U.S. ARMY CORPS OF ENGINEERS

BORING NO. 92-46 DATE: BEGIN 7-31-92 PAGE 1 / 1
JOB NO. 146549 COMPLETE 7-31-92 Thin Walled Tube
PROJECT Disposal Area For channel to Victoria ☒ 3" ☐ 6"
LOCATION Near Seadrift, Tx
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG Ardco Failing Buggy
GROUNDWATER: DEPTH 10.00 ft., ELEV. ____ ft., at end of Drilling
WEATHER Sunny & Hot
DRILLER Mark Thornton LOGGER Troy Mostamand

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	4.5	DK. Gray	clay	Hard	Sand	-w/roots
		2	1.00	Gray	clay	stiff	Sand	-w/calc nod
5		3	0.75	Gray	clay	M.stiff	Sand	-w/calc nod & Fest
		4	0.75	Brown & Gray	clay	M.stiff	Sand	-w/ large calc nod
		5	0.50	Light Brown	clay	M.stiff	sand	-w/calc nod
10		6	1.25	Light Brown	clay	stiff	Sand	-w/calc nod & Fest -sand @ 12'
	X	7	4/4/5	Gray	Sand	coarse	silt	
15	X	8	4/5/6	Gray	sand	M.Dense	silt	
	X	9	3/4/5	Gray	Sand	loose	silt	
20								Bottom of 92-46 @ 20'
25								
30								
35								

GEOTEST ENGINEERING, INC.

SUMMARY OF LABORATORY TEST RESULTS

Project: Proposed new Disposal area for channel to victoria project, near Seadrift, Texas
Contract No. DACW64-92-D-0001 Delivery Order No. 0023

Boring No. 92-46

S#	Depth (ft.)	PP (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)	qu (tsf)
											#4	#10	#40	#100	#200		
1	0-2	4.5+		Dark gray,Clay,Hard,Sandy,w/roots	C L	21.1											
2	2-4	1.50		Gray,Clay,Stiff,Sandy,w/roots and ferrous stains	C L	24.2											
3	4-6	0.75		Gray&Yellowish gray,Clay,Medium stiff,Sandy, w/ferrous stains	C L	24.1	101.9	126.4	44	19	99.8	99.6	99.3	92.1	68.2		0.89
4	6-8	1.00		Gray&Yellowish gray,Clay,Stiff,Sandy,w/calc-areous nodules	C L	22.9											
5	8-10	0.25		Yellowish gray,Clay,Soft,Silty,w/calcareous nodules	C L	23.6	104.2	128.8	27								0.29
6	10-12	1.25		Yellowish gray,Clay,Stiff,Sandy,w/calcareous nodules and ferrous stains	C L	23.7											
7	12.5-14		9	Gray,Sand,Loose,Silty	S M												
8	14.5-16		11	Gray,Sand,Medium dense,Silty	S M												
9	18.5-20		9	Gray,Sand,Loose,Silty	S M												

S#: Sample Number, PP: Pocket Penetrometer Reading, USC: Unified Soil Classification, MC: Moisture Content
qu: Unconfined Compressive Strength, WOH: Weight of Hammer, WOP: Weight of Pipe

GEOTEST ENGINEERING, INC.

JOB NO. 14G599 DATE 8/7/92

PROJECT Proposed Disposal area for Channel to Victoria Project

AREA near Seadrift, Texas

BORING NO. 92-46 **SAMPLE NO.** 3 **DEPTH** 4-6 ft

SPECIMEN NO. 1

CLASSIFICATION
Gray & Yellowish gray,Clay,Medium stiff,Sandy,w/ferrous stains

Tare No.	P230	Height	5.595 in.
Tare plus Wet Specimen	543.91 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	446.60 gm	Initial Area	6.290 sq in.
Water Weight	97.31 gm	Volume	35.194 cu in.
Tare Weight	42.60 gm	Volume of Solids	cu in.
Wet Specimen	1167.81 gm	Void Ratio	
Dry Specimen	941.12 gm	Saturation	%
Water Content	24.09 %	Dry Density	101.9 lb/cu ft
Specific Gravity of Solids			

LL = 44 PL = 19 PI = 25

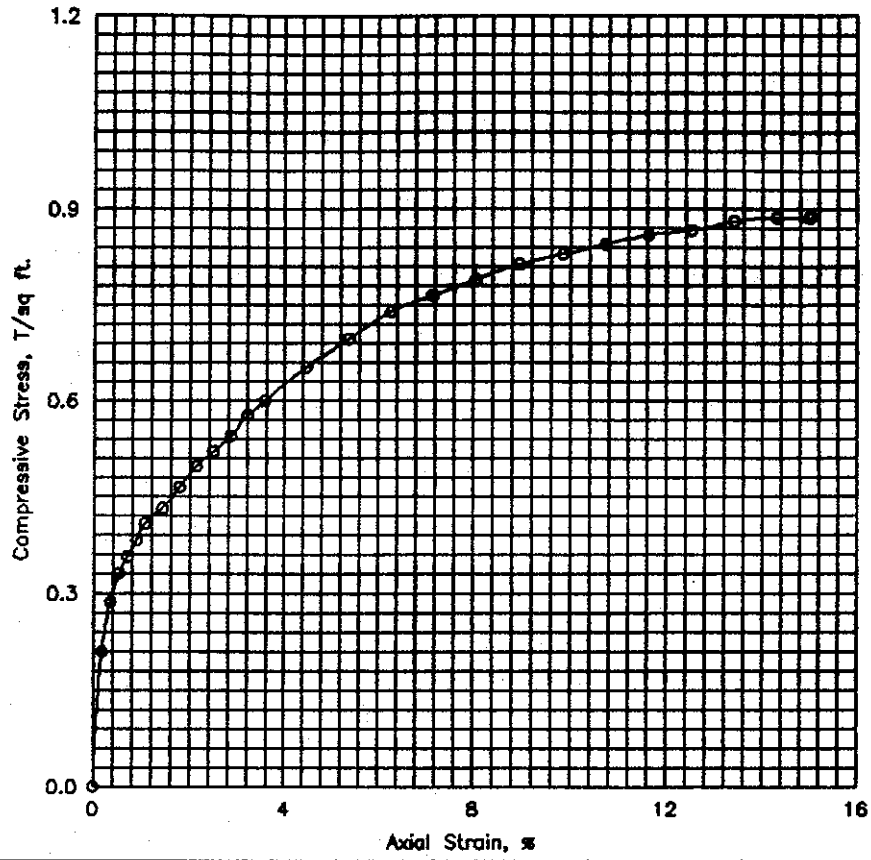
Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

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
.3	10.	.010	24.0	18.4	.002	6.30	.210
.4	20.	.020	33.0	25.3	.004	6.31	.288
.6	30.	.030	38.0	29.1	.005	6.32	.331
.8	40.	.040	41.0	31.4	.007	6.34	.357
1.0	50.	.050	44.0	33.7	.009	6.35	.382
1.2	60.	.060	47.0	36.0	.011	6.36	.408
1.5	80.	.080	50.0	38.3	.014	6.38	.432
1.8	100.	.100	54.0	41.4	.018	6.40	.465
2.1	120.	.120	58.0	44.4	.021	6.43	.498
2.5	140.	.140	61.0	46.7	.025	6.45	.521
2.8	160.	.160	64.0	49.0	.029	6.48	.545
3.2	180.	.180	68.0	52.1	.032	6.50	.577
3.5	200.	.200	71.0	54.4	.036	6.52	.600
4.3	250.	.250	78.0	59.7	.045	6.58	.653
5.1	300.	.300	84.0	64.3	.054	6.65	.697
6.0	350.	.350	90.0	68.9	.063	6.71	.740
6.8	400.	.400	94.0	72.0	.071	6.77	.765
7.6	450.	.450	98.0	75.1	.080	6.84	.790
8.4	500.	.500	102.0	78.1	.089	6.91	.814
9.1	550.	.550	105.0	80.4	.098	6.98	.830
9.9	600.	.600	108.0	82.7	.107	7.05	.845
10.8	650.	.650	111.0	85.0	.116	7.12	.860
11.6	700.	.700	113.0	86.6	.125	7.19	.867
12.4	750.	.750	116.0	88.9	.134	7.26	.881
13.2	800.	.800	118.0	90.4	.143	7.34	.887

13.7	840.	.840	119.0	91.2	.150	7.40	.887
13.7	839.	.839	119.0	91.2	.150	7.40	.887

Job No. 14G599

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	24.1 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	101.9			
Time to failure, min		t_f	13.17			
Unconfined compressive strength, T/sq ft		q_u	.89			
Undrained shear strength, T/sq ft		S_u	.44			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Gray & Yellowish gray,Clay,Medium stiff,Sandy,w/ferrous stains

LL	44	PL	19	PI	25	G_s	

Remarks

Project Proposed Disposal area for Channel to Victoria Project

Area near Seadrift, Texas

Boring No. 92-46 Sample No. 3

Depth El 4-6 ft Date 8/7/92

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

Geotest Engineering, Inc.

JOB NO. 14G599 DATE 8/7/92

PROJECT Proposed Disposal area for Channel to Victoria Project

AREA near Seadrift, Texas

BORING NO. 92-46 SAMPLE NO. 5 DEPTH 8-10 ft

SPECIMEN NO. 1

CLASSIFICATION
Yellowish gray,Clay,Soft,Silty,w/calc nod

Tare No.	K1-32	Height	5.595 in.
Tare plus Wet Specimen	708.89 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	581.62 gm	Initial Area	6.290 sq in.
Water Weight	127.27 gm	Volume	35.194 cu in.
Tare Weight	42.60 gm	Volume of Solids	cu in.
Wet Specimen	1190.13 gm	Void Ratio	
Dry Specimen	962.80 gm	Saturation	%
Water Content	23.61 %	Dry Density	104.2 lb/cu ft
Specific Gravity of Solids			

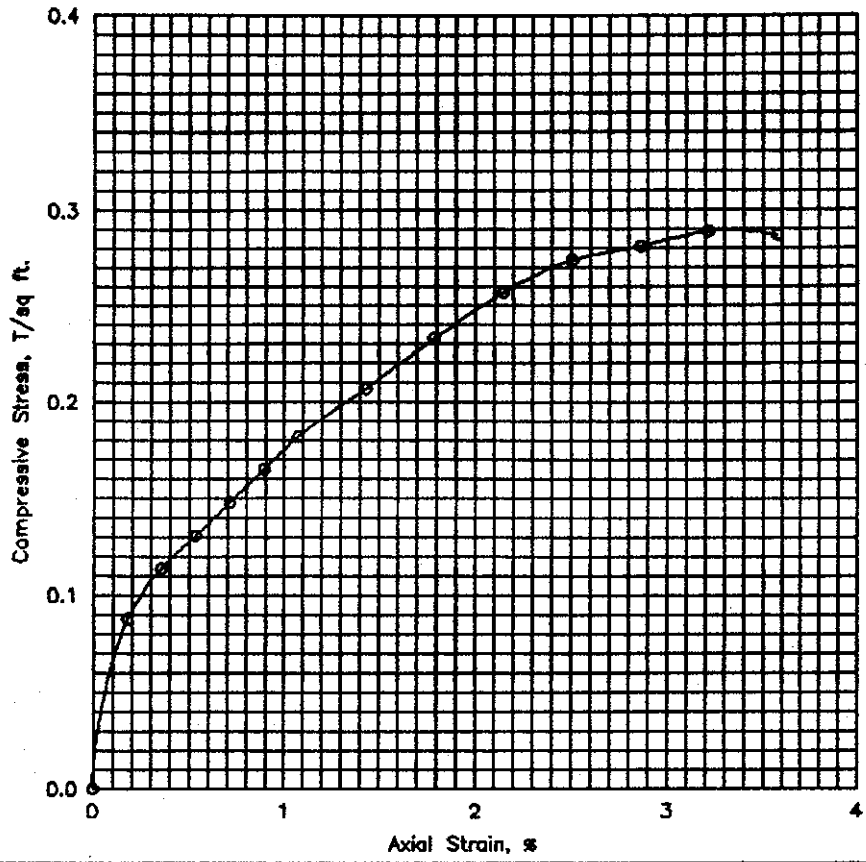
LL = 27 PL = PI =

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	13.0	10.0	.004	6.31	.114
.6	30.	.030	15.0	11.5	.005	6.32	.131
.8	40.	.040	17.0	13.0	.007	6.34	.148
1.0	50.	.050	19.0	14.6	.009	6.35	.165
1.1	60.	.060	21.0	16.1	.011	6.36	.182
1.4	80.	.080	24.0	18.4	.014	6.38	.207
1.7	100.	.100	27.0	20.7	.018	6.40	.233
3.0	120.	.120	30.0	23.0	.021	6.43	.257
2.3	140.	.140	32.0	24.5	.025	6.45	.274
2.6	160.	.160	33.0	25.3	.029	6.48	.281
3.9	180.	.180	34.0	26.0	.032	6.50	.289
3.2	200.	.200	34.0	26.0	.036	6.52	.287

Job No. 14G599

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_o	23.6 %	%	%	%
	Void ratio	e_o				
	Saturation	S_o	%	%	%	%
	Dry density, lb/cu ft	γ_d	104.2			
Time to failure, min		t_f	3.87			
Unconfined compressive strength, T/sq ft		q_u	.29			
Undrained shear strength, T/sq ft		S_u	.14			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_o	2.830			
Initial specimen height, in.		H_o	5.595			

Classification Yellowish gray,Clay,Soft,Silty,w/calc nod

LL 27	PL	PI	G_s

Remarks

Project Proposed Disposal area for Channel to Victoria Project	
Area near Seadrift, Texas	
Boring No. 92-46	Sample No. 5
Depth El 8-10 ft	Date 8/7/92
UNCONFINED COMPRESSION TEST REPORT	

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PLATE XI-2

Geotest Engineering, Inc.

PLATE