

SUMMARY OF QUESTIONABLE
ERRONEOUS OR MISSING DATA
FOR

CONTRACT NO. DACW64-94-C-0040

PROJECT: SOILS TESTING, HOUSTON-GALVESTON NAVIGATION CHANNEL

BORING NO.	SAMPLE NO.	COMMENTS ON DRILLING RESULTS
93-101	2	Test order on sample 4 performed on sample 2
93-103	5	Unconfined results given as 28 on lab summary, 27 given on test report
93-105	2	footnote(*) states that material retained are shell fragments, classification does not include this description
93-112	7	footnote(*) states that material retained are shell fragments, classification does not include this description
93-113	5	Mech Ana does not suggest SP-SM, amount passing not between 5-12
93-115	5	footnote(*) states that material retained are shell fragments, classification does not include this description
93-117	13	Blow counts indicate med dense instead of loose

(corrected on my copies)

JJA 2/17/95
JB 3/13/95

JOB NO. 94G783-4

DATE 9/1/94

PROJECT Houston-Galveston Navigation
Channel

AREA Houston, Texas

BORING NO. 93-101

SAMPLE NO. 2

DEPTH 2-4 ft

SPECIMEN NO. 1

CLASSIFICATION

Brown & Gray, Clay, Medium stiff, w/ shell fragments and gravel

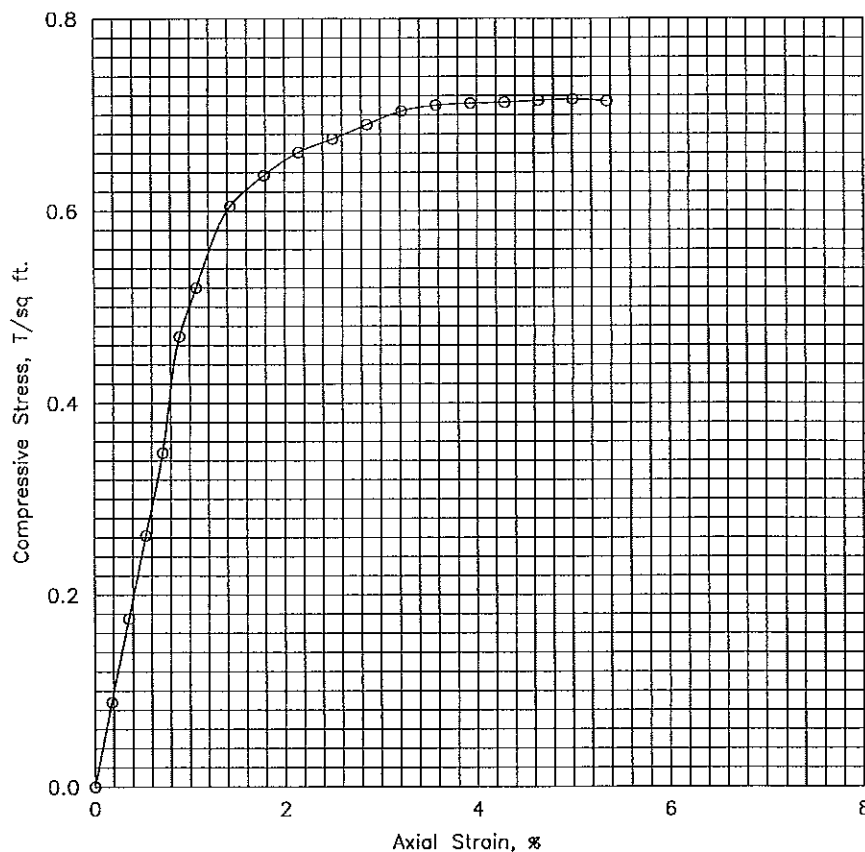
Tare No.	17F	Height	5.595 in.
Tare plus Wet Specimen	103.37 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	85.23 gm	Initial Area	6.290 sq in.
Water Weight	18.14 gm	Volume	35.194 cu in.
Tare Weight	31.86 gm	Volume of Solids	cu in.
Wet Specimen	1094.04 gm	Void Ratio	
Dry Specimen	816.51 gm	Saturation	%
Water Content	33.99 %	Dry Density	88.4 lb/cu ft
Specific Gravity of Solids			
LL = 61	PL = 25	PI = 36	

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	10.0	7.7	.002	6.30	.088
.4	20.	.020	20.0	15.3	.004	6.31	.175
.8	30.	.030	30.0	23.0	.005	6.32	.262
.9	40.	.040	40.0	30.6	.007	6.34	.348
1.1	50.	.050	54.0	41.4	.009	6.35	.469
1.2	60.	.060	60.0	46.0	.011	6.36	.520
1.5	80.	.080	70.0	53.6	.014	6.38	.605
2.0	100.	.100	74.0	56.7	.018	6.40	.637
2.5	120.	.120	77.0	59.0	.021	6.43	.661
2.7	140.	.140	79.0	60.5	.025	6.45	.675
2.9	160.	.160	81.0	62.0	.029	6.48	.690
3.2	180.	.180	83.0	63.6	.032	6.50	.704
3.5	200.	.200	84.0	64.3	.036	6.52	.710
3.8	220.	.220	84.5	64.7	.039	6.55	.712
4.1	240.	.240	85.0	65.1	.043	6.57	.713
4.5	260.	.260	85.5	65.5	.046	6.60	.715
4.8	280.	.280	86.0	65.9	.050	6.62	.716
5.3	300.	.300	86.0	65.9	.054	6.65	.714

Failure Sketches



□ Controlled stress
 ⊗ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	34.0 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	88.4		
Time to failure, min		t_f	4.83		
Unconfined compressive strength, T/sq ft		q_u	.72		
Undrained shear strength, T/sq ft		S_u	.36		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.830		
Initial specimen height, in.		H_0	5.595		
Classification Brown & Gray, Clay, Medium stiff, w/ shell fragments and gravel					
LL	61	PL	25	PI	36
				G_s	
Remarks		Project Houston-Galveston Navigation			
		Channel			
		Area Houston, Texas			
		Boring No. 93-101		Sample No. 2	
		Depth 2-4 ft		Date 9/1/94	
		UNCONFINED COMPRESSION TEST REPORT			

U.S. ARMY CORPS OF ENGINEERS

DEPTH, FEET		SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSIS- TENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS	
BORING NO. <u>93-101</u> DATE: BEGIN <u>7-19-94</u> PAGE <u>1 / 2</u> JOB NO. <u>946783-1</u> COMPLETE <u>7-19-94</u> Thin Walled Tube PROJECT <u>HOUSTON-GALVESTON Navigation Channel</u> ☒ 3" ☐ 6" LOCATION <u>Disposal Area No 16</u> ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Arco K4X4, C-1000 Marsh Buggy</u> GROUNDWATER: DEPTH <u>0</u> ft., ELEV. _____ ft., at end of Drilling WEATHER <u>Very Hot & Humid</u> DRILLER <u>Scott Gregorick</u> LOGGER <u>Willie Barnes</u>										
Torvane test					1	4.0	Brown	CLAY	W. stiff	w/ gravel & shell fragments & sand pockets
					2	1.0	Brown	CLAY	stiff	w/ gravel & sand pockets
- 5 -					3	1.5	Brown	CLAY	stiff	- w/ gravel
V					4	1.0	Brown	CLAY	stiff	Sand @ 8'
- 10 -					X 5	236	Gray	Sand	Loose	SILTY
					X 7	235	Gray	SAND	loose	SILTY
- 15 -					8	0/0.06	Gray	CLAY	V. soft	w/ sand pockets & silt
23 x 0.2 = 0.06					9	0/0.07	Gray	CLAY	V. soft	w/ sand, layer @ 18 1/2' 15'
2.35 x 0.2 = 0.07					X 10	12 13 8	Gray	SAND	M. loose	SILTY
- 20 -					X 11	235	Gray	Sand	loose	SILTY
- 25 -					X 12	5 5 4	Gray	sand	loose	SILTY
- 30 -					X 13	1 2 2	Gray	SAND	V. loose	SILTY
- 35 -										w/ shell fragments & silt seams

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>93-101</u> DATE: BEGIN <u>7-19-99</u> PAGE <u>2</u> / <u>12</u> JOB NO. <u>946783.1</u> COMPLETE <u>7-19-99</u> Thin Walled Tube PROJECT <u>Houston-Galveston Navigation channel</u> ☒ 3" ☐ 6" LOCATION <u>Disposal Area No. 16</u> ELEVATION OF HOLE _____ MANUFACTURER'S DESIGNATION OF DRILL RIG <u>Ardeo K44U, C-1000 Marsh Buggy</u> GROUNDWATER: DEPTH <u>0</u> ft., ELEV. _____ ft., at end of Drilling WEATHER <u>Very hot & humid</u> DRILLER <u>Scott Grogan</u> LOGGER <u>Willie Barnes</u>				
					COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
-35-									
-40-		Gray	CLAY	VI. soft	SILTY	bit clay @ 38' w/ shell fragments, s.s. & g.b. Torvane Multiplier 0.2			
-45-									
-50-									
-55-									
-60-									
-65-									
-70-									

Torvane tsf

5 x 1.2 = 0.10

14 9 0.10

Project: Houston-Galveston Navigation Channel

SUMMARY OF LABORATORY TEST RESULTS

Contract No. DACW64-94-C-0040Boring No. 93-101

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)	L L (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0 - 2	4.25		Brown, Clay, Hard, w/shell fragments and gravel	C H	9.4											
2	2 - 4	0.75		Brown & gray, Clay, Medium stiff, w/shell fragments and gravel	C H	34.0	88.4	118.4	61.0	25.0	99.0*	97.1*	96.8*	95.1	92.1		0.72
3	4 - 6	1.25		Brown, Clay, Stiff, w/shell fragments	C H	31.5											
4	6 - 8	1.00		Brown, Clay, Stiff, w/shell fragments	C H	34.7											
5	8-9.5		9	Gray, Sand, Loose, Silty, w/shell fragments	S M						99.6*	94.3*	91.1*	41.7	20.8		
7	13-14.5		8	Gray, Sand, Loose, Silty, w/shell fragments	S M												
8	15-17	0.00		Gray, Clay, Very soft, w/sand pockets and shell fragments	C H	65.2	61.3	101.3	88.0	37.0	100.0	99.8	97.8	92.7	91.0		
9	17-19	0.00		Gray, Clay, Very soft, w/sand pockets and shell fragments	C H	75.6											
10	19-20.5		21	Gray, Sand, Medium dense, Silty, w/shell fragments	S M												
11	24-25.5		8	Gray, Sand, Loose, Silty, w/shell fragments	S M						100.0	99.6	98.1	59.8	20.0		
12	29-30.5		9	Gray, Sand, Loose, Silty, w/shell fragments	S M												
13	34-35.5		4	Gray, Sand, Loose, Silty, w/shell fragments	S M												
14	38-40	0.00		Gray, Clay, Very soft, Silty, w/sand pockets and shell fragments	C L	24.9											

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classification, M c : Moisture Content

q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe

* : Material retained are shell fragments

Geotest Engineering, Inc.