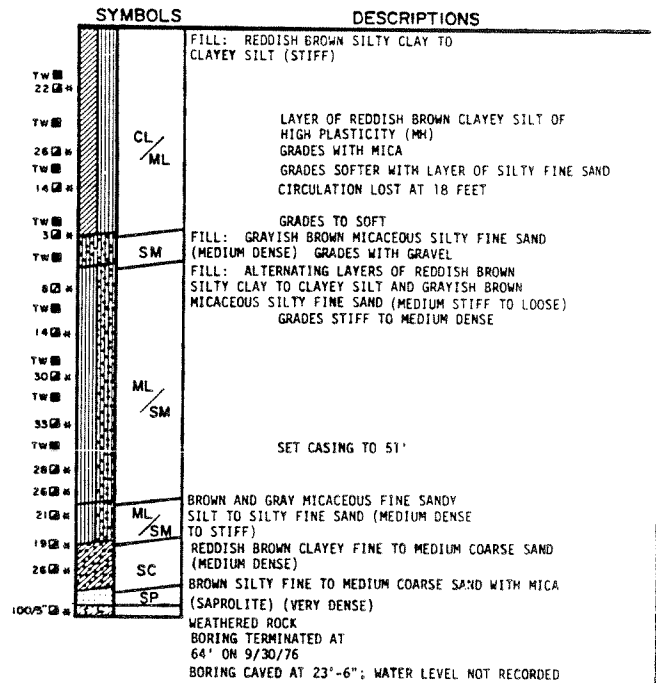
- INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-1

# BORING 4-2

SURFACE ELEVATION 433.05  
 COORDINATES N 472,474.22  
 E 1,905,182.55

| OTHER TESTS | DIRECT TEST           | SHEAR DATA           | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0           |                       |                      |                                |                       | 27.0                             | 98.4                      |
| 10          |                       |                      |                                |                       | 22.9                             | 99.7                      |
|             |                       |                      |                                |                       | 24.4                             | 96.6                      |
| 20          |                       |                      |                                |                       | 24.3                             | 95.9                      |
|             |                       |                      |                                |                       | 28.5                             | 84.0                      |
| 30          |                       |                      |                                |                       | 23.2                             | 104.6                     |
|             |                       |                      |                                |                       | 23.9                             | 99.8                      |
| 40          |                       |                      |                                |                       | 22.7                             | 104.0                     |
|             |                       |                      |                                |                       | 24.2                             | 100.8                     |
| 50          |                       |                      |                                |                       |                                  |                           |
| 60          |                       |                      |                                |                       |                                  |                           |
| 70          |                       |                      |                                |                       |                                  |                           |



## NOTES:

- INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TYBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-2

# BORING 4-3

SURFACE ELEVATION 414.28  
COORDINATES N 472, 561.62  
E 1,905,088.60

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                        |                      |                                |                       |                                  |                           |
| 10            |             |                        |                      |                                |                       |                                  |                           |
| 20            |             |                        |                      |                                |                       |                                  |                           |
| 30            |             |                        |                      |                                |                       |                                  |                           |
| 40            |             |                        |                      |                                |                       |                                  |                           |
| 50            |             |                        |                      |                                |                       |                                  |                           |
| 60            |             |                        |                      |                                |                       |                                  |                           |
| 70            |             |                        |                      |                                |                       |                                  |                           |

## SYMBOLS

## DESCRIPTIONS

|                   |         |                                                                                                                                                                                                                                             |
|-------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12' 0" - 12' 6"   | ML / CL | FILL: REDDISH BROWN MICACEOUS CLAYEY SILT TO SILTY CLAY (MEDIUM STIFF)                                                                                                                                                                      |
| 12' 6" - 12' 12"  |         | TRACE OF ORGANIC MATERIAL                                                                                                                                                                                                                   |
| 12' 12" - 12' 18" | ML / CL | REDDISH BROWN MICACEOUS CLAYEY SILT TO SILTY CLAY WITH TRACE OF ORGANICS AND MICA (VERY STIFF)                                                                                                                                              |
| 12' 18" - 12' 24" | ML      | MOTTLED REDDISH BROWN, BROWN, TAN AND BLACK FINE SANDY SILT WITH TRACE OF CLAY (SAPROLITE) (STIFF)                                                                                                                                          |
| 12' 24" - 12' 30" |         | ALTERNATING ZONES OF VERY HIGHLY WEATHERED MIGMATITE OF GNEISSIC COMPOSITION, AND SAPROLITE DERIVED FROM COMPLETELY DECOMPOSED MIGMATITE OF GNEISSIC COMPOSITION FORMING MULTICOLORED SILT AND SILTY FINE SAND (MEDIUM DENSE TO VERY DENSE) |
| 12' 30" - 12' 36" |         | HARDER ZONE FROM 24' TO 26'                                                                                                                                                                                                                 |
| 12' 36" - 12' 42" | ML / SM | GRAY AND TAN COLOR GRADES WITH TRACE OF MICA                                                                                                                                                                                                |
| 12' 42" - 12' 48" |         | GRADES WITH MORE MICA                                                                                                                                                                                                                       |
| 12' 48" - 12' 54" |         | GRAY, WHITE AND BROWN COLOR                                                                                                                                                                                                                 |
| 12' 54" - 13' 0"  |         | GRAY AND TAN COLOR                                                                                                                                                                                                                          |
| 13' 0" - 13' 6"   |         | GREENISH GRAY TO TAN COLOR                                                                                                                                                                                                                  |
| 13' 6" - 13' 12"  |         | GRAY HIGHLY WEATHERED MIGMATITE OF GNEISSIC COMPOSITION                                                                                                                                                                                     |
| 13' 12" - 13' 18" |         | BORING TERMINATED AT 63'-2" ON 10/1/76                                                                                                                                                                                                      |
| 13' 18" - 13' 24" |         | WATER LEVEL AT 40' ON 10/4/76                                                                                                                                                                                                               |

## NOTES:

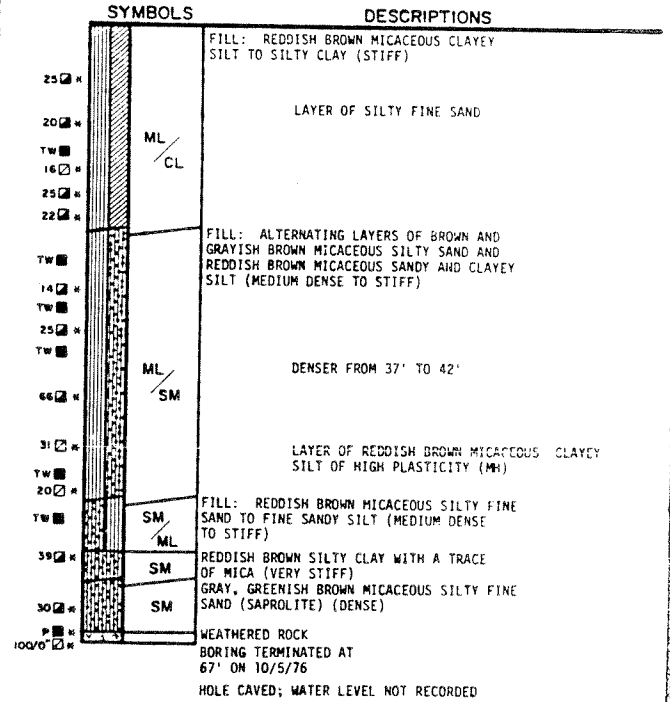
- INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-3

# BORING 4-4

SURFACE ELEVATION 434.24  
 COORDINATES N 472,476.12  
 E 1,905,203.30

| DEPTH IN FEET | OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                        |                      |                                |                       |                                  |                           |
| 10            | B           |                        |                      |                                |                       | 27.7                             | 94.2                      |
| 20            |             |                        |                      |                                |                       | 18.9                             | 108.3                     |
| 30            |             |                        |                      |                                |                       | 22.0                             | 103.5                     |
| 40            |             |                        |                      |                                |                       | 20.8                             | 106.3                     |
| 50            |             |                        |                      |                                |                       | 22.6                             | 103.5                     |
| 60            |             |                        |                      |                                |                       | 21.5                             | 104.0                     |
| 70            |             |                        |                      |                                |                       |                                  |                           |



## NOTES:

- ☒ \* INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- ☒ \* INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- TW ☒ INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW ☒ INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW ☒ INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- P ☒ INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

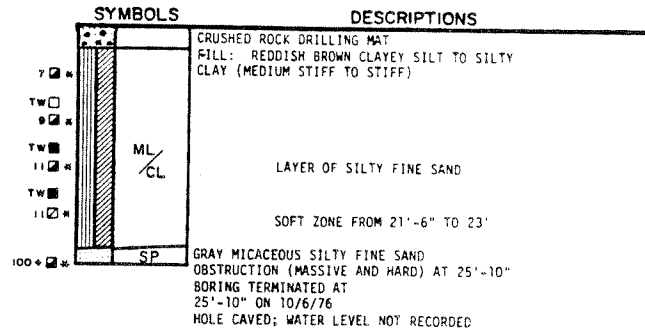
## LOG OF BORING 4-4

# BORING 4-5

SURFACE ELEVATION 432.83  
 COORDINATES N 472,463.70  
 E 1,905,156.30

DEPTH IN FEET

| OTHER TESTS | DIRECT SHEAR TEST DATA |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|-------------|------------------------|----------------------|--------------------------------|-----------------------|----------------------------------|---------------------------|
|             | NORMAL PRESSURE (PSF)  | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                           |
|             |                        |                      |                                |                       |                                  |                           |
|             |                        |                      |                                |                       | 26.3                             | 88.5                      |
|             |                        |                      |                                |                       | 27.6                             | 98.6                      |
|             |                        |                      |                                |                       |                                  |                           |



## NOTES:

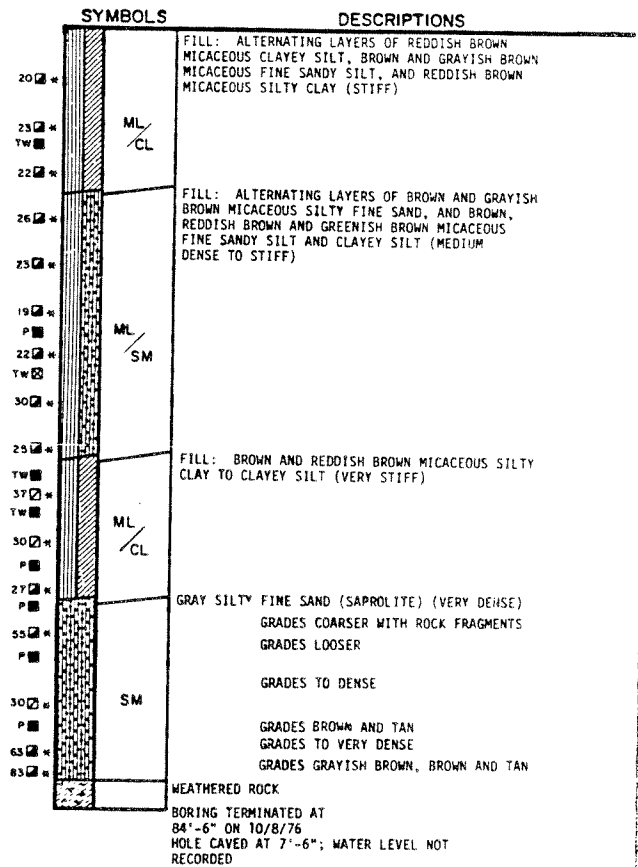
- 9/4 INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- 9/2 INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- TW ■ INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW ■ INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW □ INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- P ■ INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-5

# BORING 4-6

SURFACE ELEVATION 435.68  
 COORDINATES N 472,392.82  
 E 1,905,270.70

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST           |                      | SHEAR DATA               |                       | TRIAxIAL COMPRESSION TEST DATA |  | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------|-----------------------|--------------------------------|--|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF) | DEVIATOR STRESS (PSF) |                                |  |                                  |                           |
| 0             |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 10            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 20            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 30            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 40            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 50            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 60            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 70            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 80            |             |                       |                      |                          |                       |                                |  |                                  |                           |
| 90            |             |                       |                      |                          |                       |                                |  |                                  |                           |



## NOTES:

- 9 [ ] INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- 9 [ ] INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- INDICATES UNDISTURBED SAMPLE WITH
- TW [ ] DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW [ ] INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW [ ] INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- P [ ] INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-6

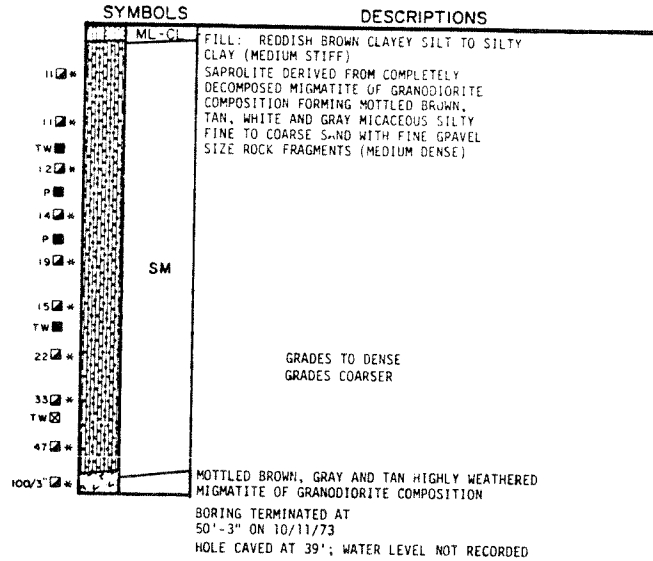
# BORING 4-7

SURFACE ELEVATION 435.67

COORDINATES N 471,843.48

E 1,905,726.82

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAxIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU FT.) |
|---------------|-------------|-----------------------|----------------------|--------------------------------|-----------------------|----------------------------------|--------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)       | DEVIATOR STRESS (PSF) |                                  |                          |
| 0             |             |                       |                      |                                |                       |                                  |                          |
| 10            |             |                       |                      |                                |                       |                                  |                          |
| 20            |             |                       |                      |                                |                       |                                  |                          |
| 30            |             |                       |                      |                                |                       |                                  |                          |
| 40            |             |                       |                      |                                |                       |                                  |                          |
| 50            |             |                       |                      |                                |                       |                                  |                          |
| 60            |             |                       |                      |                                |                       |                                  |                          |



## NOTES:

- 9' 9" \* INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- 9' 9" \* INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- TW \* INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW \* INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- TW \* INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- P \* INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-7



# BORING 4-8

SURFACE ELEVATION 432.9

COORDINATES N 472,519.12

E 1,905,162.43

| DEPTH IN FEET | OTHER TESTS | DIRECT TEST DATA      |                      | TRIAIAL COMPRESSION TEST DATA |                       | FIELD MOISTURE CONTENT (PERCENT) | DRY DENSITY (LBS/CU. FT.) |
|---------------|-------------|-----------------------|----------------------|-------------------------------|-----------------------|----------------------------------|---------------------------|
|               |             | NORMAL PRESSURE (PSF) | SHEAR STRENGTH (PSF) | CONFINING PRESSURE (PSF)      | DEVIATOR STRESS (PSF) |                                  |                           |
| 0             |             |                       |                      |                               |                       |                                  |                           |
| 10            |             |                       |                      |                               |                       | 25.7                             | 99.1                      |
| 20            |             |                       |                      |                               |                       | 27.3                             | 91.8                      |
| 30            |             |                       |                      |                               |                       |                                  |                           |
| 40            |             |                       |                      |                               |                       | 21.4                             | 105.1                     |
| 50            |             |                       |                      |                               |                       | 18.8                             | 106.2                     |
| 60            |             |                       |                      |                               |                       |                                  |                           |
| 70            |             |                       |                      |                               |                       |                                  |                           |

## SYMBOLS

## DESCRIPTIONS

|    |    |                                                                                                                              |
|----|----|------------------------------------------------------------------------------------------------------------------------------|
| 12 | CL | FILL: REDDISH BROWN CLAYEY SILT TO SILTY CLAY (STIFF)                                                                        |
| 14 | ML |                                                                                                                              |
| 16 | CL |                                                                                                                              |
| 18 | ML |                                                                                                                              |
| 20 | SP | FILL: GRAY MICACEOUS SILTY FINE SAND                                                                                         |
| 22 | GP | FILL: SAND AND GRAVEL                                                                                                        |
| 24 | SM | FILL: ALTERNATING LAYERS OF GRAYISH BROWN AND REDDISH BROWN SILTY SAND TO SANDY SILT (DENSE TO VERY STIFF)                   |
| 26 | ML |                                                                                                                              |
| 28 | CL | FILL: ALTERNATING LAYERS OF REDDISH BROWN MICACEOUS CLAYEY SILT TO SILTY CLAY AND GRAYISH BROWN MICACEOUS SANDY SILT (STIFF) |
| 30 | ML |                                                                                                                              |
| 32 | CL | REDDISH BROWN SILTY CLAY TO CLAYEY SILT WITH A TRACE OF SAND (STIFF)                                                         |
| 34 | ML |                                                                                                                              |
| 36 | SM | REDDISH BROWN SILTY FINE SAND WITH CLAY                                                                                      |
| 38 | SM | WEATHERED ROCK                                                                                                               |
| 40 | SM | BROWN, REDDISH BROWN AND TAN SILTY FINE SAND TO SANDY SILT (SAPROLITE) (MEDIUM DENSE)                                        |
| 42 | SP | BROWN MICACEOUS SILTY FINE TO COARSE SAND (SAPROLITE) (VERY DENSE)                                                           |
| 44 | SP | WEATHERED ROCK                                                                                                               |
| 46 | SP | BORING TERMINATED AT 69' ON 10/13/76                                                                                         |
| 48 | SP | WATER LEVEL NOT RECORDED                                                                                                     |

## NOTES:

- 9 \* INDICATES DISTURBED SAMPLE WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- 9 \* INDICATES NO RECOVERY WITH 2 INCH O.D. SAMPLER (STANDARD PENETRATION TEST)
- YW \* INDICATES UNDISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- YW \* INDICATES DISTURBED SAMPLE WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- YW \* INDICATES NO RECOVERY WITH DAMES & MOORE TYPE U SAMPLER AND THIN-WALLED SAMPLING TUBE ATTACHMENT HYDRAULICALLY PUSHED
- P \* INDICATES UNDISTURBED SAMPLE WITH 3 INCH O.D. SHELBY TUBE HYDRAULICALLY PUSHED

## LOG OF BORING 4-8