TEST DATA SUMMARY

SWDGL REPORT NO. 7281

FEATURE FOUNDATION MATERIAL

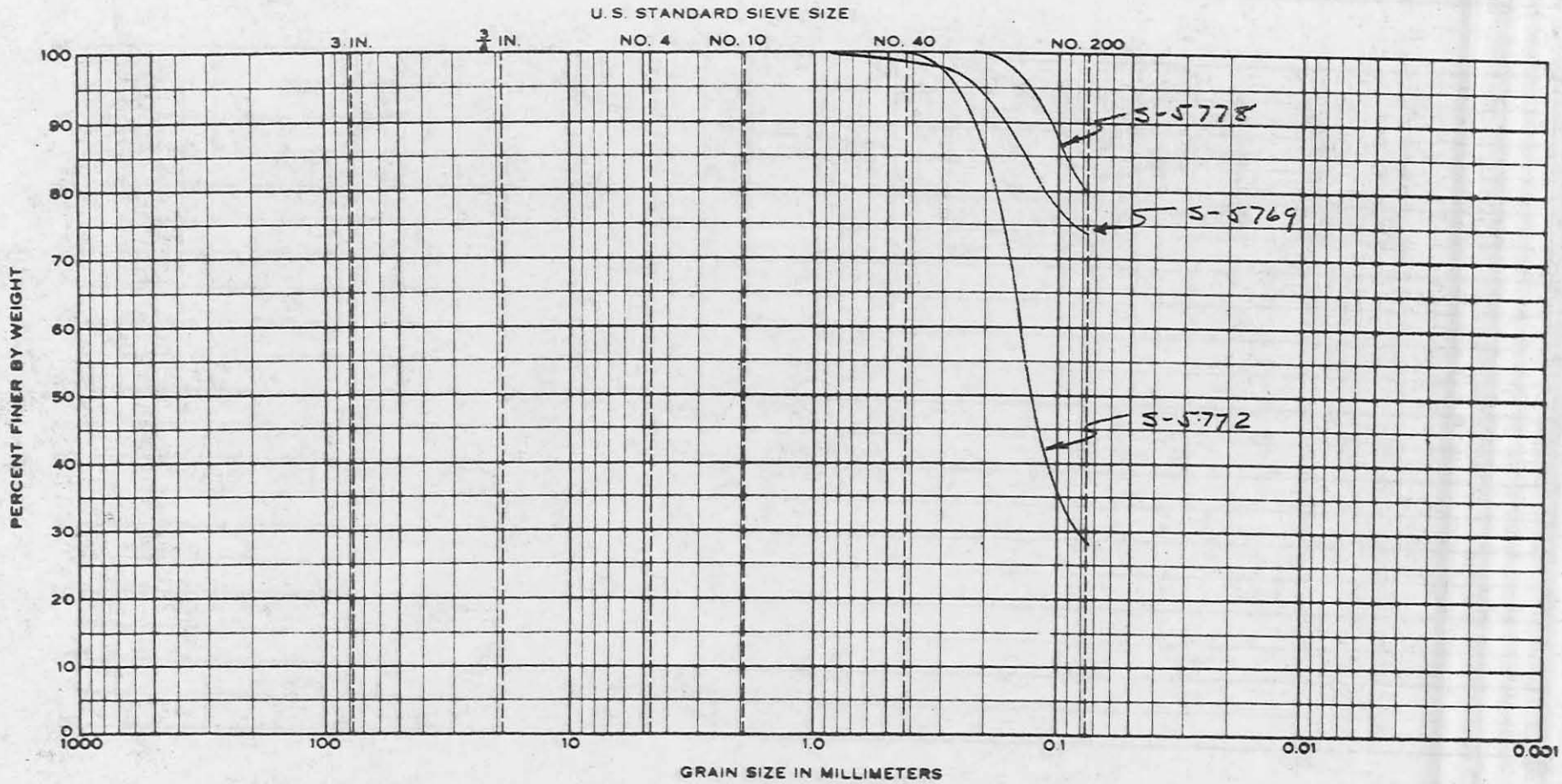
Trinity River
Lock and Dam Site No. 6

BORING NO.	SAM. NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS: GRAVEL %	SAND %	FINES %	D_{10}	ATTERBERG LIMITS: LL	PL	SPECIFIC GRAVITY G	NAT. WATER CONT. %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA: OPT. WATER %	MAXIMUM DRY DENSITY LBS/CU FT	SHEAR DATA: 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	PERMEABILITY: e	K FT/MIN.	CONSOLIDATION DATA: P_o T/SQ FT	P_c T/SQ FT	C_c	t_{50}*	REMARKS
6ST-6-1																																	
	S-5766	24.0-26.0	SANDSTONE								20.4	103				101	23.5			UC	5.8 x 8.5		0.0	19.6									
			Lt. gray argillaceous SANDSTONE, soft.																														
	S-5767	34.0-35.5	SANDSTONE								15.8	112				110	17.8			UC	6.0 x 9.4		0.0	93.4									
			Tan SANDSTONE, fine-grained, mod. hard.																														
	S-5768	35.5-36.5	SANDSTONE								19.1	108				111	16.4			UC	5.0 x 6.1		0.0	105.8									
			Tan and yellow SANDSTONE, mod. hard.																														
6ST-6-4																																	
	S-5769	6.0-8.0	CL	0	26	74		50	12	2.66	14.9	116			.410	118	15.3		99	UC	4.6 x 6.7		0.0	6.8							0.17		LS=16
			Dk. gray sandy CLAY, hard.																														
	S-5770	32.0-34.0	SHALY CLAY								28.4	98				99	25.0			UC	2.8 x 5.3		0.0	13.8									
			Dk. gray SHALY CLAY, hard; montmorillonitic.																														
	S-5771	48.0-50.0	CLAYSTONE								21.3	103				103	21.6			UC	5.7 x 9.9		0.0	22.4									
			Lt. tan CLAYSTONE; color of interior of core is blue.																														
6ST-6-5																																	
	S-5772	2.0-4.0	SC	0	62	38		30	10	2.66	16.0	113																					LS=8
			Brown clayey SAND, very stiff; pockets of dk. gray clay.												.506	110	18.4	18.0	97	DS	3 x 3 x 0.5	1			0.0	32.2							
															.482	112	16.4	15.2	90	"	"	2											
															.517	110	19.0	14.0	98	"	"	3											
	S-5777	6.0-8.0	CL								16.6	111																					
			V. dk. gray sandy CLAY, hard.																														
	S-5773	23.0-25.0	SHALY CLAY								27.8	89				90	27.1			UC	5.7 x 9.7		0.0	1.7									
			Blue SHALY CLAY; old fracture planes.																														
	S-5774	33.0-35.0	CL								25.7	97				98	23.6			UC	2.9 x 5.1		0.0	5.3									
			Grayish-brown very sandy CLAY, hard; montmorillonitic; blue splotches.																														
	S-5775	38.0-40.0	SHALY CLAY								31.9	87				87	31.6			UC	3.7 x 5.0		0.0	11.8									
			Dk. grayish-brown carbonaceous SHALY CLAY.																														
	S-5776	46.0-48.0	SHALY CLAY								22.4	101				102	22.4			UC	5.4 x 8.2		0.0	12.6									
			Bluish-gray SHALY CLAY, montmorillonitic.																														

Note: SWD Sample No. S-5777 was marked "Depth 60.0-80.0"; the depth shown above (6.0-8.0) is assumed correct.

Triaxial Compression
UC – Unconfined Compression
DS – Direct Shear
UU – Unconsolidate Undrained
Consolidated Drained
CU – Consolidated Undrained
* Values at Pressure
T/SQ FT

ENG FORM 1 MAR 57 2086 PREVIOUS EDITIONS MAY BE USED



COBBLES	GRAVEL		SAND			SILT OR CLAY
	Coarse	Fine	Coarse	Medium	Fine	

Sample No.	Elev or Depth	Classification	Nat WC	LL	PL	PI	LS	Hole No.
S-5769	6.0-8.0	Sandy CLAY (CL)		50	12	38	16	6ST-6-4
S-5772	2.0-4.0	Clayey SAND (SC)		30	10	20	8	6ST-6-5
S-5778	10.0-11.0	CLAY (CL)		48	13	35	16	6ST-6-6

Project Trinity River Lock and Dam Site No. 6

FOUNDATION MATERIAL

Area GALVESTON DISTRICT

Boring No. 6ST-6-4, -5 & -6

Date NOV 1961

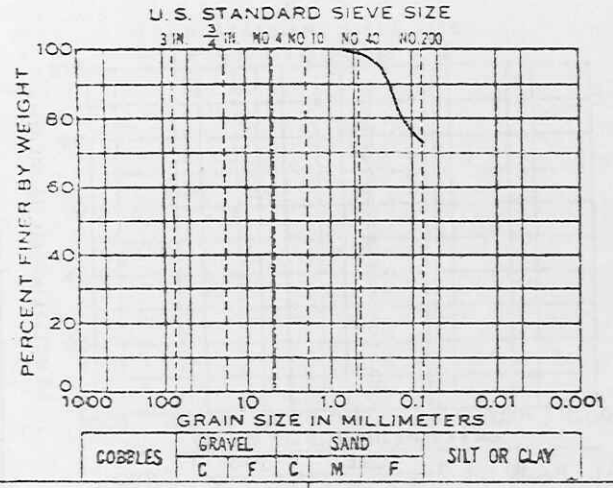
GRADATION CURVES

PLATE NO. 1

SWDGL REPORT NO. 7281

FORM 2 DEC 54 2087

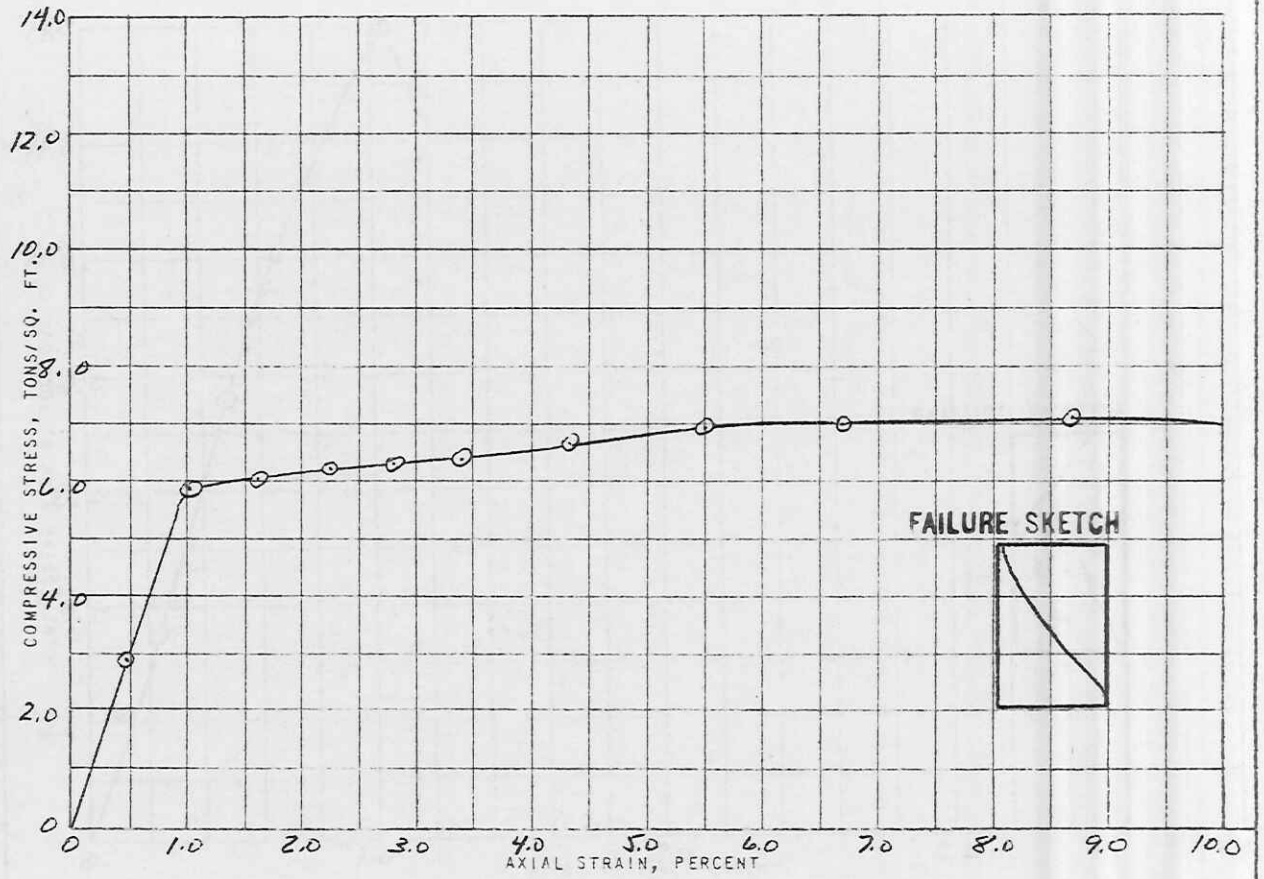
SWD FORM 558-C
REV 10 MAR 52



LL	50	G	2.66
PL	12	D_{10}	
X	UNDISTURBED		REMOLDED

WATER CONTENT, W_o %	15.3
DRY DENSITY LBS./CU.FT.	118
VOID RATIO e_o	.410
SATURATION, S_o %	99
UNCONFINED COMP. STRENGTH qu TONS/SQ.FT.	7.1
X qu ADJUSTED, A.S.T.M. C42-44 TONS/SQ.FT.	6.8
SPECIMEN DIAMETER INCHES	4.6
SPECIMEN HEIGHT INCHES	6.7

Stress - CONTROL, 600 lbs./min.



REMARKS:

PROJECT Trinity River - Lock and Dam Site No. 6 FOUNDATION MATERIAL

AREA GALVESTON DISTRICT

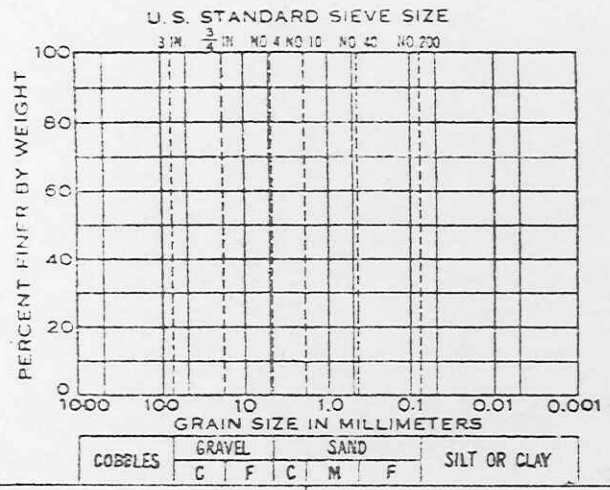
BORING NO. 6ST-6-4 | SAMPLE NO. S-5769 | ELEV. OR DEPTH 6.0-8.0 | DATE NOV 1961

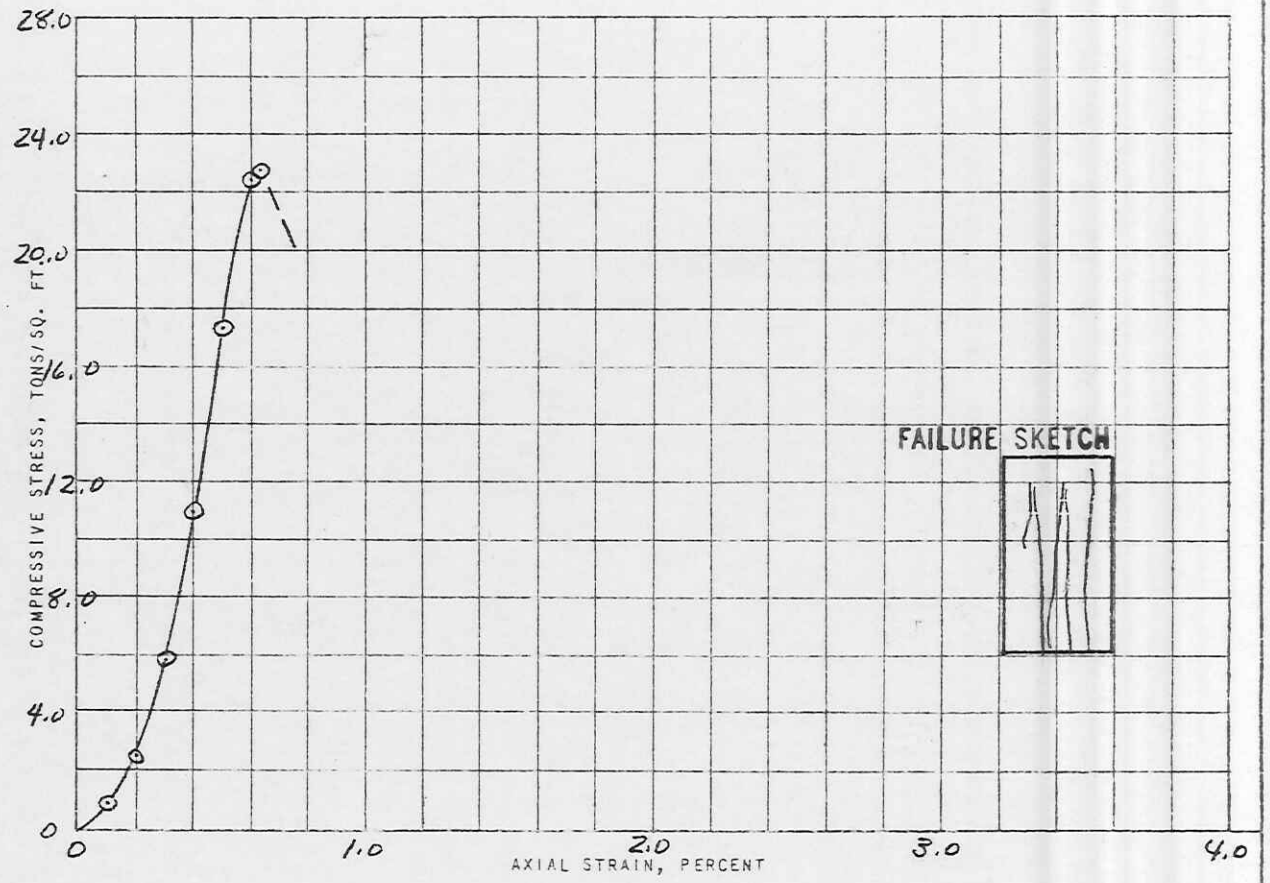
UNCONFINED COMPRESSION TEST

PLATE NO. 6

SWD:GL REPORT NO. 7281

SWD FORM 558-C
REV 10 MAR 52





LL		G	
PL		D_{10}	
X	UNDISTURBED		REMOLDED
WATER CONTENT, W_o		%	21.6
DRY DENSITY		LBS./CU.FT.	103
VOID RATIO e_o			
SATURATION, S_o		%	
UNCONFINED COMP. STRENGTH qu		TONS/SQ.FT.	22.9
X	qu ADJUSTED, A.S.T.M. C42-44	TONS/SQ.FT.	22.4
SPECIMEN DIAMETER		INCHES	5.7
SPECIMEN HEIGHT		INCHES	9.9
Stress - CONTROL, 600 lbs./min.			

REMARKS:

PROJECT Trinity River - Lock and Dam Site No. 6 FOUNDATION MATERIAL

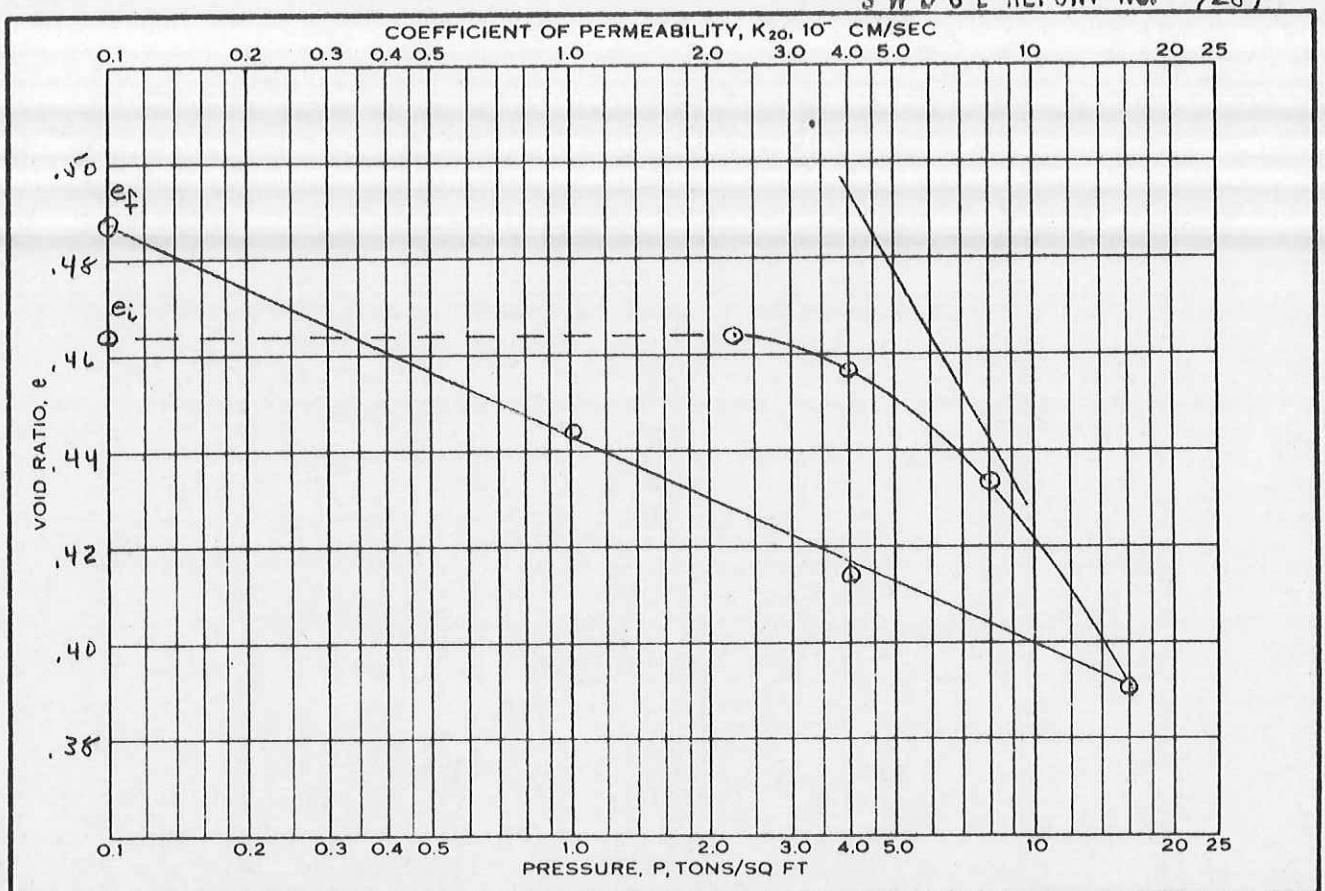
AREA GALVESTON DISTRICT

BORING NO. 6ST-6-4 | SAMPLE NO. S-5771 | ELEV. OR DEPTH 48.0-50.0 | DATE NOV 1961

UNCONFINED COMPRESSION TEST

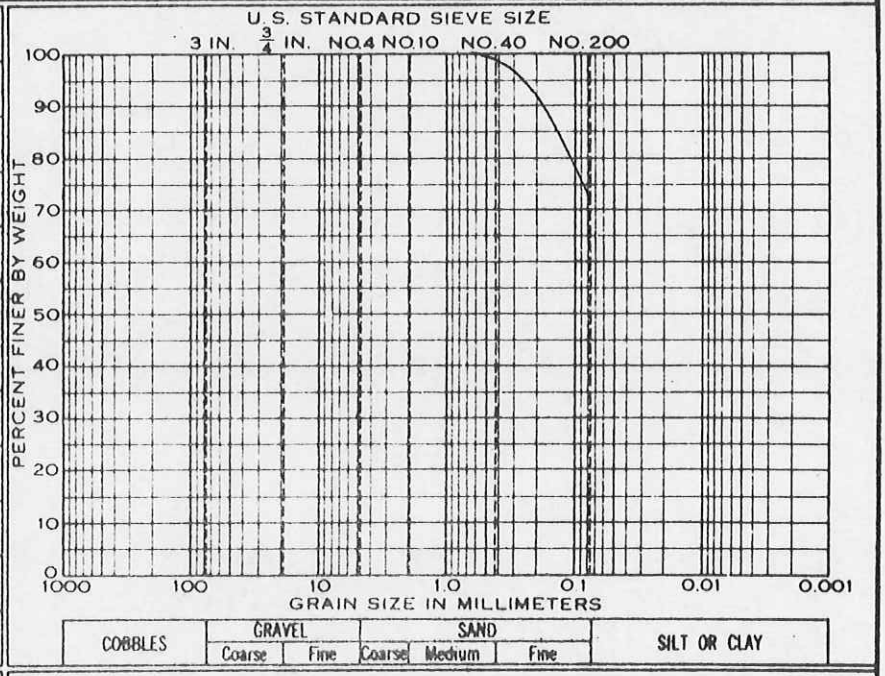
PLATE NO. 8

SWDGL REPORT NO. 7281



TEST DATA

Type of Specimen	UNDISTURBED
Overburden Pressure, P_0	Tons/Sq Ft
Preconsol Pressure, P_c	Tons/Sq Ft
Compression Index, C_c	0.17
Permeability at Initial e	K_{20} _____ x 10^{-} Cm/Sec; _____ Ft/Min
Initial Ht. 2H = 1.00 in.	Diam. 4.44 in.
Initial Saturation, S_0 %	86
Final Saturation, S_f %	100
Initial Dry Density Lbs/Cu Ft	113
Initial Water Content, W_0 %	15.0



Remarks:
Expansion pressure = 2.25 tsf.

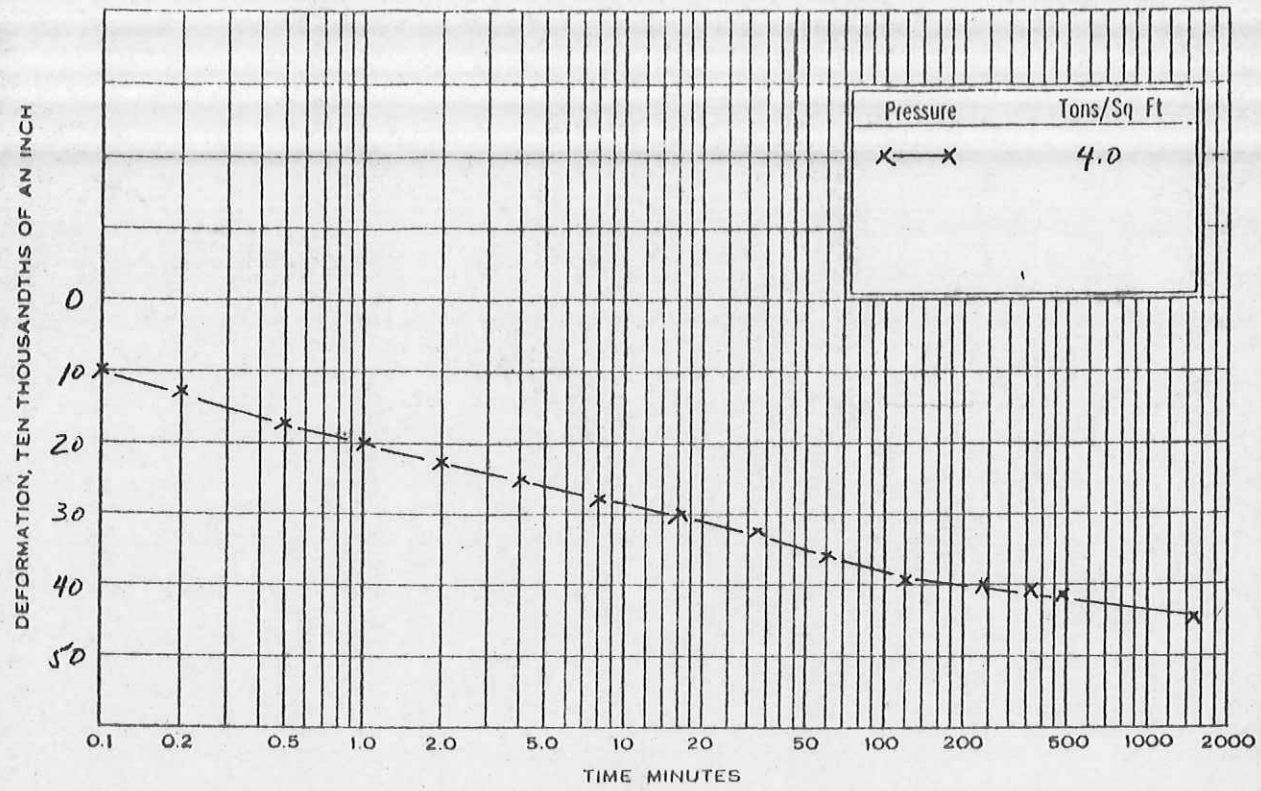
Classification Sandy CLAY (CL)

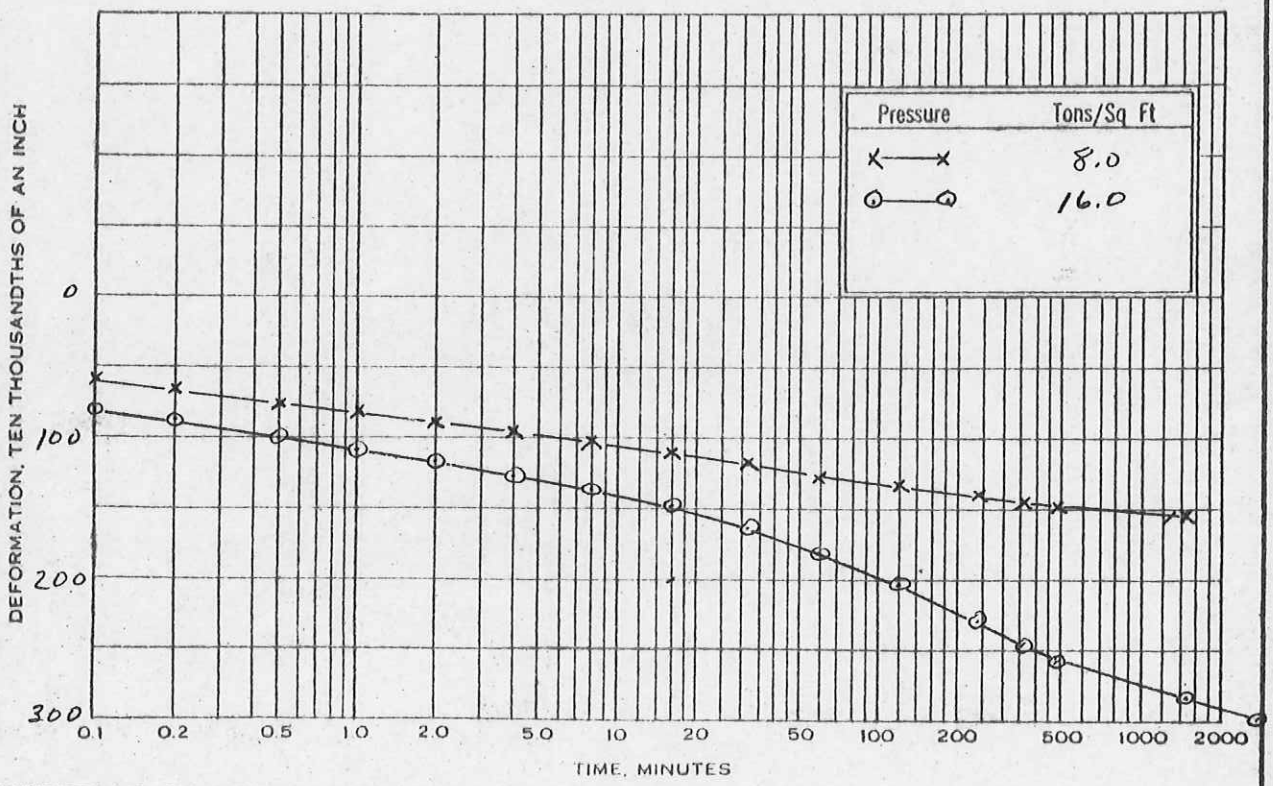
LL 50	G 2.66
PL 12	D_{10}

Project Trinity River - Lock and Dam Site No. 6
FOUNDATION MATERIAL
Area GALVESTON DISTRICT
Boring No. 6ST-6-4 | Sample No. S-5769
Elev or Depth 6.0-8.0 | Date NOV 1961

CONSOLIDATION TEST REPORT

ENG FORM 1 DEC 51 2090





Project Trinity River - Lock and Dam Site No. 6 **FOUNDATION MATERIAL**

Area **GALVESTON DISTRICT**

Boring No. 6ST-6-4 | Sample No. 5-5769 | Elev or Depth 6.0-8.0 | Date **NOV 1961**

CONSOLIDATION TEST-TIME CURVES