

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

BKM

PROJECT NAME Victoria Ship Channel

LOG OF BORING NO. 90-39

LOCATION / STATION 145+00

DATE / TIME STARTED 05/14/90 @ 12:00 noon

DATE / TIME COMPLETED " @ 1:15 pm

TIDE ELEVATION +2.00' MLT DATUM

WATER DEPTH 3.00' -6.8

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 27.00'

WEATHER Clear & Sunny

DRILL RIG MANUFACTURE
MODEL NO. CF-5

DRILLER Dempsey Gannon
LOGGER Arif Lazanidis

DRILLER'S / LOGGER'S COMMENTS —

DEPTH, FEET SAMPLE SAMPLE NO. PEN./TORVANE SPT.-BLOW COUNT		BORING NO. <u>90-39</u> DATE: BEGIN <u>06/14/90</u> COMPLETE <u>06/14/90</u> JOB NO. <u>146404</u> LOGGER <u>Ans</u> PAGE <u>2 / 3</u> PROJECT <u>Victoria Ship Channel</u> LOCATION/STATION/ELEVATION: <u>Sta. 145+00/ E.L. +2.00 M.L.T</u>					
		DEPTH: AUGERED _____ WASHED <u>19'</u> CORED _____					
		GROUNDWATER READINGS					
		TIME FIRST	DEPTH	TIME	DEPTH	TIME	DEPTH
		CONSIS- TENCY	COLOR	MINOR	MAJOR	MODIFICATION	
-0-	1	2.50	v/stiff	Tan		CLAY	- w/ calcareous nodules
	2	3.05	"	"		"	- w/ calcareous nodules & silt seams
-5-	3	3.20	"	"		"	- w/ calcareous nodules
	4	3.65	"	"		"	- w/ calcareous nodules & tan sandy clay layer; 11" sample
	5	3.90	"	"		"	
-10-	6	4.75	stiff	"		"	- 6" sample
	7	5.05	Hard	"		"	- 7.5" sample
-15-	8	5.50	v/stiff	"		"	- w/ calcareous nodules; 10" sample
	9	6.00	"	"		"	- w/ calcareous nodules
-20-							Bottom of Boring

 CONTINUED: ☐ YES ☒ NO

Project : CHANNEL TO VICTORIA
VICTORIA, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-39

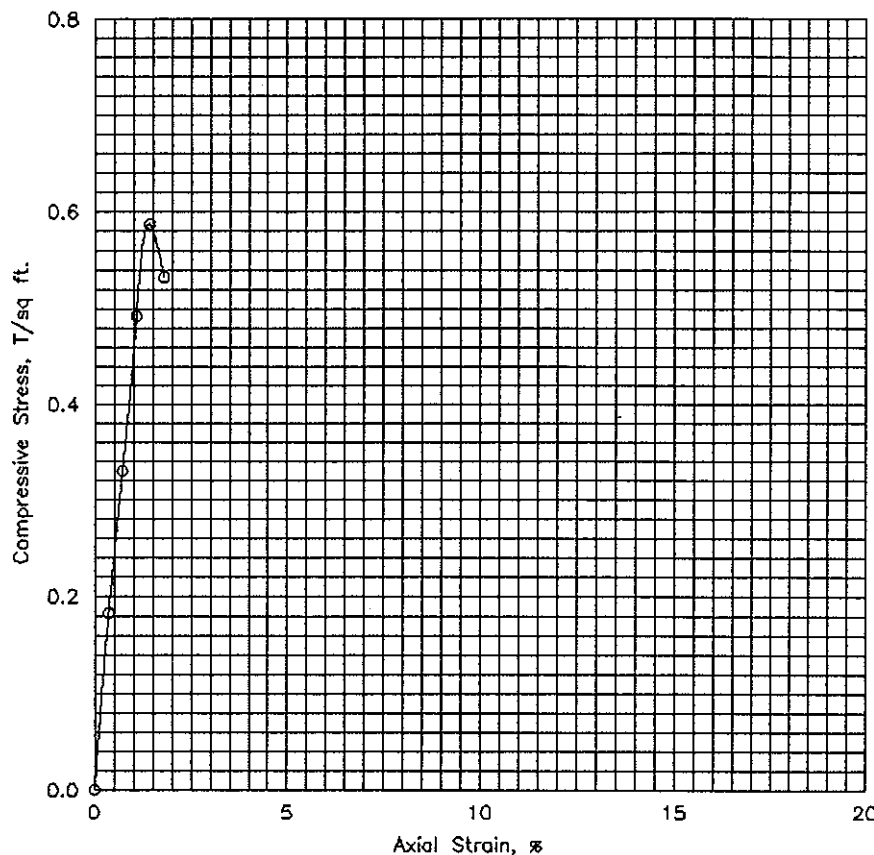
S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	LL (%)	P L (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0 - 2	2.50		Gray, SANDY CLAY, very stiff, with silt and calcareous nodules	CL	22.9	99.6	122.4			98.1	97.3	96.8	95.9	82.6		
2	2 - 4	2.75		Gray, SANDY CLAY, very stiff, with blocky structure and calcareous nodules	CL	19.4											
3	4 - 6	2.50		Gray, SANDY CLAY, stiff, with sand pockets	CL	20.1	106.2	127.5	30	18	100.0	100.0	99.9	96.9	65.9	0.70	0.59
4	6 - 8	3.75		Gray, SANDY CLAY, very stiff, with calcareous nodules and sand pockets	CL	22.8											
5	8 - 10	2.75		Gray, SANDY CLAY, very stiff, with calcareous nodules, slickensided	CL	22.1											
6	10 - 12	2.50		Gray, CLAY, very stiff, slightly sandy with calcareous nodules, slickensided	CL	24.2	100.3	124.6	46	19	99.9	99.5	99.2	99.1	97.3	0.80	0.81
7	12 - 14	2.50		Gray, CLAY, very stiff, slightly sandy, with calcareous nodules	CL	22.0											
8	14 - 16	4.50		Gray, CLAY, hard, slightly sandy, with calcareous nodules, slickensided	CL	24.2											
9	17 - 19	3.00		Gray, CLAY, very stiff, slightly sandy, slickensided	CL	29.1											

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

Job No. 14G404

Failure Sketches

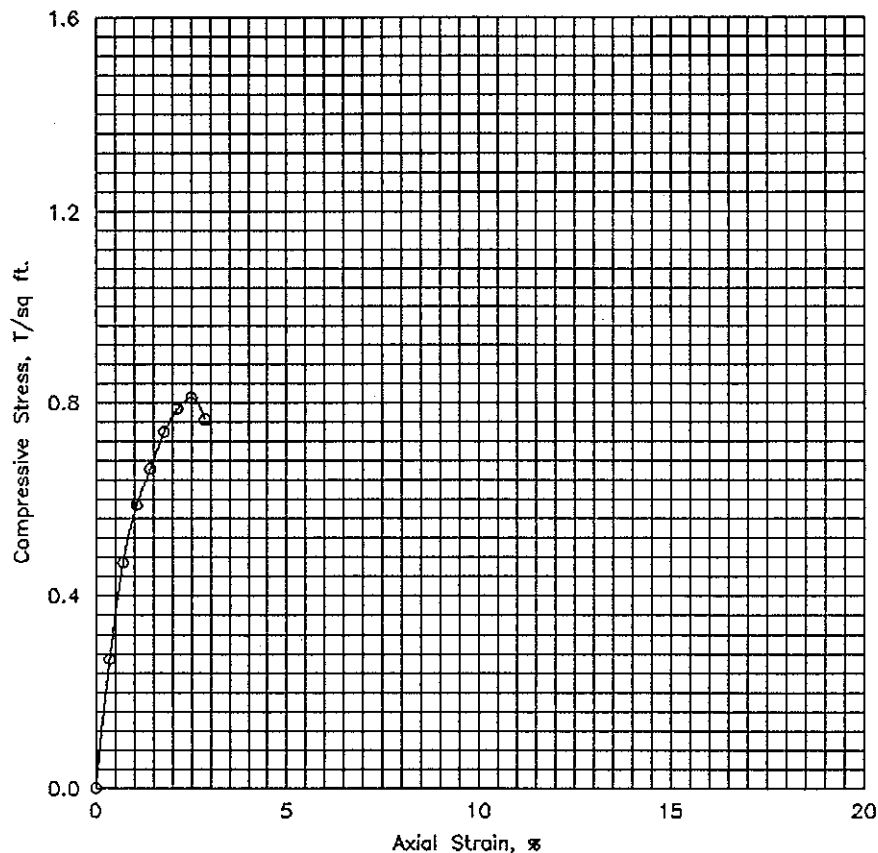


☐ Controlled stress
☒ Controlled strain

Test No.		1			
Type of Specimen		Undisturbed			
Initial	Water content	w_0	20.1 %	%	%
	Void ratio	e_0			
	Saturation	S_0	%	%	%
	Dry density, lb/cu ft	γ_d	106.2		
Time to failure, min		t_f	1.40		
Unconfined compressive strength, T/sq ft		q_u	.59		
Undrained shear strength, T/sq ft		S_u	.29		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_0	2.840		
Initial specimen height, in.		H_0	5.590		
Classification Gray, Sandy CLAY, stiff, with sand pockets					
LL	30	PL	18	PI	12
Remarks		Project CHANNEL TO VICTORIA, TEXAS			
		Area Channel to Victoria in San Antonio Bay, Texas			
		Boring No. 90-39		Sample No. 3	
		Depth 4-6 ft		Date 7/28/90	
		UNCONFINED COMPRESSION TEST REPORT			

Job No. 14G4D4

Failure Sketches



☐ Controlled stress
☒ Controlled strain

Test No.		1	
Type of Specimen		Undisturbed	
Initial	Water content	w_0	24.2 %
	Void ratio	e_0	
	Saturation	S_0	%
	Dry density, lb/cu ft	γ_d	100.3
Time to failure, min		t_f	2.45
Unconfined compressive strength, T/sq ft		q_u	.81
Undrained shear strength, T/sq ft		S_u	.41
Sensitivity ratio		S_t	
Initial specimen diameter, in.		D_0	2.840
Initial specimen height, in.		H_0	5.590
Classification Gray, Sandy CLAY, very stiff, with calcareous nodules, slickensided			
LL	46	PL	19
		PI	27
		G_s	
Remarks		Project CHANNEL TO VICTORIA, TEXAS	
		Area Channel to Victoria in San Antonio Bay, Texas	
		Boring No. 90-39	Sample No. 6
		Depth 10-12 ft	Date 7/28/90
		UNCONFINED COMPRESSION TEST REPORT	