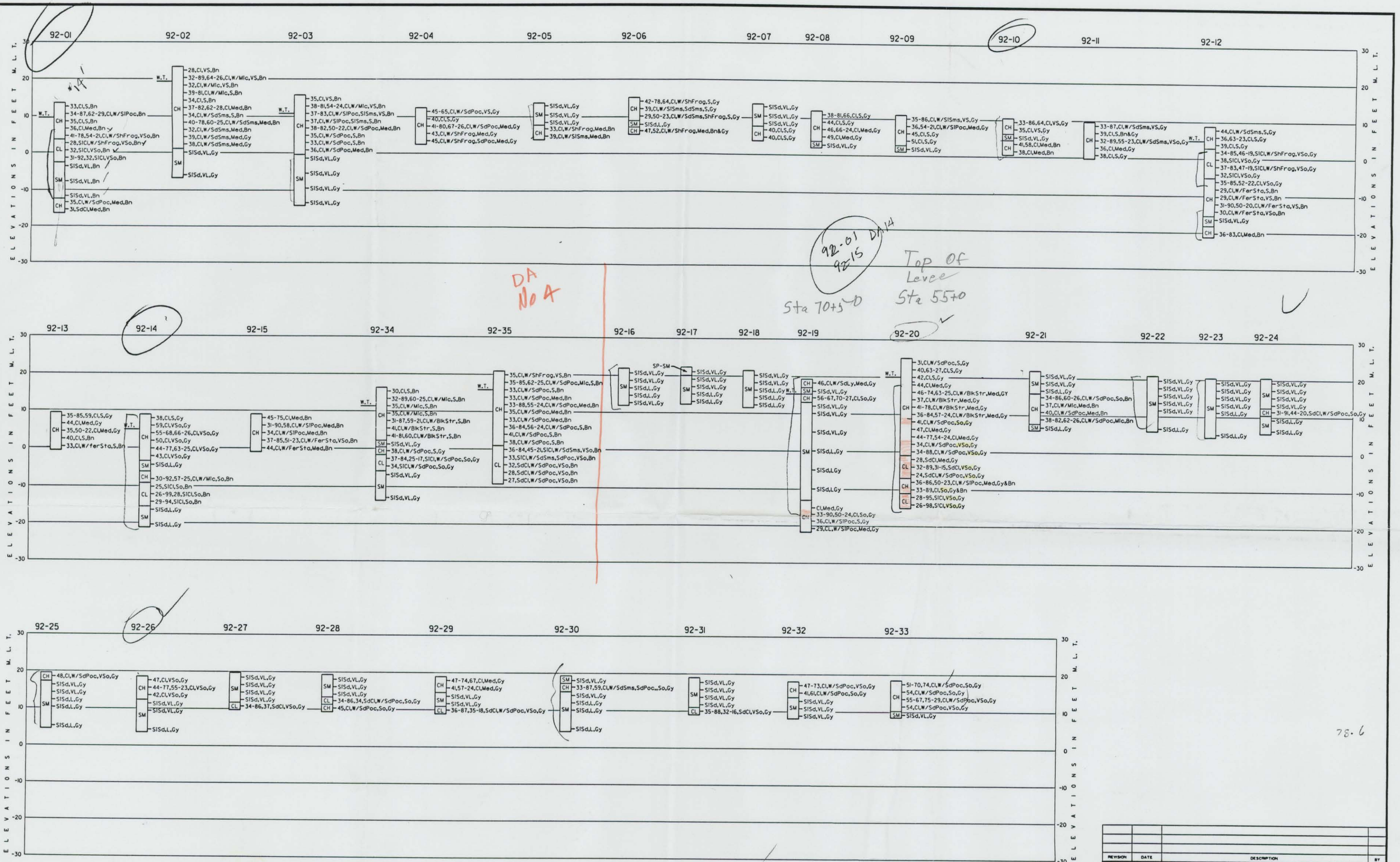




NOTE: SEE DRAWING NUMBER F-6 FOR SOILS NOTES.

REVISION		DATE	DESCRIPTION	BY
OFFICE OF THE DISTRICT ENGINEER U.S. ARMY ENGINEER DISTRICT, GALVESTON CORPS OF ENGINEERS GALVESTON, TEXAS				
DRAWN BY: P.B.S.		Brazos Island Harbor, Texas Brownsville Channel Dredging Inshore Reach No. 1 DISPOSAL AREAS Nos. 2 & 4 BORING LOGS		
CHECKED BY: J.T.F.		DATE: MAY 1992		
SUBMITTED BY: [Signature]		APPROVED BY: [Signature]		
Prepared under the direction of Brink P. Miller, Col., C.E., District Engineer		SCALE: AS SHOWN SPEC. DATE: DRAWING NUMBER F-7 SHEET 14 OF 17 FILE NO. RID 901-240		

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO.	DATE: BEGIN	PAGE	JOB NO.	COMPLETE	Thin Walled Tube
					92-03	3-22-92	1 / 1	146535	3-22-92	☒ 3" ☐ 6"
					PROJECT <u>Brownsville Digg. Area #4</u>					
					LOCATION <u>Ship Channel</u>					
					ELEVATION OF HOLE _____					
					MANUFACTURER'S DESIGNATION OF DRILL RIG <u>ARDLO-C-1000</u>					
					GROUNDWATER: DEPTH <u>5</u> ft., ELEV. _____ ft., at end of Drilling					
					WEATHER <u>P.C. - Warm - Windy</u>					
					DRILLER <u>D. Mitchell</u> LOGGER <u>J. Berg</u>					
COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS						
0	1.0 TAN	clay	stiff							
	2.5 "	"	Med. stiff							
5	3.0 "	"	stiff							
	4.25 "	"	soft							
	5.25 <u>Gray TAN</u>	Clay	soft							
10	6.25 "	"	"							
	7.25 <u>Gray</u>	"	stiff	Sand						
15	8.25 "	"	soft	Sand						
	9.25 <u>Gray</u>	Sand	very loose	S. at 16'						
20	10.25 <u>Gray</u>	"	"	Silt						
	11.25 <u>Gray</u>	"	very loose	"						
25	12.25 <u>Gray</u>	Silt	very loose	Clay	w/ shell frag					
30	Bottom of 92-03 30'									

Project : Disposal Areas Nos.2 and 4 for Brownsville Ship Channel
Brownsville, Texas
Contract No. DACW64-92-D-0001 Delivery order No. 0008

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 92-03

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	2.50		Brown,Clay,Very stiff	CH	34.5											
2	2-4	2.00		Brown,Clay,Very stiff,w/mica	CH	37.5	81.3	111.8	54	24							
3	4-6	2.25		Brown,Clay,Very stiff,w/silt pockets & silt seams	CH	36.7	83.2	113.6									
4	6-8	1.25		Brown,Clay,Stiff,w/silt pockets & silt seams	CH	37.3											
5	8-10	0.50		Brown,Clay,Medium stiff,w/sand pockets	CH	37.6	81.9	112.7	50	22	99.9	99.3	98.5	94.0	91.7	0.25	0.48
6	10-12	1.50		Brown,Clay,Stiff,w/sand pockets	CH	35.4											
7	12-14	1.25		Brown,Clay,Stiff,w/sand pockets	CH	33.2											
8	14-16	0.50		Brown,Clay,Medium stiff,w/sand pockets	CH	36.4											
9	16.5-18		2	Gray,Sand,Very loose,Silty	S M						100.0	100.0	100.0	81.3	46.7		
10	20.5-22		3	Gray,Sand,Very loose,Silty	S M												
11	24.5-26		2	Gray,Sand,Very loose,Silty	S M												
12	28.5-30		2	Gray,Sand,Very loose,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.

JOB NO. 14G538

DATE 4/4/92

PROJECT Disposal Areas Nos.2 and 4 for Brownsvill Ship Channel,Brown

BORING NO. 92-03

SAMPLE NO. 5

DEPTH 8-10 ft

SPECIMEN NO. 1

CLASSIFICATION

Brown,Clay,Medium stiff,w/sand pockets

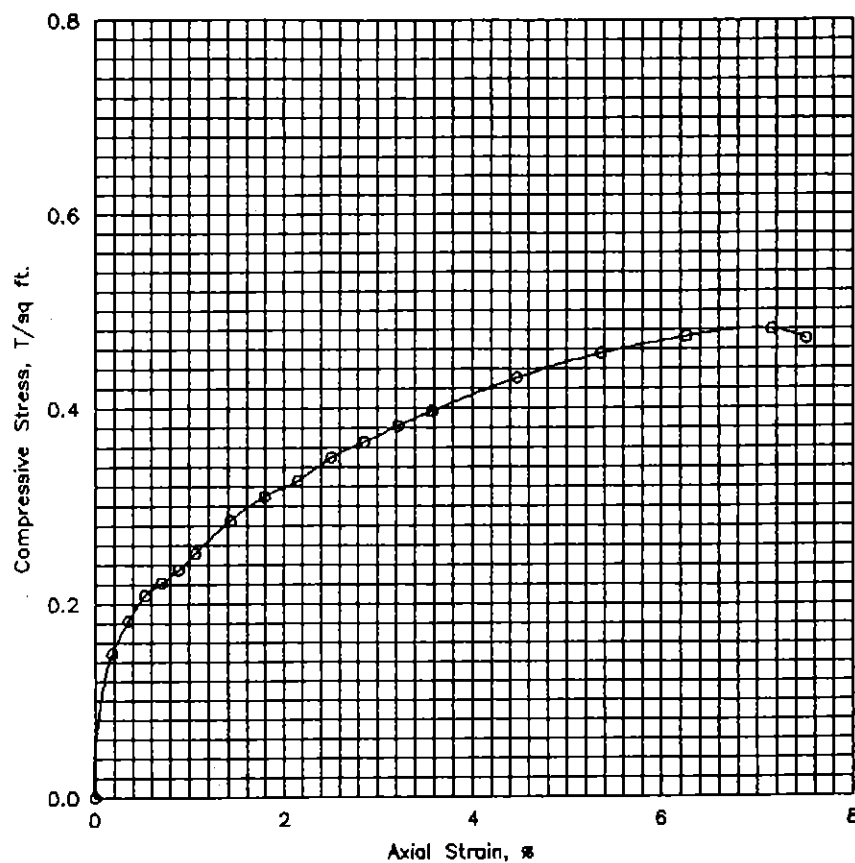
Tare No.	P-1	Height	5.595 in.
Tare plus Wet Specimen	596.23 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	444.96 gm	Initial Area	6.290 sq in.
Water Weight	151.27 gm	Volume	35.194 cu in.
Tare Weight	42.99 gm	Volume of Solids	cu in.
Wet Specimen	1041.77 gm	Void Ratio	
Dry Specimen	756.92 gm	Saturation	%
Water Content	37.63 %	Dry Density	81.9 lb/cu ft
Specific Gravity of Solids			
LL = 50	PL = 22	PI = 28	

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	17.0	13.0	.002	6.30	.149
.4	20.	.020	21.0	16.1	.004	6.31	.183
.5	30.	.030	24.0	18.4	.005	6.32	.209
.7	40.	.040	25.5	19.5	.007	6.34	.222
.8	50.	.050	27.0	20.7	.009	6.35	.235
1.0	60.	.060	29.0	22.2	.011	6.36	.252
1.3	80.	.080	33.0	25.3	.014	6.38	.285
1.7	100.	.100	36.0	27.6	.018	6.40	.310
2.0	120.	.120	38.0	29.1	.021	6.43	.326
2.3	140.	.140	41.0	31.4	.025	6.45	.350
2.6	160.	.160	43.0	32.9	.029	6.48	.366
3.0	180.	.180	45.0	34.5	.032	6.50	.382
3.3	200.	.200	47.0	36.0	.036	6.52	.397
4.1	250.	.250	51.5	39.4	.045	6.58	.431
4.8	300.	.300	55.0	42.1	.054	6.65	.456
5.7	350.	.350	57.5	44.0	.063	6.71	.473
6.5	400.	.400	59.0	45.2	.071	6.77	.480
6.8	420.	.420	58.0	44.4	.075	6.80	.470

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	37.6 %		
	Void ratio	e_0			
	Saturation	S_0	%		
	Dry density, lb/cu ft	γ_d	81.9		
Time to failure, min		t_f	6.52		
Unconfined compressive strength, T/sq ft		q_u	.48		
Undrained shear strength, T/sq ft		S_u	.24		
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/sand pockets					
LL	50	PL	22	PI	28
				G_o	
Remarks		Project Disposal Areas Nos. 2 and 4 for Brownsville			
		Area Ship Channel, Brownsville, Texas			
		Boring No. 92-03		Sample No. 5	
		Depth 8-10 ft		Date 4/4/92	
		UNCONFINED COMPRESSION TEST REPORT			