

BORING LOG FIELD DATA											
Project <u>HARBOR ISLAND, PORT ARANSAS, TEXAS</u>						Location <u>2,514,301 ; 765,347</u>		Date <u>3 JUNE 1974</u>			
Drill Rig <u>FAILING 1500</u>						Inspector <u>LANGFORD</u>		Operator <u>YOUNGER</u>		Surface elev. _____	
Levee District <u>GALVESTON</u>						Job No. _____		Boring No. <u>74-134</u>			
SAMPLE NUMBER	DATE TAKEN	STRATUM		DRIVE		SAMPLE		TYPE OF SAMPLER	CONTAINER	POCKET PENETROMETER VALUE	CLASSIFICATION AND REMARKS
		FROM	TO	FROM	TO	FROM	TO				
	3 JUNE	0.0	74.0								WATER DEPTH 74.0' 1500 HOURS
1				0.0	3.0	0.0	3.0	3" POSTER-BERG	JAR	0.0	GRAY SANDY SILTY CLAY, VERY SOFT. VANE SHEAR 0.01 (.50) WASHED.
2				3.0	5.0						
2				5.0	8.0	5.8	7.0		TUBE	0.0	VANE SHEAR 0.06 $\frac{1}{3}$ (30)
						7.0	8.0		TUBE		
				8.0	10.0						
3				10.0	13.0	10.4	11.7		TUBE	0.0	VANE SHEAR 0.06 (30)
3						11.7	13.0		TUBE		
4				13.0	15.0	15.2	15.6		JAR		
4				15.0	18.0	15.6	16.6		TUBE	0.25	SOFT. VANE SHEAR 0.12 (60)
4						16.6	18.0		TUBE		
				18.0	20.0						WASHED
5				20.0	23.0	20.3	20.6		JAR	0.50	VANE SHEAR 0.09 (45)
5						20.6	21.8		TUBE		
5						21.8	23.0		TUBE		

[illegible]

[illegible]

Sheet 2 of 2 Sheets

Date _____ Classified by _____

[illegible]

LOCATION: _____

1415

BORING NO. 74-134

TEST DATA SUMMARY

DATE COMPLETED 3 June 1974

[illegible]

CONSISTENCY - COHESIVE SOILS						CONSISTENCY - COHESIONLESS SOILS				
VS	S	M	ST	VST	H	VL	L	M	D	VD
Very Soft	Soft	Medium	Stiff	Very Stiff	Hard	Very Loose	Loose	Medium	Dense	Very Dense

(1) Tons/Sq.Ft. Unconfined Compressive Strength
(2) Split Barrel Sampler
(3) Acc. Wt. Rtn'd : Init. Wt. $\times 100 = \% \text{ Rtn'd.}$

BORING NO. 74-134

Bottomed at 28.0' Water at Tide Reading

Sheet 1 of sheets 1

0075

UNCONFINED COMPRESSION TEST						DATE <u>9-27-74</u>	
PROJECT <u>25 E. 1</u>			EXCAVATION NUMBER <u>74-134</u>		SAMPLE NUMBER <u>C-2A (7-8)</u>		
PROVING RING DIAL NUMBER		PROVING RING NUMBER		CALIBRATION CURVE NUMBER			
PROVING RING CONSTANT, K_r		VERTICAL DIAL NUMBER <u>Cyl 83</u>		RATE OF LOAD APPLICATION <u>0.005</u>			
FORMULAS $\text{Area} = \frac{\pi D^2}{4} = \frac{C^2 D}{4}$ $\text{Corrected Area, } A = \frac{A_0 (\text{sq. ft.})}{1 - E}$ $\text{Unit Strain, } E = \frac{\Delta L}{L_0}$ $\text{Unit Stress} = \frac{P (\text{lb.})}{A (\text{sq. ft.})}$							
INITIAL MEASUREMENTS ON SAMPLE						AVERAGE AREA, A_0	
	DIAMETER, D (in.)	CIRCUMFERENCE, C (in.)	AREA (sq. in.)		sq. in.	sq. ft.	
TOP							
CENTER					HEIGHT, L_0 (in.)		
BOTTOM							
ELAPSED TIME (min.)	PROVING RING DIAL READING (0.0001 in.)	LOAD, P (lb.) (Ring Dial $\times K_r$, or from calibration curve)	VERTICAL DIAL READING (in.)	VERTICAL DIAL DIFFERENCE, ΔL (in.)	UNIT STRAIN, E (in./in.)	CORRECTED AREA, A (sq. ft.)	UNIT STRESS (lb./sq. ft.)
	0		0.00		0.00	3.01	28
	2		0.02		0.025	3.03	55
	4		0.04		0.05	3.05	82
	6		0.06		0.10	3.06	96
	8		0.08		0.13	3.09	122
	10		0.10		0.17	3.11	134
	12		0.12		0.25	3.13	133
	14		0.14		0.30	3.15	146
	16		0.16		0.33	3.17	158
	18		0.18		0.40	3.19	157
	20		0.20		0.48	3.21	169
	22		0.22		0.50	3.23	168
	24		0.24		0.53	3.25	167
	26		0.26		0.55	3.28	166
	28		0.28				
	30		0.30				
	32		0.32				
	34		0.34				
	36		0.36				
	38		0.38				
	40		0.40				
	42		0.42				
	44		0.44				
	46		0.46				
	48		0.48				
	50		0.50				
WATER CONTENT (%)		UNCONFINED COMPRESSIVE STRENGTH, q_u (lb./sq. ft.)					
<u>N. U. in Cyl # 3</u> <u>4342432</u>							
REMARKS AND CALCULATIONS (Use reverse side, if more space is needed)							
Pen - 0.00 Color - Gr. Dist - 262 W. D. - 336 D.W. - 215 (Sample Gr. for soil w/ some crumbling at ends)							
TECHNICIAN (Signature)		COMPUTED BY (Signature)			CHECKED BY (Signature)		

8/10/74

3-2-20

SAMPLE NUMBER

CALIBRATION CURVE NUMBER

RATE OF LOAD APPLICATION

$$\text{Area} = \frac{\pi D^2}{4} = \frac{C^2 D}{4} \quad \text{Corrected Area, } A = \frac{A_0 \text{ (sq. ft.)}}{1 - E} \quad \text{Unit Strain, } E = \frac{\Delta L}{L_0} \quad \text{Unit Stress} = \frac{P \text{ (lb.)}}{A \text{ (sq. ft.)}}$$

AVERAGE AREA, A_0

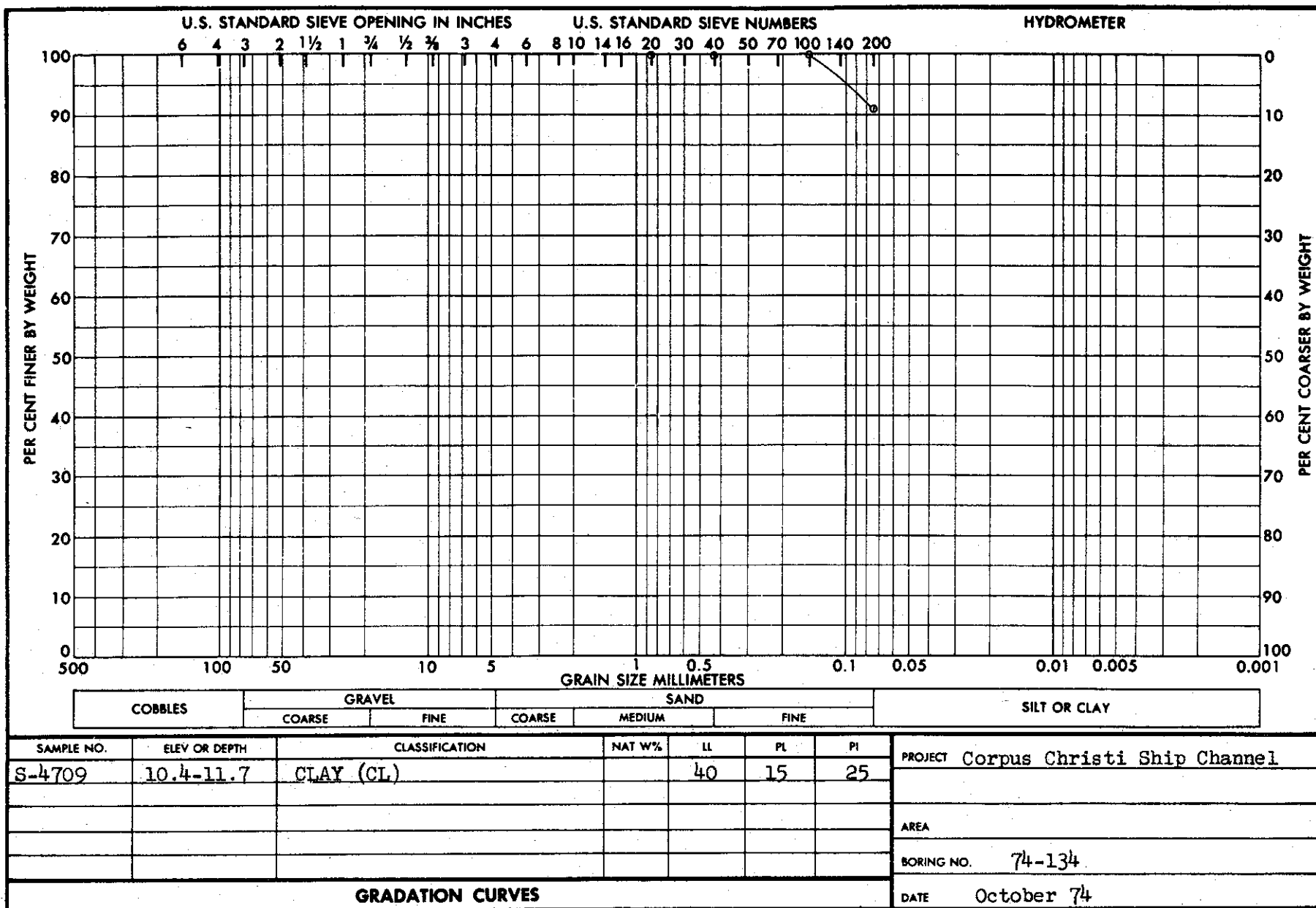
	DIAMETER, D (in.)	CIRCUMFERENCE, C (in.)	AREA (sq. in.)	SQ. IN.	SQ. FT.
TOP					
CENTER				HEIGHT, L ₀ (in.)	
BOTTOM					

ELAPSED TIME (min.)	PROVING RING DIAL READING (0.0001 in.)	LOAD, P (lb.) (Ring Dial x K_r , or from calibration curve)	VERTICAL DIAL READING (in.)	VERTICAL DIAL DIFFERENCE, ΔL (in.)	UNIT STRAIN, ϵ (in./in.)	CORRECTED AREA, A (sq. ft.)	UNIT STRESS (lb./sq. ft.)
	1		025		.625	3.01	14
	2		050		1.25	3.03	28
	4		075		1.87	3.05	55
	5		100		2.50	3.06	68
	6		125		3.13	3.09	81
	8		150		3.75	3.11	107
	9		175		4.38	3.13	120
	10		200		5.00	3.15	133
	10		225		5.63	3.17	132
	11		250		6.25	3.19	144
	12		275		6.88	3.21	156
	13		300		7.50	3.23	155
	12		325		8.13	3.25	154
	12		350		8.75	3.28	166
	13		375		9.38	3.30	165
	13		400		10.00	3.32	164
	14		425		10.63	3.34	175
	15		450		11.25	3.37	173
	14		475		11.88	3.39	172
	14		500		12.50	3.42	171

UNCONFINED COMPRESSIVE STRENGTH, q_u (lb./sq. ft.)

D.W. -21-

CHECKED BY (Signature)



SWDED-FL Report No. 12013

ENG FORM 2087
1 MAY 63

REPLACES WES FORM NO. 1241, SEP 1962, WHICH IS OBSOLETE.

U.S. GOVERNMENT PRINTING OFFICE : 1963 OF-709-126

$c = 0.1$ T/SF $\phi = 0$ DEG $\tan \phi = 0$																																																																																
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">SPECIMEN NO.</th> <th>1</th> <th>2</th> <th>3</th> </tr> <tr> <td rowspan="4" style="writing-mode: vertical-rl; transform: rotate(180deg);">INITIAL</td> <td>WATER CONTENT, %</td> <td>w_o 48.0</td> <td>41.5</td> <td>45.6</td> </tr> <tr> <td>DRY DENSITY LB/ CU FT</td> <td>γ_{d_o} 73</td> <td>78</td> <td>75</td> </tr> <tr> <td>SATURATION, %</td> <td>s_o 99</td> <td>99</td> <td>99</td> </tr> <tr> <td>VOID RATIO</td> <td>e_o 1.291</td> <td>1.123</td> <td>1.225</td> </tr> <tr> <td rowspan="6" style="writing-mode: vertical-rl; transform: rotate(180deg);">BEFORE SHEAR</td> <td>WATER CONTENT, %</td> <td>w_c</td> <td></td> <td></td> </tr> <tr> <td>DRY DENSITY LB/ CU FT</td> <td>γ_{d_c}</td> <td></td> <td></td> </tr> <tr> <td>SATURATION, %</td> <td>s_c</td> <td></td> <td></td> </tr> <tr> <td>VOID RATIO</td> <td>e_c</td> <td></td> <td></td> </tr> <tr> <td>FINAL BACK PRESSURE, T/SQ FT</td> <td>u_o</td> <td></td> <td></td> </tr> <tr> <td>MINOR PRINCIPAL STRESS, T/SQ FT</td> <td>σ_3</td> <td>.5</td> <td>1.5</td> <td>3.0</td> </tr> <tr> <td colspan="2">MAXIMUM DEVIATOR STRESS, T/SQ FT</td> <td>$(\sigma_1 - \sigma_3)_{MAX}$</td> <td>.25</td> <td>.20</td> <td>.24</td> </tr> <tr> <td colspan="2">TIME TO $(\sigma_1 - \sigma_3)_{MAX}$, MIN</td> <td>$t_f$</td> <td>15</td> <td>18</td> <td>18</td> </tr> <tr> <td colspan="2">ULTIMATE DEVIATOR STRESS, T/SQ FT</td> <td>$(\sigma_1 - \sigma_3)_{ULT}$</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="2">INITIAL DIAMETER, IN.</td> <td>D_o</td> <td>1.4</td> <td>1.3</td> <td>1.4</td> </tr> <tr> <td colspan="2">INITIAL HEIGHT, IN.</td> <td>H_o</td> <td>3.0</td> <td>3.0</td> <td>3.0</td> </tr> </table>		SPECIMEN NO.		1	2	3	INITIAL	WATER CONTENT, %	w_o 48.0	41.5	45.6	DRY DENSITY LB/ CU FT	γ_{d_o} 73	78	75	SATURATION, %	s_o 99	99	99	VOID RATIO	e_o 1.291	1.123	1.225	BEFORE SHEAR	WATER CONTENT, %	w_c			DRY DENSITY LB/ CU FT	γ_{d_c}			SATURATION, %	s_c			VOID RATIO	e_c			FINAL BACK PRESSURE, T/SQ FT	u_o			MINOR PRINCIPAL STRESS, T/SQ FT	σ_3	.5	1.5	3.0	MAXIMUM DEVIATOR STRESS, T/SQ FT		$(\sigma_1 - \sigma_3)_{MAX}$	.25	.20	.24	TIME TO $(\sigma_1 - \sigma_3)_{MAX}$, MIN		t_f	15	18	18	ULTIMATE DEVIATOR STRESS, T/SQ FT		$(\sigma_1 - \sigma_3)_{ULT}$				INITIAL DIAMETER, IN.		D_o	1.4	1.3	1.4	INITIAL HEIGHT, IN.		H_o	3.0	3.0	3.0
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CONTROLLED- Strain TEST DESCRIPTION OF SPECIMENS CLAY (CL)																																																																																
LL 40	PL 15	PI 25	$G_s 2.68_{est}$	TYPE OF SPECIMEN Undist	TYPE OF TEST Q																																																																											
REMARKS:				PROJECT Corpus Christi Ship Channel																																																																												
				(ctn-3&3A)																																																																												
BORING NO. 74-134				SAMPLE NO. S-4709																																																																												
DEPTH/ELEV S-4709 10.4-11.7				S-4710 11.7-13.0																																																																												
LABORATORY SWD				DATE October 74																																																																												
Test 2 trimmed from S-4710(ctn-3A)																																																																																
TRIAXIAL COMPRESSION TEST REPORT																																																																																