

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>91-70</u>	DATE: BEGIN <u>11-26-91</u>	PAGE <u>1 / 1</u>	
					JOB NO. <u>146532</u>	COMPLETE <u>11-26-91</u> Thin Walled Tube		
					PROJECT <u>VICTORIA Channel</u>	☒ 3" ☐ 6"		
					LOCATION <u>" "</u>	<u>Int. Levee - Sta. #870+00</u>		
					ELEVATION OF HOLE <u>" "</u>			
					MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Mayhew - 200</u>			
					GROUNDWATER: DEPTH <u>Surface</u> , ELEV. <u>" "</u> ft., at end of Drilling			
					WEATHER <u>P.C. - Cool - Rain Showers</u>			
					DRILLER <u>S. Ward</u>	LOGGER <u>J. Berg</u>		
					COLOR	MATERIAL TYPE	CONSISTENCY	
							SECONDARY CONSTITUENTS	
							STRUCTURAL FEATURES AND COMMENTS	
0		1	0.5		GRAY	CLAY	Medium stiff	w/roots
		2	0.75		"	"	"	w/roots
5		3	1.5		GRAY TAN	"	"	
JAR		X 4	1 1/2		TAN	SAND	Loose	SA. AT 6'
10								
JAR		X 5	3 1/2		GRAY	"	Loose	
15								
JAR		X 6	1 1/3		TAN + GRAY	SAND	"	w/Gravel
20								
JAR		X 7	4.5		GRAY TAN	CLAY	HARD	SA. CL. AT 20' w/calc. Nods.
25		X 8	9 1/4		TAN	SAND	DENSE	SA. AT 22"
JAR		X 9	5 1/2		TAN	SAND	VERY DENSE	
30		X 10	13 1/2		TAN	SAND	"	w/cl. LAYERS
								Bottom of 91-70
35								30'

JOB NO. 14G536

DATE 2/26/92

PROJECT Channel to Victoria. Victoria, Texas

CORING NO. 91-70

SAMPLE NO. 2

DEPTH 2-4 ft

SPECIMEN NO. 1

CLASSIFICATION

Dark Gray, Clay, Soft, w/sand seams

Tare No.	P-202	Height	5.595 in.
Tare plus Wet Specimen	335.62 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	243.40 gm	Initial Area	6.290 sq in.
Water Weight	92.22 gm	Volume	35.194 cu in.
Tare Weight	42.46 gm	Volume of Solids	cu in.
Wet Specimen	1004.21 gm	Void Ratio	
Dry Specimen	688.31 gm	Saturation	%
Water Content	45.89 %	Dry Density	74.5 lb/cu ft
Specific Gravity of Solids			
LL = 84	PL = 30	PI = 54	

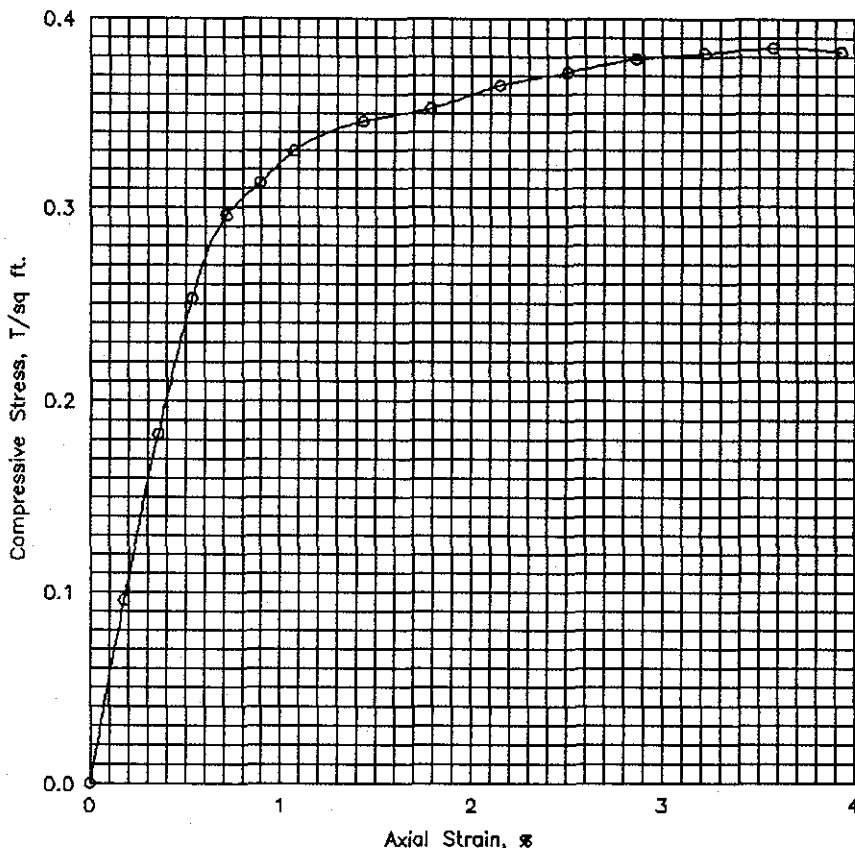
Proving Ring No. 10170

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	11.0	8.4	.002	6.30	.096
.3	20.	.020	21.0	16.1	.004	6.31	.183
.5	30.	.030	29.0	22.2	.005	6.32	.253
.7	40.	.040	34.0	26.0	.007	6.34	.296
.8	50.	.050	36.0	27.6	.009	6.35	.313
1.0	60.	.060	38.0	29.1	.011	6.36	.330
1.3	80.	.080	40.0	30.6	.014	6.38	.346
1.6	100.	.100	41.0	31.4	.018	6.40	.353
2.0	120.	.120	42.5	32.6	.021	6.43	.365
2.3	140.	.140	43.5	33.3	.025	6.45	.372
2.7	160.	.160	44.5	34.1	.029	6.48	.379
2.9	180.	.180	45.0	34.5	.032	6.50	.382
3.3	200.	.200	45.5	34.9	.036	6.52	.385
3.6	220.	.220	45.5	34.9	.039	6.55	.383

Job No. 14G536

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	45.9 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	74.5		
Time to failure, min		t_f	3.27		
Unconfined compressive strength, T/sq ft		q_u	.38		
Undrained shear strength, T/sq ft		S_u	.19		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Dark Gray, Clay, Medium stiff					
LL	84	PL	30	PI	54
				G_o	
Remarks			Project Channel to Victoria		
			Area Victoria, Texas		
			Boring No. 91-70	Sample No. 2	
			Depth 2-4 ft	Date 2/26/92	
			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. 91-70

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 (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0-2	0.25		Gray & dark gray,Clay,Soft,w/roots	CH	46.4										0.12	
2	2-4	0.25		Dark gray,Clay,Soft,w/sand seams	CH	45.9	74.5	108.7	84	30	100.0	100.0	99.7	94.1	93.3	0.12	0.38
3	4-6	0.25		Dark gray,Clay,Soft	CH	46.6										0.12	
4	6.5-8		4	Gray,Sand,Loose,Silty	S M												
5	11.5-13		4	Gray,Sand,Loose,Silty	S M												
6	16.5-18		4	Gray,Sand,Loose,Silty	S M												
7	20-22	3.75		Olive gray,Clay,Very stiff,Sandy,w/calcareous nodules	CL	19.5											
8	22.5-24		34	Gray,Sand,Dense,Silty	S M												
9	24.5-26		50/6"	Gray,Sand,Very dense,Silty	S M												
10	28.5-30		52	Gray,Sand,Very dense,Silty	S M												

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.