

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

13K11

PROJECT NAME Victoria Ship Channel

LOG OF BORING NO. 90-56

LOCATION / STATION 400 + 00

DATE / TIME STARTED 06/13/90 2 12:00 noon

DATE / TIME COMPLETED 4 11 1:40 pm

TIDE ELEVATION + 2.50' MLT DATUM

WATER DEPTH 4.00' -1.5

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 27.50

WEATHER Warm & Breezy

DRILL RIG MANUFACTURE
MODEL NO. CF-5

DRILLER Orin G. Grier
LOGGER Iraj Hashemi

DRILLER'S / LOGGER'S COMMENTS Gravel & sand stones
encountered below 16'

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>90-56</u>		DATE: BEGIN <u>06/18/90</u> COMPLETE <u>06/18/90</u>	
					JOB NO. <u>146404</u>	LOGGER <u>Ivo</u>	PAGE <u>213</u>	
					PROJECT <u>Victoria Ship Channel</u>		LOCATION/STATION/ELEVATION: <u>Sta. 400+00/EL. +2.50 MLT</u>	
					DEPTH: AUGERED _____		WASHED <u>23.5'</u> CORED _____	
					GROUNDWATER READINGS			
TIME		DEPTH	TIME		DEPTH	TIME		DEPTH
FIRST								
CONSISTENCY		COLOR	MINOR	MAJOR	MODIFICATION			
	1	0.25	V/Soft	Gray		CLAY	- w/shr "	
	2	0.25	"	"		"	"	
5	3	0.25	"	"		"	"	
	4	9 1/2	M/Dense	"		SAND	- w/shells & sand layer; Jar	
	5	—	—	—		—	- No Recovery	
10	5	WOP	V/Loose	Gray		SHELL	- w/sand	
	6	—	—	—		—	- No Recovery	
15	6	5/5/9	Firm	Brown	Slty	CLAY	—	
	7	2.50	V/STiff	"		"	- w/gravel; disturbed sample	
	8	3.00	"	"		"	- w/gravel; 6" sample	
20	9	2.00	STiff	"	Slty	"	- w/sand & gravel	
	10	2.00	"	"	"	"	"	
25	Bottom of Boring							

CONTINUED: ☐ YES ☒ NO

Project : CHANNEL TO VICTORIA
VICTORIA, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-56

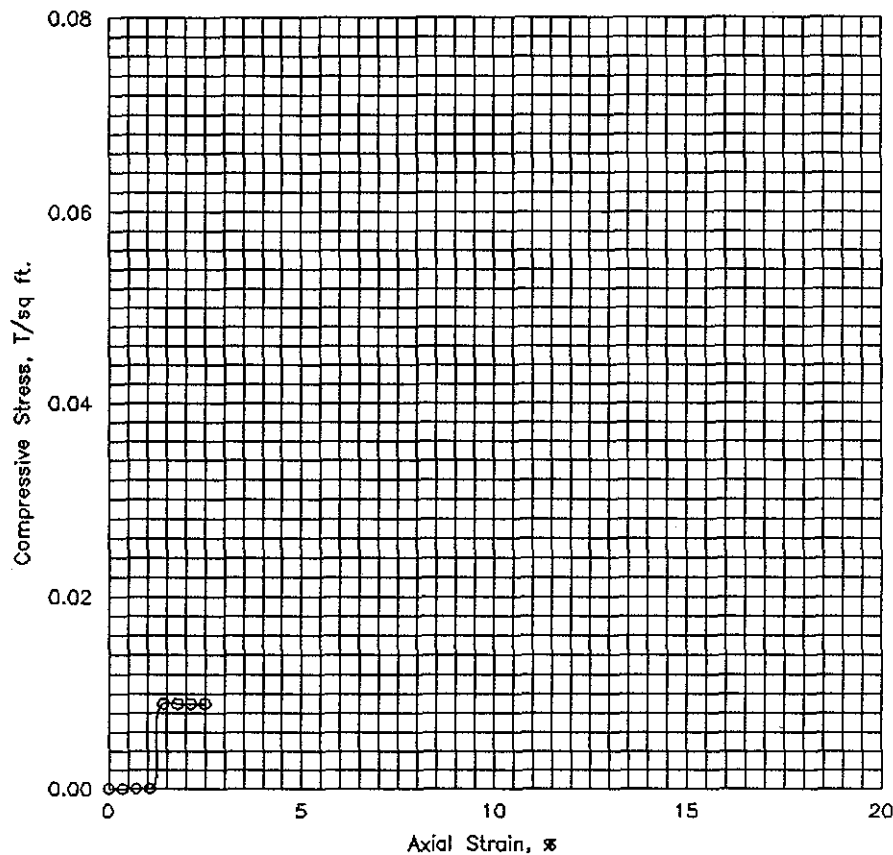
S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	LL (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0 - 2	0.00		Gray, CLAY, very soft, with shell fragments	CH	50.3											
2	2 - 4	0.00		Gray, CLAY, very soft, with sand and shell fragments	CH	52.6	70.3	107.3	50	19	98.1	97.0	92.8	83.7	81.2	0.05	0.01
3	4 - 6	0.00		Gray, CLAY, very soft, with shell fragments	CH	46.1											
4	6 - 7.5		11	Gray, SILTY SAND, medium dense, with sand stone, and shell fragments	S M	16.9					75.6	60.9	49.7	25.4	13.7		
	8 - 10			No recovery													
5	10 - 11.5		WOP	Gray, SILTY SAND, very loose, with shell fragments	S M	24.2											
	12 - 14			No recovery													
6	14 - 15.5		14	Brown, CLAY, stiff	CH	59.6											
7	16 - 18	2.00		Brown, CLAY, very stiff with gravel, shell fragments and silt pockets	CH	34.6											0.62
8	18 - 20	2.50		Brown, CLAY, very stiff, with shell fragments & gravel	CH	28.8	96.2	124.0	55		100.0	99.6	99.6	99.6	99.6		
9	20 - 22	1.50		Brown and reddish brown, SILTY CLAY, stiff, with sand pockets and gravel	CL	21.4											
10	22 - 23.5	1.00		Brown and reddish brown, SILTY CLAY, stiff, with sand, shell fragments and gravel	CL	21.2											

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_0	52.6 %	%	%
Initial Void ratio	e_0			
Initial Saturation	S_0	%	%	%
Initial Dry density, lb/cu ft	γ_d	70.3		
Time to failure, min	t_f	1.37		
Unconfined compressive strength, T/sq ft	q_u	.01		
Undrained shear strength, T/sq ft	S_u	.00		
Sensitivity ratio	S_t			
Initial specimen diameter, in.	D_0	2.810		
Initial specimen height, in.	H_0	5.590		

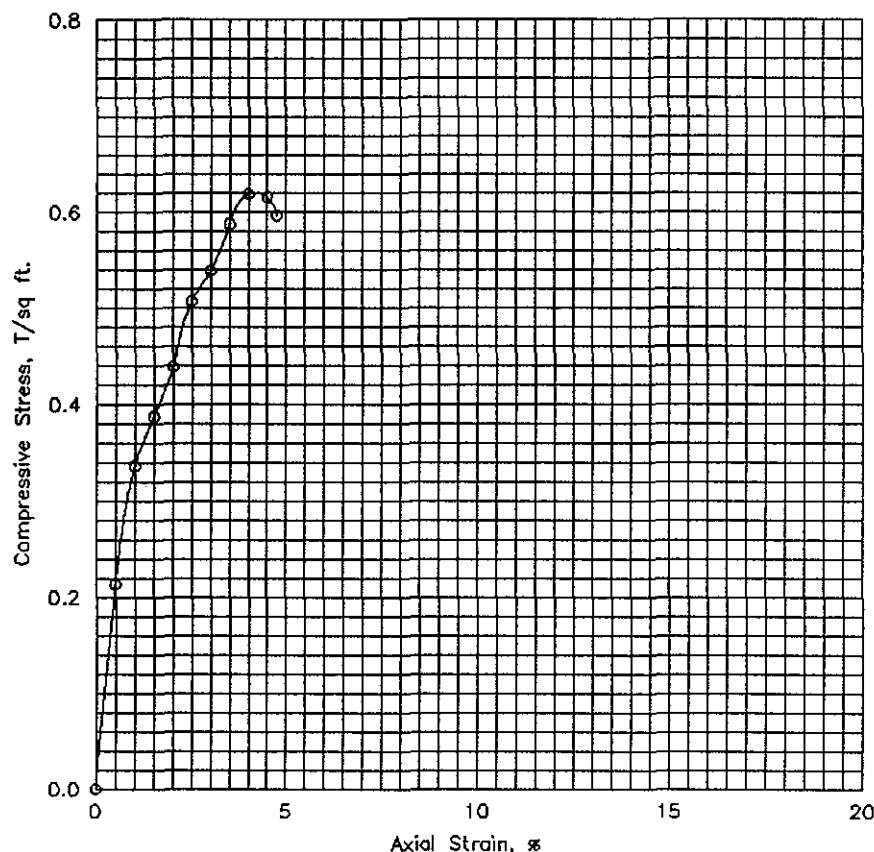
Classification Gray, CLAY, very soft, with shell fragments

LL	50	PL	19	PI	31	G _s
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Remarks	Project CHANNEL TO VICTORIA, TEXAS
	Area Channel to Victoria in San Antonio Bay, Texas
	Boring No. 90-56 Sample No. 2
	Depth 2-4 ft Date 7/31/90
	UNCONFINED COMPRESSION TEST REPORT

Job No. 14C404

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	34.6 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	84.4		
Time to failure, min		t_f	2.97		
Unconfined compressive strength, T/sq ft		q_u	.62		
Undrained shear strength, T/sq ft		S_u	.31		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	1.985		
Initial specimen height, in.		H_0	4.000		

Classification Brown, CLAY, very stiff, with gravel and shell fragments, with silt pockets, sl

LL	PL	PI	G_s
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Remarks	Project CHANNEL TO VICTORIA, TEXAS	
	Area Channel to Victoria in San Antonio Bay, Texas	
	Boring No. 90-56	Sample No. 7
	Depth 16-18 ft	Date 8/1/90
	UNCONFINED COMPRESSION TEST REPORT	