

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>91-234</u> DATE: BEGIN <u>1-21-92</u> PAGE <u>1 / 1</u> JOB NO. <u>146532</u> COMPLETE <u>1-21-92</u> Thin Walled Tube PROJECT <u>VICTORIA Channel</u> ☒ 3" ☐ 6" LOCATION <u>" " West Bank Sta 596+00</u> ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>W. 200</u> GROUNDWATER: DEPTH <u>Surface</u> ft. ELEV. <u>3</u> ft. at end of Drilling WEATHER <u>Cloudy - Cool - Showers</u> DRILLER <u>S. Ward</u> LOGGER <u>J. Beng.</u>									
0	☒	1	1-12"		GRAY	CLAY	very soft		w/ roots (N.R./B.R.)
1	☒	2	1-10"		TAN	Silt	very soft	CLAY	w/ roots
2		3	.25		GRAY	CLAY	soft	Silt	w/ roots
3		4	.25		"	"	"	"	w/ roots
4	☒	5	W.O.H.		GRAY	Silt	very loose	CLAY	w/ shell frag (N.R./B.R.) Si at 8'
5		6	1.5		TAN	CLAY	stiff		
6		7	3.0		"	"	very stiff		
7		8	3.25		"	"	"		
8		9	2.25		Tan	CLAY	"		w/ shell frag
9		10	2.0		"	"	stiff		w/ "
10	☒	11	3/4/7		Tan	SAND	mod dense		SA at 24'
11		12	3.75		Tan	"	stiff		cl. at 28'
12									
13									
14									
15									
16									
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35									

Re Home of 91-234
 W.O.H. weight of Hammer 30'

JOB NO. 14G536

DATE 3/3/92

PROJECT Channel to Victoria. Victoria, Texas

BORING NO. 91-234

SAMPLE NO. 3

DEPTH 4-6 ft

SPECIMEN NO. 1

CLASSIFICATION

Dark gray, Clay, Very soft, w/organic material

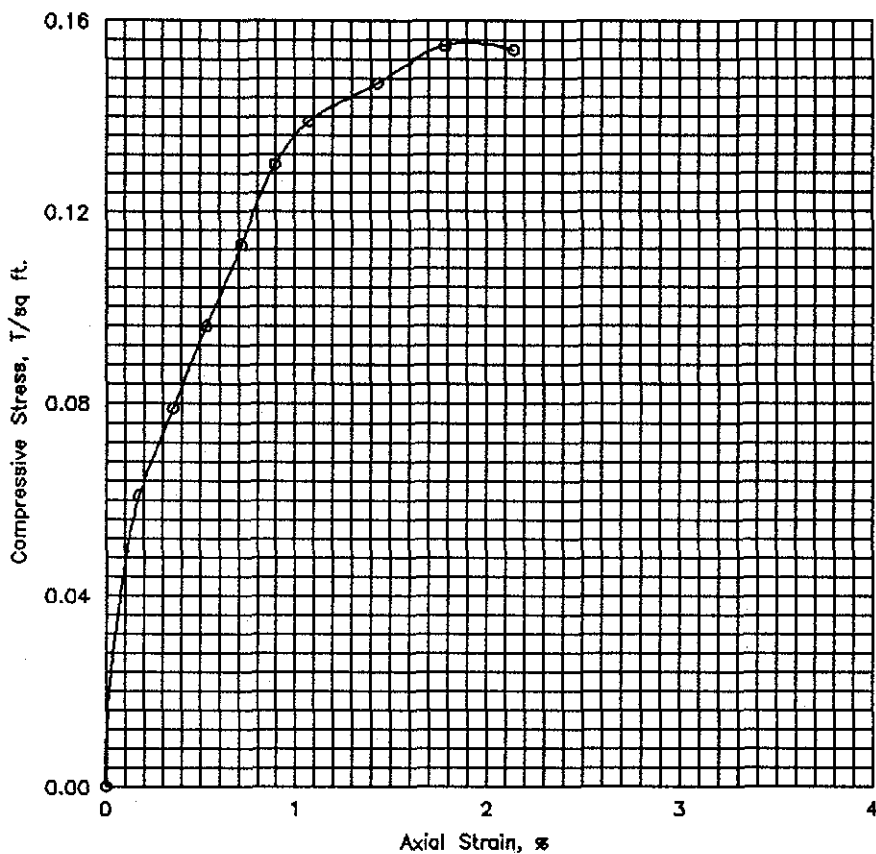
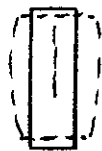
Tare No.	P-2	Height	5.595 in.
Tare plus Wet Specimen	412.35 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	212.59 gm	Initial Area	6.290 sq in.
Water Weight	199.76 gm	Volume	35.194 cu in.
Tare Weight	42.93 gm	Volume of Solids	cu in.
Wet Specimen	813.68 gm	Void Ratio	
Dry Specimen	373.69 gm	Saturation	%
Water Content	117.74 %	Dry Density	40.5 lb/cu ft
Specific Gravity of Solids			
LL = 120	PL = 49	PI = 71	

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	7.0	5.4	.002	6.30	.061
.3	20.	.020	9.0	6.9	.004	6.31	.079
.5	30.	.030	11.0	8.4	.005	6.32	.096
.6	40.	.040	13.0	10.0	.007	6.34	.113
.8	50.	.050	15.0	11.5	.009	6.35	.130
1.0	60.	.060	16.0	12.3	.011	6.36	.139
1.3	80.	.080	17.0	13.0	.014	6.38	.147
1.6	100.	.100	18.0	13.8	.018	6.40	.155
1.9	120.	.120	18.0	13.8	.021	6.43	.154

Failure Sketches



Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	117.7 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	40.5		
Time to failure, min		t_f	1.57		
Unconfined compressive strength, T/sq ft		q_u	.16		
Undrained shear strength, T/sq ft		S_u	.08		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		

Classification Dark gray, Clay, Very soft, w/organic material

LL	120	PL	49	PI	71	G _s
Remarks			Project Channel to Victoria			
			Area Victoria, Texas			
			Boring No. 91-234		Sample No. 3	
			Depth 4-6 ft		Date 3/3/92	
			EI			
UNCONFINED COMPRESSION TEST REPORT						

JOB NO. 14G536

DATE 3/3/92

PROJECT Channel to Victoria. Victoria, Texas

CORING NO. 91-234

SAMPLE NO. 7

DEPTH 16-18 ft

SPECIMEN NO. 1

CLASSIFICATION

Yellowish brown, Clay, Stiff, w/sand pockets

Tare No.	P-10	Height	5.595 in.
Tare plus Wet Specimen	540.09 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	418.15 gm	Initial Area	6.290 sq in.
Water Weight	121.94 gm	Volume	35.194 cu in.
Tare Weight	42.63 gm	Volume of Solids	cu in.
Wet Specimen	1098.45 gm	Void Ratio	
Dry Specimen	829.19 gm	Saturation	%
Water Content	32.47 %	Dry Density	89.8 lb/cu ft
Specific Gravity of Solids			
LL = 78	PL = 26	PI = 52	

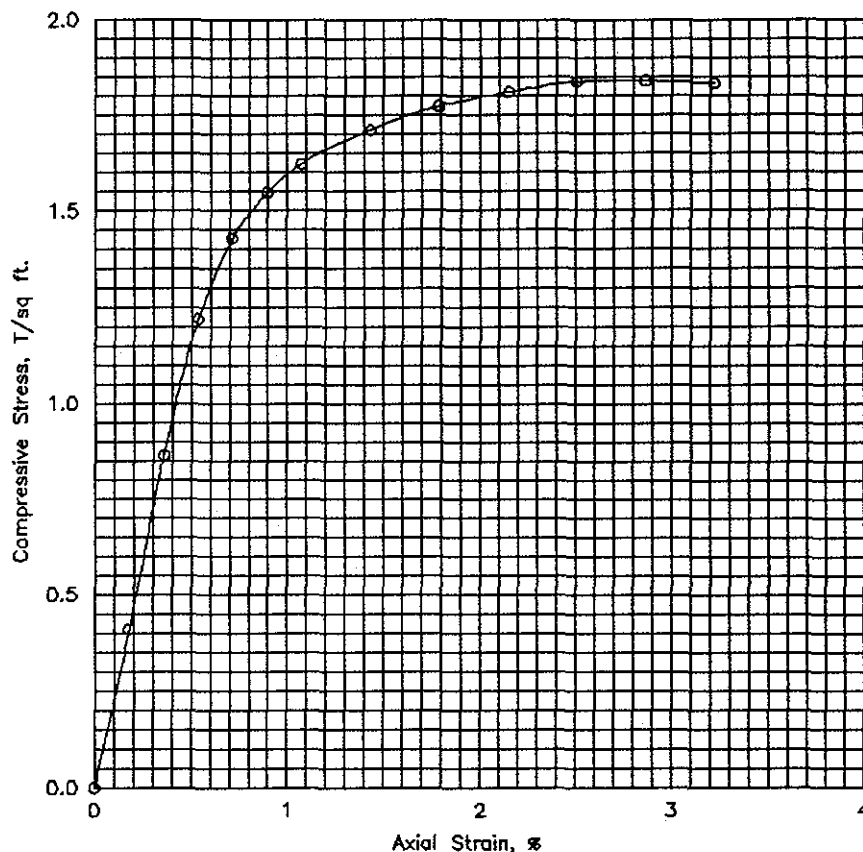
Proving Ring No. 10170

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
.3	10.	.010	47.0	36.0	.002	6.30	.411
.5	20.	.020	99.0	75.8	.004	6.31	.865
.7	30.	.030	140.0	107.2	.005	6.32	1.221
.9	40.	.040	164.0	125.6	.007	6.34	1.428
1.1	50.	.050	178.0	136.3	.009	6.35	1.547
1.3	60.	.060	187.0	143.2	.011	6.36	1.622
1.6	80.	.080	198.0	151.7	.014	6.38	1.711
1.9	100.	.100	206.0	157.8	.018	6.40	1.774
2.3	120.	.120	211.0	161.6	.021	6.43	1.810
2.6	140.	.140	215.0	164.7	.025	6.45	1.838
2.9	160.	.160	216.0	165.5	.029	6.48	1.840
3.2	180.	.180	216.0	165.5	.032	6.50	1.833

Job No. 14G536

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	32.5 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	89.8		
Time to failure, min		t_f	2.90		
Unconfined compressive strength, T/sq ft		q_u	1.84		
Undrained shear strength, T/sq ft		S_u	.92		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		

Classification Yellowish brown, Clay, Stiff, w/sand pockets

LL	78	PL	26	PI	52	G.
Remarks			Project Channel to Victoria			
			Area Victoria, Texas			
			Boring No. 91-234		Sample No. 7	
			Depth 16-18 ft FI		Date 3/3/92	

UNCONFINED COMPRESSION TEST REPORT

Project : Channel to Victoria . Victoria, Texas
 Contract No. DACW64-92-D-0001 Delivery order No. 0006

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-234

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	LL (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0.5-2	0.00	1-12*/1	Gray,Clay,Very soft,Sandy,w/roots	CL	40.3											
2	2.5-4	0.00	1/1-12*	Gray,Clay,Very soft,Sandy,w/shell fragments	CL	31.7											
3	4-6	0.00		Dark gray,Clay,Very soft,w/organic material	OH	117.7	40.5	88.1	120	49	100.0	100.0	99.9	99.8	99.8	0.09	0.16
4	6-8	0.00		Dark gray,Clay,Very soft,w/organic material	OH	119.1										0.08	
5	8.5-10		W.OH	Gray,Sand,Very loose,Silty,w/clay & shell fragments	ML-CL	31.8			24	17							
6	14-16	2.75		Yellowish brown,Clay,Very stiff	CH	36.0											
7	16-18	1.75		Yellowish brown,Clay,Stiff,w/sand pockets	CH	32.5	89.8	118.9	78	26	99.9	99.9	99.1	97.9	97.0		1.84
8	18-20	2.75		Yellowish brown,Clay,Very stiff,w/sand seams	CH	34.7											
9	20-22	2.00		Yellowish brown,Clay,Very stiff,w/shell & shell fragments	CH	30.6											
10	22-24	2.25		Yellowish brown,Clay,Very stiff,w/sand pockets & shell fragments	CH	31.8											
11	24.5-26		11	Yellowish brown,Sand,medium dense,Silty	S M												
12	28-30	3.25		Yellowish brown,Clay,Very stiff,w/ferrous stains, slickensided	CH	30.2											

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

Geotest Engineering, Inc.