

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>91-220</u> DATE: BEGIN <u>11-27-91</u> PAGE <u>1/1</u> JOB NO. <u>146532</u> COMPLETE <u>12-3-91</u> Thin Walled Tube PROJECT <u>Victoria Channel</u> ☒ 3" ☐ 6" LOCATION <u>West Bank - STA 810+00</u> ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Mayhew 200</u> GROUNDWATER: DEPTH <u>2.4'</u> ft., ELEV. _____ ft., at end of Drilling WEATHER <u>P.C. - cool - windy</u> DRILLER <u>S. Ward</u> LOGGER <u>J. Berg</u>									
0		1	.75		GRAY	CLAY	Medium stiff		w/roots
		2	1.0		"	"	stiff		w/SA. Sms
5		3	.5		"	"	Medium stiff	SAND	
	JAR	4	1 1/2		"	SAND	Loose	CLAY	SA. at 6'
10		5	.25		"	CLAY	soft	SAND	Cl at 10'
	JAR	6	W.O.H		"	SOFT	VERY Loose	CLAY	w/shell frag
15		7	1 1/1		"	"	"	"	w/ " "
20	JAR								(All above samples Turned in to Lab 11-29-91)
25									
30									Bottom of 91-220 30'
35									

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BORING NO. 91-220 DATE: BEGIN 11-27-91 PAGE 1 / 1
 JOB NO. 146532 COMPLETE 12-3-91 Thin Walled Tube
 PROJECT VICTORIA CHANNEL ☒ 3" ☐ 6"
 LOCATION " " West Bank - STA. #810+00
 ELEVATION OF HOLE _____
 MANUFACTURER'S DESIGNATION OF DRILL RIG Mayhew 200
 GROUNDWATER: DEPTH 2'4" ft., ELEV. _____ ft., at end of Drilling
 WEATHER Clear-Cool-Windy
 DRILLER S. Ward LOGGER J. Berg

COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
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0						0'-19' Turned IN to LAB-11-27-91 0' 
5						
10						
15						
19	X	(0'-19' Turned IN to LAB-11-27-91)	19'			
25	X 8" w/4	Gray Silt	Very loose	clay	w/Shell Frag.	
30	X 9 1/2"	"	loose		w/Shell Frag.	
35						

E.T. on Q5 91-220
 30'

JOB NO. 14G536

DATE 2/26/92

PROJECT Channel to Victoria. Victoria, Texas

BORING NO. 91-220

SAMPLE NO. 2

DEPTH 2-4 ft

SPECIMEN NO. 1

CLASSIFICATION

Gray & Dark Gray, Clay, Medium stiff, w/sand pockets

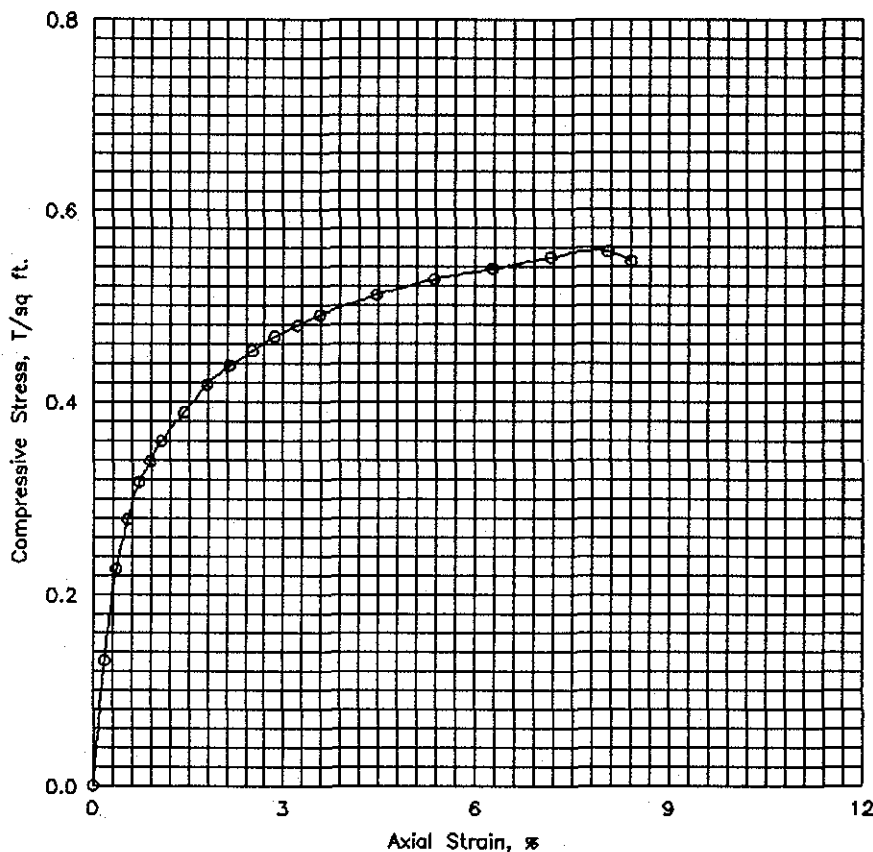
Tare No.	P-226	Height	5.595 in.
Tare plus Wet Specimen	502.98 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	397.72 gm	Initial Area	6.290 sq in.
Water Weight	105.26 gm	Volume	35.194 cu in.
Tare Weight	42.86 gm	Volume of Solids	cu in.
Wet Specimen	1096.81 gm	Void Ratio	
Dry Specimen	845.90 gm	Saturation	%
Water Content	29.66 %	Dry Density	91.6 lb/cu ft
Specific Gravity of Solids			
LL = 68	PL = 29	PI = 39	

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	15.0	11.5	.002	6.30	.131
.4	20.	.020	26.0	19.9	.004	6.31	.227
.5	30.	.030	32.0	24.5	.005	6.32	.279
.7	40.	.040	36.5	28.0	.007	6.34	.318
.9	50.	.050	39.0	29.9	.009	6.35	.339
1.1	60.	.060	41.5	31.8	.011	6.36	.360
1.4	80.	.080	45.0	34.5	.014	6.38	.389
1.8	100.	.100	48.5	37.2	.018	6.40	.418
2.0	120.	.120	51.0	39.1	.021	6.43	.438
2.4	140.	.140	53.0	40.6	.025	6.45	.453
2.7	160.	.160	55.0	42.1	.029	6.48	.468
3.0	180.	.180	56.5	43.3	.032	6.50	.479
3.3	200.	.200	58.0	44.4	.036	6.52	.490
4.2	250.	.250	61.0	46.7	.045	6.58	.511
4.9	300.	.300	63.5	48.6	.054	6.65	.527
5.8	350.	.350	65.5	50.2	.063	6.71	.538
6.6	400.	.400	67.5	51.7	.071	6.77	.550
7.4	450.	.450	69.0	52.9	.080	6.84	.556
7.7	470.	.470	68.0	52.1	.084	6.87	.546

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	91.6		
Time to failure, min		t_f	7.38		
Unconfined compressive strength, T/sq ft		q_u	.56		
Undrained shear strength, T/sq ft		S_u	.28		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Gray & Dark Gray, Clay, Medium stiff, w/sand pockets					
LL	68	PL	29	PI	39
				G_s	
Remarks		Project Channel to Victoria			
		Area Victoria, Texas			
		Boring No. 91-220		Sample No. 2	
		Depth 2-4 ft		Date 2/26/92	
		EI			
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. 91-220

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	0-2	1.00		Gray, Clay, Stiff	CH	37.0										0.50	
2	2-4	0.50		Gray & dark gray, Clay, Medium stiff, w/sand pockets	CH	29.7	91.6	118.8	68	29	100.0	100.0	99.7	98.9	96.1	0.25	0.56
3	4-6	0.50		Gray & yellowish gray, Clay, Medium stiff, Sandy	CL	26.8										0.25	
4	6.5-8		4	Gray & yellowish gray, Sand, Loose, Silty	S M												
5	10-12	0.25		Gray, Clay, Soft, Sandy, w/shell fragments	CL	29.7											
6	12.5-14		W.O.H	Gray, Sand, Very loose, Silty, w/shell fragments	S M	27.1			NP	NP	99.7*	98.3*	93.9	62.9	36.0		
7	17.5-19		2	Gray, Sand, Very loose, Silty, w/shell fragments	S M	31.7											
8	22.5-24		W.O.H	Gray, Sand, Very loose, Silty, w/shell fragments	S M	23.6			NP	NP	85.6*	73.8*	69.3	39.6	31.6		
9	28.5-30		4	Gray, Sand, Loose, Silty, w/shell fragments	S M	27.1											

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

*:Material retained are shell fragments

Geotest Engineering, Inc.