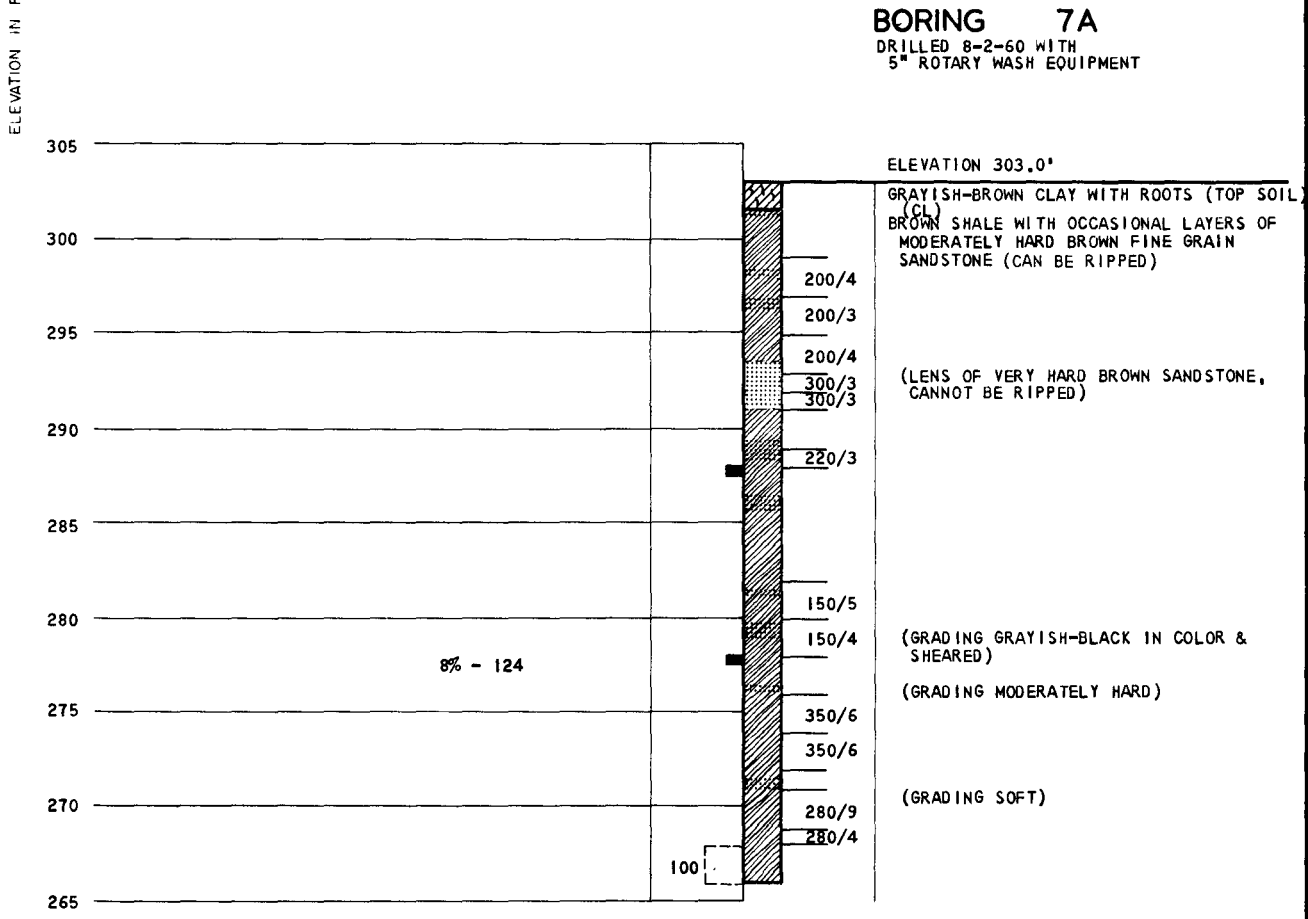
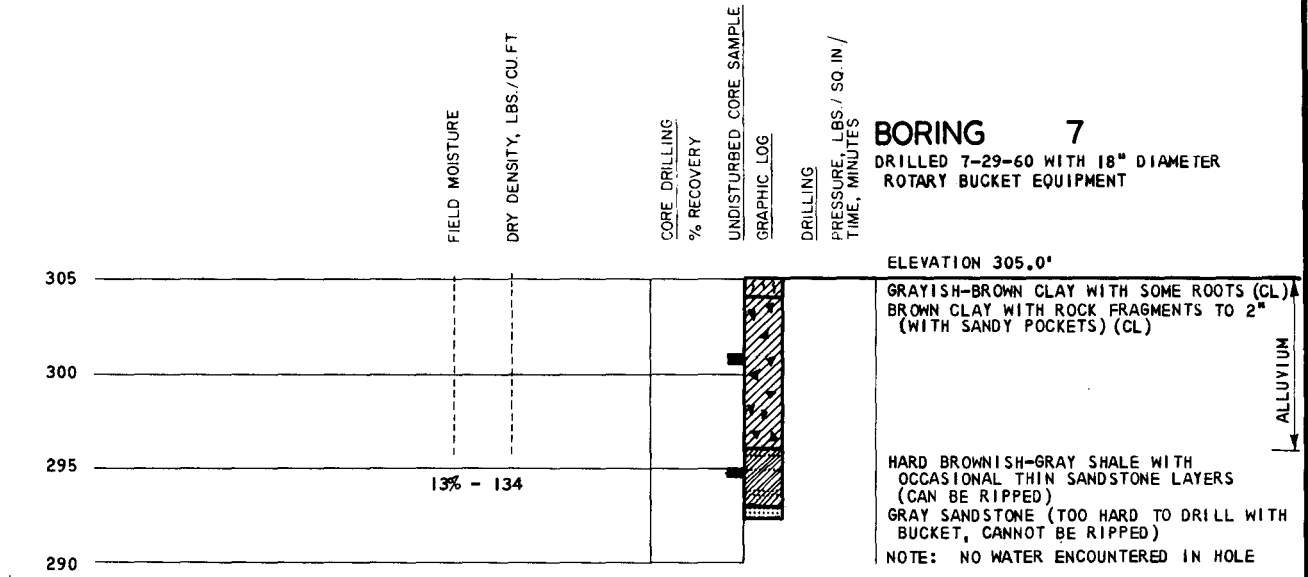
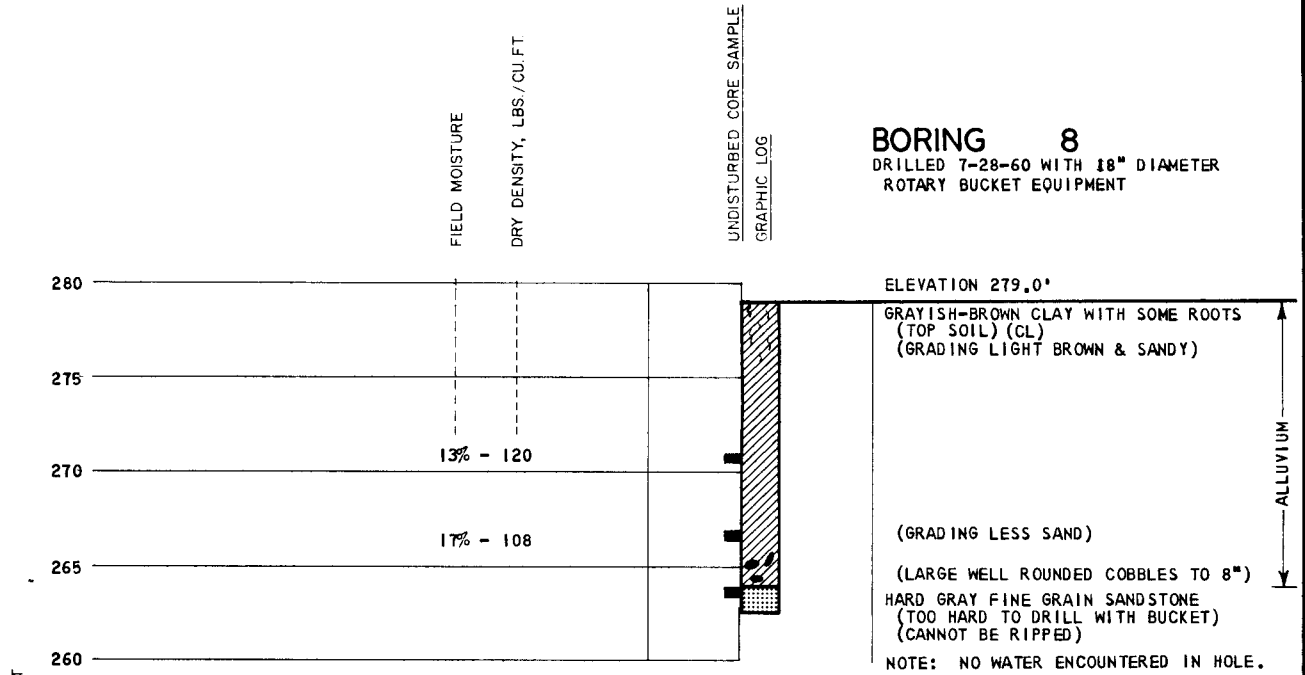


BY                      DATE        /        /         
 CHECKED BY                      DATE        /        /       

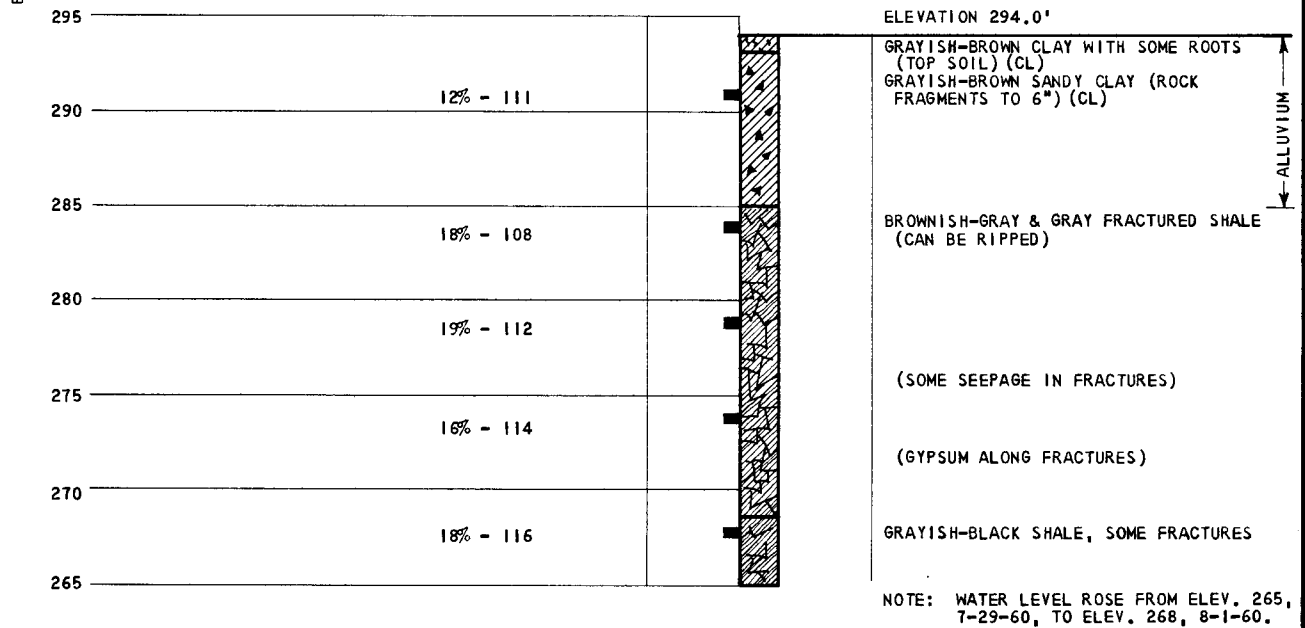


## LOG OF BORINGS

**BORING 8**  
 DRILLED 7-28-60 WITH 18" DIAMETER  
 ROTARY BUCKET EQUIPMENT



**BORING 9**  
 DRILLED 7-29-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT.



**LOG OF BORINGS**

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLATE \_\_\_\_\_ OF \_\_\_\_\_

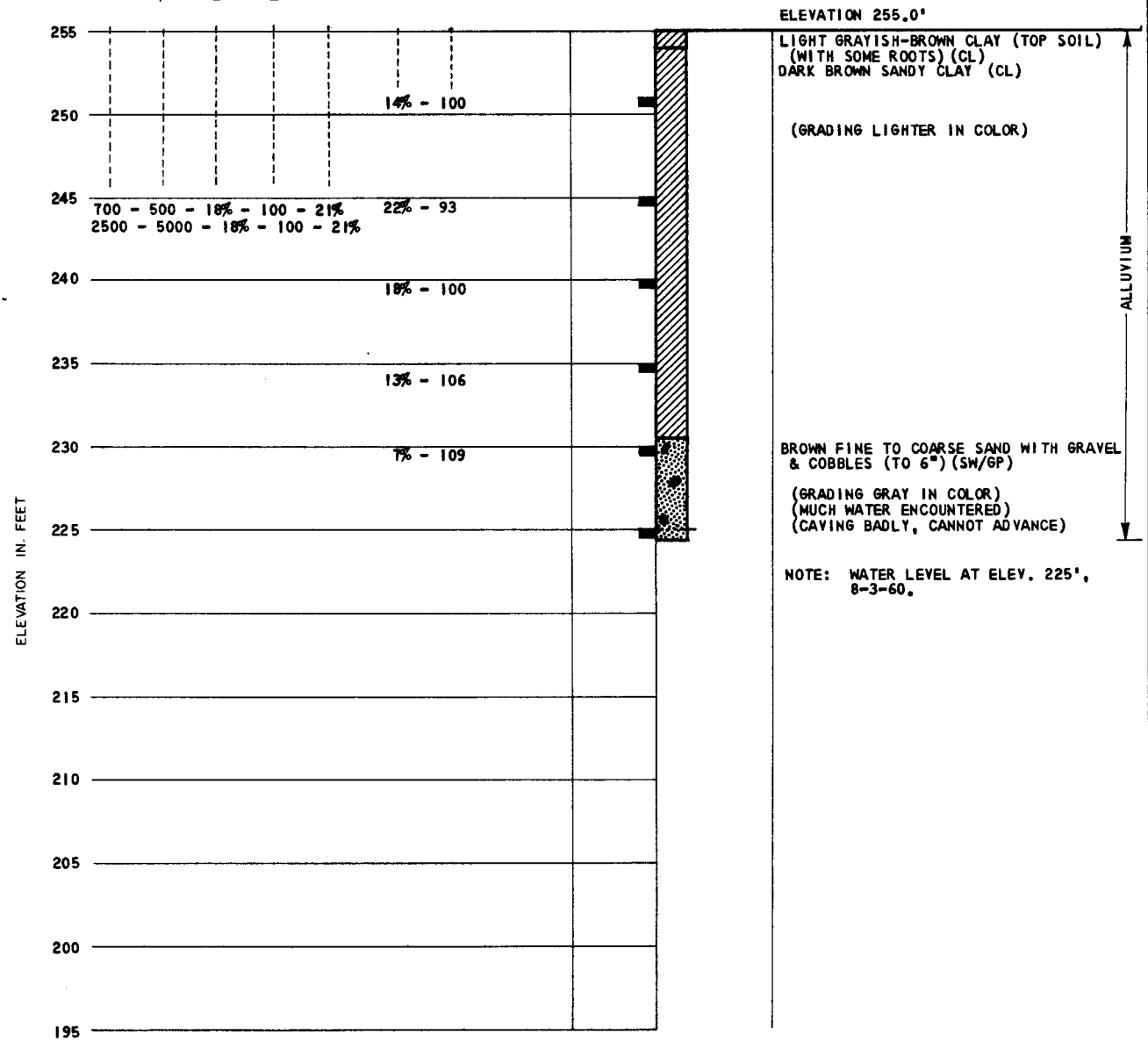


REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 FILE \_\_\_\_\_  
 BY *R. Moore* DATE *9-11-60*  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

ULTIMATE  
 SHEAR STRENGTH, LBS./SQ.FT.  
 TEST SURCHARGE, LBS./SQ.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 TEST MOISTURE  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.

UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG

**BORING IOA**  
 DRILLED 8-3-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



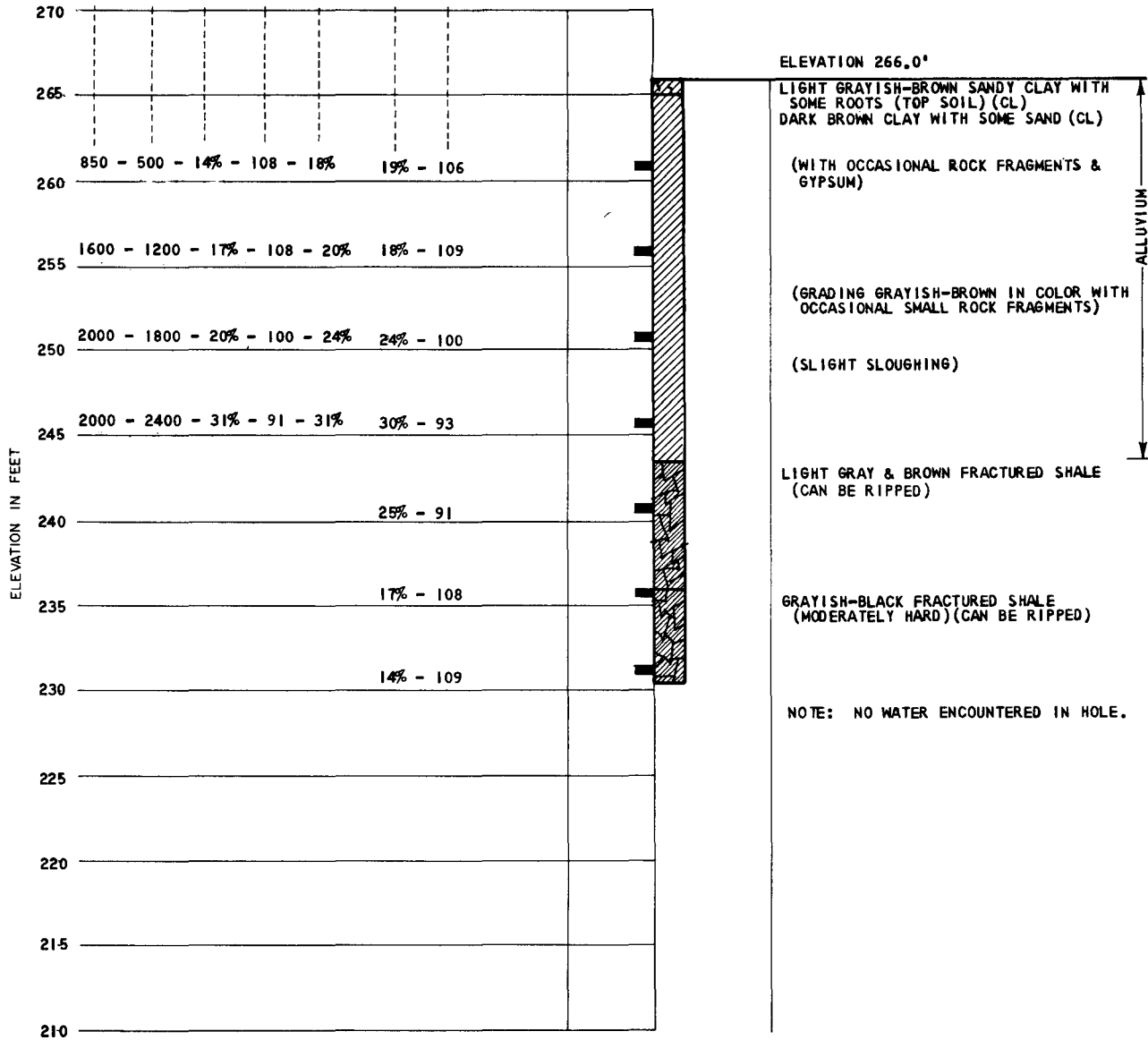
LOG OF BORING



REVISIONS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLATE: \_\_\_\_\_ OF: \_\_\_\_\_  
 FILE: 651-61  
 BY: AEC  
 DATE: 7-15-60  
 CHECKED BY: C.H.V. DATE: 7-1-62

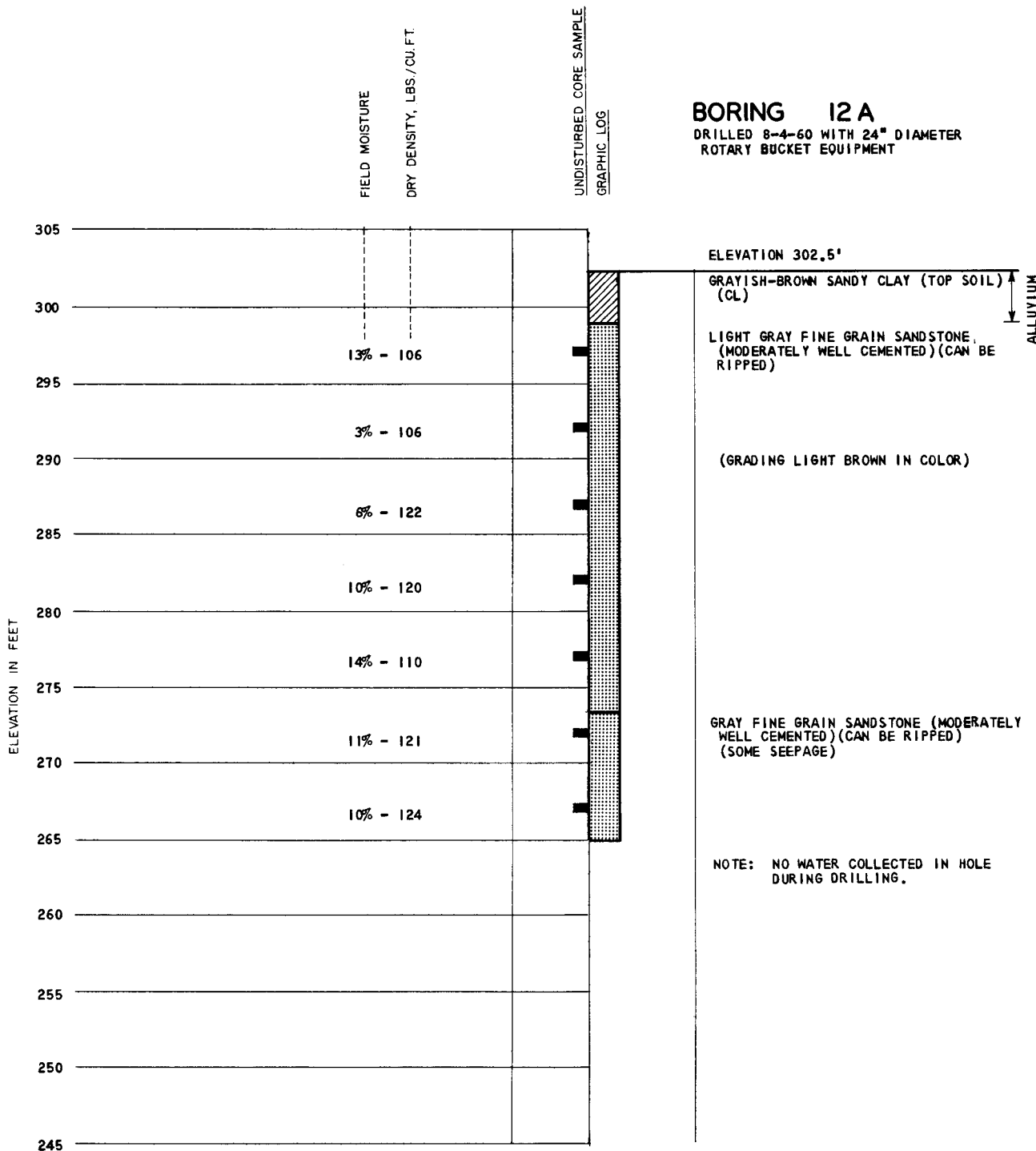
ULTIMATE SHEAR STRENGTH, LBS./SQ.FT.  
 TEST SURCHARGE, LBS./SQ.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 TEST MOISTURE  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG

**BORING 12**  
 DRILLED 8-3-60 TO 8-4-60 WITH 24"  
 DIAMETER ROTARY BUCKET EQUIPMENT



LOG OF BORING

**BORING 12 A**  
 DRILLED 8-4-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



NOTE: NO WATER COLLECTED IN HOLE DURING DRILLING.

**LOG OF BORING**

REVISIONS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_

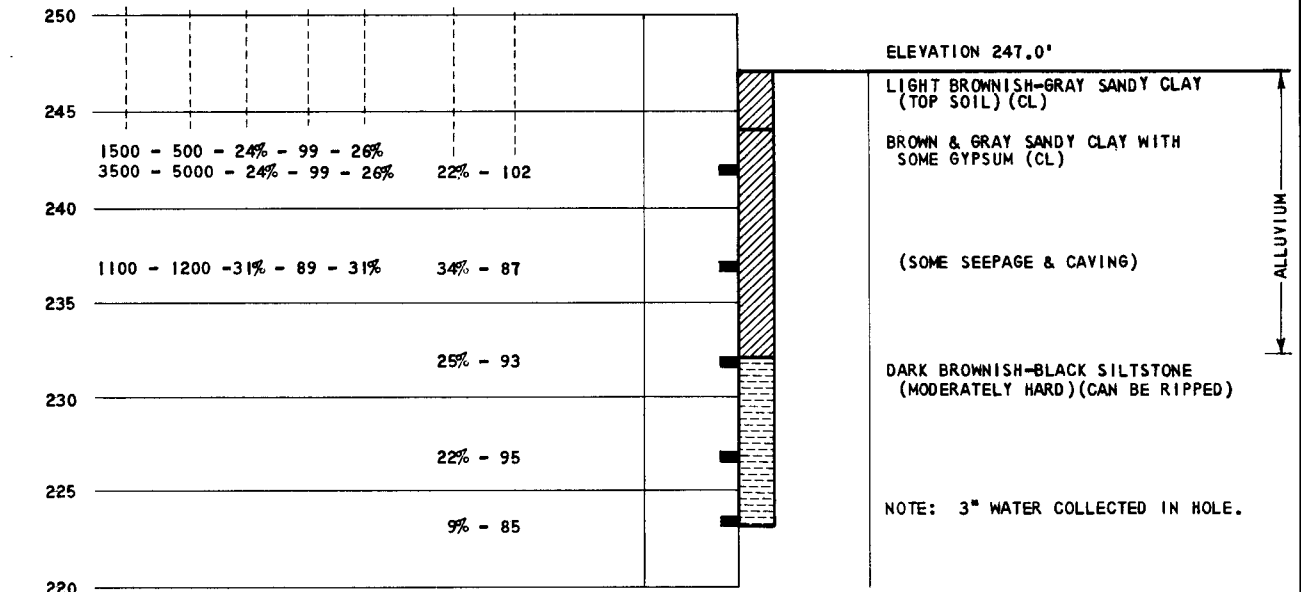
FILE: 657-81  
 BY: K. Williams  
 CHECKED BY: \_\_\_\_\_  
 DATE: 9-1-66

REVISIONS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLATE: \_\_\_\_\_ OF \_\_\_\_\_

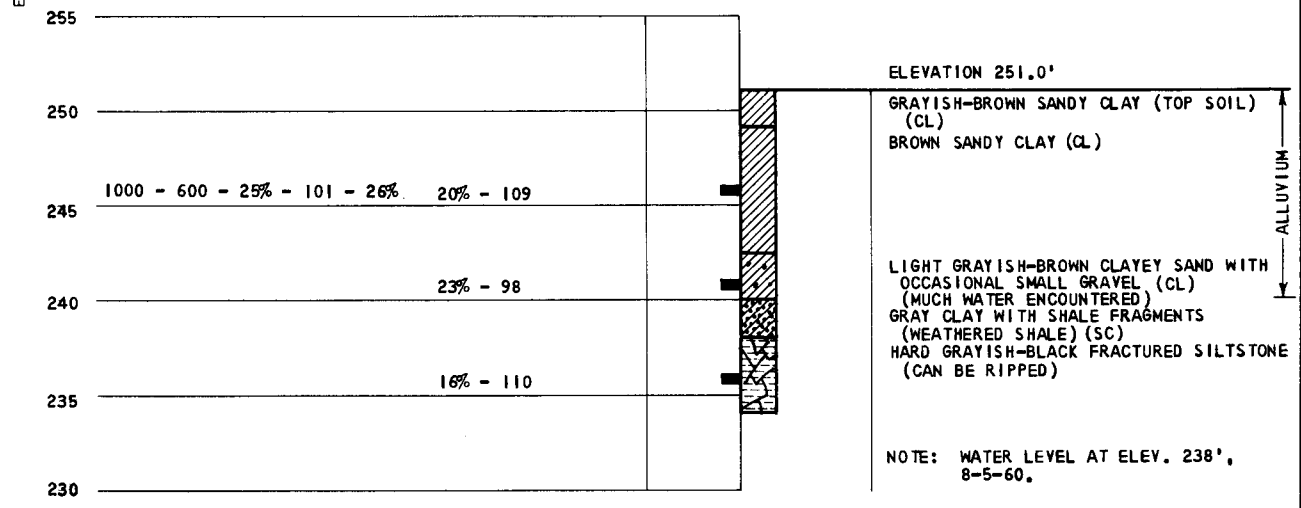
FILE: 651-161  
 BY: K. Johnson DATE: 1-1-60  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

ULTIMATE SHEAR STRENGTH, LBS./SQ.FT.  
 TEST SURCHARGE, LBS./SQ.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 TEST MOISTURE  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 UNDISTURBED CORE SAMPLE GRAPHIC LOG

**BORING 13**  
 DRILLED 8-4-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



**BORING 14**  
 DRILLED 8-5-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



**LOG OF BORINGS**

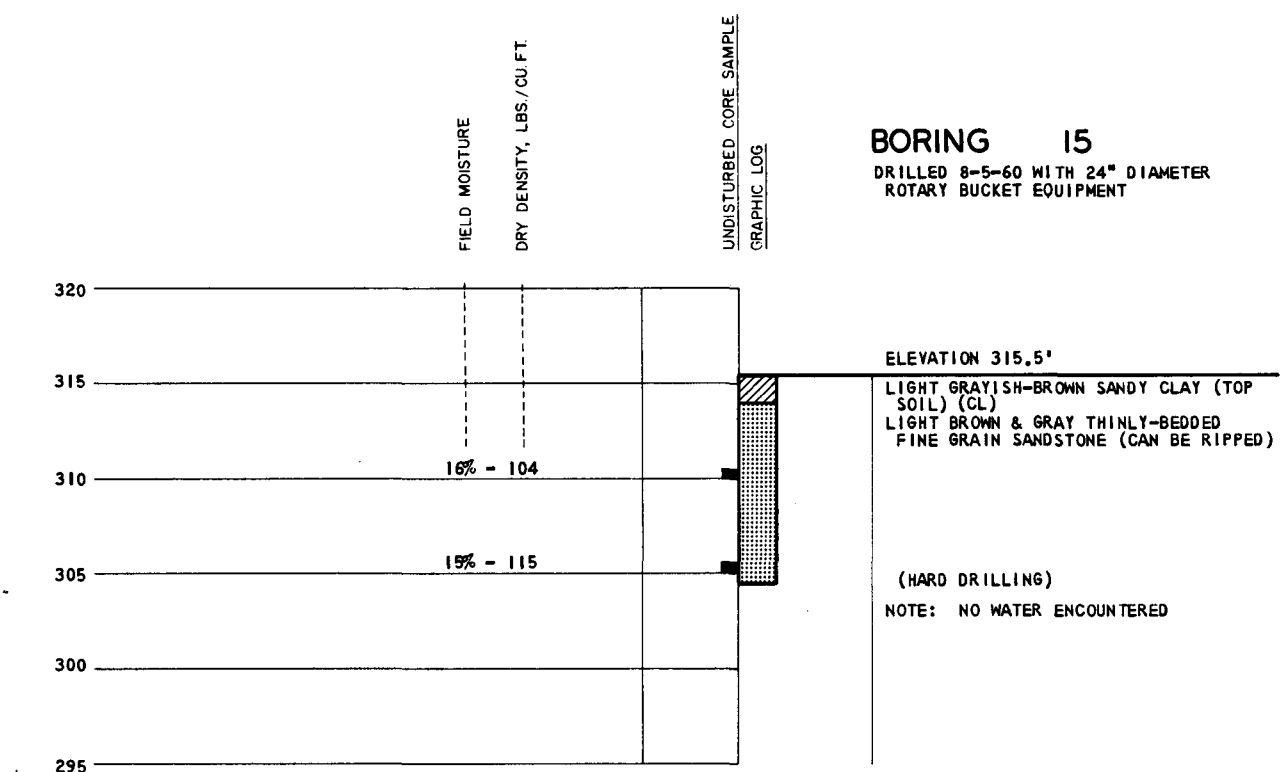


BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 PLATE \_\_\_\_\_ OF \_\_\_\_\_

BY *ASC* DATE \_\_\_\_\_  
 BY *Robinson* DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

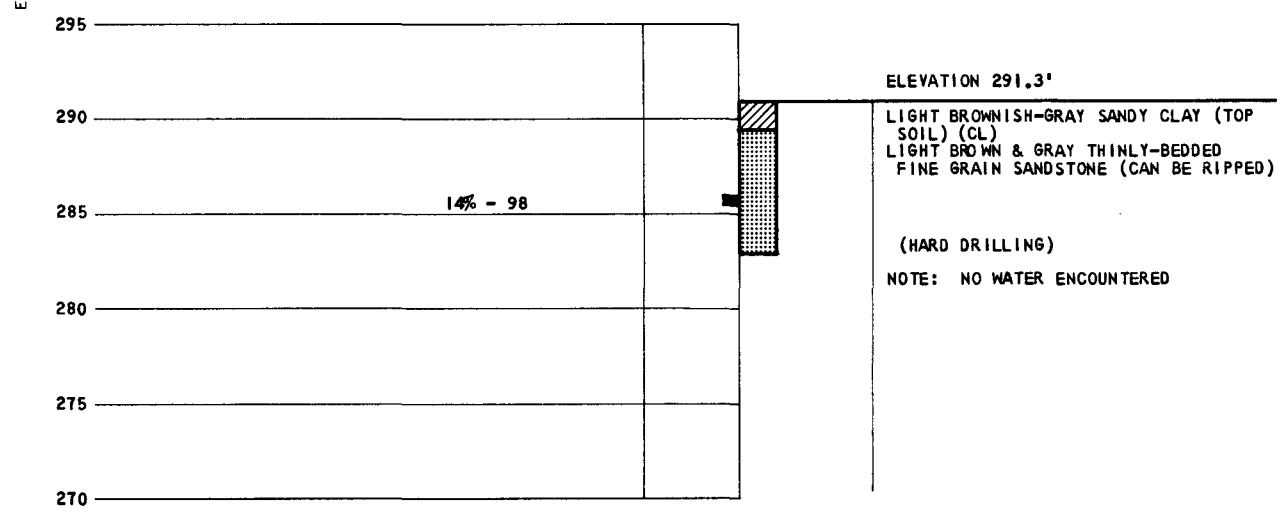
### BORING 15

DRILLED 8-5-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



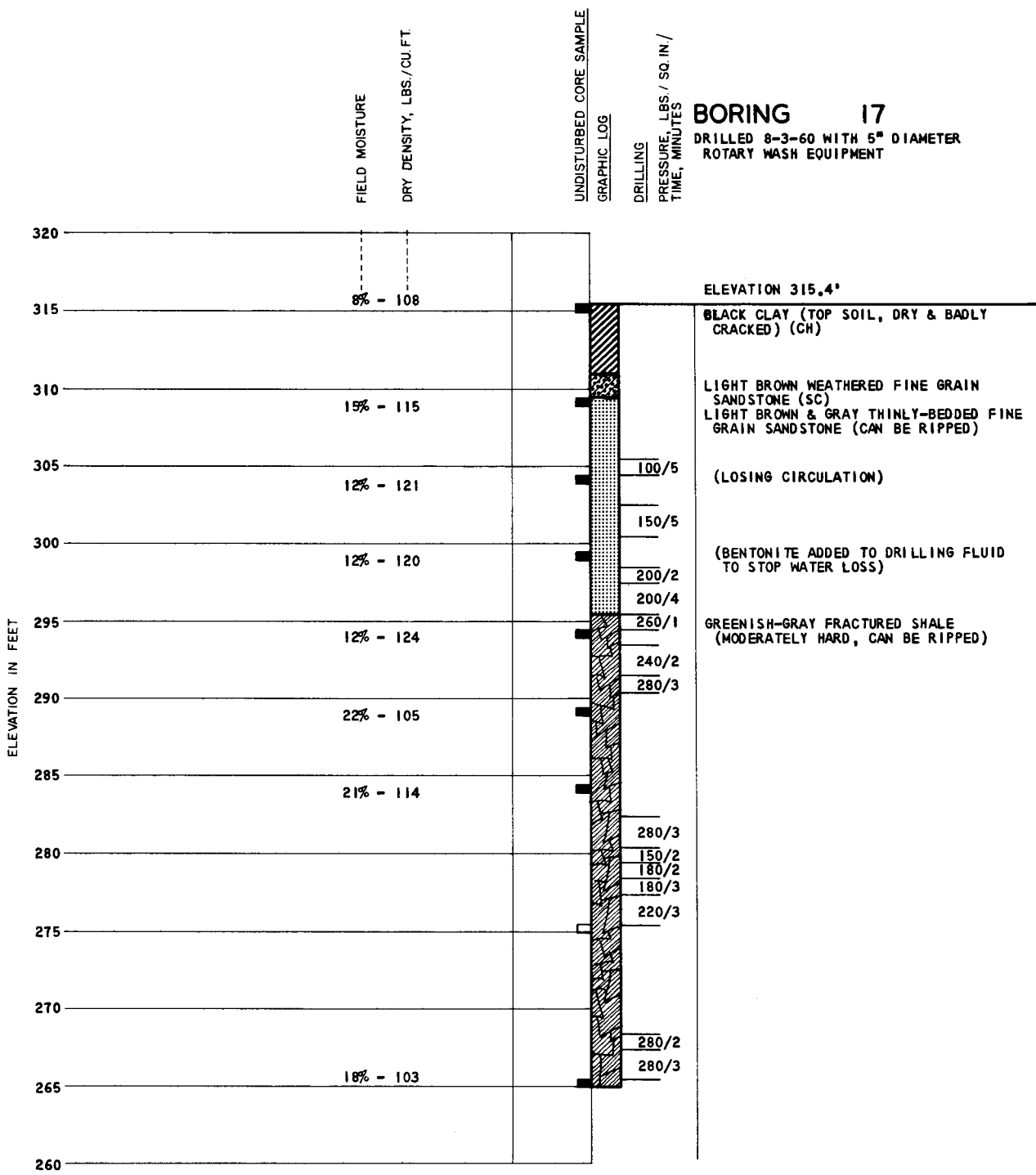
### BORING 16

DRILLED 8-5-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



## LOG OF BORINGS

REVISIONS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE: 651-B1  
 BY: A.E.C.  
 BY: K. Johnson DATE: 7/14/60  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# LOG OF BORING

REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_

FILE 417-81  
 BY A.C.C.  
 BY K. Johnson DATE 8-27-60  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

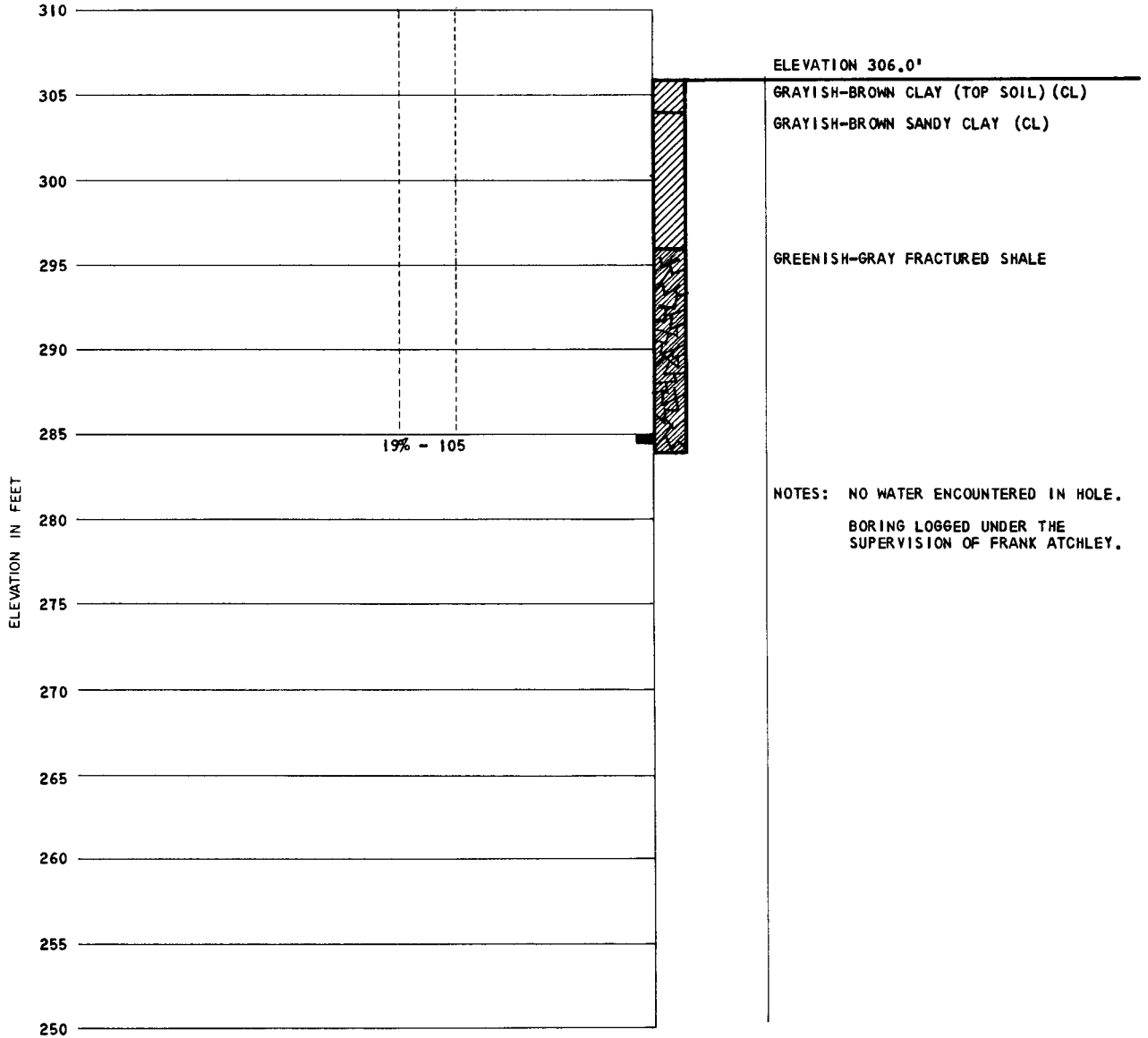
# BORING 17A

DRILLED 8-8-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT

FIELD MOISTURE

DRY DENSITY, LBS./CU.FT.

UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG



NOTES: NO WATER ENCOUNTERED IN HOLE.  
 BORING LOGGED UNDER THE  
 SUPERVISION OF FRANK ATCHLEY.

## LOG OF BORING

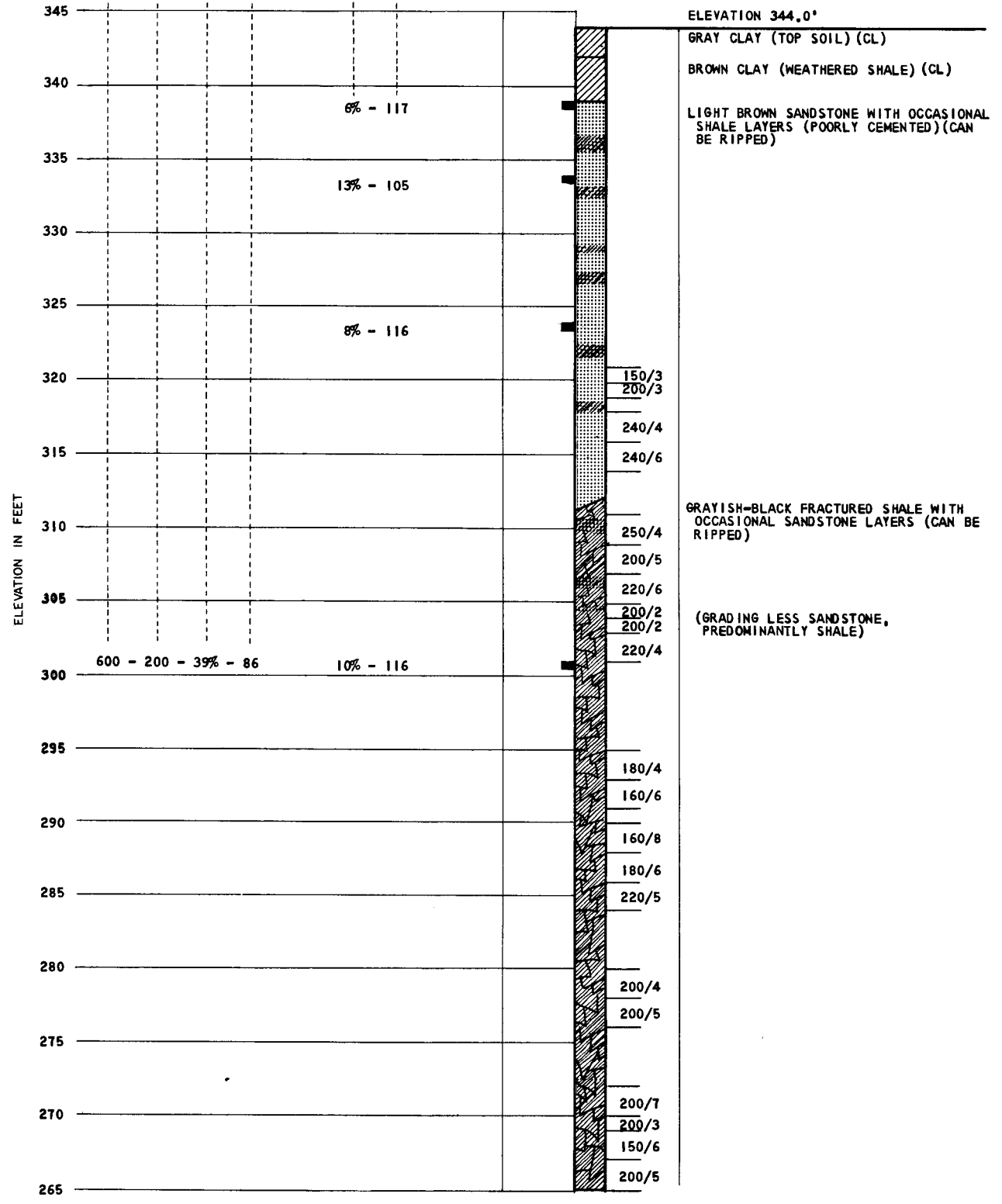
REVISIONS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PLATE: \_\_\_\_\_ OF \_\_\_\_\_  
 FILE: 051-133  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: CEN DATE: 1-2-60

ULTIMATE  
 SHEAR STRENGTH, LBS./SQ.FT.  
 TEST SURCHARGE, LBS./SQ.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.

UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG

DRILLING  
 PRESSURE, LBS./SQ. IN.  
 TIME, MINUTES

**BORING 18**  
 DRILLED 8-4-60 WITH 5" DIAMETER  
 ROTARY WASH EQUIPMENT

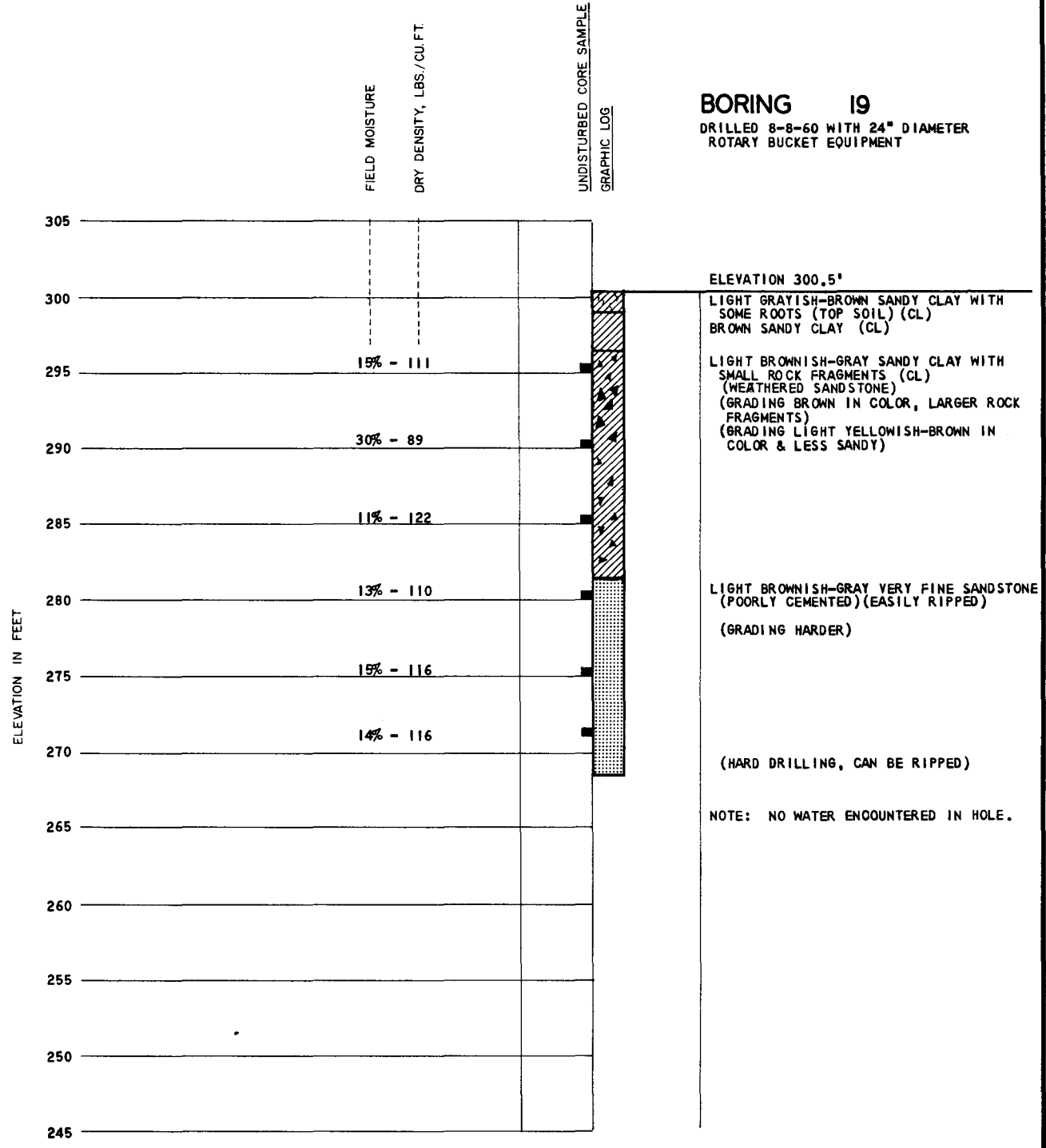


**DAMES & MOORE**  
 SOIL MECHANICS ENGINEERS

PLATE AIP

REVISIONS  
 BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 BY: *R. Johnson* DATE: *1-16-60*  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**BORING 19**  
 DRILLED 8-8-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



**LOG OF BORING**

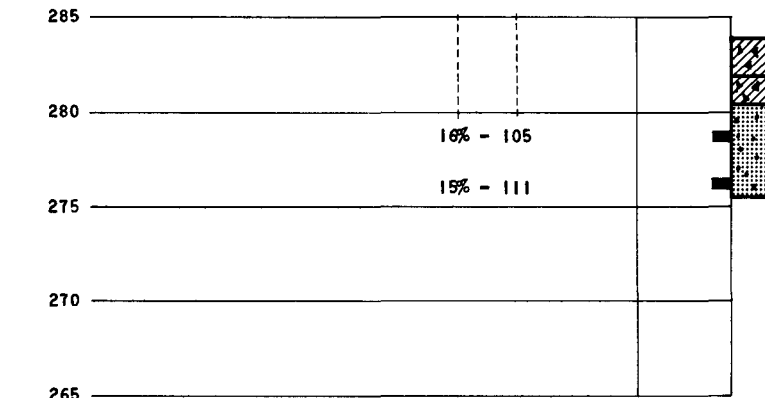
REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 PLATE \_\_\_\_\_ OF \_\_\_\_\_

FILE 657-61  
 BY ASC  
 CHECKED BY \_\_\_\_\_ DATE 8-6-60

FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.

UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG

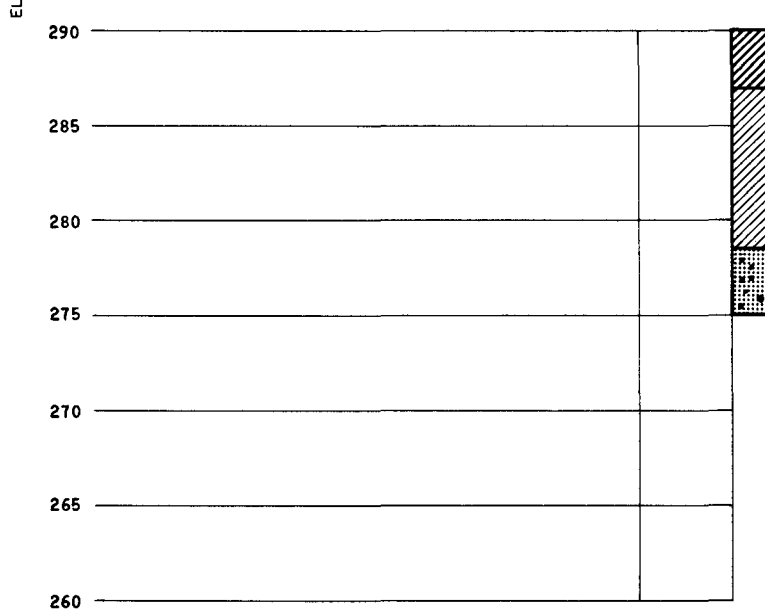
**BORING 20**  
 DRILLED 8-8-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



ELEVATION 284.0'  
 LIGHT GRAYISH-BROWN SANDY CLAY WITH SMALL ROCK FRAGMENTS (TOP SOIL)(CL)  
 (ROCK FRAGMENTS)(GS)  
 LIGHT BROWN SANDY CLAY WITH ROCK FRAGMENTS (CL)  
 LIGHT BROWN FINE GRAIN SANDSTONE WITH OCCASIONAL SMALL GRAVEL & IRON STAINS  
 (GRADING HARDER, CAN BE RIPPED)

NOTE: NO WATER ENCOUNTERED IN HOLE.

**BORING 20 A**  
 DRILLED 8-8-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT



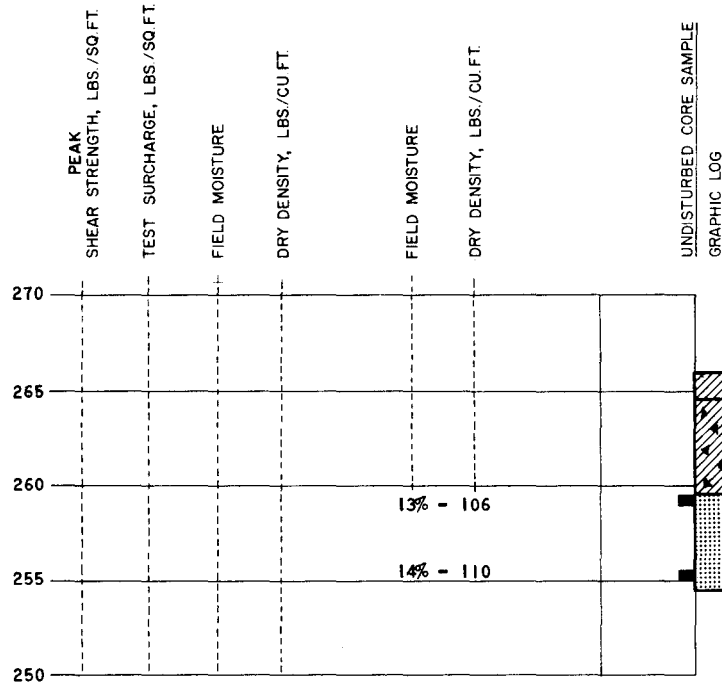
ELEVATION 290.0'  
 BLACK "ADOBE-LIKE" CLAY (DRY & CRACKED) (CH)  
 LIGHT BROWN SILTY CLAY WITH TRACES OF GYPSUM (CL)  
 (WEATHERED SANDSTONE)

NOTE: NO WATER ENCOUNTERED IN HOLE.

**LOG OF BORINGS**

REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 OF \_\_\_\_\_  
 PLATE \_\_\_\_\_

FILE 231-61  
 BY K. H. H. S. W. DATE 7-16-60  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_



**BORING 21**  
 DRILLED 8-9-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT

ELEVATION 266.0'

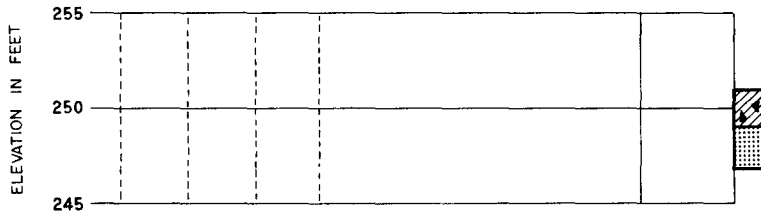
LIGHT GRAYISH-BROWN SANDY CLAY (TOP SOIL) (CL)  
 GRAYISH-BROWN SANDY CLAY WITH SMALL  
 ROCK FRAGMENTS (CL)  
 (MANY ROCK FRAGMENTS TO 4")

ALLUVIUM

LIGHT BROWN FINE GRAIN SANDSTONE  
 (MODERATELY WELL CEMENTED, CAN BE  
 RIPPED)

(WITH HARD LAYERS)

NOTE: NO WATER ENCOUNTERED IN HOLE.

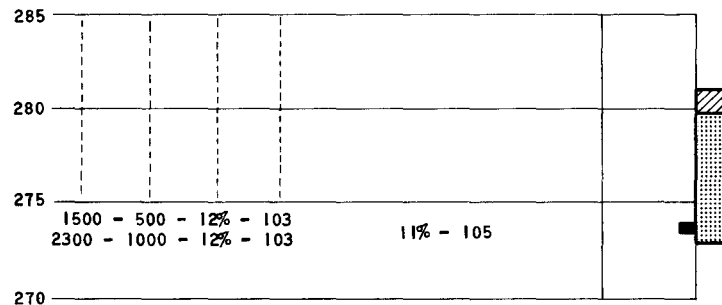


**BORING 22**  
 DRILLED 8-8-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT

ELEVATION 251.0'

LIGHT GRAYISH-BROWN SANDY CLAY (TOP SOIL) (CL)  
 (OCCASIONAL ROCK FRAGMENTS TO 6")  
 LIGHT BROWN FINE GRAIN SANDSTONE  
 (CAN BE RIPPED)

NOTE: NO WATER ENCOUNTERED IN HOLE.



**BORING 23**  
 DRILLED 8-9-60 WITH 24" DIAMETER  
 ROTARY BUCKET EQUIPMENT

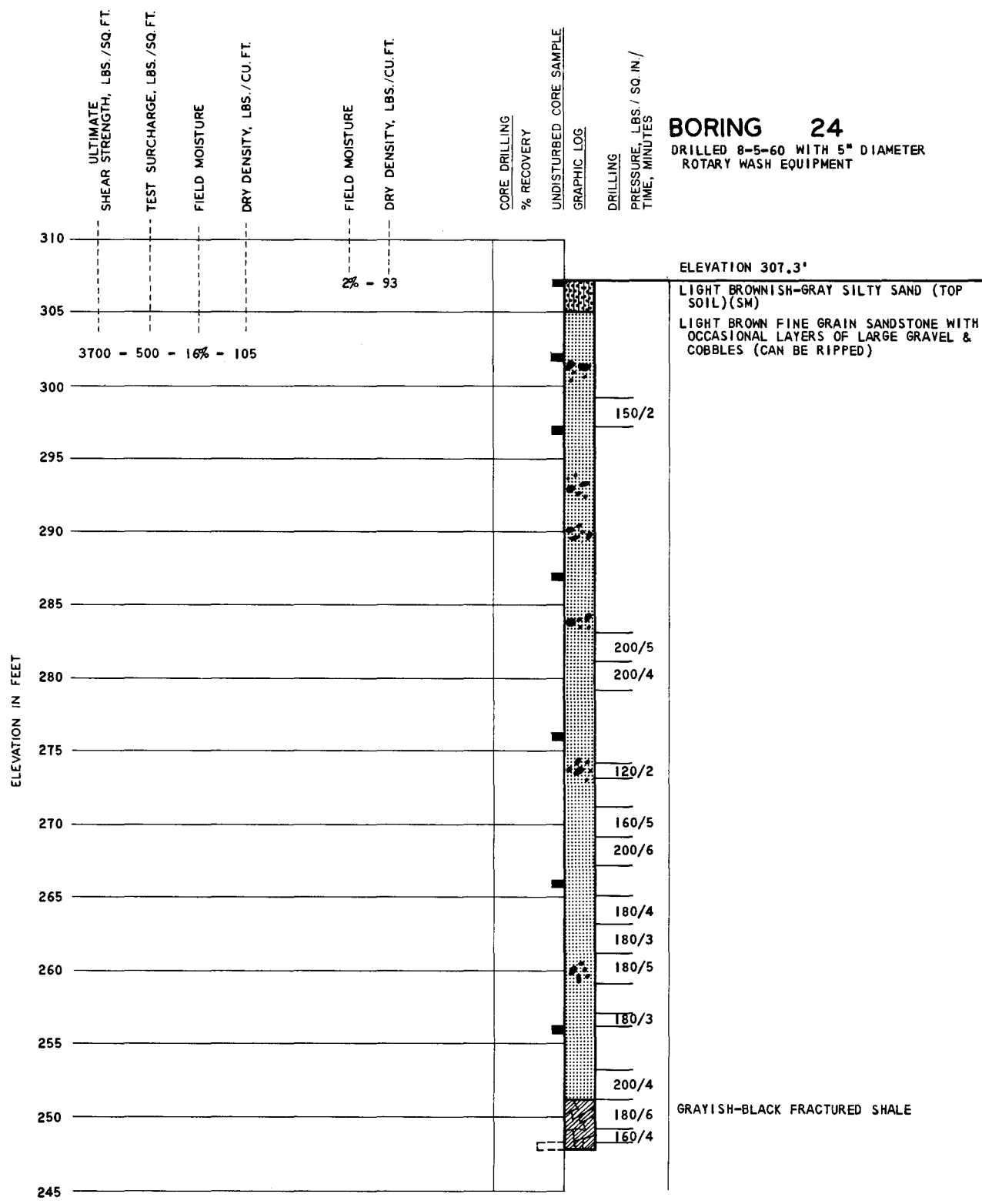
ELEVATION 281.0'

BROWNISH-GRAY SANDY CLAY (TOP SOIL) (CL)  
 LIGHT BROWN VERY FINE GRAIN SANDSTONE  
 (CAN BE RIPPED)

NOTE: NO WATER ENCOUNTERED IN HOLE.

## LOG OF BORINGS

REVISIONS  
 FILE 021-84  
 BY ABC  
 DATE 9-16-62  
 CHECKED BY  
 DATE



LOG OF BORING

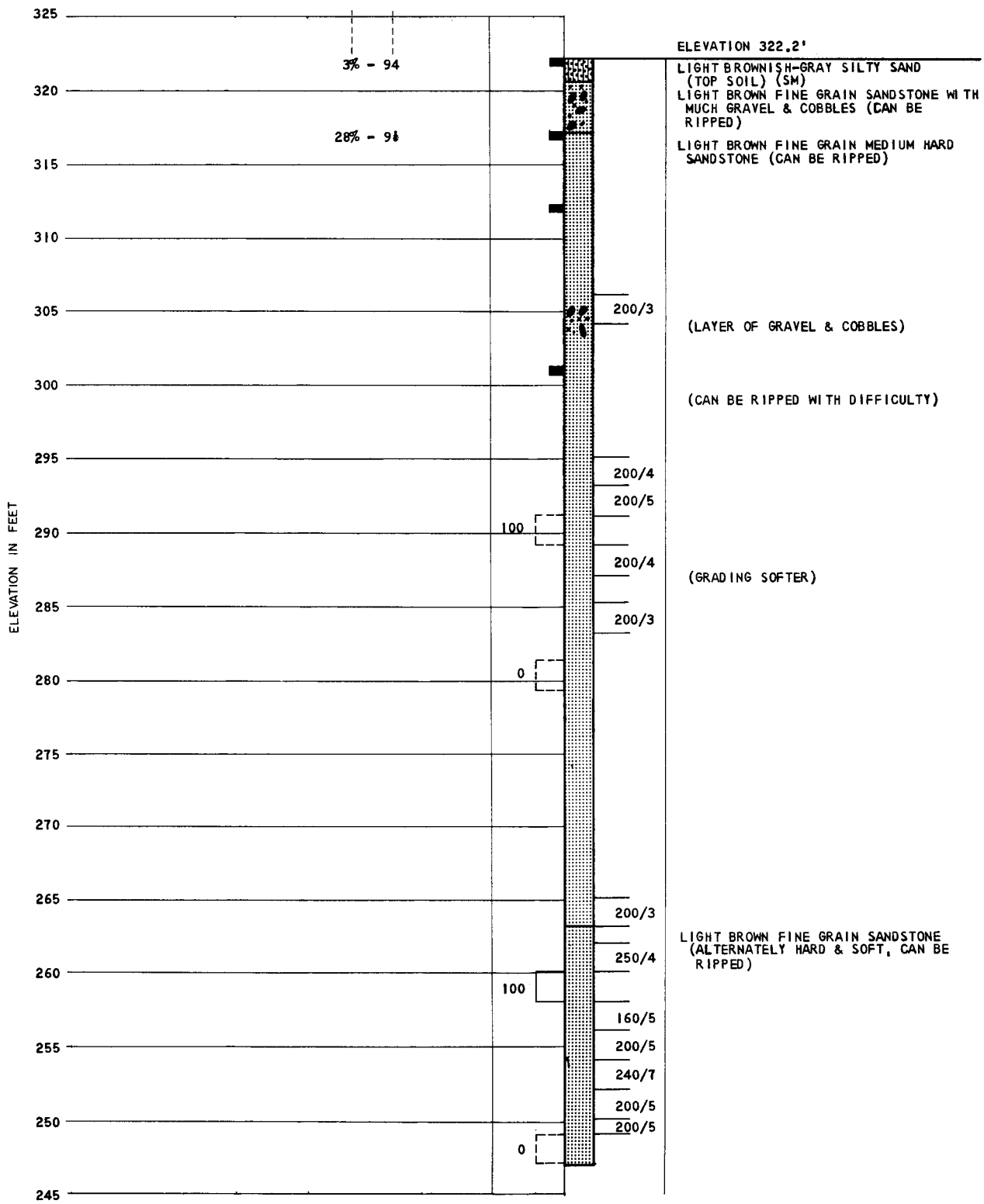


REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 OF \_\_\_\_\_ PLATE \_\_\_\_\_

FILE 507-182  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 CORE DRILLING  
 % RECOVERY  
 UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG  
 DRILLING  
 PRESSURE, LBS. / SQ. IN. /  
 TIME, MINUTES

**BORING 25**  
 DRILLED 8-5-60 WITH 5" DIAM.  
 ROTARY-WASH EQUIPMENT



**LOG OF BORING**

**DAMES & MOORE**  
 SOIL MECHANICS ENGINEERS

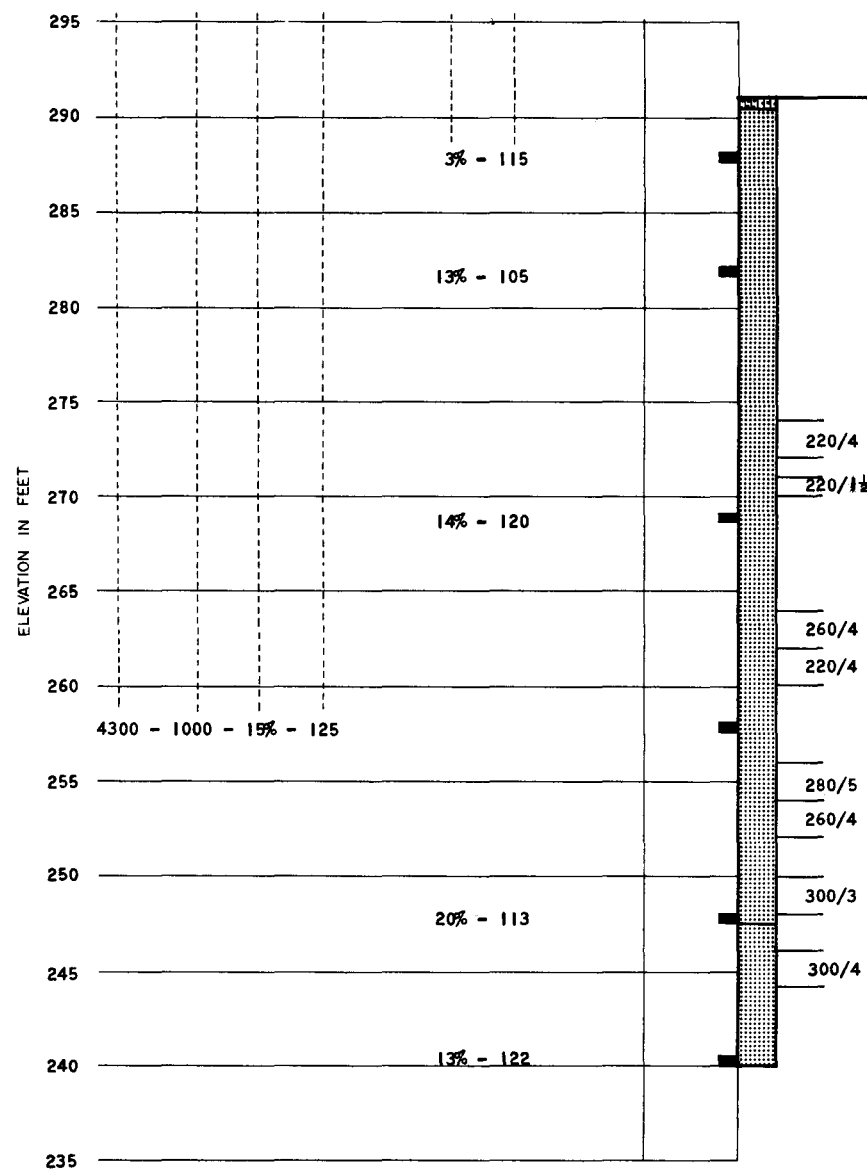
REVISIONS  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_ DATE \_\_\_\_\_  
 PLATE \_\_\_\_\_ OF \_\_\_\_\_  
 FILE 057-431  
 BY K. Johnson DATE 9-16-60  
 CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_

PEAK  
 SHEAR STRENGTH, LBS./SQ.FT.  
 TEST SURCHARGE, LBS./SQ.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.  
 FIELD MOISTURE  
 DRY DENSITY, LBS./CU.FT.

UNDISTURBED CORE SAMPLE  
 GRAPHIC LOG

DRILLING  
 PRESSURE, LBS./SQ.IN./  
 TIME, MINUTES

**BORING 26**  
 DRILLED 8-9-60 WITH 5" DIAM.  
 ROTARY-WASH EQUIPMENT



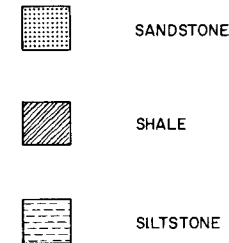
ELEVATION 291.0'  
 BROWNISH-GRAY SILTY SAND (TOP SOIL) (SM)  
 LIGHT BROWN FINE GRAIN SANDSTONE (CAN  
 BE RIPPED)  
 (WITH OCCASIONAL COBBLES)

LIGHT GRAY VERY FINE GRAIN SANDSTONE  
 (CAN BE EASILY RIPPED)

# LOG OF BORING



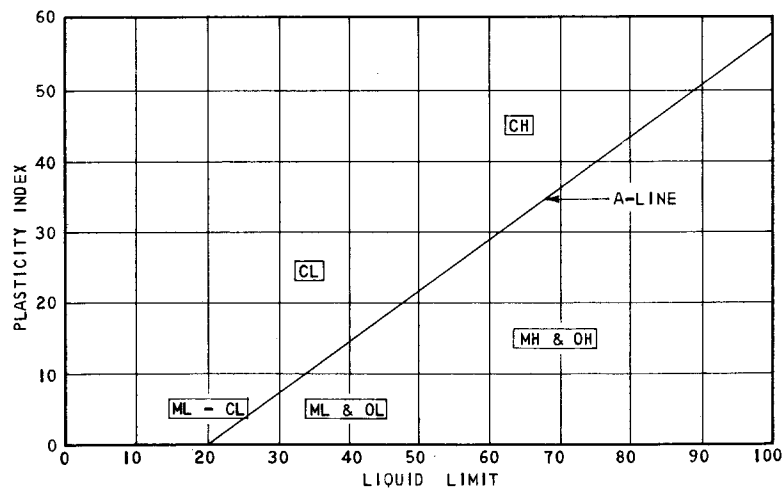
MAJOR DIVISIONS		LETTER	SYMBOL	DESCRIPTION	
COARSE-GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE. THE NO. 200 SIEVE SIZE IS ABOUT THE SMALLEST PARTICLE VISIBLE TO THE NAKED EYE.	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE. (FOR VISUAL CLASSIFICATION, THE 1/4" SIZE MAY BE USED AS EQUIVALENT TO THE NO. 4 SIEVE SIZE)	GW		WELL-GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		GP		POORLY-GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		GM		SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	
		GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
		SW		WELL-GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES	
		SP		POORLY-GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES	
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE.	SM		SILTY SANDS, SAND-SILT MIXTURES	
		SC		CLAYEY SANDS, SAND-CLAY MIXTURES	
		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
FINE-GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE.	SILTS AND CLAYS LL < 50		CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	SILTS AND CLAYS LL > 50		OL		ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
			MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS
			OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS		Pt		PEAT AND OTHER HIGHLY ORGANIC SOILS	



ROCK CLASSIFICATION CHART

SOIL CLASSIFICATION CHART

UNIFIED SOIL CLASSIFICATION SYSTEM



PLASTICITY CHART

- INDICATES DEPTH OF UNDISTURBED SAMPLE (DAMES & MOORE SAMPLER)
- INDICATES DEPTH OF SAMPLING ATTEMPT WITH NO RECOVERY
- INDICATES DEPTH & LENGTH OF CORING RUN WITH TUNGSTEN CARBIDE BIT
- INDICATES DEPTH & LENGTH OF CORING RUN WITH DIAMOND BIT

KEY TO SAMPLES