U.S. ARMY CORPS OF ENGINEERS

BORING NO. 90-199 DATE: BEGIN 4-23-91 PAGE 1 / 1
JOB NO. 146437 COMPLETE 4-23-91 Thin Walled Tube
PROJECT Victoria Channel ☑ 3" ☐ 6"
LOCATION Sea Drift
ELEVATION OF HOLE
MANUFACTURER'S DESIGNATION OF DRILL RIG Failing-36
GROUNDWATER: DEPTH 8'1" ft., ELEV. ____ ft., at end of Drilling
WEATHER Cloudy, Cool
DRILLER D. Mitchell LOGGER J. Berg

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	COLOR	MATERIAL TYPE	CONSISTENCY	SECONDARY CONSTITUENTS	STRUCTURAL FEATURES AND COMMENTS
0		1	4.5+	GRAY	clay	hard		
		2	4.5+	GRAY	clay	"		w/calc.
5		3	4.5+	TAN + GRAY	CLAY	"		w/calc
		4	4.5+	"	"	"		w/calc
		5	3.0	TAN	CLAY	very stiff	Sand	Sand at 10.5'
10								
JAR	X	6	3/4/6	TAN	Sand	Loose		
JAR	X	7	5/7/12	TAN	Sand	medium Dense		
15								
JAR	X	8	4/6/7	TAN	SAND	medium DENSE		
20								
								Clay at 23.5'
25		9	2.75	GRAY + TAN	Clay	very stiff		w/calc Nodules.
								Bottom of 90-199 (26')
30								
35								

GEOTEST ENGINEERING, INC.

Project : Disposal Area B, Channel to Victoria near Seadrift, Texas

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-199

Contract No. DACW64-91-D-0001 Delivery Order No. 0013

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 (%)	PL (%)	Mechanical Analysis % Passing #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0-2	4.5+		Dark gray,Clay,Hard,Sandy	CL	18.4											
2	2-4	4.5+		Gray,Clay,Hard,Sandy,w/calcareous nodules	CL	19.4											
3	4-6	4.5+		Yellowish brown,Clay,Hard,Sandy,w/calcareous nodules	CL	15.6	114.0	131.8	47	19	99.4	98.6	97.2		56.6		3.28
4	6-8	4.5+		Yellowish brown,Clay,Hard,Sandy,w/calcareous nodules	CL	14.9											
5	8-10	4.5+		Yellowish brown,Clay,Hard,Sandy,w/calcareous nodules	CL	14.4			26	15							
6	10.5-12		10	Yellowish brown,Sand,Medium dense,Clayey	SC						99.4	98.9	98.3		45.9		
7	13.5-15		19	Yellowish brown,Sand,Medium dense,Silty	S M												
8	18.5-20		13	Yellowish brown,Sand,Medium dense,Silty	S M												
9	24-26	2.00		Yellowish brown,Clay,Very stiff,w/calcareous nodules	CH	30.0			66								

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

JB NO. 14G475 DATE 5/30/91

PROJECT DISPOSAL AREA B, CHANNEL TO VICTORIA, NEAR SEADRIFT, TX

BORING NO. 90-199 SAMPLE NO. 3 DEPTH 4-6 ft

SPECIMEN NO. 1

CLASSIFICATION
Yellowish brown, clay, hard, sandy, w/ calcareous nodules

Tare No.	P-16	Height	5.595 in.
Tare plus Wet Specimen	724.30 gm	Average Diameter	2.830 in.
Tare plus Dry Specimen	632.61 gm	Initial Area	6.290 sq in.
Water Weight	91.69 gm	Volume	35.194 cu in.
Tare Weight	42.83 gm	Volume of Solids	cu in.
Wet Specimen	1217.26 gm	Void Ratio	
Dry Specimen	1053.48 gm	Saturation	%
Water Content	15.55 %	Dry Density	114.0 lb/cu ft
Specific Gravity of Solids			

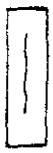
LL = 47 PL = 19 PI = 28

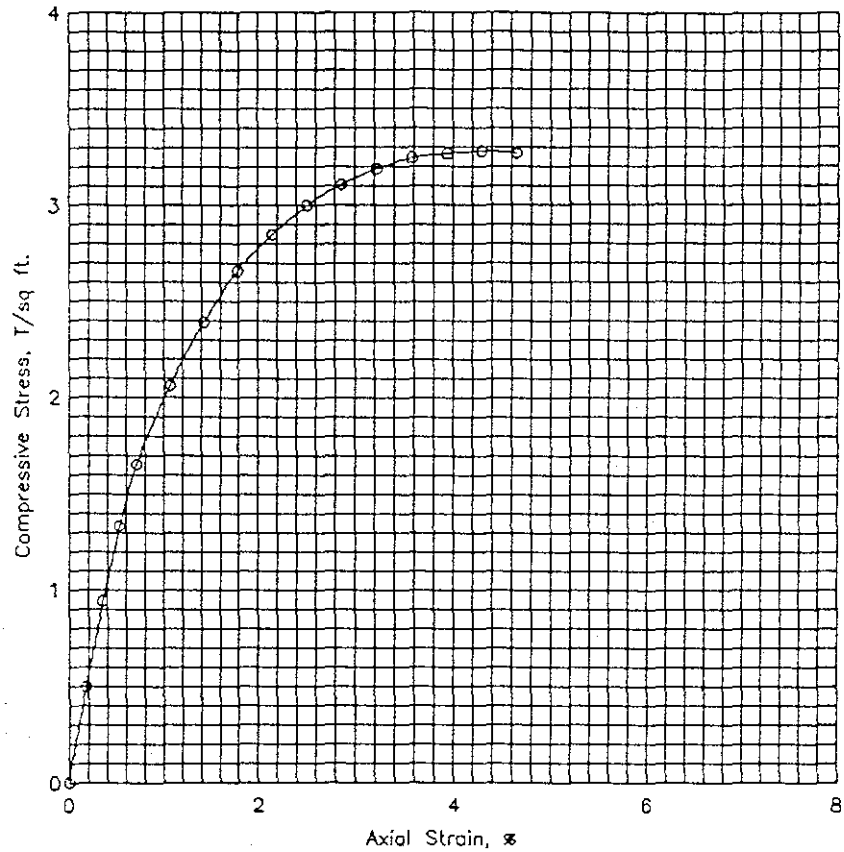
Proving Ring No. 10170
Proving Ring Constant, K = .766 lbs/div.

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
.3	10.	.010	57.0	43.7	.002	6.30	.499
.6	20.	.020	108.0	82.7	.004	6.31	.944
.8	30.	.030	153.0	117.2	.005	6.32	1.334
1.0	40.	.040	190.0	145.5	.007	6.34	1.654
1.4	60.	.060	238.0	182.3	.011	6.36	2.064
1.8	80.	.080	277.0	212.2	.014	6.38	2.394
2.2	100.	.100	309.0	236.7	.018	6.40	2.661
2.5	120.	.120	332.0	254.3	.021	6.43	2.849
2.9	140.	.140	351.0	268.9	.025	6.45	3.001
3.2	160.	.160	365.0	279.6	.029	6.48	3.109
3.5	180.	.180	376.0	288.0	.032	6.50	3.191
3.9	200.	.200	384.0	294.1	.036	6.52	3.247
4.2	220.	.220	388.0	297.2	.039	6.55	3.268
4.6	240.	.240	391.0	299.5	.043	6.57	3.281
4.8	260.	.260	391.0	299.5	.046	6.60	3.269

Job No. 14G475

Failure Sketches





☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	15.5 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	114.0			
Time to failure, min		t_f	4.55			
Unconfined compressive strength, T/sq ft		q_u	3.28			
Undrained shear strength, T/sq ft		S_u	1.64			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.830			
Initial specimen height, in.		H_0	5.595			

Classification Yellowish brown, clay, hard, sandy, w/ calcareous nodules

LL	47	PL	19	PI	28	G_s	

Remarks

Project DISPOSAL AREA B, CHANNEL TO VICTORIA

Area Near Seadrift, Texas

Boring No. 90-199 | Sample No. 3

Depth El 4-6 ft | Date 5/30/91

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

PLATE XI-2

Geotest Engineering, Inc.

PLATE