

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

BKM

PROJECT NAME Victoria Ship Channel

LOG OF BORING NO. 90-38

LOCATION / STATION 130+00

DATE / TIME STARTED 06/14/90 (2) 1:30 pm

DATE / TIME COMPLETED " " 2:15 "

TIDE ELEVATION + 2.00' MLT DATUM

WATER DEPTH 7.33' 5.33

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 Lazanidis

DRILLER'S / LOGGERS COMMENTS —

DEPTH, FEET		SAMPLE	SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>90-38</u> DATE: BEGIN <u>06/14/90</u> COMPLETE <u>06/14/90</u>					
						JOB NO. <u>146404</u> LOGGER <u>Ariz</u> PAGE <u>2 / 3</u>					
						PROJECT <u>Victoria Ship Channel</u>					
						LOCATION/STATION/ELEVATION: <u>Sta. 130+00 / El. + 2.00' M.T.</u>					
		DEPTH: AUGERED		WASHED <u>20'</u>		CORED					
		GROUNDWATER READINGS									
		TIME	DEPTH	TIME	DEPTH	TIME	DEPTH				
		FIRST									
		CONSISTENCY	COLOR	MINOR	MAJOR	MODIFICATION					
0		1	1.25	STIFF	Gray	Sly/Silty	CLAY				
		2	3.00	v/STIFF	Gray & Tan	Silty	"				
5		3	2.00	STIFF	Tan		CLAY	-w/ calcareous nodules			
		4	2.25	v/STIFF	"		"	-w/ Gray Silty clay layer 6'-7'			
		5	2.75	"	Gray & Tan	Sly/Silty	"	-w/ calcareous nodules			
10		6	3.25	"	Tan		"	-w/ calcareous nodules; 7" sample			
		7	2.25	"	"		"	; 9" "			
15		8	2.75	"	"		"	; 5" "			
		9	2.50	"	"		"	; 8.5" "			
		10	1.50	STIFF	"		"	; 10.5" "			
20		Bottom of Boring									

CONTINUED: ☐ YES ☒ NO

Project : VICTORIA SHIP CHANNEL, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-38

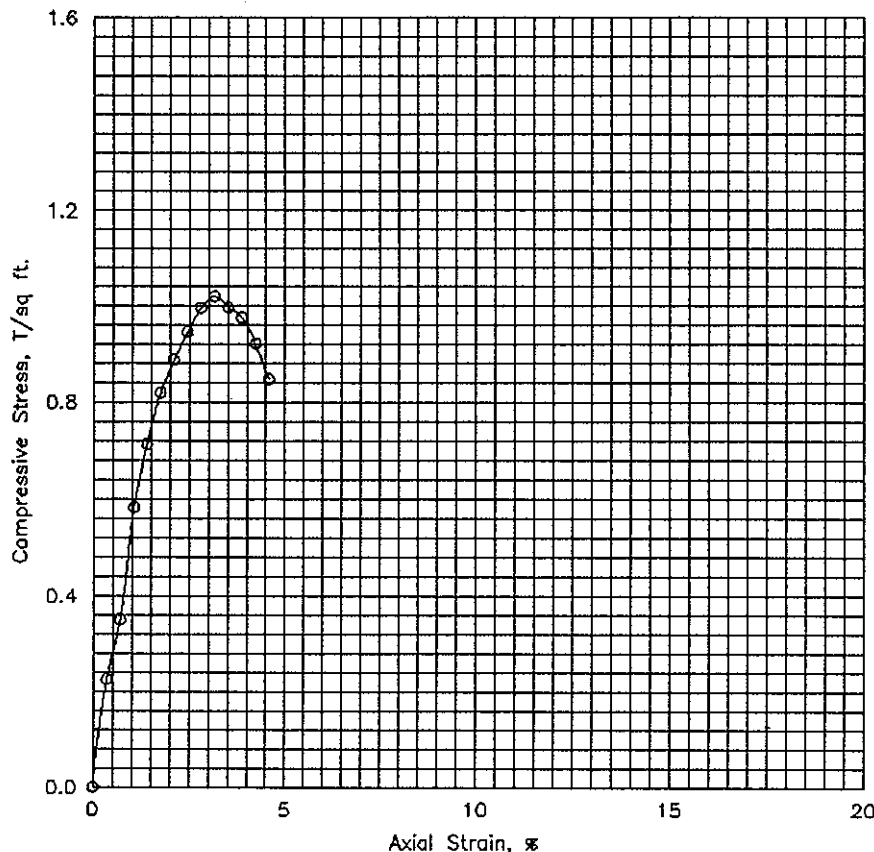
S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	LL (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0 - 2	1.25		Light gray and gray, SILTY CLAY, stiff, with sand seams	CL	21.5										0.50	
2	2 - 4	3.00		Light gray and tan, SILTY CLAY, very stiff, with sand and calcareous nodules	CL	20.1	109.8	132.0	44		100.0	99.9	99.8	99.3	84.8		
3	4 - 6	2.00		Light gray and tan, SANDY CLAY, stiff, with sand pockets	CL	23.2											
4	6 - 8	2.25		Light gray and tan, CLAY, very stiff, with sand	CL	22.9	103.5	127.2			99.7	99.6	99.6	99.4	93.9	0.70	1.02
5	8 - 10	2.75		Tan, CLAY, very stiff, with silt seams and calcareous nodules	CL	18.0											
6	10 - 12	3.25		Tan, CLAY, very stiff, with sand pockets	CL	21.4											
7	12 - 14	2.25		Light gray & tan, CLAY, very stiff, with large calcareous nodules, slickensided, blocky structure	CH	25.3	101.0	126.6	66	24	99.7	99.7	99.7	99.6	97.4		0.63
8	14 - 16	2.25		Tan & light gray, CLAY, very stiff, with slickensides	CH	26.6											
9	16 - 18	2.50		Tan & light gray, CLAY, very stiff, with calcareous nodules	CH	27.6											
10	18 - 20	1.50		Tan, CLAY, stiff, with calcareous nodules , slickensided	CH	24.3											

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

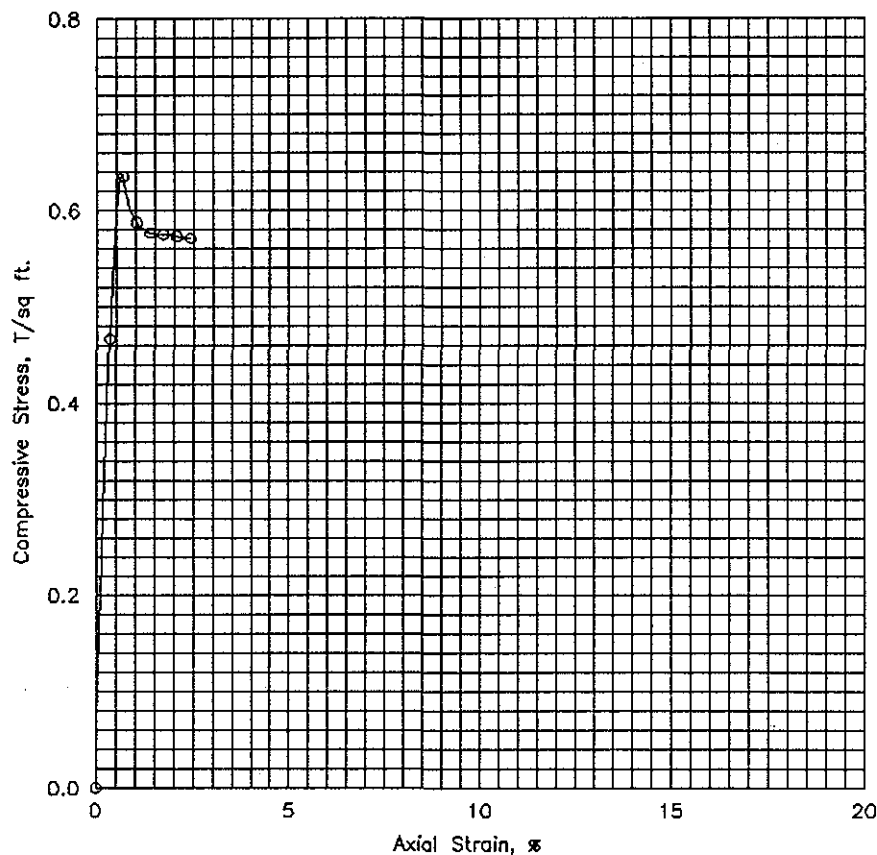
Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	22.9 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	103.5		
Time to failure, min		t_f	3.25		
Unconfined compressive strength, T/sq ft		q_u	1.02		
Undrained shear strength, T/sq ft		S_u	.51		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.790		
Initial specimen height, in.		H_0	5.690		

Classification Light gray and tan, Silty CLAY, very stiff, sand partings

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. 90-38	Sample No. 4
	Depth 6-8 ft	Date 7/28/90
	UNCONFINED COMPRESSION TEST REPORT	

Failure Sketches



- ☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	25.3 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	101.0		
Time to failure, min		t_f	.23		
Unconfined compressive strength, T/sq ft		q_u	.63		
Undrained shear strength, T/sq ft		S_u	.32		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.800		
Initial specimen height, in.		H_0	5.790		
Classification Light gray and tan, CLAY, very stiff, with large calcareous nodules, slickensid					
LL	66	PL	24	PI	42
		G_s			
Remarks		Project CHANNEL TO VICTORIA, TEXAS			
		Area Channel to Victoria in San Antonio Bay, Texas			
		Boring No. 90-38		Sample No. 7	
		Depth 12-14 ft		Date 7/28/90	
		UNCONFINED COMPRESSION TEST REPORT			