

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>91-284</u> DATE: BEGIN <u>12-30-91</u> PAGE <u>1/1</u>			JOB NO. <u>176 S31</u> COMPLETE <u>12-30-91</u> Thin Walled Tube	
					PROJECT <u>G-IWW</u>		☒ 3" ☐ 6"		
					LOCATION <u>Sargeant Beach Sta 148+50</u>				
					ELEVATION OF HOLE				
					MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Failing CFP2</u>				
					GROUNDWATER: DEPTH <u>1</u> ft., ELEV. _____ ft., at end of Drilling				
					WEATHER <u>cool Cloudy</u>				
					DRILLER <u>D. Geary</u>		LOGGER <u>D. Crowell</u>		
		COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS			
0									
1	0.25	Tan	Clay	soft	Silt	w/roots			
2	0.50	Gray	Clay	Medium stiff	Silt	w/roots Tan			
5	0.00	Gray	Clay	Very soft	Silt	Tan			
4	0.25	Tan	Clay	soft	Silt	Gray			
10	0.75	Tan	Clay	Medium stiff	Silt	Gray			
6	0.50	Tan	Clay	"	Silt	Gray			
7	1.0	Tan	Clay	stiff	Silt	Gray			
15	1.5	Tan	Clay	stiff	Silt	Gray			
7	0.25	Tan	Silt	loose	clay				
20	0.25	Tan	Clay	soft	Silt	Gray			
11	0.25	Tan	Clay	"	Silt	Gray			
12	0.25	Tan	Clay	"	Silt	Gray			
25	0.50	Tan	Clay	"	Silt	Gray			
						Bottom of 91-284 @ 26'			
30									
35									

Project : Gulf Intracoastal Waterway, near Sargent Beach, Texas
 Contract No. DACW64-92-D-0001 Delivery No. 0005

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 91-284

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	USC	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	0.75		Brown, Clay, Medium stiff, w/shell fragments and roots	CH	39.4										0.35	
2	2-4	1.25		Gray & yellowish brown, Clay, Stiff, w/silt pockets	CH	30.9	90.6	118.6	50		100.0	100.0	100.0	98.5	92.8	0.60	
3	4-6	0.50		Dark gray, Clay, Medium stiff	CH	42.8										0.25	
4	6-8	0.25 0.75		Tan & gray, Clay, Soft, Silty <i>SWD</i>	CL CH	37.4	84		62	21					98		
5	8-10	1.25		Brown, Clay, Stiff, w/silt pockets	CH	34.6										0.60	
6	10-12	1.00		Brown & gray, Clay, Stiff, w/ferrous stains	CH	43.0										0.45	
7	12-14	1.25		Brown, Clay, Stiff, w/ferrous stains	CH	40.0	79.9	111.9	85								
8	14-16	1.75		Brown, Clay, Stiff, w/ferrous stains, slickensided	CH	41.5											
9	16-18	0.75		Brown, Clay, Medium stiff, w/silt pockets and ferrous stains	CH	31.8			74	26						0.35	
10	18-20	1.00		Brown, Clay, Stiff, w/silt seams and ferrous stains	CH	40.5										0.45	
11	20-22	0.25 0.75		Tan & gray, Clay, Soft, Silty <i>Med Silty SWD</i>	CL CH	47.2	75		73	23					100		
12	22-24	0.50		Brown, Clay, Medium stiff, w/shell fragments	CH	44.2	78.2	112.7	56	24	100.0	100.0	99.9	99.7	98.8	0.25	0.43
13	24-26	0.75		Brown, Clay, Medium stiff, w/ferrous stains	CH	41.0										0.35	

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

JOB NO. 14G533

DATE 1/28/92

PROJECT Gulf Intracoastal Waterway near Sargent Beach, Texas

BORING NO. 91-284

SAMPLE NO. 12

DEPTH 22-24 ft

SPECIMEN NO. 1

CLASSIFICATION

Brown, Clay, Medium stiff, w/shell fragments

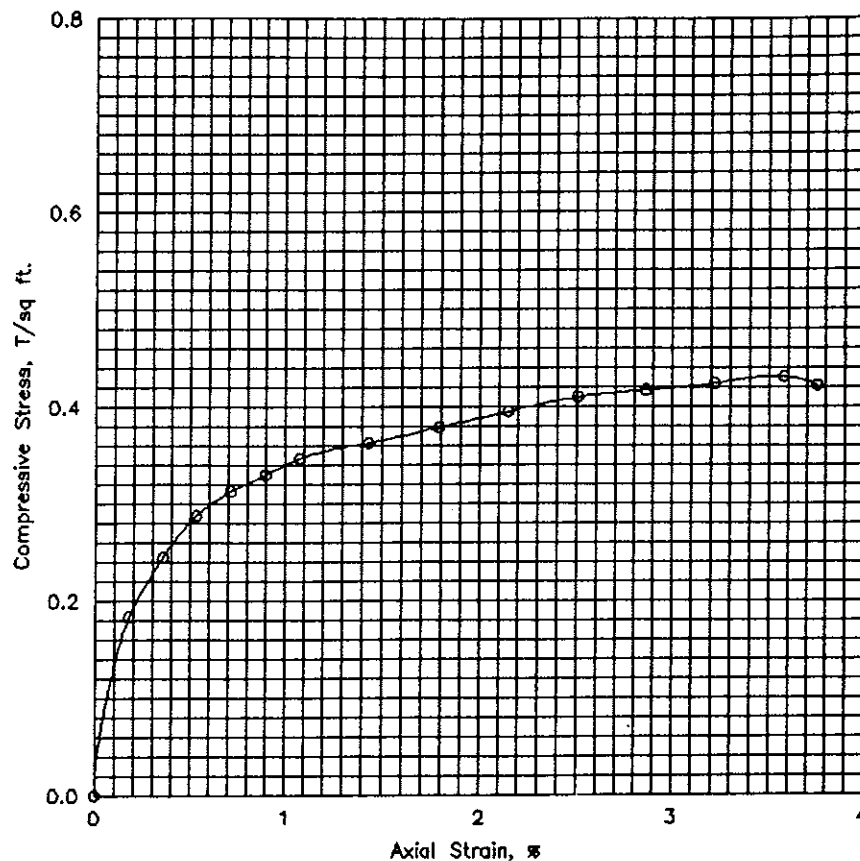
Tare No.	P-19	Height	5.595 in.
Tare plus Wet Specimen	493.43 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	355.37 gm	Initial Area	6.290 sq in.
Water Weight	138.06 gm	Volume	35.194 cu in.
Tare Weight	42.68 gm	Volume of Solids	cu in.
Wet Specimen	1040.89 gm	Void Ratio	
Dry Specimen	722.08 gm	Saturation	%
Water Content	44.15 %	Dry Density	78.2 lb/cu ft
Specific Gravity of Solids			
LL = 56	PL = 24	PI = 32	

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	21.0	16.1	.002	6.30	.184
.4	20.	.020	28.0	21.4	.004	6.31	.245
.6	30.	.030	33.0	25.3	.005	6.32	.288
.7	40.	.040	36.0	27.6	.007	6.34	.313
.9	50.	.050	38.0	29.1	.009	6.35	.330
1.1	60.	.060	40.0	30.6	.011	6.36	.347
1.4	80.	.080	42.0	32.2	.014	6.38	.363
1.7	100.	.100	44.0	33.7	.018	6.40	.379
2.0	120.	.120	46.0	35.2	.021	6.43	.395
2.3	140.	.140	48.0	36.8	.025	6.45	.410
2.7	160.	.160	49.0	37.5	.029	6.48	.417
3.0	180.	.180	50.0	38.3	.032	6.50	.424
3.3	200.	.200	51.0	39.1	.036	6.52	.431
3.5	210.	.210	50.0	38.3	.038	6.54	.422

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	44.2 %		
	Void ratio	e_0			
	Saturation	S_0			
	Dry density, lb/cu ft	γ_d	78.2		
Time to failure, min		t_f	3.30		
Unconfined compressive strength, T/sq ft		q_u	.43		
Undrained shear strength, T/sq ft		S_u	.22		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Brown, Clay, Medium stiff, w/shell fragments					
LL	56	PL	24	PI	32
Remarks		Project Gulf Intracoastal Waterway Area Near Sargent Beach, Texas Boring No. 91-284 Sample No. 12 Depth 22-24 ft Date 1/28/92 EI			
UNCONFINED COMPRESSION TEST REPORT					