

U.S. ARMY CORPS OF ENGINEERS
GEOTECHNICAL BORING DATA

BKM

PROJECT NAME Victoria Ship Channel

LOG OF BORING NO. B-20-41

LOCATION / STATION 175 + 00

DATE / TIME STARTED 03/16/90 2 2:20 pm

DATE / TIME COMPLETED " " 3:20 "

TIDE ELEVATION + 2.50 MLT DATUM

WATER DEPTH 6.83 -3.83
2.50

DEPTH FROM WATER SURFACE
TO BOTTOM OF BORING 27.83
21.50
6.33

WEATHER Cloudy

DRILL RIG MANUFACTURE
MODEL NO. CF-5

DRILLER Dempsey Brown
LOGGER Arise Lazaridis

DRILLER'S / LOGGERS COMMENTS —

DEPTH, FEET		SAMPLE NO.	PEN./TORVANE	SPT.-BLOW COUNT	BORING NO. <u>90-41</u>		DATE: BEGIN <u>06/16/90</u> COMPLETE <u>06/16/90</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. 175+00/ E.L. +2.50' M.L.T.</u>						
					DEPTH: AUGERED		WASHED <u>21.5'</u>		CORED		
					GROUNDWATER READINGS						
TIME		DEPTH		TIME		DEPTH		TIME		DEPTH	
FIRST											
CONSISTENCY		COLOR		MINOR		MAJOR		MODIFICATION			
-0-	1	0.25	1.52±	Gray		CLAY	-w/shells; 11" sample				
	2	1.25	5.12±	Tan		"	-w/calcareous nodules; 10" sample				
-5-	3	1.50		"		"	-w/Tan silty clay layer				
	4	2.50	5.2±	"	Silty	"	-w/Tan sandy clay layer; 10" sample				
	5	3.50	V/stiff	"		"	-w/calcareous nodules & tan silty clay & sandy clay layers				
-10-	6	4.25		"	1/2 sandy	"	-w/Tan clay with shells				
	7	5.00	1.0±	Tan		SAND	—				
-15-	8	6.00		1/2 gray		"	-w/calcareous nodules				
-20-	9	5.8/12		Tan		"					
-25-	Bottom of Boring										

CONTINUED: ☐ YES ☒ NO

Project : VICTORIA SHIP CHANNEL, TEXAS

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 90-41

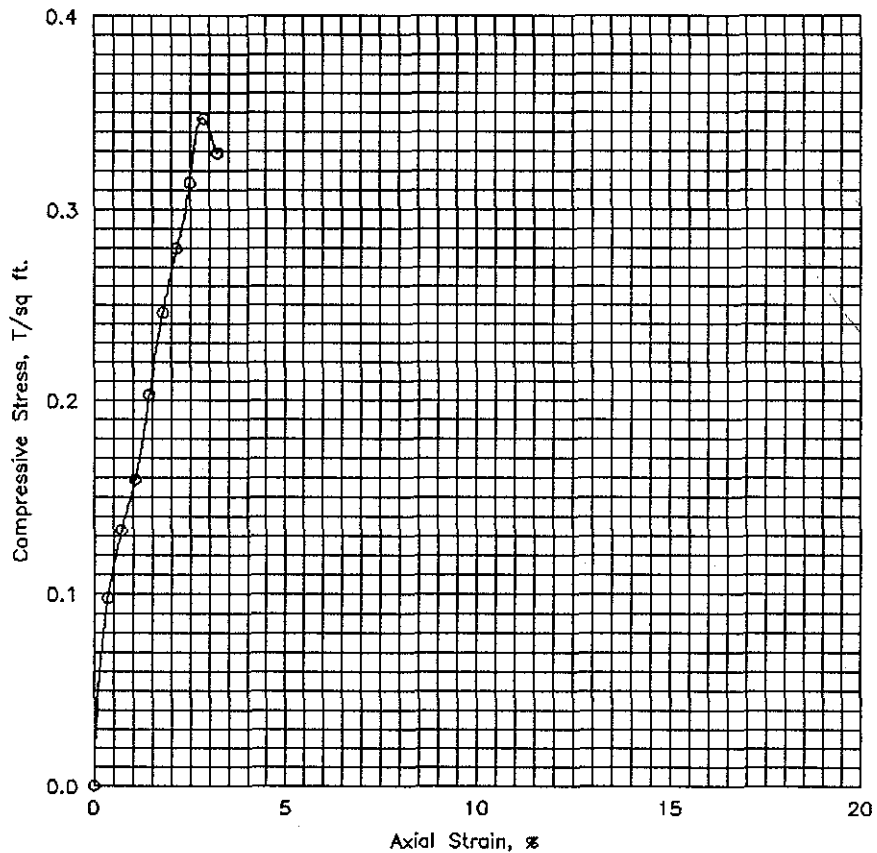
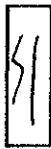
S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	M c (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	LL (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
1	0 - 2	0.00		Dark gray, CLAY, very soft	CH	59.5											
2	2 - 4	0.75		Gray, CLAY, firm, slickensided	CH	31.0	91.8	120.3	67	27						0.30	0.35
3	4 - 6	1.50		Gray, CLAY, stiff, with calcareous nodules, slickensided	CH	28.7											
4	6 - 8	0.75		Gray and tan, SANDY CLAY, firm	CL	24.0					99.3	99.2	98.9	98.6	82.6	0.20	
5	8 - 10	0.75		Gray and tan, VERY SANDY CLAY, firm	CL	20.8											
6	10 - 12	0.50		Gray and tan, SANDY SILT, loose, with large calcareous nodules	ML	24.4	99.8	124.1	NP	NP	96.8	95.8	94.1	93.3	61.5		
7	12 - 13.5		22	Gray, SILTY SAND, medium dense	SM						100.0	100.0	99.6	86.5	27.0		
8	17 - 18.5		19	Gray, SAND, medium dense, with large calcareous nodules	SP												
9	20 - 21.5		20	Gray, SANDY CLAY, very stiff	CL												

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	31.0 %
	Void ratio	e_0	
	Saturation	S_0	%
	Dry density, lb/cu ft	γ_s	91.8
Time to failure, min		t_f	2.72
Unconfined compressive strength, T/sq ft		q_u	.35
Undrained shear strength, T/sq ft		S_u	.17
Sensitivity ratio		S_t	
Initial specimen diameter, in.		D_0	2.810
Initial specimen height, in.		H_0	5.590
Classification Gray, Sandy CLAY, firm, slickensided			
LL	67	PL	27
		PI	40
		G_s	
Remarks		Project CHANNEL TO VICTORIA, TEXAS	
		Area Channel to Victoria in San Antonio Bay, Texas	
		Boring No. 90-41	Sample No. 2
		Depth 2-4 ft	Date 7/30/90
		UNCONFINED COMPRESSION TEST REPORT	