

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

PROJECT NAME Colorado River lock

LOG OF BORING NO. 94-135

LOCATION/STATION Sta. NO. 446 + 825

DATE/TIME STARTED 9-22-94 4:45 PM

DATE/TIME COMPLETED 9-22-94 6:30 PM

TIDE ELEVATION +3 MLT DATUM, TIME _____ LOCATION LT. BKN.# _____

WATER DEPTH 8' - 3' (deck) = 5'

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 48'

WEATHER Partly cloudy

DRILL RIG MANUFACTURE
MODEL NO. Failing 3600

DRILLER Dempsey Gearon
LOGGER H. Patel

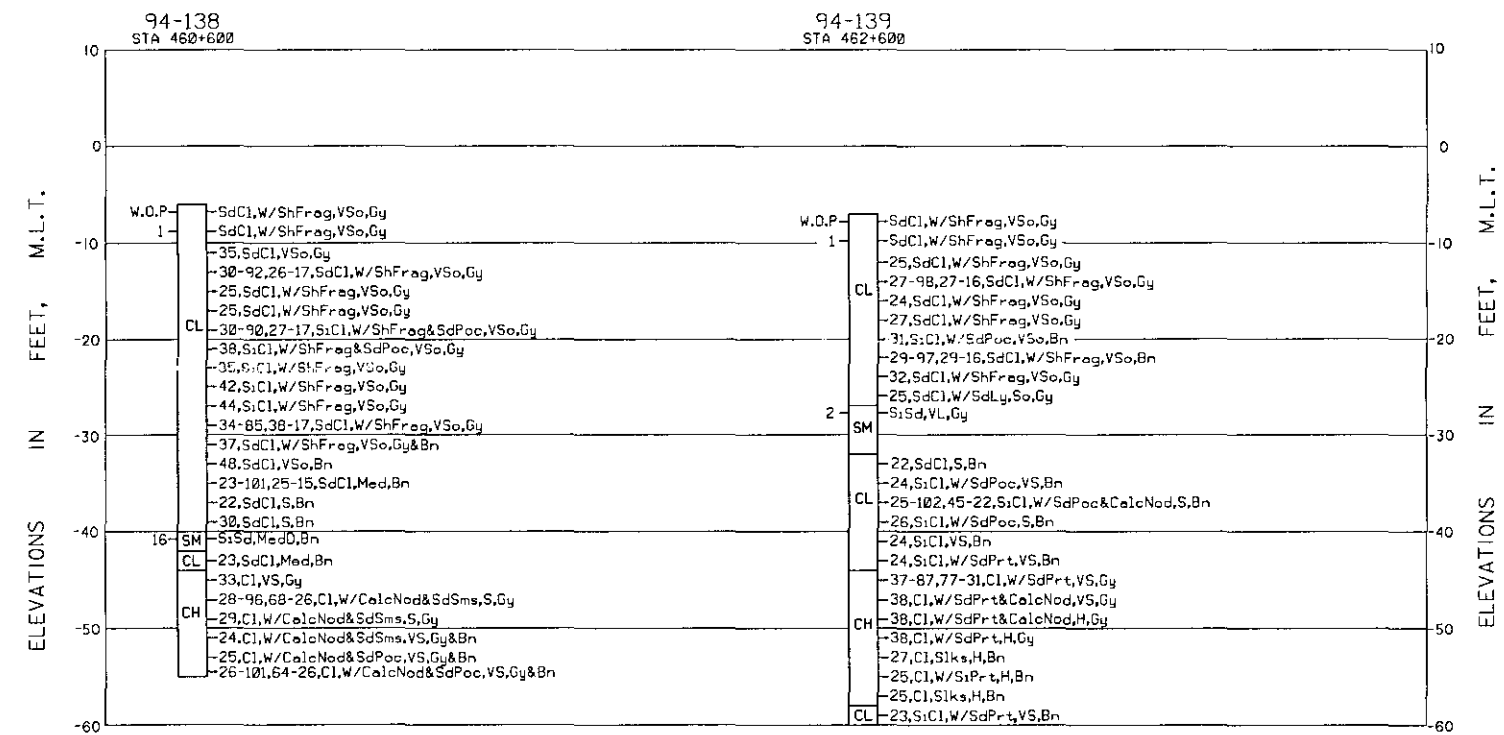
DRILLER'S/LOGGER'S COMMENTS _____

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
BORING NO. <u>94-135</u> DATE: BEGIN <u>9-22-94</u> PAGE <u>111</u> JOB NO. <u>94G790</u> COMPLETE <u>9-22-94</u> Thin Walled Tube PROJECT <u>Colorado River lock</u> ☒ 3" ☐ 6" LOCATION <u>Sta No. 446 +875</u> ELEVATION OF HOLE <u>-2'</u> MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing 3600</u> GROUNDWATER: DEPTH _____ ft., ELEV. _____ ft., at end of Drilling WEATHER <u>Partly cloudy</u> DRILLER <u>Dempsey Gearen</u> LOGGER <u>H. Patel</u>									
0	X	1	0.11		Gray	clay	Soft	Sandy	with sand & shell fragments
		2	0.25		Gray	clay	Soft		with silt & sand partings
5		3	0.25		Gray	clay	Soft		with silt partings
		4	0.25		Gray	clay	Soft		with silt partings
		5	1.0		Gray	clay	Stiff		With sand partings
10		6	1.5		Gray	clay	Stiff		With sand partings
		7	1.5		Yellowish Gray	clay	Stiff		With sand partings
15		8	2.0		Yellowish Gray	clay	Very Stiff		With sand parting & traces of ferrous nodules
		9	2.5		Yellowish Gray	clay	Very Stiff		With cal. Nodd. and Fe. Nodd.
		10	2.5		Gray & Brown	clay	Very Stiff		With sand partings
20		11	3.0		Brown	clay	Very Stiff		With silty sand layer on surface
		12	3.5		Brown	clay	Very Stiff		With silt partings
25		13	3.5		Brown	clay	Very Stiff		With silt partings
		14	1.5		Brown	clay	Stiff	Sandy	With sand layer
		15	2.0		Brown	clay	Very Stiff	Sandy	With silty sand layer
30		16	2.5		Brown	clay	Very Stiff	Sandy	with silt partings
		17	2.5		Brown	clay	Very Stiff	Sandy	with silt partings
35		18	2.5		Gray	clay	Very Stiff		With sand layer on surface

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>94-135</u> DATE: BEGIN <u>9-22-94</u> PAGE <u>2 / 2</u> JOB NO. <u>94G790</u> COMPLETE <u>9-22-94</u> Thin Walled Tube PROJECT <u>Colorado River lock</u> ☒ 3" ☐ 6" LOCATION <u>Sta. No. 446+875</u> ELEVATION OF HOLE <u>-2'</u> MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing 3600</u> GROUNDWATER: DEPTH _____ ft., ELEV. _____ ft., at end of Drilling WEATHER <u>Partly Cloudy</u> DRILLER <u>Dempsey Gearen</u> LOGGER <u>H. Patel</u>				
					COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
35									
		19	3.0	Brown	clay	Very stiff	sandy	with cal. Nodds. & silt partings	
		20	3.5	Brown	clay	Very stiff	Sandy	with cal. Nodds. & silt partings	
40		21	3.5	Brown	clay	Very stiff	Sandy	with cal. Nodds. & silt partings	
		22	2.5	Brown	clay	Very stiff	Sandy	with cal. Nodds. & silt partings	
45									
50									
55									
60									
65									
70									



Bn Brown(ish)	H Hard	O Olive	S Silty
Cac Calcareous	L Loose	Part Particle(s)	Slks Slicken Sides
Cl(ay)ey	Ly Layer(s)	Poc Pocket(s)	Sms Seams
D Dense	Lt Light	Prt Parting(s)	So Soft
Dcn Decomposed	Mat Material	R Red(dish)	Sta Stains
GK Dark	Med Medium	S Stiff	V Very
Fe ⁺ Ferrous	Nod Nodules	Sd Sandy	W With
Gy Gray(ish)	Org Organic	Sh Shelly	Y Yellow(ish)

CH INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
SC CLAYEY SANDS, SAND-CLAY MIXTURES.
SM SILTY SANDS, SAND-SILT MIXTURES.

1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD 6198 "UNIFIED SOIL CLASSIFICATION SYSTEM FOR ROADS, AIRFIELDS, EMBANKMENTS, AND FOUNDATIONS." CONSISTENCY OF SOILS SUCH AS SOFT, MEDIUM, HARD, LOOSE, DENSE, ETC., ARE RELATIVE TERMS BASED ON ESTIMATED UNDISTURBED SHEAR STRENGTH OF THE MATERIAL AS DETERMINED BY VISUAL CLASSIFICATION POCKET PENETROMETER TESTS AND PENETRATION RESISTANCE DURING SAMPLING.
2. FIGURES TO THE RIGHT OF BORING LOGS ARE WATER CONTENTS IN PERCENT OF THE DRY WEIGHT, DRY DENSITY, LIQUID LIMIT, PLASTIC LIMIT, AND BAR LINEAR SHRINKAGE. (MC, WU, LL, -PL, I, B, L, S, W) FIGURES TO THE LEFT OF BORING LOGS ARE BLOWS PER FOOT OF PENETRATION FROM STANDARD PENETRATION TESTING.
3. BORINGS WERE DRILLED USING WET ROTARY DRILLING TECHNIQUES AND UNDISTURBED SAMPLES WERE RECOVERED WITH A 3-INCH DIAMETER THIN WALL SAMPLER WHERE COHESIVE MATERIALS WERE ENCOUNTERED. WHERE COHESIVE MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTING.
4. WATER TABLE LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORINGS. INASMUCH AS WET ROTARY DRILLING TECHNIQUES AND DRILLING MUD WERE USED TO DRILL THE HOLES, THE LEVEL OF DRILLING FLUIDS IN THE BORE HOLES MAY NOT HAVE STABILIZED TO THE LEVEL OF THE ACTUAL WATER TABLE. ADDITIONALLY, WATER TABLES IN THE FIELD ARE LIKELY TO FLUCTUATE DEPENDING ON WEATHER CONDITIONS. THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED AND WATER TABLES ENCOUNTERED IN THE FIELD.

REVISION	DATE	DESCRIPTION	BY

OFFICE OF THE DISTRICT ENGINEER
 U.S. ARMY ENGINEER DISTRICT, GALVESTON
 CORPS OF ENGINEERS
 GALVESTON, TEXAS

DRAWN BY: *

J.G.

DESIGNED BY: *

X

CHECKED BY: *

L.A.A.

SUBMITTED BY: *

Colorado River Locks

Boring logs

CHIEF: *

APPROVED: *

CHIEF: *

AS REQUIRED BY ENGINEER (REGULAR NO. 1110-1718)

DATE: *

X

Prepared under the direction of
 Robert B. Gatlin, Col., C.E.,
 District Engineer

SCALE: AS SHOWN SPEC. DATA: _____

DRAWING NUMBER: _____

X

SHEET: 1 OF 1 FILE NO. X

Contract No. DACW64-94-M-0880

Boring No. 94-135

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	Mc (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0-1.5	VL	2	Gray, Sand, Very loose, Clayey, w/shell fragments	S C						99.6	98.0	95.2	80.4	47.1		
2	2 - 4	0.00	VS	Gray, Clay, Very soft, Sandy, w/shell fragments	C L	39.6										0.05	
3	4 - 6	0.00	VS	Gray, Clay, Very soft, w/sand partings and organic material	C H	50.2	68.9	103.5	71.0	24.0	100.0	100.0	99.5	98.8	97.6		0.11
4	6 - 8	0.00	VS	Gray, Clay, Very soft, w/organic material	C H	67.0										0.05	
5	8 - 10	0.25	SO	Gray, Clay, Soft	C H	31.8											
6	10 - 12	1.00	S	Gray, Clay, Stiff	C H	29.7	92.8	120.4	50.0	23.0	100.0	100.0	100.0	99.4	99.0		1.27
7	12 - 14	2.50	VS	Yellowish gray, Clay, Very stiff, w/calcareous nodules and sand partings	C H	27.7											
8	14 - 16	2.50	VS	Yellowish gray, Clay, Very stiff, w/calcareous nodules and sand partings	C H	25.8											
9	16 - 18	3.50	VS	Yellowish gray, Clay, Very stiff, w/calcareous & ferrous nodules and sand partings	C H	23.9	100.6	124.6	61.0	24.0	100.0	99.5	98.5	98.1	97.5		
10	18 - 20	3.50	VS	Yellowish gray, Clay, Very stiff, Sandy	C L	22.7											
11	20 - 22	3.75	VS	Reddish brown, Clay, Very stiff, Silty, w/sand partings	C L	25.2											
12	22 - 24	3.50	VS	Reddish brown, Clay, Very stiff, w/silt partings	C H	24.7	98.8	123.2	70.0	28.0	100.0	100.0	100.0	98.1	97.0		2.40
13	24 - 26	4.00	VS	Reddish brown, Clay, Very stiff, w/silt partings	C H	29.4											
14	26 - 28	2.00	VS	Reddish brown, Clay, Very stiff, Silty, w/sand partings	C L	24.6	100.2	124.8	28.0	16.0	100.0	100.0	100.0	99.6	81.3		
15	28 - 30	2.00	VS	Reddish brown, Clay, Very stiff, Silty, w/sand partings	C L	28.4											
16	30 - 32	3.50	VS	Reddish brown, Clay, Very stiff, w/silt partings	C H	25.6	102.4	128.6	52.0	23.0	100.0	100.0	99.8	98.1	95.8		2.03
17	32 - 34	3.75	VS	Reddish brown, Clay, Very stiff, w/sand partings	C H	26.0											
18	34 - 36	3.00	VS	Yellowish gray, Clay, Very stiff, w/sand partings	C H	26.0											
19	36 - 38	4.50	H	Reddish brown, Clay, Hard, Silty, w/calcareous nodules and sand seams	C L	20.4	109.9	132.3	42.0	18.0	100.0	98.6	97.6	96.4	94.1		
20	38 - 40	4.50	H	Reddish brown, Clay, Hard, Silty, w/calcareous nodules and sand seams	C L	19.5											

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content

q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe

Project: Colorado River Locks

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-94-M-0880

Boring No. 94-135

[illegible]

S #: Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content
q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe

JOB NO. 14G790

DATE 10/12/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-135

SAMPLE NO. 3

DEPTH 4-6 ft.

SPECIMEN NO. 1

CLASSIFICATION

Gray, Clay, Very soft, w/sand partings and organic material

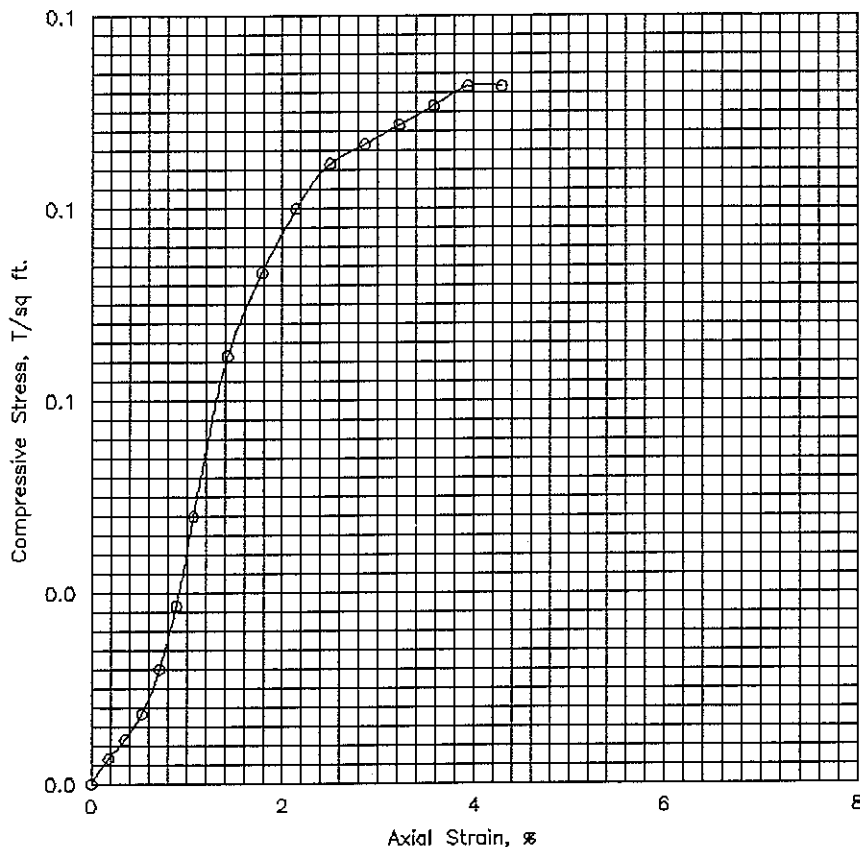
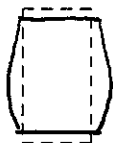
Tare No.	W-26	Height	5.595 in.
Tare plus Wet Specimen	493.57 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	342.76 gm	Initial Area	6.290 sq in.
Water Weight	150.81 gm	Volume	35.194 cu in.
Tare Weight	42.34 gm	Volume of Solids	cu in.
Wet Specimen	956.49 gm	Void Ratio	
Dry Specimen	636.81 gm	Saturation	%
Water Content	50.20 %	Dry Density	68.9 lb/cu ft
Specific Gravity of Solids			
LL = 71	PL = 24	PI = 47	

Proving Ring No. 17015

Proving Ring Constant, K = .311 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	1.0	.3	.002	6.30	.004
.5	20.	.020	2.0	.6	.004	6.31	.007
.6	30.	.030	3.0	.9	.005	6.32	.011
.8	40.	.040	5.0	1.6	.007	6.34	.018
1.0	50.	.050	8.0	2.5	.009	6.35	.028
1.2	60.	.060	12.0	3.7	.011	6.36	.042
1.5	80.	.080	19.0	5.9	.014	6.38	.067
1.9	100.	.100	23.0	7.1	.018	6.40	.080
2.2	120.	.120	26.0	8.1	.021	6.43	.090
2.5	140.	.140	28.0	8.7	.025	6.45	.097
2.9	160.	.160	29.0	9.0	.029	6.48	.100
3.2	180.	.180	30.0	9.3	.032	6.50	.103
3.5	200.	.200	31.0	9.6	.036	6.52	.106
3.9	220.	.220	32.0	9.9	.039	6.55	.109
4.2	240.	.240	32.0	9.9	.043	6.57	.109

Failure Sketches



Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	50.2 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	68.9		
Time to failure, min		t_f	3.88		
Unconfined compressive strength, $T/\text{sq ft}$		q_u	.11		
Undrained shear strength, $T/\text{sq ft}$		S_u	.05		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Very soft, w/sand partings and organic material					
LL	71	PL	24	PI	47
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-135 Sample No. 3 Depth 4-6 ft. Date 10/12/94			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/12/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-135

SAMPLE NO. 6

DEPTH 10-12 ft.

SPECIMEN NO. 1

CLASSIFICATION
Gray, Clay, Stiff

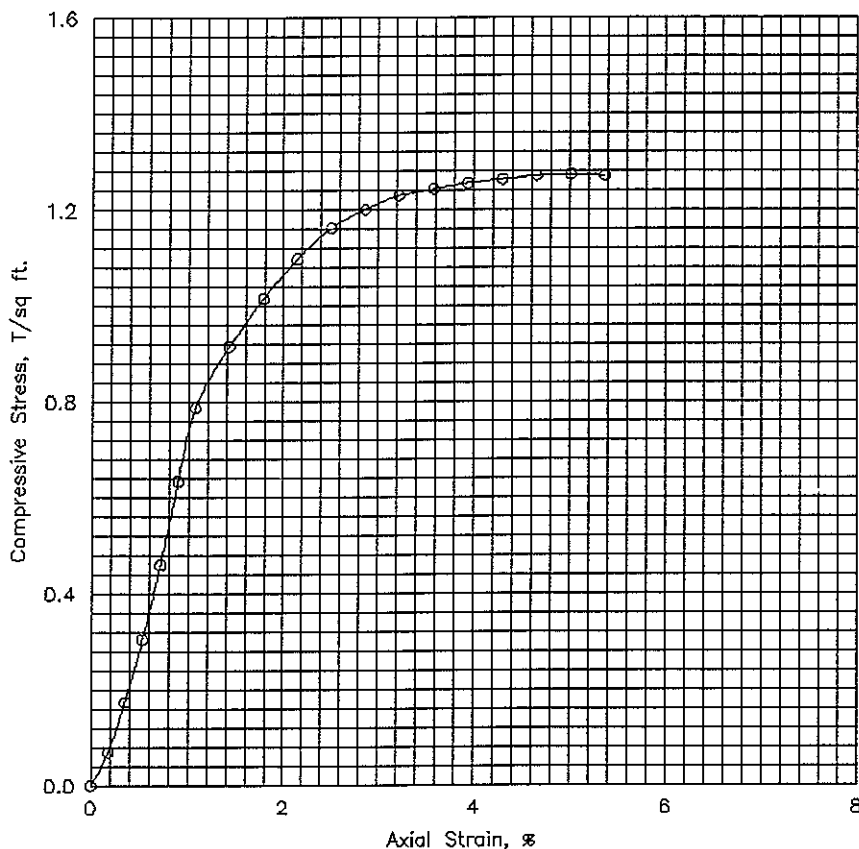
Tare No.	W-13	Height	5.595 in.
Tare plus Wet Specimen	413.13 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	328.15 gm	Initial Area	6.290 sq in.
Water Weight	84.98 gm	Volume	35.194 cu in.
Tare Weight	42.42 gm	Volume of Solids	cu in.
Wet Specimen	1112.40 gm	Void Ratio	
Dry Specimen	857.40 gm	Saturation	%
Water Content	29.74 %	Dry Density	92.8 lb/cu ft
Specific Gravity of Solids			
LL = 50	PL = 23	PI = 27	

Proving Ring No. 10170

Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	8.0	6.1	.002	6.30	.070
.3	20.	.020	20.0	15.3	.004	6.31	.175
.5	30.	.030	35.0	26.8	.005	6.32	.305
.7	40.	.040	53.0	40.6	.007	6.34	.461
.9	50.	.050	73.0	55.9	.009	6.35	.634
1.0	60.	.060	91.0	69.7	.011	6.36	.789
1.3	80.	.080	106.0	81.2	.014	6.38	.916
1.7	100.	.100	118.0	90.4	.018	6.40	1.016
2.0	120.	.120	128.0	98.0	.021	6.43	1.098
2.4	140.	.140	136.0	104.2	.025	6.45	1.163
2.7	160.	.160	141.0	108.0	.029	6.48	1.201
3.0	180.	.180	145.0	111.1	.032	6.50	1.230
3.4	200.	.200	147.0	112.6	.036	6.52	1.243
3.7	220.	.220	149.0	114.1	.039	6.55	1.255
4.0	240.	.240	150.5	115.3	.043	6.57	1.263
4.4	260.	.260	152.0	116.4	.046	6.60	1.271
4.8	280.	.280	153.0	117.2	.050	6.62	1.274
5.1	300.	.300	153.0	117.2	.054	6.65	1.270

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	29.7 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	92.8		
Time to failure, min		t_f	4.77		
Unconfined compressive strength, T/sq ft		q_u	1.27		
Undrained shear strength, T/sq ft		S_u	.64		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray, Clay, Stiff					
LL	50	PL	23	PI	27
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-135 Sample No. 6 Depth 10-12 ft. Date 10/12/94			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/12/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-135

SAMPLE NO. 12

DEPTH 22-24 ft.

SPECIMEN NO. 1

CLASSIFICATION

Reddish brown, Clay, Very stiff, w/silt partings

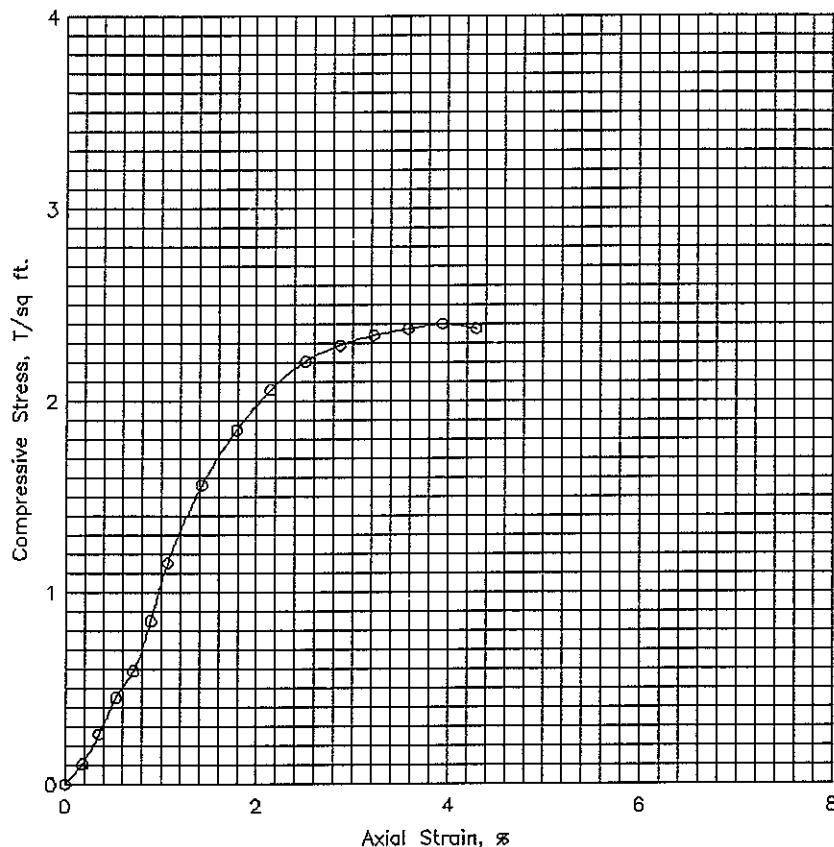
Tare No.	K1-35	Height	5.595 in.
Tare plus Wet Specimen	306.80 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	254.42 gm	Initial Area	6.290 sq in.
Water Weight	52.38 gm	Volume	35.194 cu in.
Tare Weight	42.70 gm	Volume of Solids	cu in.
Wet Specimen	1138.80 gm	Void Ratio	
Dry Specimen	912.94 gm	Saturation	%
Water Content	24.74 %	Dry Density	98.8 lb/cu ft
Specific Gravity of Solids			
LL = 70	PL = 28	PI = 42	

Proving Ring No. 10170

Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	12.0	9.2	.002	6.30	.105
.4	20.	.020	30.0	23.0	.004	6.31	.262
.6	30.	.030	52.0	39.8	.005	6.32	.453
.8	40.	.040	68.0	52.1	.007	6.34	.592
1.0	50.	.050	98.0	75.1	.009	6.35	.852
1.2	60.	.060	133.0	101.9	.011	6.36	1.154
1.5	80.	.080	181.0	138.6	.014	6.38	1.564
1.9	100.	.100	215.0	164.7	.018	6.40	1.851
2.2	120.	.120	240.0	183.8	.021	6.43	2.059
2.5	140.	.140	258.0	197.6	.025	6.45	2.206
2.9	160.	.160	269.0	206.1	.029	6.48	2.291
3.2	180.	.180	276.0	211.4	.032	6.50	2.342
3.5	200.	.200	281.0	215.2	.036	6.52	2.376
3.8	220.	.220	285.0	218.3	.039	6.55	2.401
4.3	240.	.240	283.0	216.8	.043	6.57	2.375

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	24.7 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	98.8		
Time to failure, min		t_f	3.85		
Unconfined compressive strength, T/sq ft		q_u	2.40		
Undrained shear strength, T/sq ft		S_u	1.20		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Reddish brown, Clay, Very stiff, w/silt partings					
LL	70	PL	28	PI	42
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-135 Sample No. 12 Depth 22-24 ft. Date 10/12/94 El			
UNCONFINED COMPRESSION TEST REPORT					

JOB NO. 14G790

DATE 10/12/94

PROJECT Colorado River Locks

AREA GIWW at Colorado River, Texas

BORING NO. 94-135

SAMPLE NO. 16

DEPTH 30-32 ft.

SPECIMEN NO. 1

CLASSIFICATION

Reddish brown, Clay, Very stiff, w/silt partings

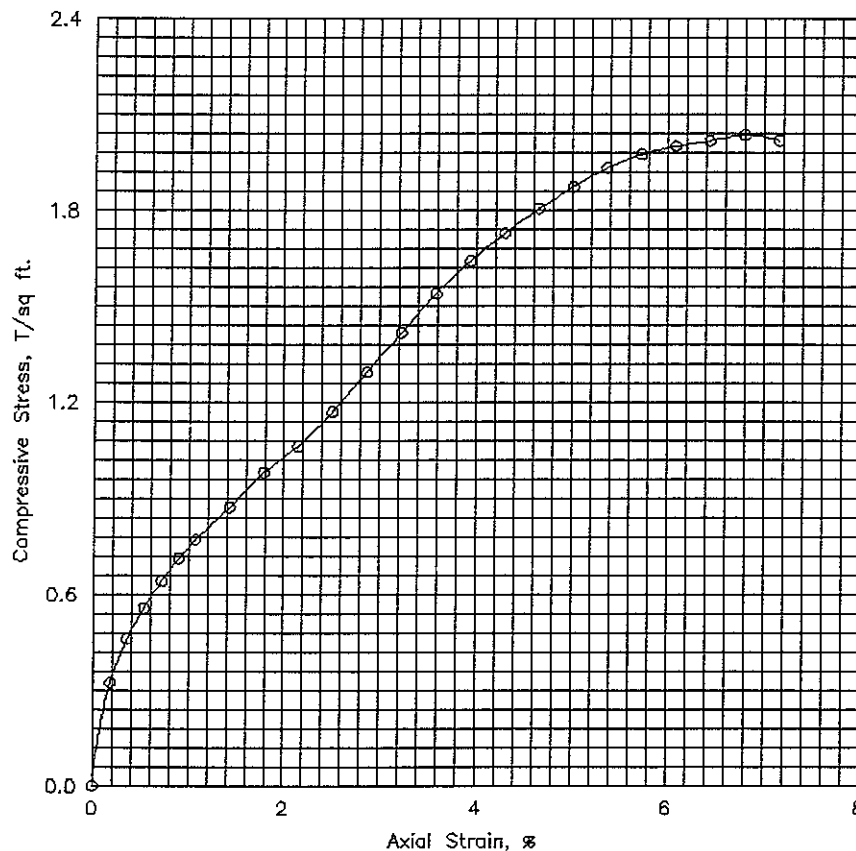
Tare No.	K1-18	Height	5.595 in.
Tare plus Wet Specimen	353.36 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	290.05 gm	Initial Area	6.290 sq in.
Water Weight	63.31 gm	Volume	35.194 cu in.
Tare Weight	42.44 gm	Volume of Solids	cu in.
Wet Specimen	1188.04 gm	Void Ratio	
Dry Specimen	946.13 gm	Saturation	%
Water Content	25.57 %	Dry Density	102.4 lb/cu ft
Specific Gravity of Solids			
LL = 52	PL = 23	PI = 29	

Proving Ring No. 10170

Proving Ring Constant, K = .766 lbs/div.

Elapsed Time min.	Dial Reading 0.001"	Cumulative Change in.	Proving Ring Dial Reading	Axial Load lb	Axial Strain	Area Corr. sq in.	Compr. Stress tsf
.0	0.	.000	.0	.0	.000	6.29	.000
.2	10.	.010	37.0	28.3	.002	6.30	.324
.4	20.	.020	53.0	40.6	.004	6.31	.463
.6	30.	.030	64.0	49.0	.005	6.32	.558
.8	40.	.040	74.0	56.7	.007	6.34	.644
1.0	50.	.050	82.0	62.8	.009	6.35	.713
1.2	60.	.060	89.0	68.2	.011	6.36	.772
1.5	80.	.080	101.0	77.4	.014	6.38	.873
1.9	100.	.100	114.0	87.3	.018	6.40	.982
2.2	120.	.120	124.0	95.0	.021	6.43	1.064
2.6	140.	.140	137.0	104.9	.025	6.45	1.171
2.9	160.	.160	152.0	116.4	.029	6.48	1.295
3.2	180.	.180	167.0	127.9	.032	6.50	1.417
3.6	200.	.200	182.0	139.4	.036	6.52	1.539
3.9	220.	.220	195.0	149.4	.039	6.55	1.643
4.3	240.	.240	206.0	157.8	.043	6.57	1.729
4.6	260.	.260	216.0	165.5	.046	6.60	1.806
4.9	280.	.280	225.0	172.3	.050	6.62	1.874
5.3	300.	.300	233.0	178.5	.054	6.65	1.933
5.6	320.	.320	239.0	183.1	.057	6.67	1.976
5.9	340.	.340	243.0	186.1	.061	6.70	2.001
6.2	360.	.360	246.0	188.4	.064	6.72	2.018
6.5	380.	.380	249.0	190.7	.068	6.75	2.035
6.8	400.	.400	248.0	190.0	.071	6.77	2.019

Failure Sketches



Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	25.6 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	102.4		
Time to failure, min		t_f	6.53		
Unconfined compressive strength, $T/sq\ ft$		q_u	2.03		
Undrained shear strength, $T/sq\ ft$		S_u	1.02		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Reddish brown, Clay, Very stiff, w/silt partings					
LL	52	PL	23	PI	29
Remarks		Project Colorado River Locks Area GIWW at Colorado River, Texas Boring No. 94-135 Sample No. 16 Depth 30-32 ft. Date 10/12/94 El			
UNCONFINED COMPRESSION TEST REPORT					