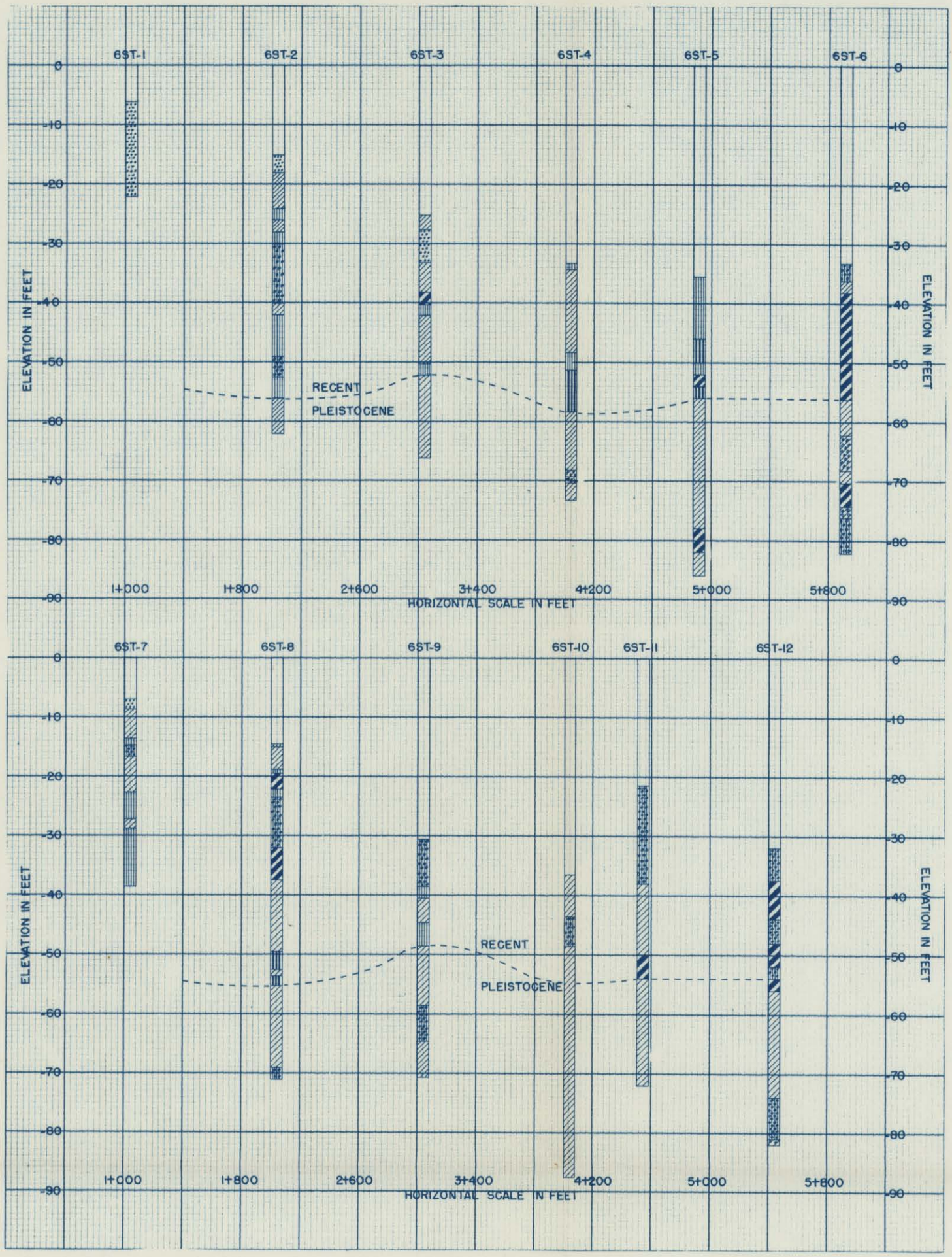


LEGEND

- 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

REGENT-PLEISTOCENE CONTACT, FAIR CORRELATIONS

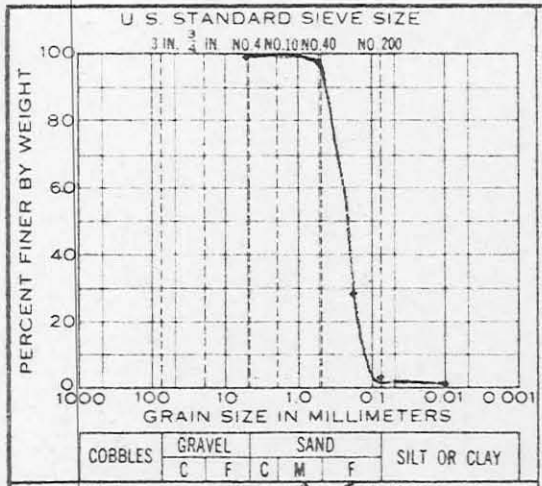
PLEISTOCENE

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

DRAWN BY: M.D.S.
GEOLOGY BY: M.D.S.
CHECKED BY: R.E.M.
SUBMITTED BY: Robert E. Morris
CHIEF, GEOLOGY SUB-SECTION
CHIEF, FDN. & MTLS. BRANCH
CHIEF ENGINEERING DIVISION

PORT ISABEL, TEXAS
BRAZOS ISLAND HARBOR JETTIES
GEOLOGIC CROSS SECTIONS

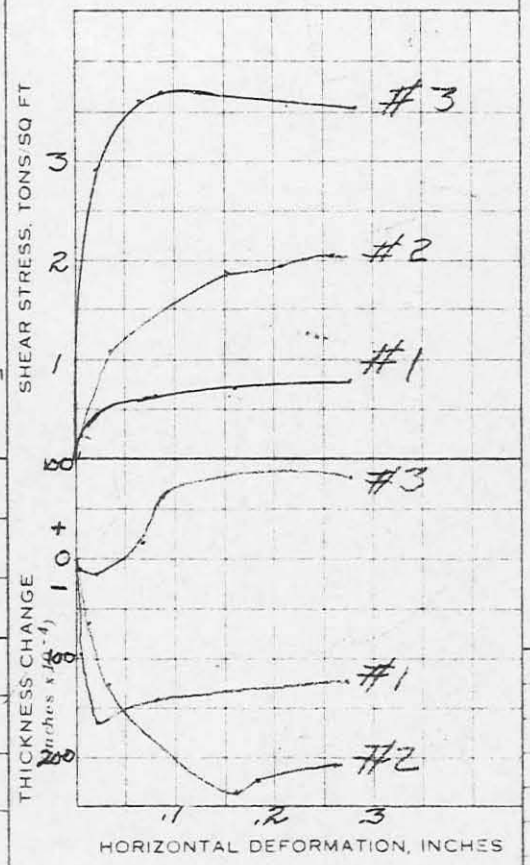
DATE: 3 JAN. 1963
SCALE: AS SHOWN
SPEC. DATE
DRAWING NUMBER
PLATE NO. 2
FILE NO.

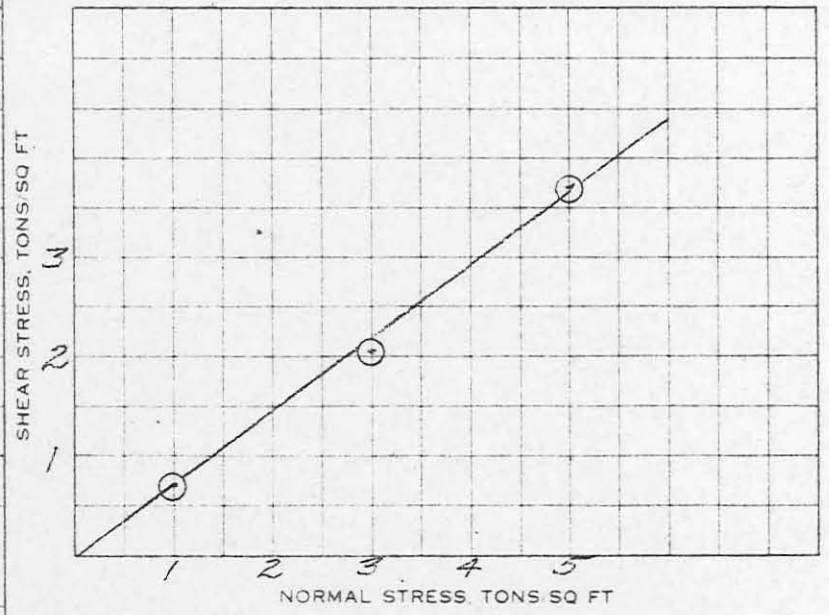


Classification: Gray, sand (SP)

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
1/			





Remarks: sample puddled in shear ring

Type of Test	Strain - Control Rate .001 in/min ~ Consolidated Drained
Type of Specimen	Remolded 3 in. square .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. 65-2, 7 & 8 Sample No.
Elev or Depth Date: NOV 1962

DIRECT SHEAR TEST REPORT

Plate No. 17 DE 945

ENG FORM 2092 1 FEB 58 (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_{80} *	REMARKS
6ST-62-2	∽	0.0											Water																				
	6184	17.0	SP	0	99	1					25.6		Lt. Tan Sand (SP)								Medium Dense												11/18'-19'
	∽	19.0										90	Washed																				
	6185	20.0	Same as	6186			0.75				36.5	85.9	Brownish Gray Clay (CL) Medium																				
	6186	22.0	CL	0	12	88	1.25	29.7	7.0		29.4	94.2	Brownish Gray Clay (CL) Stiff																				
	∽	24.0									33		Brownish Gray Silty Clay (CL) Driller's Classification																				
	6187	26.0	ML	0	13	87	1.25		2.0		28.1	94.3	Gray Silt (ML) Stiff																				
	6188	28.0	Same as	6186	CL		1.50				33.9	81.1	Brownish Gray Clay (CL) Stiff																				
	6189	30.0	ML	0	12	88	1.0		2.5		30.2	91.9	Gray Silt (ML) Stiff																				
	6190	32.0	SM	0	61	39					29.2		Gray Silty Sand (SM)																				
	∽	34.0											Washed																				
	6191	36.0	Same as	6192	SM						34.9		Gray Silty Sand (SM)																				
	∽	38.0									30	88	Washed																				
	6192	38.5	SM	0	79	21			0.0		27.0		Gray Silty Sand (SM) Medium													Medium Dense							10/39'-40'
	∽	40.0											Washed																				
	6193	42.0	Same as	6186	LL		1.25				41.1	81.9	Gray Clay (CL) Stiff																				
	6194	44.0	Same as	6198	ML		0.50				32.2	89.3	Brown Silt (ML)																				
	6195	46.0	Same as	6198	ML		0.65				32 36.4	84.6	Brown Silt (ML)																				
	6196	48.0	ML	0	18	82	1.25	31.9	4.5		28.1	94.9	Sandy Silt (ML)																				
	Top 6197	50.0 1.0'	SM	0	50	50			0.0		21.9	105.1	Silty Sand (SM) (ML)								Medium to Stiff												
	Bottom 1.0'	52.0					0.75				22		Gray																				
	∽	54.5											Washed																				
	6198	56.0	ML	0	1	99	1.0	46.8	9.0		43.5	78.4	Gray Silt (ML)																				
	6199	58.0	Same as	6198			0.75				40 35.9	86.1	Gray Silt (ML)								Medium to Stiff												

* Values at Pressure T/SQ FT

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

ENG FORM 1 DEC 61 2086

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_1 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-62-2		58.0																															
	6200	60.0	CL	0	16	84	2.25	42.0	12.0		27.3	96.8	Gray Sandy Clay (CL) Very Stiff																				
	6201	62.0	Same as	6200			2.25				25.7	100.1	Gray Sandy Clay (CL) Very Stiff																				
	6202	64.0	Same as	6200			3.0				22.5	101.9	Gray Sandy Clay (CL) Very Stiff																				
											(25)		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