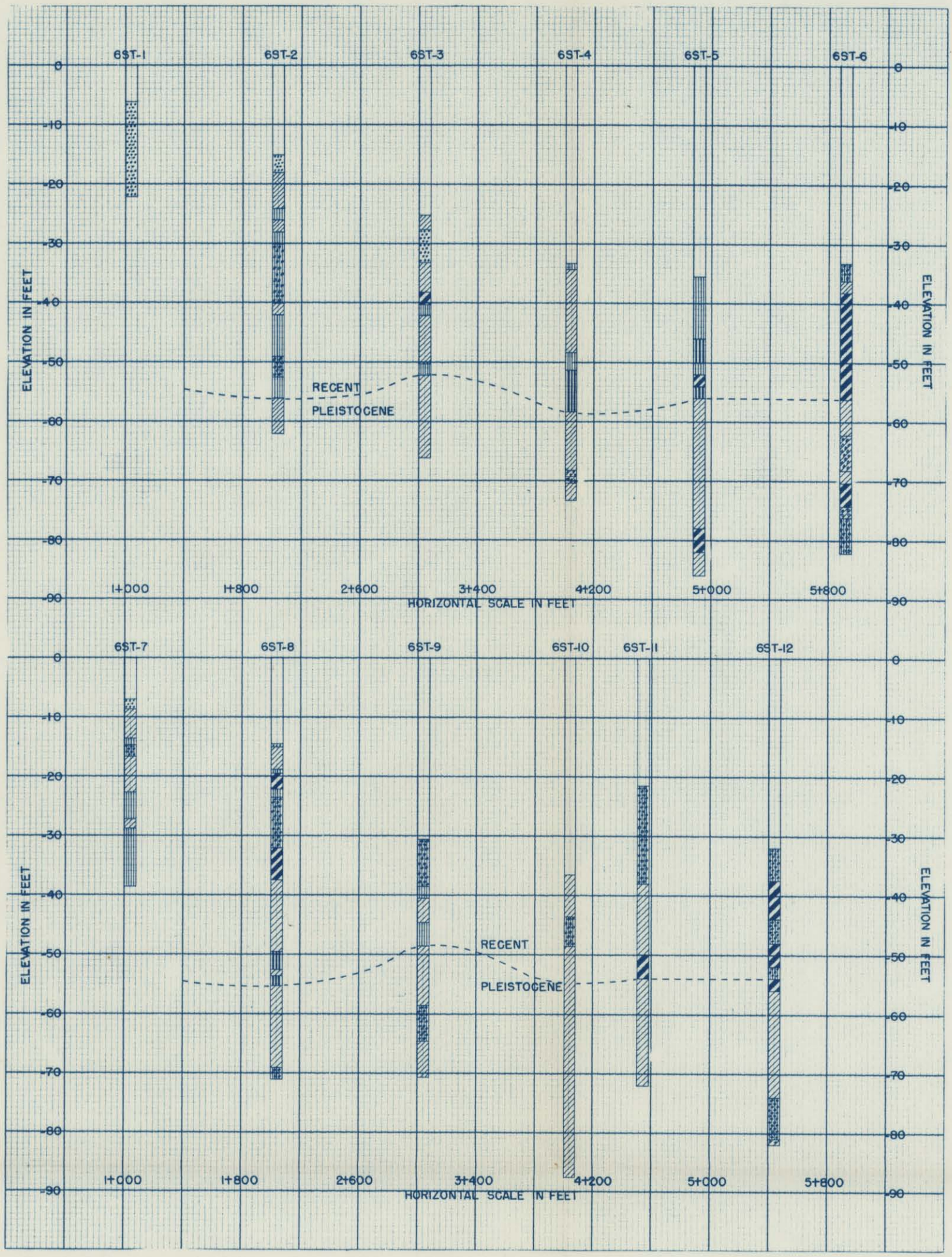


LEGEND

- 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.

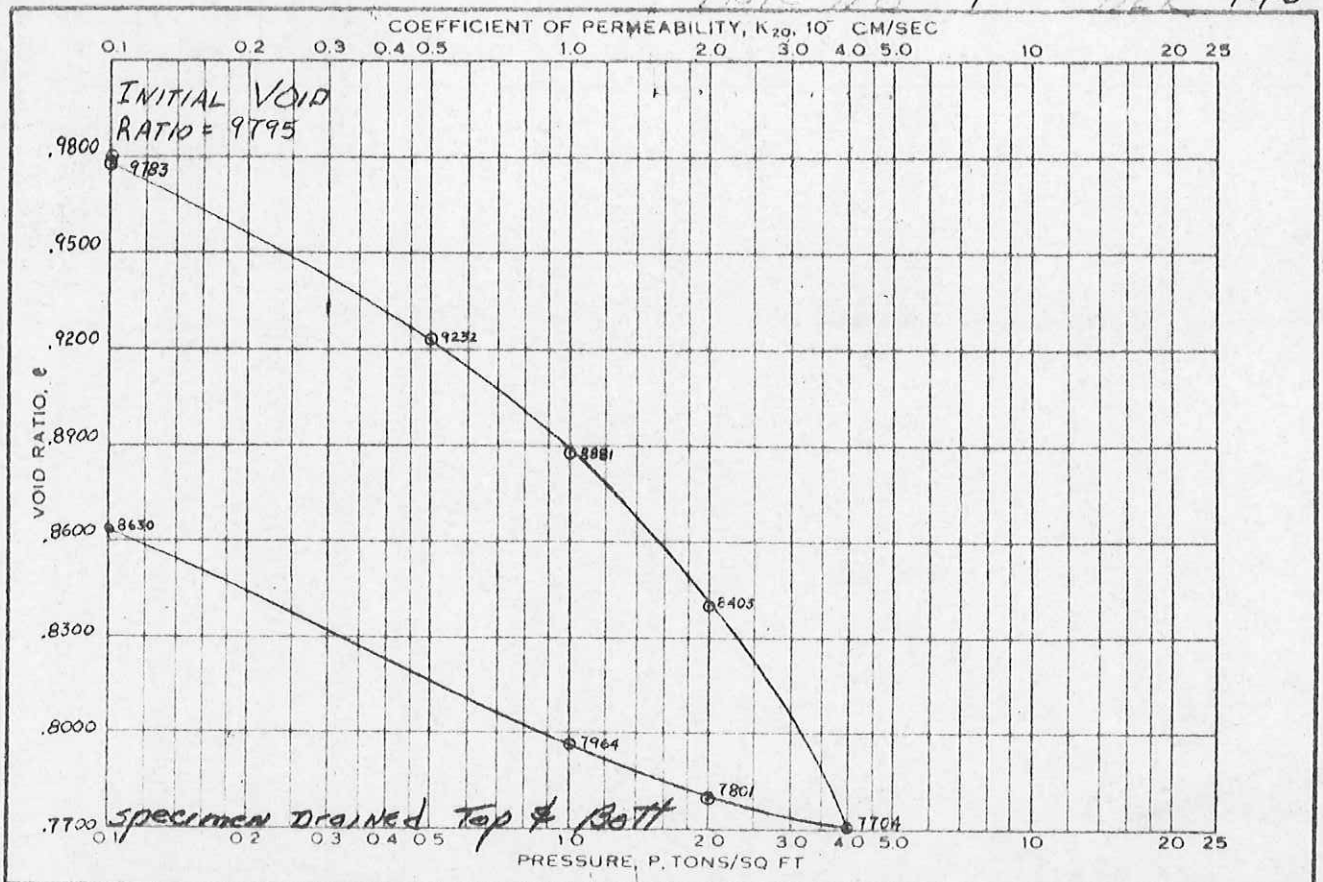
BRAZOS ISLAND HARBOR, TEXAS
SUMMARY OF UNCONFINED COMPRESSION DATA

TABLE NO. 1

DISTRICT SERIAL NO	HOLE NO	DEPTH FT.	MECHANICAL ANALYSIS Gr	Sa	Fines	LL	bar LS	NATURAL WATER CONTENT, %	U.D.W. p.c.f.	% STRAIN @ MAX. STRESS	MAX. STRESS LBS./sq. ft.	POCKET PENET.	CLASSIFICATION
62-6222	6ST-4	40.0-42.0	0	1	99	39.6	15.0	43.6	76.3	11.96	1496 748	.25	G,Cl(CL), So
62-6229	6ST-4	56.0-58.0	0	1	99	56.3	13.0	33.6	85.8	10.50	2349 1175	.50	G,Si(MH), med
62-6235	6ST-4	68.0-70.0	0	21	79	40.9	12.0	22.8	102.5	4.20	3474 1737	3.25	G,SaCl(CL), v/st
62-6246	6ST-5	54.0-56.0	0	1	99	52.8	14.0	45.9	75.0	14.75	2236 1118	1.5	G,Cl(CH), St
62-6253	6ST-5	68.0-70.0	0	12	88	47.5	14.0	27.7	96.9	3.50	2276 1138	2.0	G,Cl(CL), v/st.
62-6258	6ST-5	78.0-80.0	0	5	95	29.5	7.5	22.6	100.6	3.50	5520 2760	3.50	Ru,Cl(CL), v/st
62-6264	6ST-6	40.0-42.0	0	0	100	51.0	19.0	51.2	72.7	10.50	1243 622	0.0	G,Cl(CH), v/so
62-6272	6ST-6	58.0-60.0	0	23	77	36.8	12.0	21.3	105.0	2.80	6103 3052	3.50	G,SaCl(CL), v/st
62-6253	6ST-9	44.0-46.0	0	0	100	33.0	7.0	33.3	91.3	14.75	930 465	0.0	G,Cl(CL), v/so
62-6239	6ST-9	56.0-58.0	0	42	58	25.3	5.0	22.5	104.3	8.40	1432 716	.25	Lt G,SaCl(CH), So
62-6353	6ST-10	54.0-56.0	0	25	75	38.4	9.0	32.3	84.9	11.20	2173 1087	.75	G,SaCl(CL), med
62-6363	6ST-10	74.0-76.0	0	10	90	36.2	9.0	21.5	105.2	2.10	1343 672	3.0	G,Cl(CL), v/st
62-6380	6ST-11	52.0-54.0	0	4	96	53.0	15.0	49.8	73.7	9.1	2707 1354	.75	D,Cl(CH), med
62-6385	6ST-11	62.0-64.0	0	24	76	41.3	12.0	20.1	108.0	4.2	3049 1525	3.0	G,SaCl(CL), v/st
62-6398	6ST-12	50.0-52.0	0	0	100	66.2	18.0	37.9	83.4	2.8	1206 603	1.25	G,Cl(CH), st.
62-6404	6ST-12	62.0-64.0	0	36	64	35.3	10.0	22.3	103.9	5.6	4341 2171	1.75	G,SaCl(CL), st.

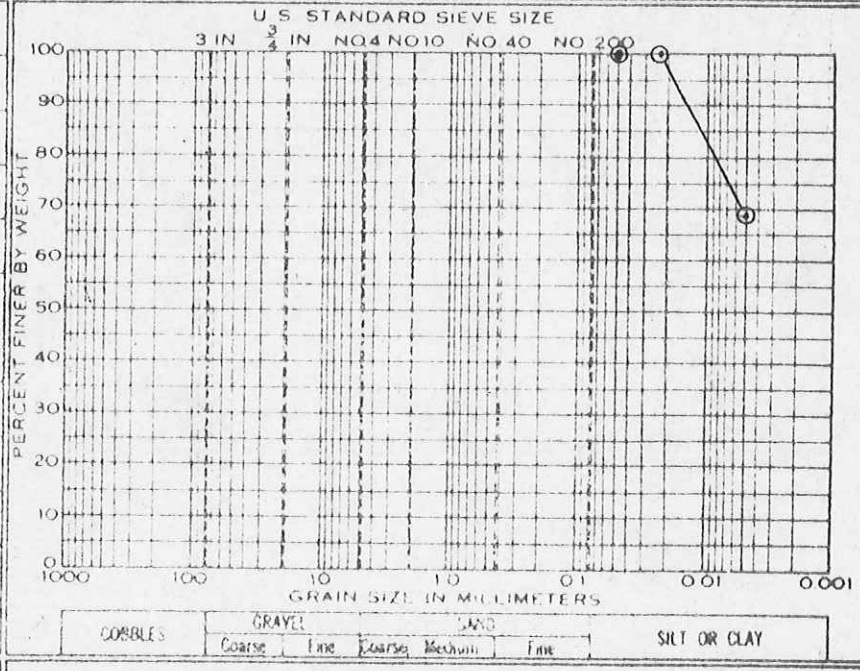
GALVESTON DISTRICT LABORATORY REPORT NO. 946

Plate No 1 DLR 946



TEST DATA

Type of Specimen	Undisturbed
Overburden Pressure, P_o	Tons/Sq Ft
Preconsol Pressure, P_c	Tons/Sq Ft
Compression Index, C_c	
Permeability at Initial e	
K_{20} ____ x 10	Cm/Sec
	Ft/Min
Initial Ht. 1.160 in	Diam. 4.0 in
Initial Saturation, S_o %	100
Final Saturation, S_f %	100
Initial Dry Density Lbs/Cu Ft	85.8
Initial Water Content, W_o %	40.3



Remarks:

Project BRAZOS ISLAND HARBOR

Area

Boring No. 65T-4 Sample No. 62-6225

Elev or Depth 46.0-48.0 Date DEC. 1962

Classification Gray Clay (CL) Stiff

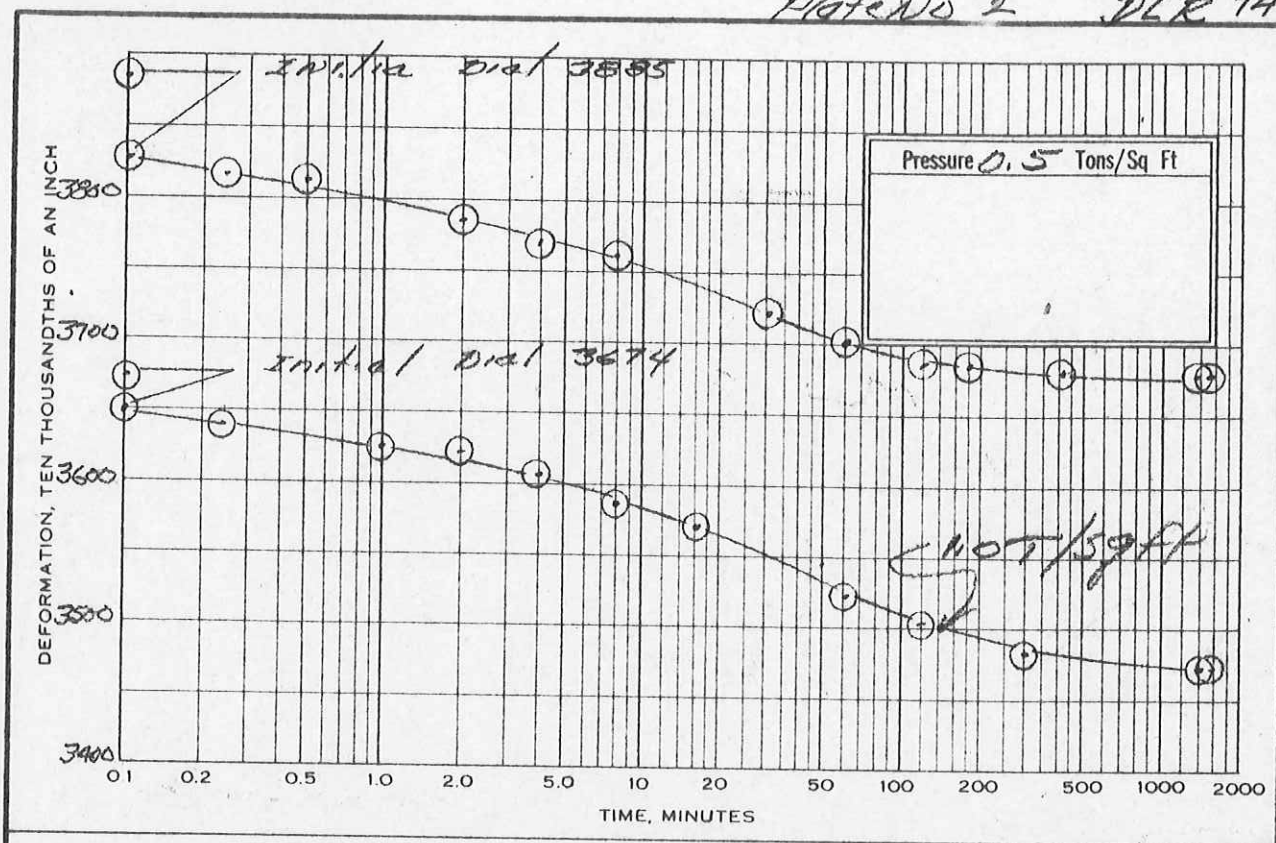
LL 47.5 G 2.70

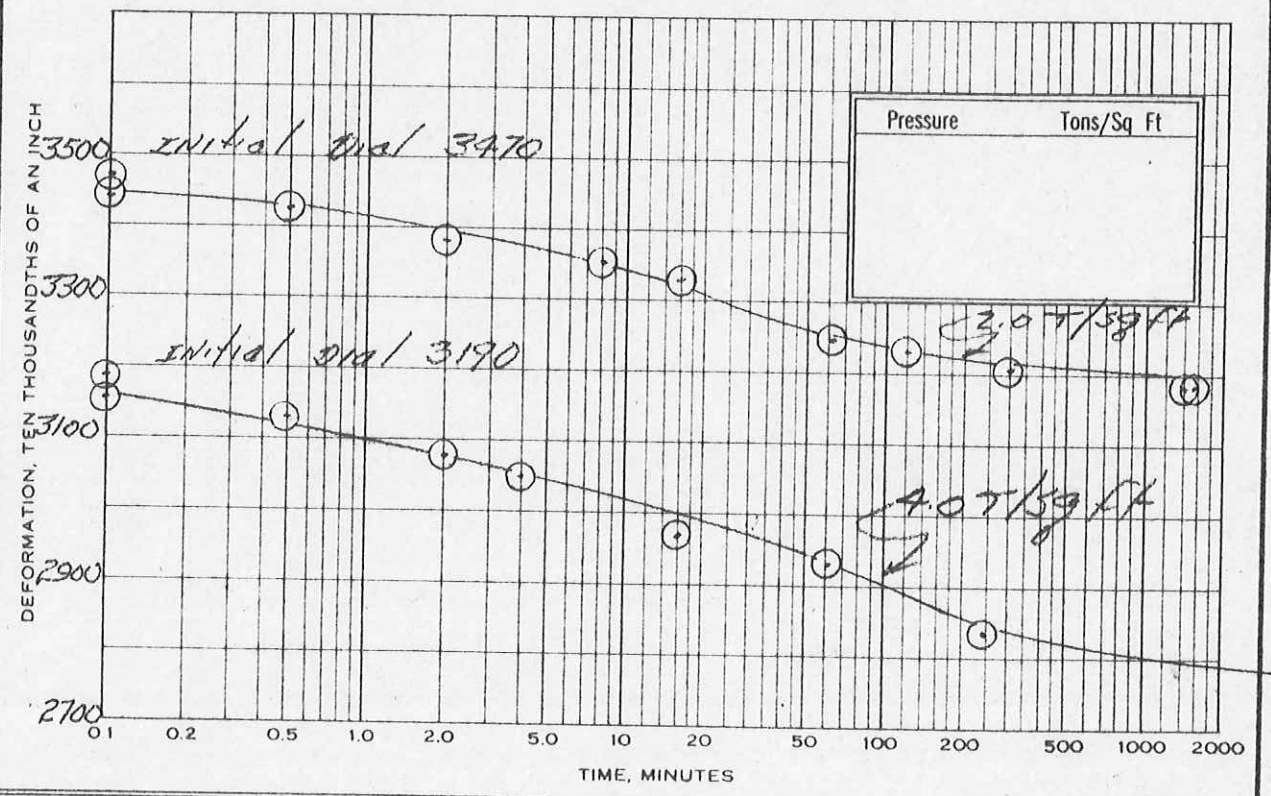
PL 22.6 D_{10}

CONSOLIDATION TEST REPORT

ENG FORM 2090

Plate No 2 DLR 946





1780 @ 4324'

Project BRAZOS ISLAND HARBOR

Area

Boring No. GST-4 | Sample No. GR-6225 | Elev or Depth 460-480 | Date Dec 1962

CONSOLIDATION TEST - TIME CURVES

ENG FORM 2088 (Translucent) (EM 1110-2-1803)

Brazos Island Harbor Jetty

TEST DATA SUMMARY

FEATURE Log of Soil Boring

Sheet ____ of ____

BORING NO.	SAMPLE NO.	DEPTH OR ELEV OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS: GRAVEL %	SAND %	FINES %	D_{15} *	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	$\bar{\sigma}_m$ T/SQ FT	$\bar{\sigma}_1$ 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-62-4	S	0.0											Water																				
	6220	35.0	ML	0	38	62			2.5		63.3				Brown Sandy Silt (ML)						U/soft												
	6221	36.0	CL	0	37	63	0.0	35.5	8.0		62.9	62.8			Black Sandy Clay (CL)						Very Soft												
	6222	40.0	CL	0	1	99	0.25	39.6	15.0		43.6	76.8			Tan Clay (CL) Soft																		
	6223	42.0	Same as 6222	CL			0.75				38.0	80.4			Tan Clay (CL) Medium								Soft to Medium							C			
	6224	44.0	CL	0	3	97	0.25	30.8	6.0		30.2	91.9			Brown Clay (CL) Soft																		
	6225	46.0	CL	0	0	100	1.50	41.5	9.0		34.3	88.2			Gray Clay (CL) Stiff																		
	6226	48.0	CL	0	0	100	1.50	32.4	7.5		27.3	96.3			Gray Clay (CL) Stiff																		
	6227	50.0	ML	0	9	91	1.50		0.0		25.8	99.0			Gray Silt (ML)																		
	S	52.0													Gray Sand Driller's Classification																		
	6228	53.0	MH	0	1	99		56.6	13.0		49.6				Gray Silt (MH)						Medium to Dense												21/54'-55'
	S	55.0																														
	6229	56.0	MH	0	1	99	0.50	56.3	13.0		33.6	85.8			Gray Silt (MH)																		
	6230	58.0	Same as 6229	MH			1.50				41.2	81.8			Gray Silt (MH)						Medium to stiff												
	6231	60.0	Same as 6224	CL			2.75				26.6	98.5			Gray Clay (CL) Very Stiff																		
	6232	62.0	Same as 6224	CL			4.50				24.2	102.2			Gray Clay (CL) Hard																		
	6233	64.0	Same as 6224	CL			4.50				22.3	104.3			Lt. Gray Clay (CL) Hard																		
	6234	66.0	CL	0	32	68	2.50	32.3	10.0		21.8	104.9			Gray Sandy Clay (CL) Very Stiff to Hard																		
	6235	68.0	Same as 6234	CL			3.25				22.8	102.5			Gray Sandy Clay (CL) Very Stiff																		
	Top 6236	70.0	SC	0	57	43	3.75		6.0	Avg.	12.0	112.3			Clayey Sand (SC)																		SC
	Bottom	1.0'	GC	40	22	38			14.0		16.1				Sandy Clayey Shell (GC)																		
	Top 6237	72.0	Same as 6235	CL			2.50				21.0				Gray Sandy Clay (CL) Very Stiff																		
	Bottom	1.0'	Same as 6238	CL							20.7 / 20.4	105.6			Gray Sandy Clay (CL) Very Stiff to Hard																		
	6238	74.0 / 75.0	CL	0	15	85	4.25	43.9	15.5		22.3	106.5			Gray Sandy Clay (CL) Hard Bottomed in Shale																		

* Values at Pressure T/SQ FT

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