U.S. ARMY CORPS OF ENGINEERS

BORING NO. 95-133 DATE: BEGIN 6-3-95 PAGE 1 / 1
JOB NO. 94G799-15 COMPLETE 6-3-95 Thin Walled Tube
PROJECT Channel to Victoria ■ 3" □ 6"
LOCATION Disposal Area No 6
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG Ardco K4X4, C-1000, Marsh Buggy
GROUNDWATER: DEPTH 0 ft., ELEV. ____ ft., at end of Drilling
WEATHER Sunny & Hot
DRILLER Scott Gregurek LOGGER Iraj Mostamand

These borings were drilled in the proposed PA. No. 6 which is no longer available

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE / SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	1.25	DK-Gray	Clay	Stiff		-w/roots
		2	1.50	DK-Gray	Clay	Stiff		
5		3	1.50	DK-Gray	Clay	Stiff		
		4	4.5+	Yellowish gray	Clay	Hard		-w/calc nod & Fest
		5	4.5+	Yellowish gray	Clay	Hard		-w/calc nod & Fest
10		6	4.5+	Yellowish gray	Clay	Hard	Silty	-w/ silt Sms
	J	7		Gray	Sand	M. Dens	Silty	
15	X	8	6 8 13	Gray	Sand	M. Dens	Silty	
20	X	9	11 16 23	Brown	Sand	Dense	Silty	
25	X	10	8 13 18	Brown	Sand	Dense	Silty	
	X	11	11 15 23	Brown	Sand	Dense	Silty	
30								J: Jar Sample
35								

GEOTEST ENGINEERING, INC.

Project: Channel to Victoria
Seadrift, Texas
Contract No. DACW64-94-D-0015 Delivery Order No. 0018

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 95-133

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 #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0 - 2	1.25		Clay,w/roots,Stiff,Dark gray	CH	28.4											
2	2 - 4	1.50		Clay,Stiff,Dark gray	CH	29.3	88.8	114.8	62.0	24.0	100.0	99.8	98.4	96.7	90.1		1.26
3	4 - 6	1.50		Clay,Stiff,Dark gray	CH	33.1											
4	6 - 8	4.5+		Clay,w/calcareous nodules & ferrous stains, Hard,Yellowish gray	CH	23.9											
5	8 - 10	4.5+		Clay,w/calcareous nodules & ferrous stains, Hard,Yellowish gray	CH	23.8	101.5	125.6	87.0	32.0	100.0	99.6	94.5	93.0	92.6		4.43
6	10 - 12	4.5+		Silty Clay,w/silt seams,Hard,Yellowish gray	CL	11.5											
7	12 - 14			Silty Sand,Medium dense,Gray	SM												
8	14-15.5		21	Silty Sand,Medium dense,Gray	SM						100.0	100.0	100.0	97.3	36.9		
9	19-20.5		39	Silty Sand,Dense,Brown	SM												
10	24-25.5		31	Silty Sand,Dense,Brown	SM						100.0	100.0	99.8	59.3	17.3		
11	25.5-27		38	Silty Sand,Dense,Brown	SM												

Borings 95-133 through 95-147 were drilled in PA.6 but the proposed area at the intersection of Hwy 35 & FM 185 is no longer available.

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

JOB NO. 94G799-18 DATE 6/24/95

PROJECT Channel to Victoria

AREA Seadrift, Texas

BORING NO. 95-133 SAMPLE NO. 2 DEPTH 2-4 ft

SPECIMEN NO. 1

CLASSIFICATION
Clay,Stiff,Dark gray

Tare No.	SK-15	Height	5.595 in.
Tare plus Wet Specimen	312.88 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	251.82 gm	Initial Area	6.290 sq in.
Water Weight	61.06 gm	Volume	35.194 cu in.
Tare Weight	43.67 gm	Volume of Solids	cu in.
Wet Specimen	1060.78 gm	Void Ratio	
Dry Specimen	820.18 gm	Saturation	%
Water Content	29.33 %	Dry Density	88.8 lb/cu ft
Specific Gravity of Solids			

LL = 62 PL = 24 PI = 38

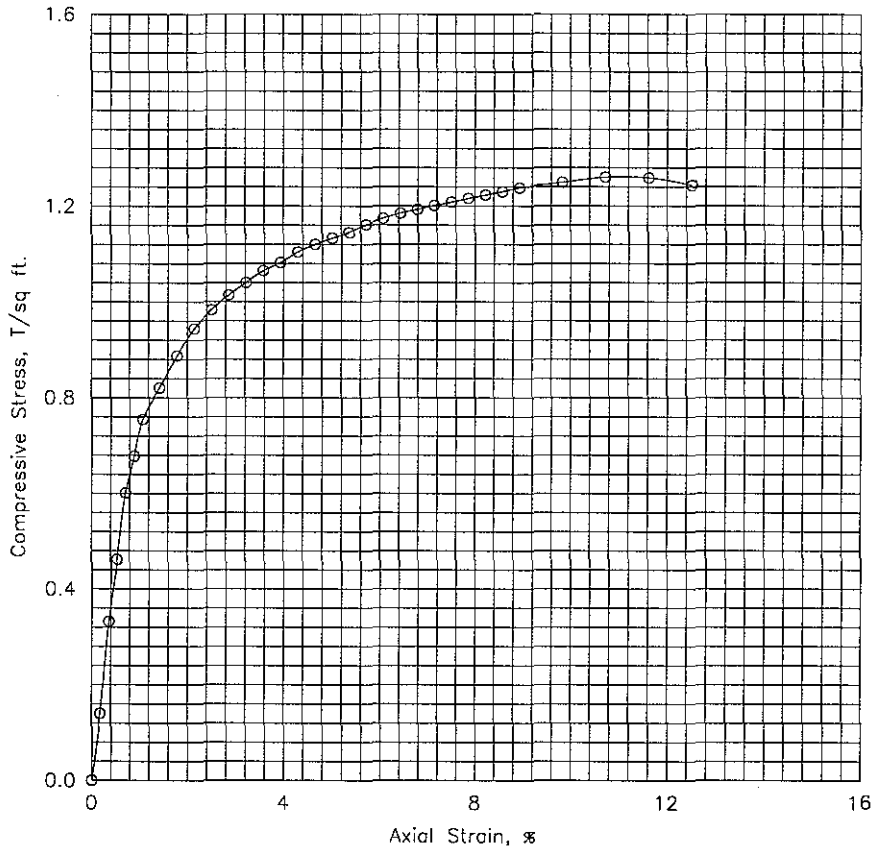
Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

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	16.0	12.3	.002	6.30	.140
.4	20.	.020	38.0	29.1	.004	6.31	.332
.6	30.	.030	53.0	40.6	.005	6.32	.462
.7	40.	.040	69.0	52.9	.007	6.34	.601
.9	50.	.050	78.0	59.7	.009	6.35	.678
1.1	60.	.060	87.0	66.6	.011	6.36	.755
1.4	80.	.080	95.0	72.8	.014	6.38	.821
1.7	100.	.100	103.0	78.9	.018	6.40	.887
2.0	120.	.120	110.0	84.3	.021	6.43	.944
2.4	140.	.140	115.0	88.1	.025	6.45	.983
2.7	160.	.160	119.0	91.2	.029	6.48	1.014
3.0	180.	.180	122.5	93.8	.032	6.50	1.040
3.3	200.	.200	126.0	96.5	.036	6.52	1.065
3.7	220.	.220	128.5	98.4	.039	6.55	1.082
4.0	240.	.240	131.5	100.7	.043	6.57	1.104
4.3	260.	.260	134.0	102.6	.046	6.60	1.120
4.7	280.	.280	136.0	104.2	.050	6.62	1.133
5.0	300.	.300	138.0	105.7	.054	6.65	1.145
5.4	320.	.320	140.5	107.6	.057	6.67	1.161
5.7	340.	.340	142.5	109.2	.061	6.70	1.174
6.0	360.	.360	144.5	110.7	.064	6.72	1.185
6.3	380.	.380	146.0	111.8	.068	6.75	1.193
6.7	400.	.400	147.5	113.0	.071	6.77	1.201
7.0	420.	.420	149.0	114.1	.075	6.80	1.208
7.3	440.	.440	150.5	115.3	.079	6.83	1.216
7.6	460.	.460	152.0	116.4	.082	6.85	1.223

8.0	480.	.480	153.5	117.6	.086	6.88	1.230
8.3	500.	.500	155.0	118.7	.089	6.91	1.238
9.1	550.	.550	158.0	121.0	.098	6.98	1.249
10.0	600.	.600	161.0	123.3	.107	7.05	1.260
10.7	650.	.650	162.5	124.5	.116	7.12	1.259
11.5	700.	.700	162.0	124.1	.125	7.19	1.243

Job No. 94G799-18

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	29.3 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	88.8			
Time to failure, min		t_f	9.97			
Unconfined compressive strength, T/sq ft		q_u	1.26			
Undrained shear strength, T/sq ft		S_u	.63			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Clay,Stiff,Dark gray

LL	62	PL	24	PI	38	G_s	

Remarks

Project Channel to Victoria

Area Seadrift, Texas

Boring No. 95-133 | Sample No. 2

Depth El 2-4 ft | Date 6/24/95

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE

JOB NO. 94G799-18 DATE 6/24/95

PROJECT Channel to Victoria

AREA Seadrift, Texas

BORING NO. 95-133 SAMPLE NO. 5 DEPTH 8-10 ft

SPECIMEN NO. 1

CLASSIFICATION
Clay,w/calcareous nodules&ferrous stains,Hard,Yellowish gray

Tare No.	IB-5	Height	5.595 in.
Tare plus Wet Specimen	304.27 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	254.12 gm	Initial Area	6.290 sq in.
Water Weight	50.15 gm	Volume	35.194 cu in.
Tare Weight	43.05 gm	Volume of Solids	cu in.
Wet Specimen	1160.38 gm	Void Ratio	
Dry Specimen	937.61 gm	Saturation	%
Water Content	23.76 %	Dry Density	101.5 lb/cu ft
Specific Gravity of Solids			

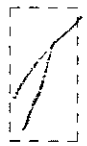
LL = 87 PL = 32 PI = 55

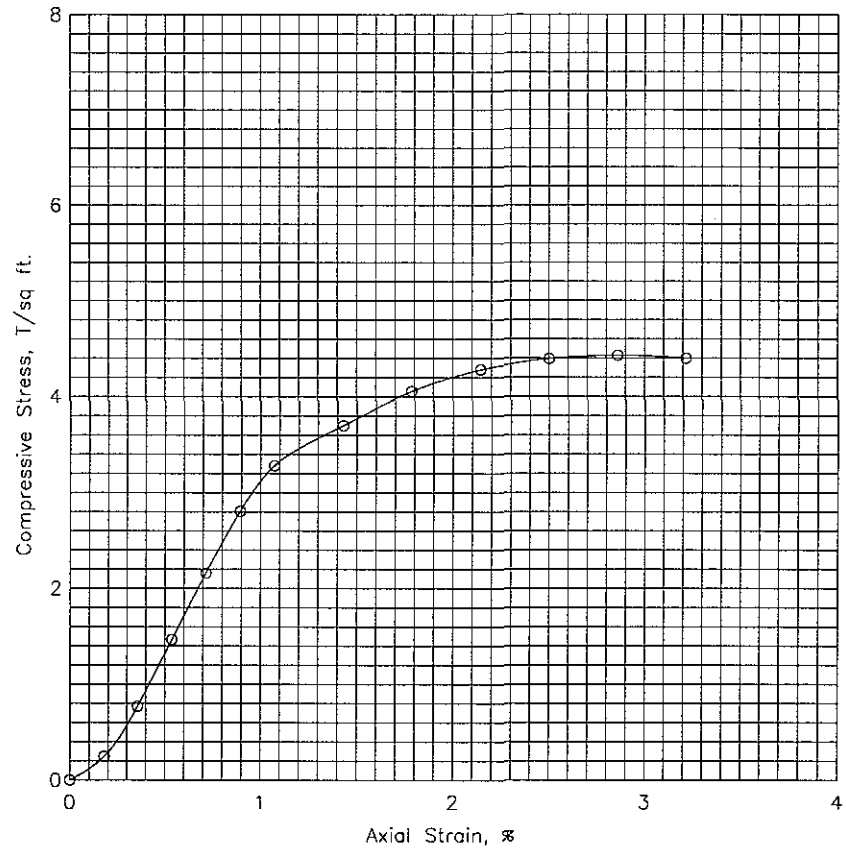
Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

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	28.0	21.4	.002	6.30	.245
.4	20.	.020	88.0	67.4	.004	6.31	.769
.6	30.	.030	168.0	128.7	.005	6.32	1.465
.8	40.	.040	248.0	190.0	.007	6.34	2.159
1.0	50.	.050	323.0	247.4	.009	6.35	2.807
1.1	60.	.060	378.0	289.5	.011	6.36	3.279
1.5	80.	.080	428.0	327.8	.014	6.38	3.699
1.9	100.	.100	471.0	360.8	.018	6.40	4.056
2.2	120.	.120	499.0	382.2	.021	6.43	4.281
2.5	140.	.140	514.0	393.7	.025	6.45	4.394
2.9	160.	.160	520.0	398.3	.029	6.48	4.429
3.3	180.	.180	518.0	396.8	.032	6.50	4.396

Job No. 94G799-18

Failure Sketches





☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial: Water content	w_0	23.8 %	%	%	%
Initial: Void ratio	e_0				
Initial: Saturation	S_0	%	%	%	%
Initial: Dry density, lb/cu ft	γ_d	101.5			
Time to failure, min	t_f	2.90			
Unconfined compressive strength, T/sq ft	q_u	4.43			
Undrained shear strength, T/sq ft	S_u	2.21			
Sensitivity ratio	S_t				
Initial specimen diameter, in.	D_0	2.830			
Initial specimen height, in.	H_0	5.595			

Classification Clay,w/calcareous nodules&ferrous stains,Hard,Yellowish gray

LL	87	PL	32	PI	55	G_s	

Remarks

Project Channel to Victoria

Area Seadrift, Texas

Boring No. 95-133 | Sample No. 5

Depth El 8-10 ft | Date 6/24/95

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE