BFM

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

PROJECT NAME Victoria Ship Channel

LOG OF BORING NO. 90-37

LOCATION / STATION 115+00

DATE / TIME STARTED 05/14/90 @ 2:30 pm
DATE / TIME COMPLETED " " 4:00 "

TIDE ELEVATION -2.00' MLT DATUM

WATER DEPTH 2.33' -1.33

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 27.33'

WEATHER Clear & Sunny

DRILL RIG MANUFACTURE
MODEL NO. CF-5

DRILLER Dempsey Gearen
LOGGER Aris Lazaridis

DRILLER'S / LOGGER'S COMMENTS —

BORING NO. 90-37 DATE: BEGIN 06/14/90 COMPLETE 06/14/90
JOB NO. 146404 LOGGER Aris PAGE 2 / 3
PROJECT Victoria Ship Channel
LOCATION/STATION/ELEVATION: Sta. 115+00 / El. + 2.00' MLT

DEPTH: AUGERED _____ WASHED 25' CORED _____

GROUNDWATER READINGS

TIME	DEPTH	TIME	DEPTH	TIME	DEPTH
FIRST					

DEPTH, FEET	SAMPLE	SAMPLE NO.	PEN./TORVANE SPT.-BLOW COUNT	CONSISTENCY	COLOR	MINOR	MAJOR	MODIFICATION
0		1	0.25	v/soft	Gray	Silty	CLAY	-w/shells
		2	0.25	//	//		//	-w/shells & silty clay layer, 2'-3.5'; 4.5" sample
5		3	1.50	stiff	//		//	-w/shells; 9" sample
		4	2.50	v/stiff	//	Silty	//	—
		5	3.00	//	Gray & Tan		//	-w/calcareous nodules
10		6	2.50	//	Tan		//	//
		7	3.25	//	//		//	-w/calcareous nodules; 9.5" sample
15		8	3.25	//	//		//	-w/shells & calcareous nodules
		9	2.25	//	Gray & Tan		//	-w/silty clay pockets
		10	2.25	//	Tan		//	-w/calcareous nodules; 11" sample
20		11	2.0	//	Gray & Tan		//	//
		12	2.75	//	//		//	-w/calcareous nodules; 8" sample
25								Bottom of Boring

CONTNUED: ☐ YES ☒ NO

Project : VICTORIA SHIP CHANNEL, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

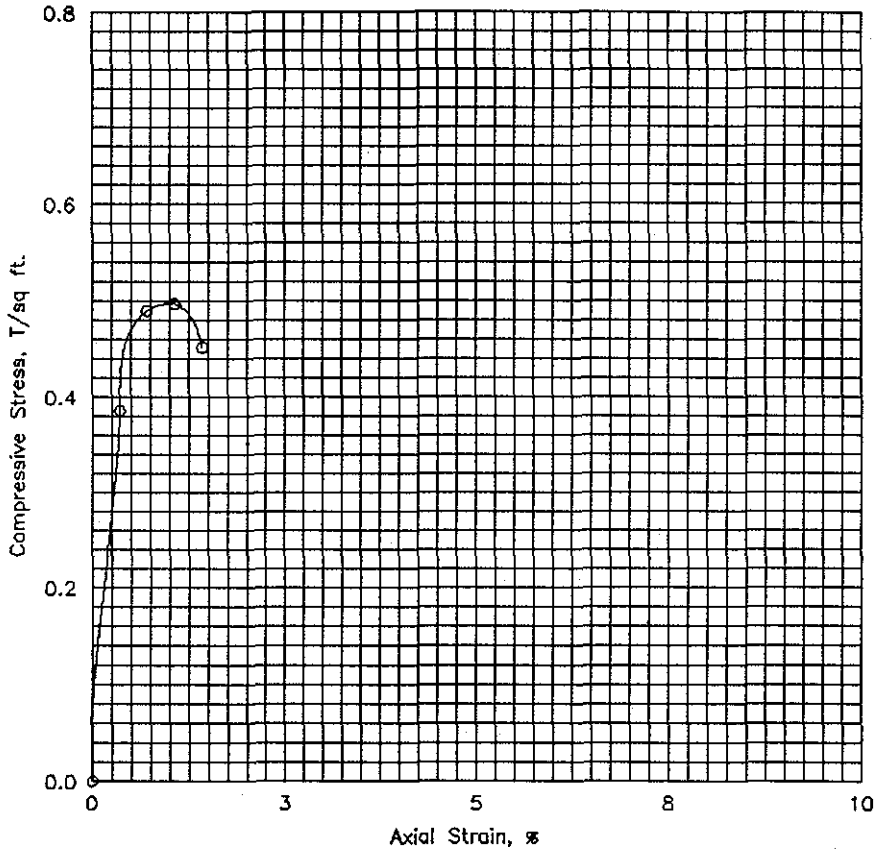
Boring No. 90-37

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 #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0 - 2	0.25		Gray and dark gray, CLAY, soft, with shell fragments	CH	39.1											
2	2 - 4	1.00		Gray, CLAY, stiff, with calcareous nodules	CH	33.2	86.2	114.8	65	24	100.0	99.9	99.5	99.3	99.2	0.40	
3	4 - 6	1.50		Gray, CLAY, stiff, with calcareous nodules	CH	28.4											
4	6 - 8	2.50		Gray, SANDY CLAY, very stiff, with large sand pockets	CL	23.9											
5	8 - 10	3.00		Gray, CLAY, stiff, slightly sandy, with calcareous nodules	CL	21.4	107.3	130.3	37	19	99.4	99.3	98.8	98.2	96.7	0.80	0.50
6	10 - 12	2.50		Light tan & gray, SANDY CLAY, very stiff, with large calcareous nodules, slickensided	CL	23.4											
7	12 - 14	3.50		Light tan & gray, SANDY CLAY, very stiff, with large calcareous nodules, slickensided	CL	20.6											
8	14 - 16	3.50		Light tan & gray, SANDY CLAY, very stiff, with large calcareous nodules	CL	20.2											
9	16 - 18	2.50		Light tan & gray, SANDY CLAY, very stiff, with sand pockets	CL	20.5											
10	18 - 20	3.00		Light tan & gray, CLAY, very stiff, with large calcareous nodules, slickensided	CH	22.5											
11	20 - 22	2.00		Light tan & gray, CLAY, very stiff, slightly sandy with large calcareous nodules, slickensided	CH	24.3	101.1	125.7	64	29	99.8	99.4	98.8	95.6	92.4	0.80	1.18
12	23 - 25	3.00		Light tan & gray, CLAY, very stiff, with large calcareous nodules, slickensided	CH	22.3											

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. 14G404

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_o	21.4 %	%	%	%
	Void ratio	e_o				
	Saturation	S_o	%	%	%	%
	Dry density, lb/cu ft	γ_d	105.8			
Time to failure, min		t_f	1.05			
Unconfined compressive strength, T/sq ft		q_u	.50			
Undrained shear strength, T/sq ft		S_u	.25			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_o	2.830			
Initial specimen height, in.		H_o	5.590			

Classification Gray, CLAY, stiff, with calcareous nodules

LL	37	PL	19	PI	18	G_s	

Remarks

Project CHANNEL TO VICTORIA, TEXAS

Area Channel to Victoria in San Antonio Bay, Texas

Boring No. 90-37 | Sample No. 5

Depth El 8-10 ft | Date 7/27/90

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

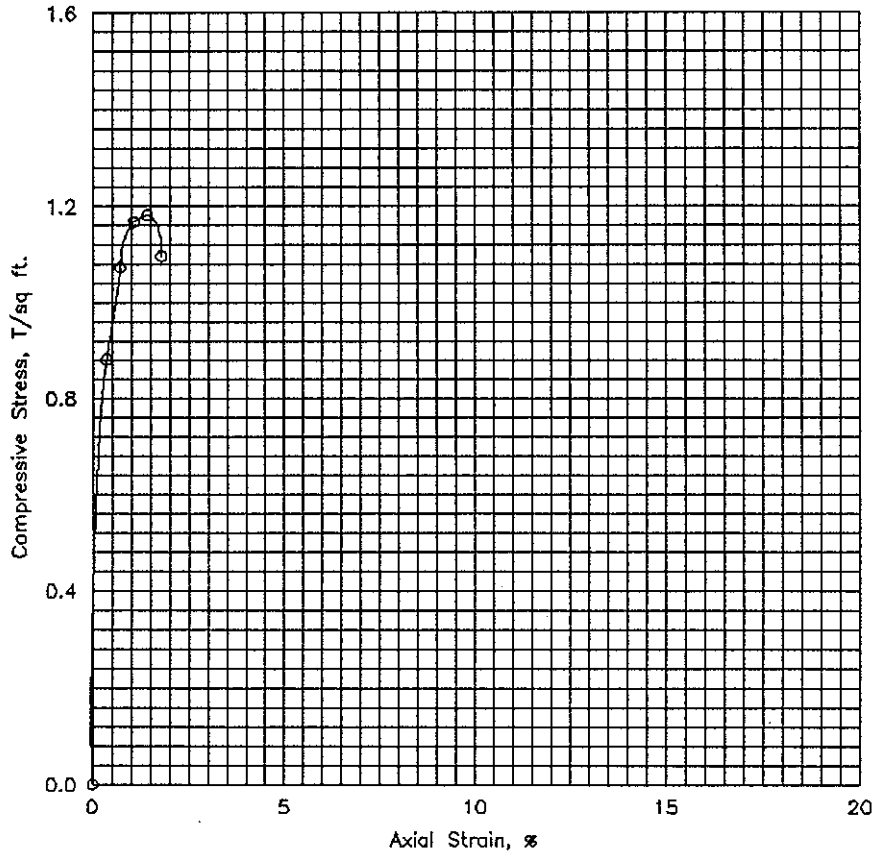
PLATE XI-2

Geotest Engineering, Inc.

PLATE

Job No. 14G404

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.			1			
Type of Specimen			Undisturbed			
Initial	Water content	w_0	24.3 %	%	%	%
	Void ratio	e_0				
	Saturation	S_0	%	%	%	%
	Dry density, lb/cu ft	γ_d	101.1			
Time to failure, min		t_f	1.60			
Unconfined compressive strength, T/sq ft		q_u	1.18			
Undrained shear strength, T/sq ft		S_u	.59			
Sensitivity ratio		S_t				
Initial specimen diameter, in.		D_0	2.810			
Initial specimen height, in.		H_0	5.590			

Classification Gray, CLAY, very stiff, with calcareous nodules, slickensided

LL	64	PL	29	PI	35	G_s

Remarks

Project CHANNEL TO VICTORIA, TEXAS

Area Channel to Victoria in San Antonio Bay, Texas

Boring No. 90-37 | Sample No. 11

Depth El 20-22 ft | Date 7/27/90

UNCONFINED COMPRESSION TEST REPORT

ENG FORM 1 JUN 65 3659

Geotest Engineering, Inc.

PLATE