BORING LOG
FIELD DATA

Project Harbor Island Boat Ramp Location 25' west of location Date 11 June 1974
Drill Rig _____ Inspector Eck Operator _____ Surface elev _____
Levee District _____ Job No. _____ Boring No. 74-131

SAMPLE NUMBER	DATE TAKEN	STRATUM FROM	STRATUM TO	DRIVE FROM	DRIVE TO	SAMPLE FROM	SAMPLE TO	TYPE OF SAMPLER	CONTAINER	POCKET PENETROMETER VALUE	CLASSIFICATION AND REMARKS
	11 June	0.0	67.7								water depth
		0.0		0.4	3.0			osterberg		0.0	(vane shear .025 tons/ft²) (1.25)
1						1.8	3.0		Tube		GRAY CL with Layered SD.
				3.0	6.0			-		.25	(vane shear .03 tons/ft²) (1.5)
2						4.8	6.0		-		
Ec #1						0.0	6.0		Jug		
				6.0	9.0					.25	(vane shear .08 tons/ft²) (4)
3						7.8	9.0	-	tube		
			13.0	9.0	12.0			-	-	.25	(vane shear .10 tons/ft²) (5)
4	13.0					10.8	12.0				
				12.0	15.0			-		.75	
5						12.4	13.6				GRAY SAND
				15.0	18.0						washed
6				18.0	20.0				Jar		GRAY SAND
				18.0	18.5						26-BL
				18.5	19.0						31-BL

UNC

WES FORM NO. 819 REV NOV 1971 PREVIOUS EDITION IS OBSOLETE

Sheet 1 of 3 Sheets

Random with Samples

Boring No. 74-131
Levee District _____
Job No. _____

LABORATORY DATA

Date _____ Classified by _____

CLASSIFICATION	SYMBOL	NAT WC %

BORING LOG
FIELD DATA

Project Harbor Island Port Orchard Location _____ Date 11 June 1974

Drill Rig _____ Inspector _____ Operator _____ Surface elev _____

Levee District _____ Job No. _____ Boring No. 74-131

SAMPLE NUMBER	DATE TAKEN	STRATUM FROM	STRATUM TO	DRIVE FROM	DRIVE TO	SAMPLE FROM	SAMPLE TO	TYPE OF SAMPLER	CONTAINER	POCKET PENETROMETER VALUE	CLASSIFICATION AND REMARKS
	11 June			19.0	19.5						49 - BL
				19.5	23.0						washed
7				23.0	25.0	23.4	25.0	split spoon	JAR		GRAY SILTY SAND (GR @ 23.4 ft 24.3)
				23.0	23.5						20 - BL
				23.5	24.0						27 - BL
				24.0	24.5						28 - BL
				24.5	25.0						NO count
				25.0	28.0						washed
8				28.0	30.0	29.0	30.0	—	JAR		GRAY SAND
				28.0	28.5						35 - BL
				28.5	29.0						38 - BL
				29.0	29.5						40 - BL
				29.5	30.0						NO count
				30.0	33.0						washed
9				33.0	35.0	34.0	35.0		JAR		GRAY SAND
				33.0	33.5						27 - BL
				33.5	34.0						31 - BL

WES FORM NO. 819 REV NOV 1971 PREVIOUS EDITION IS OBSOLETE

Sheet 2 of 3 Sheets

Boring No. 74-131
Levee District _____
Job No. _____

LABORATORY DATA

Date _____ Classified by _____

CLASSIFICATION	SYMBOL	NAT WC %

BORING LOG
FIELD DATA

Project Harbor Island Port Arkansas Location _____ Date 11 June 1974

Drill Rig _____ Inspector _____ Operator _____ Surface elev _____

Levee District _____ Job No. _____ Boring No. 74-131

SAMPLE NUMBER	DATE TAKEN	STRATUM FROM	STRATUM TO	DRIVE FROM	DRIVE TO	SAMPLE FROM	SAMPLE TO	TYPE OF SAMPLER	CONTAINER	POCKET PENETROMETER VALUE	CLASSIFICATION AND REMARKS
	11 Jun			34.0	34.5						33-B2
				34.5	35.0						No Count
											Bottom of Hole

WES FORM NO. 819 REV NOV 1971 PREVIOUS EDITION IS OBSOLETE

Sheet 3 of 3 Sheets

Boring No. 74-131
Levee District _____
Job No. _____

LABORATORY DATA

Date _____ Classified by _____

CLASSIFICATION	SYMBOL	NAT WC %

12 July 1971

GDLR NO 1475

PROJECT: HARBOR ISLAND, PORT ARANSAS

BORING NO. 74-131

TEST DATA SUMMARY

LOCATION: 25' west of location

DATE COMPLETED 11 June 1974

FIELD NO.	Sample Depth, Feet From	To	CLASSIFICATION ELEVATION TOP BORING _____	SYMBOL	CONSISTENCY	POCKET (1) PENETROMETER	STAN. PENET. BLOWS/FT (2)	MOISTURE CONTENT %	DRY DENSITY P. c. f.	L.L.	P.L.	Lab Sample No.	BAR L.S.	SIEVE ANALYSIS PERCENT GRVL	SAND	FINES	INIT. WT.	ACC. WT. RTND. SIEVE NO. (3) NO. 4	NO. 10	NO. 40	NO. 200
	0.0	67.7	WATER																		
1C	1.8	3.0	Gray Sandy Clay w/sand pockets & shell fragments 1.8'-4.8'	CH	VS	0.0		35	*	67	25	1777		0	32	68	50	0	0	0	16
2C	4.8	6.0	Gray Clay w/sand seams 4.8'-10.8'	CL	S	0.25		59	68	42	17	1778		0	2	98	50	0	0	0	1
3C	7.8	9.0	shell fragments 4.8'-6.0'		S	0.25		61	66	46	18	1779		0	12	88	50	0	0	0	6
4C	10.8	12.0	Gray Sandy Clay 10.8'-12'	CH	S	0.25		34	*	54	19	1780		0	28	72	50	0	0	0	14
5C	12.4	13.6	Gray Sandy Clay 12'-15'	CL	M	0.75		39	81	41	16	1781		0	36	64	50	0	0	0	18
6J	18.0	20.0	Gray Silt 15'-23'	ML	VD		57	71				1782	2	0	10	90	50	0	0	0	5
7J	23.4	25.0	Gray Silty Sand 23'-35'	SM	VD		55	24				1783	2	0	60	40	50	0	0	0	30
8J	29.0	30.0	clay seams 23'-25'		VD		78	25				1784	0	0	60	40	50	0	0	0	30
9J	34.0	35.0	shell fragments 33'-35'		VD		64	24				1785	0	0	78	22	50	0	0	0	39
								26	*			1774	0	0	80	20	50	0	0	2	40

* Disturbed

KEY: CONSISTENCY — COHESIVE SOILS: VS Very Soft, S Soft, M Medium, ST Stiff, VST Very Stiff, H Hard. CONSISTENCY — COHESIONLESS SOILS: VL Very Loose, L Loose, M Medium, D Dense, VD Very Dense.

(1) Tons/Sq.Ft. Unconfined Compressive Strength
(2) Split Barrel Sampler
(3) Acc. Wt. Rtnd ÷ Init. Wt. x 100 = % Rtnd.

BORING NO. 74-131

Bottomed at 35.0' Water at _____ Tide Reading _____

Sheet 1 of sheets 1

1475

UNCONFINED COMPRESSION TEST

DATE: 12/12/7[illegible]

PROJECT	EXCAVATION NUMBER	SAMPLE NUMBER
CC Ext. Ch. Harbor Island	79-131	C-2 (4.9-6.9)

PROVING RING DIAL NUMBER	PROVING RING NUMBER	CALIBRATION CURVE NUMBER

PROVING RING CONSTANT, K_r		RATE OF LOAD APPLICATION
	Cyl #3	0°04

FORMULAS

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

INITIAL MEASUREMENTS ON SAMPLE

	DIAMETER, D (in.)	CIRCUMFERENCE, C (in.)	AREA (sq. in.)
TOP			
CENTER			
BOTTOM			

AVERAGE AREA, A_o: SQ. IN. | SQ. FT.

HEIGHT, L_o (in.)

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, E (in./in.)	CORRECTED AREA, A (sq. ft.)	UNIT STRESS (lb./sq. ft.)
	2		025		.625	3.01	28
	5		050		1.25	3.03	69
	7		075		1.87	3.05	96
	9		100		2.50	3.06	109
	9		125		3.13	3.09	122
	10		150		3.75	3.11	134
	11		175		4.38	3.13	147
	11		200		5.00	3.15	146
	12		225		5.63	3.17	158
	12		250		6.25	3.19	157
	12		275		6.88	3.21	156
	13 ✓		300		7.50	3.23	164
	13		325		8.13	3.25	167
	13		350		8.75	3.28	166
	13		375		9.38	3.30	165
			400				
			425				
			450				
			475				
			500				

WATER CONTENT (%)

W.W. in Cyl #3 424 50%

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

REMARKS AND CALCULATIONS (Use reverse side, if more space is needed)

Pen - 0.0
Color - Gray
Dish - 411
W.W. - 327
D.W. - 218

Bottom (1/4) of Specimen
Silt
Stiff Tense 1" from -00

TECHNICIAN (Signature)	COMPUTED BY (Signature)	CHECKED BY (Signature)

DD FORM 1 AUG 57 1213

Mon #8 - Loose

GPO 831154

TEST DATA SUMMARY

PROJECT _____

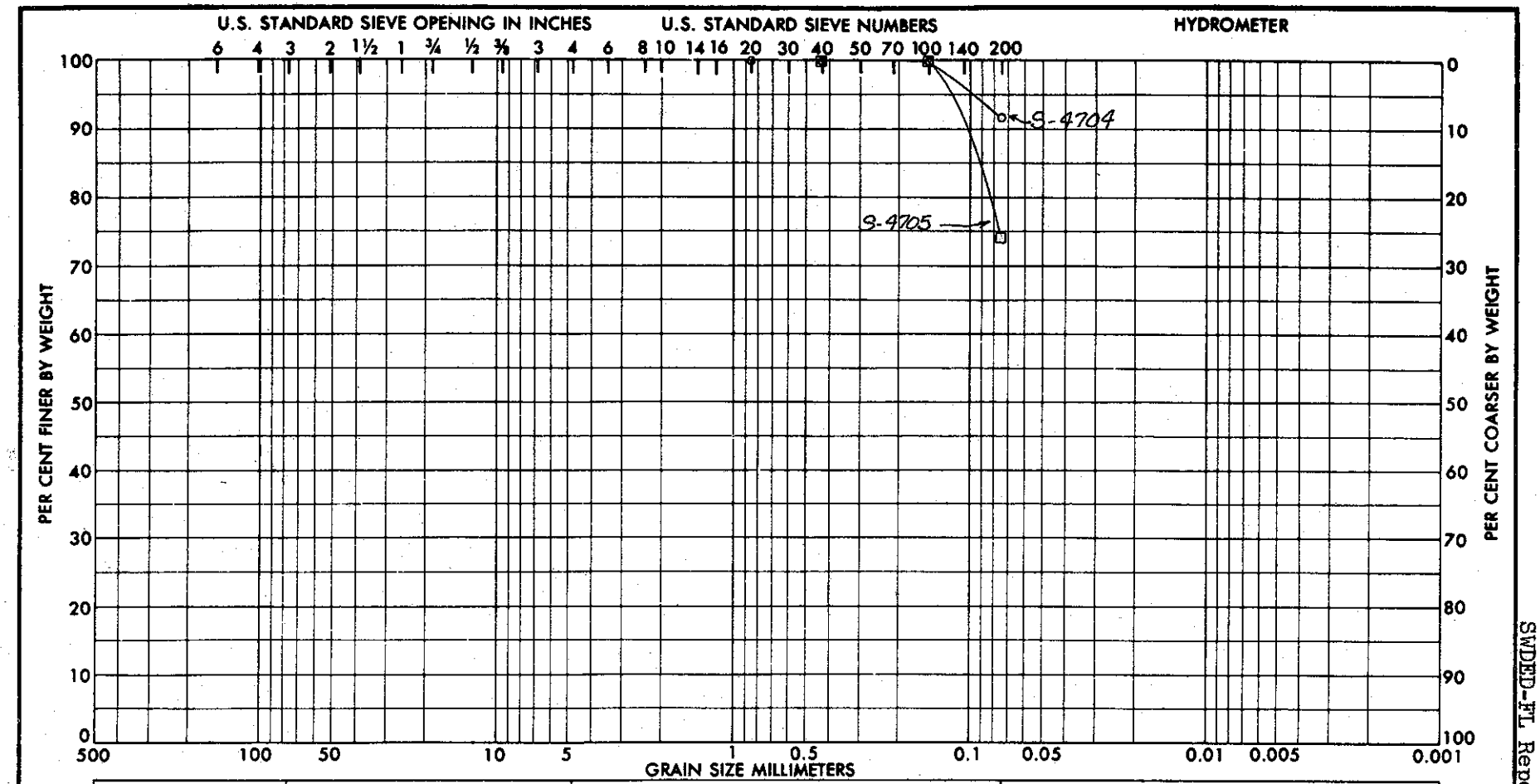
SWDED-FL Report 12013

Corpus Christi

BORING NO.	SAM. NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS				ATTERBERG LIMITS		SPECIFIC GRAVITY G	NAT. WATER CONT. %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA		SHEAR DATA												PERMEABILITY		C
				GRAVEL %	SAND %	FINES %	D_{10}	LL	PL				OPT. WATER %	MAXIMUM DRY DENSITY LBS/CU FT	INITIAL e	DRY DENSITY LBS/CU FT	W_1 %	W_F %	S_1 %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_m T/SQ FT	σ_1 T/SQ FT	c T/SQ FT	ϕ DEGREES	e	K FT/MIN.	P_O T/SQ F
74-126 thru	74-129																											
	Jar		SM	1	80	19					22.2																	
(S-4711)			SAND, silty, gray, some shell fragments.												.645	100	23.2	23.3	95	DS	3.0X3.0X0.5	1			0	35			
															.620	102	23.1	21.5	99		3.0X3.0X0.5	2							
															.654	100	23.2	23.6	94		3.0X3.0X0.5	3							
74-131																													
C/n-3	78-9.0		CL	0	8	92		45	15		52.4	71																	
(S-4704)			CLAY, gray, very soft, some sand pockets in lower portion.												1.443	68	53.6		99	TC-Q	1.3 X 3.0	1	0.5	0.63	0.1	0			
															1.416	69	54.0		102		1.3 X 3.0	2	2.0	2.16					
C/n-5	124-13.6		CL	0	26	74		37	13		35.1	86																	
(S-4705)			CLAY, sandy, gray, very soft, sand seams throughout sample.												.860	89	31.7		98	TC-Q	1.3X2.9	1	0.5	0.78	0.1	0			
															1.070	80	39.7		99		1.3X3.0	2	2.0	2.20					
74-132																													
C/n-4	16.8-18.0		CL	0	5	95		42	15		39.1	83																	
(S-4706)			CLAY, gray, very soft, some sand seams.												1.026	82	37.7		98	TC-Q	1.3 X 3.0	1	1.0	1.18	—	—			

ENG FORM 2086 EDITION OF 1 MAR 58 IS OBSOLETE.
1 JAN 73

T – TRIAXIAL COMPRESSION
UC– UNCONFINED COMPRESSION
DS– DIRECT SHEAR
Q – UNCONSOLIDATE UN



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

SAMPLE NO.	ELEV OR DEPTH	CLASSIFICATION	NAT W%	LL	PL	PI
S-4704	7.8-9.0	CLAY (CL)		45	15	30
S-4705	12.4-13.6	CLAY, sandy (CL)		37	13	24

GRADATION CURVES

PROJECT Corpus Christi Ship Channel

AREA

BORING NO. 74-131

DATE October 74

SWDED-FL Report No. 12013

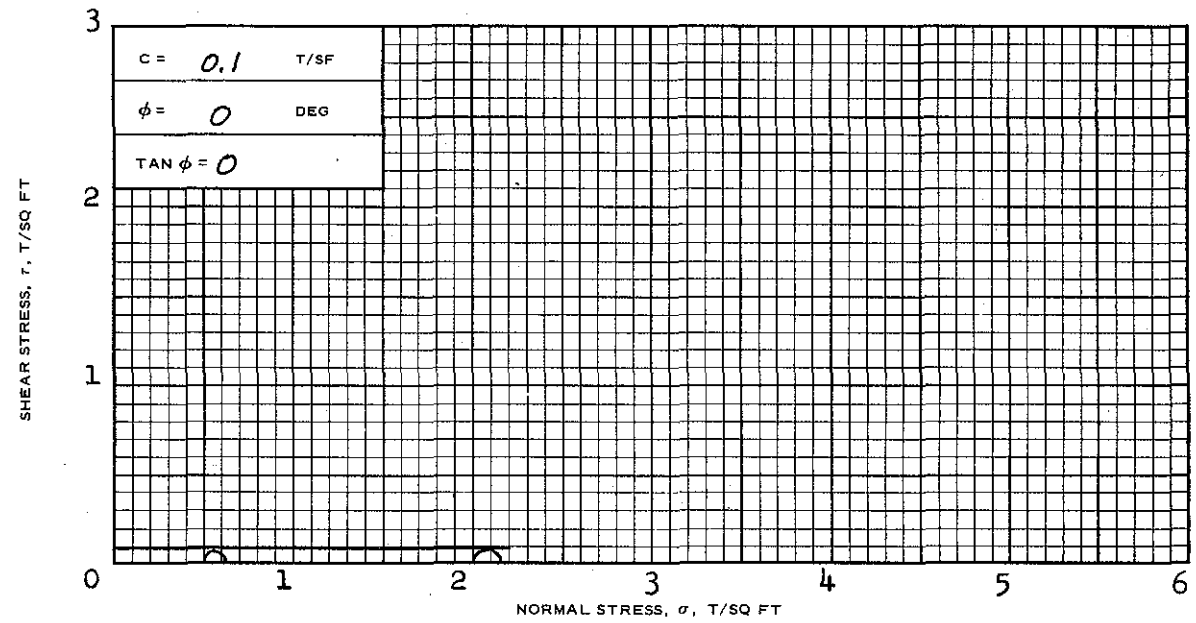
Plate No. 2

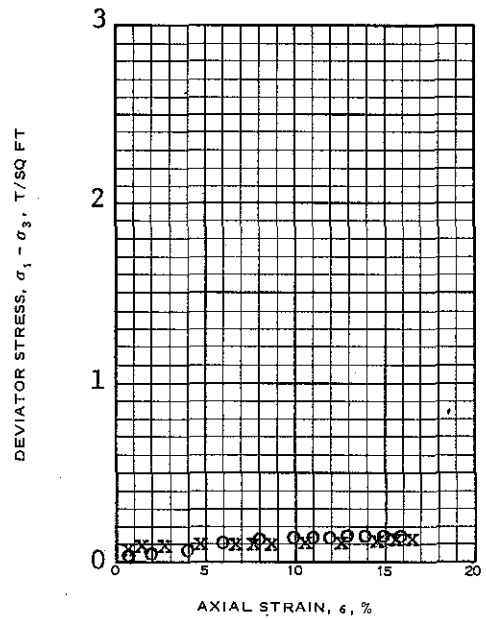
ENG FORM 2087
1 MAY 63

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

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

SWDED-FL Report No. 12013





SPECIMEN NO.			1	2		
INITIAL	WATER CONTENT, %	w_o	53.6	54.0		
	DRY DENSITY LB/ CU FT	γ_{d_o}	68	69		
	SATURATION, %	S_o	99	102		
	VOID RATIO	e_o	1.443	1.416		
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	2.0		
MAXIMUM DEVIATOR STRESS, T/SQ FT		$(\sigma_1 - \sigma_3)_{MAX}$	.13	.16		
TIME TO $(\sigma_1 - \sigma_3)_{MAX}$, MIN		t_f	20	20		
ULTIMATE DEVIATOR STRESS, T/SQ FT		$(\sigma_1 - \sigma_3)_{ULT}$				
INITIAL DIAMETER, IN.		D_o	1.3	1.3		
INITIAL HEIGHT, IN.		H_o	3.0	3.0		

CONTROLLED- Strain TEST

DESCRIPTION OF SPECIMENS CLAY (CL)

LL	PL	PI	Gs	TYPE OF SPECIMEN	TYPE OF TEST
45	15	30	2.69 est.	Undist	Q

REMARKS:

PROJECT Corpus Christi Ship Channel (ctn-3)

BORING NO. 74-131 SAMPLE NO. S-4704

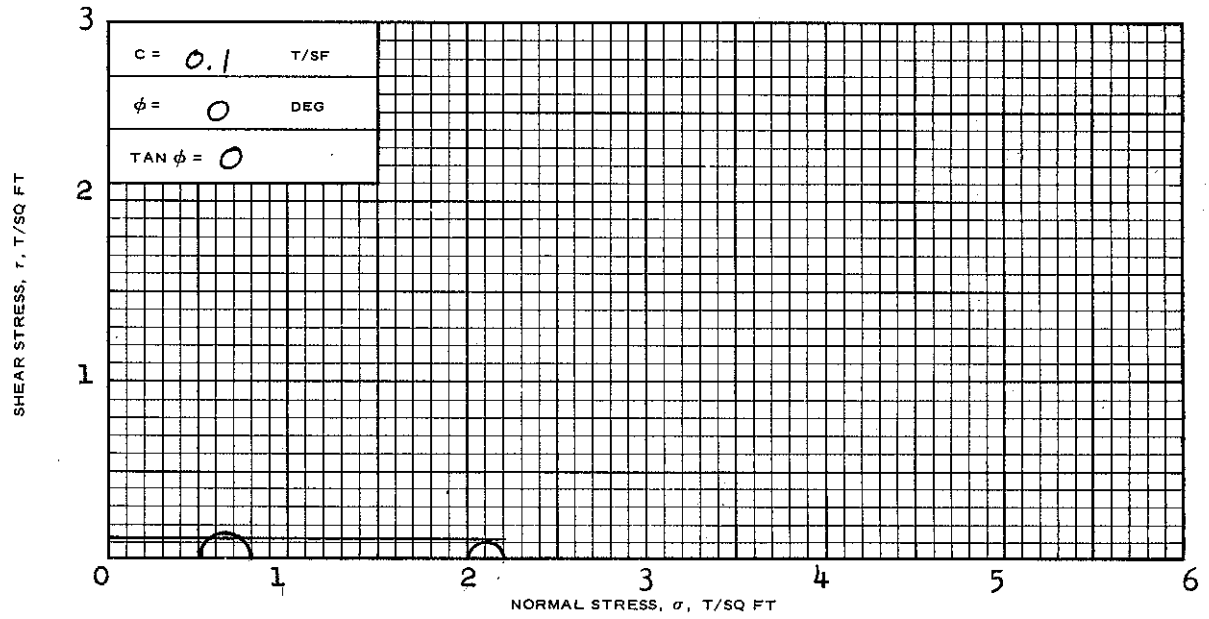
DEPTH/ELEV 7.8-9.0

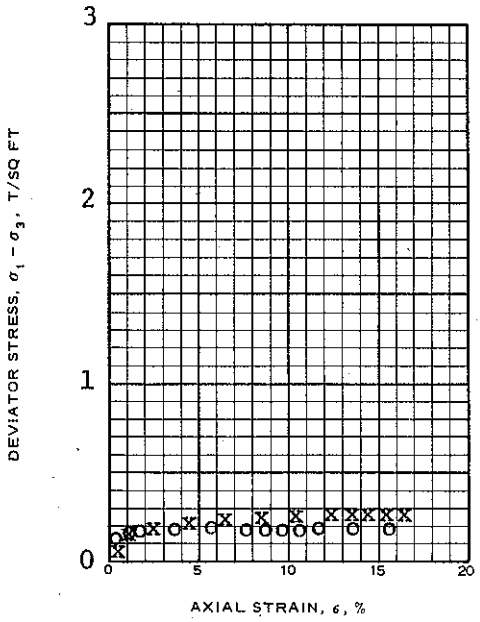
LABORATORY SWD DATE October 74

TRIAXIAL COMPRESSION TEST REPORT

ENG FORM NO. 2089 REV JUNE 1970 PREVIOUS EDITION IS OBSOLETE TRANSLUCENT (EM 1110-2-1906)

Plate No. 6





SPECIMEN NO.			1	2		
INITIAL	WATER CONTENT, %	w_o	31.7	39.7		
	DRY DENSITY LB/ CU FT	γ_{d_o}	89	80		
	SATURATION, %	S_o	98	99		
	VOID RATIO	e_o	.860	1.070		
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	2.0		
MAXIMUM DEVIATOR STRESS, T/SQ FT		$(\sigma_1 - \sigma_3)_{MAX}$	.28	.20		
TIME TO $(\sigma_1 - \sigma_3)_{MAX}$, MIN		t_f	21	21		
ULTIMATE DEVIATOR STRESS, T/SQ FT		$(\sigma_1 - \sigma_3)_{ULT}$				
INITIAL DIAMETER, IN.		D_o	1.3	1.3		
INITIAL HEIGHT, IN.		H_o	2.9	3.0		

CONTROLLED- Strain TEST

DESCRIPTION OF SPECIMENS CLAY, sandy (CL)

LL 37	PL 13	PI 24	Gs 2.68 est.	TYPE OF SPECIMEN Undist	TYPE OF TEST Q

REMARKS:

PROJECT Corpus Christi Ship Channel (ctn-5)

BORING NO. 74-131 SAMPLE NO. S-4705

DEPTH/ELEV 12.4-13.6

LABORATORY SWD DATE October 74

TRIAXIAL COMPRESSION TEST REPORT

ENG FORM NO. 2089 REV JUNE 1970 PREVIOUS EDITION IS OBSOLETE TRANSLUCENT *(EM 1110-2-1906)*

Plate No. 7