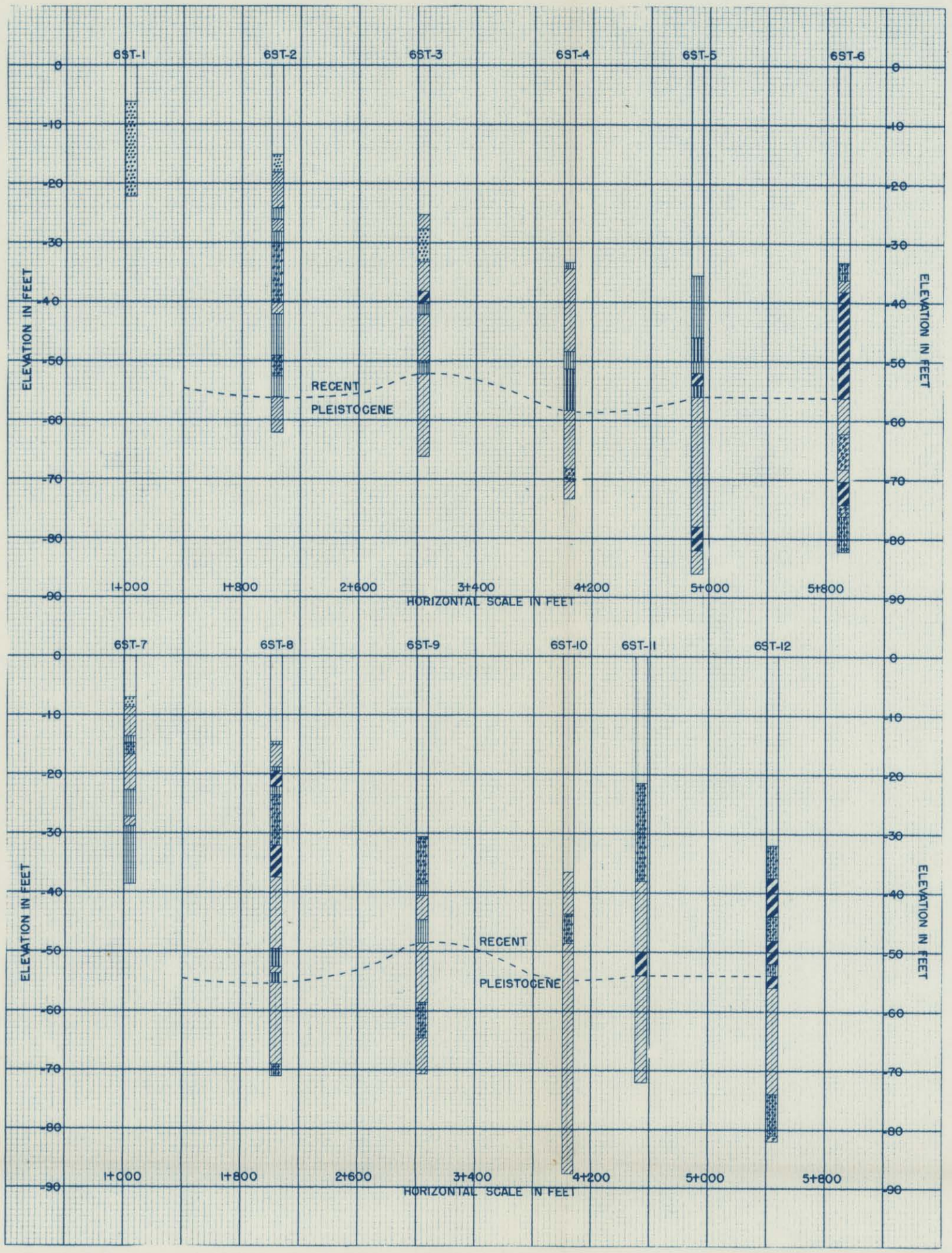


LEGEND

- WATER
- POORLY-GRADED SANDS
- SILTY SANDS
- CLAYEY SANDS
- INORGANIC SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
- INORGANIC SILTS OR ELASTIC SILTS
- LEAN CLAYS, SILTY CLAYS, & SANDY CLAYS
- FAT CLAYS OF HIGH PLASTICITY

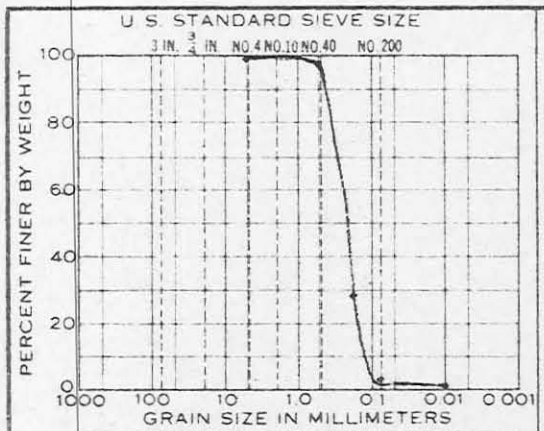
RECENT

RECENT-PLEISTOCENE CONTACT, FAIR CORRELATIONS

PLEISTOCENE

OFFICE OF THE DISTRICT ENGINEER
U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

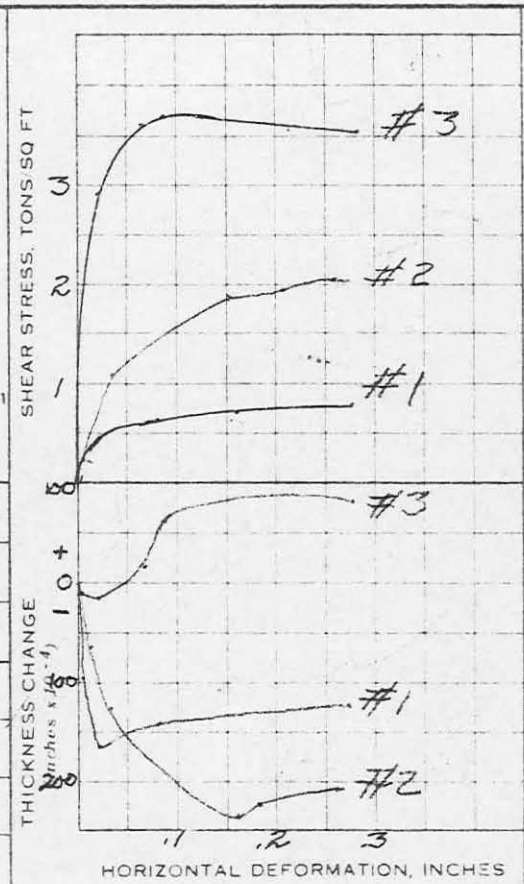
DRAWN BY: M.D.S.	PORT ISABEL, TEXAS
GEOLOGY BY: M.D.S.	BRAZOS ISLAND HARBOR JETTIES
CHECKED BY: R.E.M.	GEOLOGIC CROSS SECTIONS
SUBMITTED BY: Ralph E. Mercier CHIEF, GEOLOGY SUB-SECTION	
CHIEF, FDN. & MTLS. BRANCH	CHIEF ENGINEERING DIVISION
	DATE 3 JAN. 1963
	SCALE: AS SHOWN
	SPEC. DATE
	DRAWING NUMBER
	PLATE NO. 2
	FILE NO.

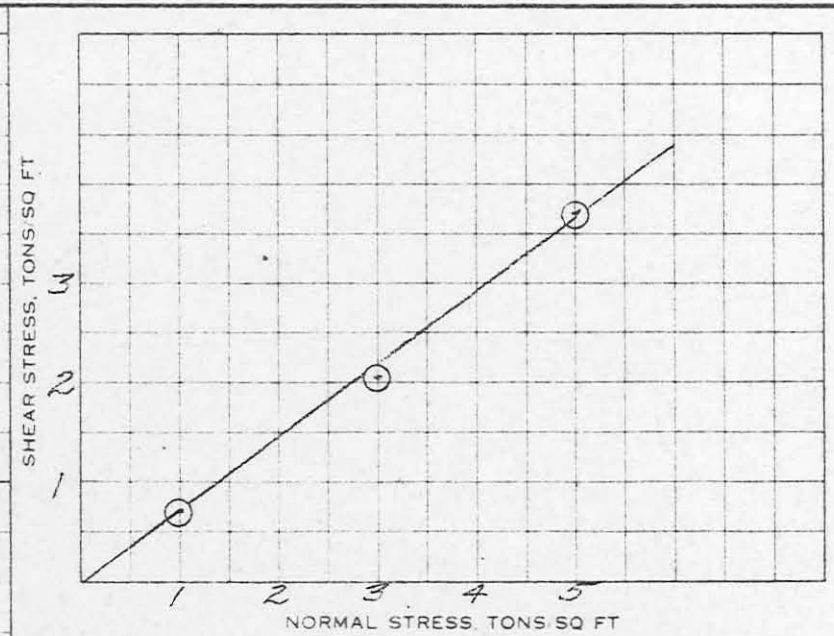


Classification: Gray, sand (SP)

LL	G
PL	D_{10}

Test No.	1	2	3
Initial Water Content, W_0 %	—	—	—
Dry Density Lbs/Cu Ft	100.2	100.2	103.4
Void Ratio, e_0			
Saturation, S_0 %			
Duration of Test (to τ)	240'	370	210'
WC after Test, W_f %	—	—	—
Normal Stress, σ T/Sq Ft	1	3	5
Max. Shear Stress, τ T/Sq Ft	.71	2.02	3.72





Remarks: sample puddled in shear ring

Type of Test	Type of Specimen
strain - Control Rate .001 in/min	Remolded
Consolidated	3 in. square
Drained	.75 in. thickness

SHEAR VALUES	Ø	TAN Ø	C, T/SQ FT
Maximum	36.65	.744	0.0
Ultimate			

Project: BRAZOS ISLAND HARBOR JETTY.

Area: Composite Sample

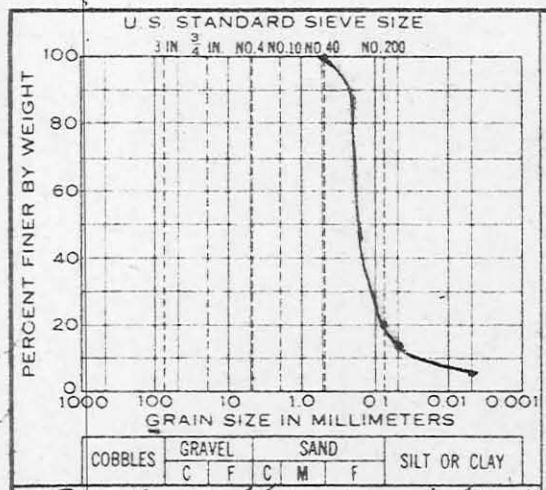
Boring No. 65T-2, 7 & 8 | Sample No.

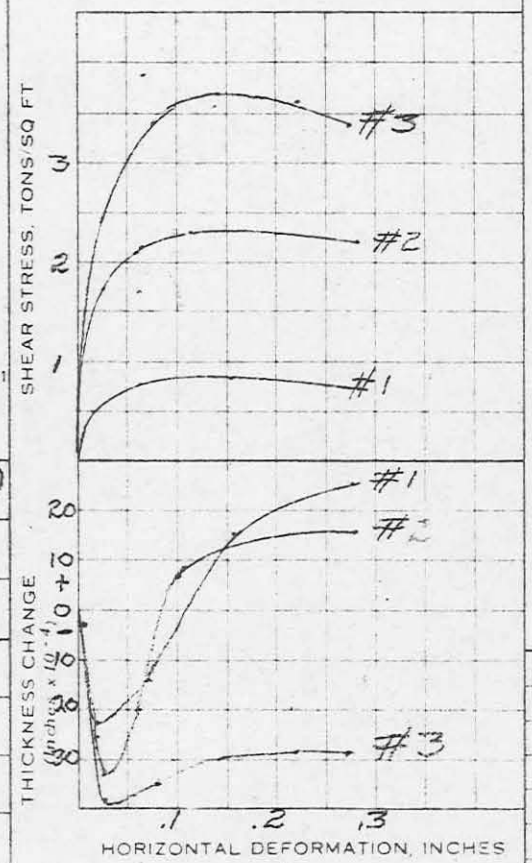
Elev or Depth | Date: NOV 1962

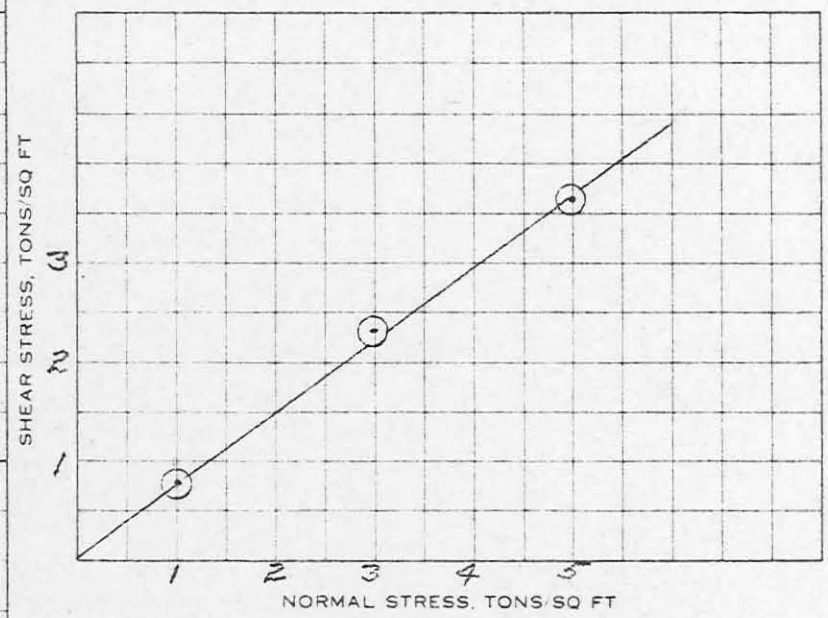
DIRECT SHEAR TEST REPORT

Plate No. 17 DLE 945

ENG FORM 1 FEB 58 2092 (TRANSLUCENT) (EM 1110-2-1803)







Classification: Gray, Silty Sand (SM)

LL	G		
PL	D_{10} LS: 0.0		
Test No.	1	2	3
Initial Water Content, W_0 %	—	—	—
Dry Density Lbs/Cu Ft	103.2	100.5	99.1
Void Ratio, e_0			
Saturation, S_0 %			
Duration of Test (t_0 τ)			
WC after Test, W_F %	—	—	—
Normal Stress, σ T/Sq Ft	1	3	5
Max. Shear Stress, τ T/Sq Ft	.79	2.34	3.6

Remarks: Sample puddled in shear Ring

Type of Test	Type of Specimen
Strain - Control Rate .001 in/min	Remolded
Consolidated	3 in. square
Drained	.75 in. thickness

SHEAR VALUES	Ø	TAN Ø	C, T/SQ FT
Maximum	34.75	.720	0.0
Ultimate			

Project BRAZOS ISLAND HARBOR

Area

Boring No. 6ST-7 Sample No.

Elev or Depth 16.0-18.0 Date DEC 1962

DIRECT SHEAR TEST REPORT

Plate No 18 D&R 946

ENG FORM 1 FEB 58 2092 (TRANSLUCENT) (EM 1110-2-1803)

Brazos Island Harbor Jetty

TEST DATA SUMMARY

Sheet ____ of ____

FEATURE Log of Soil Boring

BORING NO.	SAMPLE NO.	DEPTH OR ELEV OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS GRAVEL %	SAND %	FINES %	D_{10}*	ATTERBERG LIMITS LL	PL*	SPECIFIC GRAVITY G	NATURAL WATER CONTENT %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA OPTIMUM WATER %	MAXIMUM DRY DENSITY LBS/CU FT	SHEAR DATA INITIAL e	DRY DENSITY LBS/CU FT	W_i %	W_f %	S_i %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_{III} T/SQ FT	σ_I T/SQ FT	C T/SQ FT	Ø DEGREES	PERMEABILITY e	K FT/MIN	CONSOLIDATION DATA P_o T/SQ FT	P_c T/SQ FT	C_c	t_{50}*	REMARKS
GST-62-7	~	0.0											Water																				
	6284	8.3	SP	0	96	4			0.0		26.8		Gray Sand (SP)																				
	6285	10.0	CL	0	20	80		31.8	10.5		35.9		Gray Sandy Clay (CL)																				
	6286	12.0	CL	0	2	98	0.50	45.9	16.0		35.7 (34)		Gray Clay (CL) Medium																				Medium
Top		14.0	CL	0	24	76		28.2	5.5		31.8		Gray Sandy Clay (CL)																				
Bottom	6287		ML	0	45	55	0.75		0.0	Avg	28.0 24.2 (24)	96.1	Gray Sandy Silt (ML)																				
	6288	16.0	SM	0	64	36			0.0		27.8 (28)		Gray Silty Sand (SM)																				
	6289	18.0	CL	0	2	98	1.0	32.0	11.0		35.0	86.1	Gray Clay (CL) Stiff																				
	6290	20.0	Same as 6289				0.75				35.5 (34)	85.8	Gray Clay (CL) Medium to Stiff																				
	6291	22.0	CL	0	0	100	1.0	37.3	8.0		31.9	90.6	Gray Silty Clay (CL) Stiff																				
	6292	24.0	ML	0	4	96	0.50		1.5		27.0	95.4	Gray Silt (ML)																				
	6293	26.0	ML	0	41	59	1.50		0.0		22.6	103	Gray Sandy Silt																				Medium to Stiff
	~	28.0									(25)		Washed Drillers classification Same as Above																				
	6294	28.5	CL	0	9	91		36.4	8.0		32.0		Gray Clay (CL)																				
	6295	30.0	ML	0	0	100	0.5	47.7	10.5		35.6	87.7	Gray Silt (ML)																				
	6296	32.0	ML	0	0	100	1.0	37.4	7.0		30.8 (32)	85.3	Gray Silt (ML)																				Medium to Stiff
	6297	33.0	ML	0	9	91			0.5		30.9		Gray Silt (ML)																				
	6298	34.0	Same as 6299 ML								45.4		Gray Silt (ML)																				
	6299	35.5	ML	0	12	88		48.9	9.0		43.7		Gray Silt (ML)																				
	~	37.5									(45)		Washed																				Medium
	6300	38.0	Same as 6295 ML				0.50				46.6	73.3	Gray Silt (ML)																				
		40.0											Bottomed in Above																				

* Values at Pressure T/SQ FT

- Triaxial Compression
UC - Unconfined Compression
DS - Direct Shear
UU - Unconsolidated Undrained
- Consolidated Drained
CU - Consolidated Undrained

ENG FORM 1 DEC 57 2086