TEST DATA SUMMARY

SWDGL Report 9829

FEATURE _____

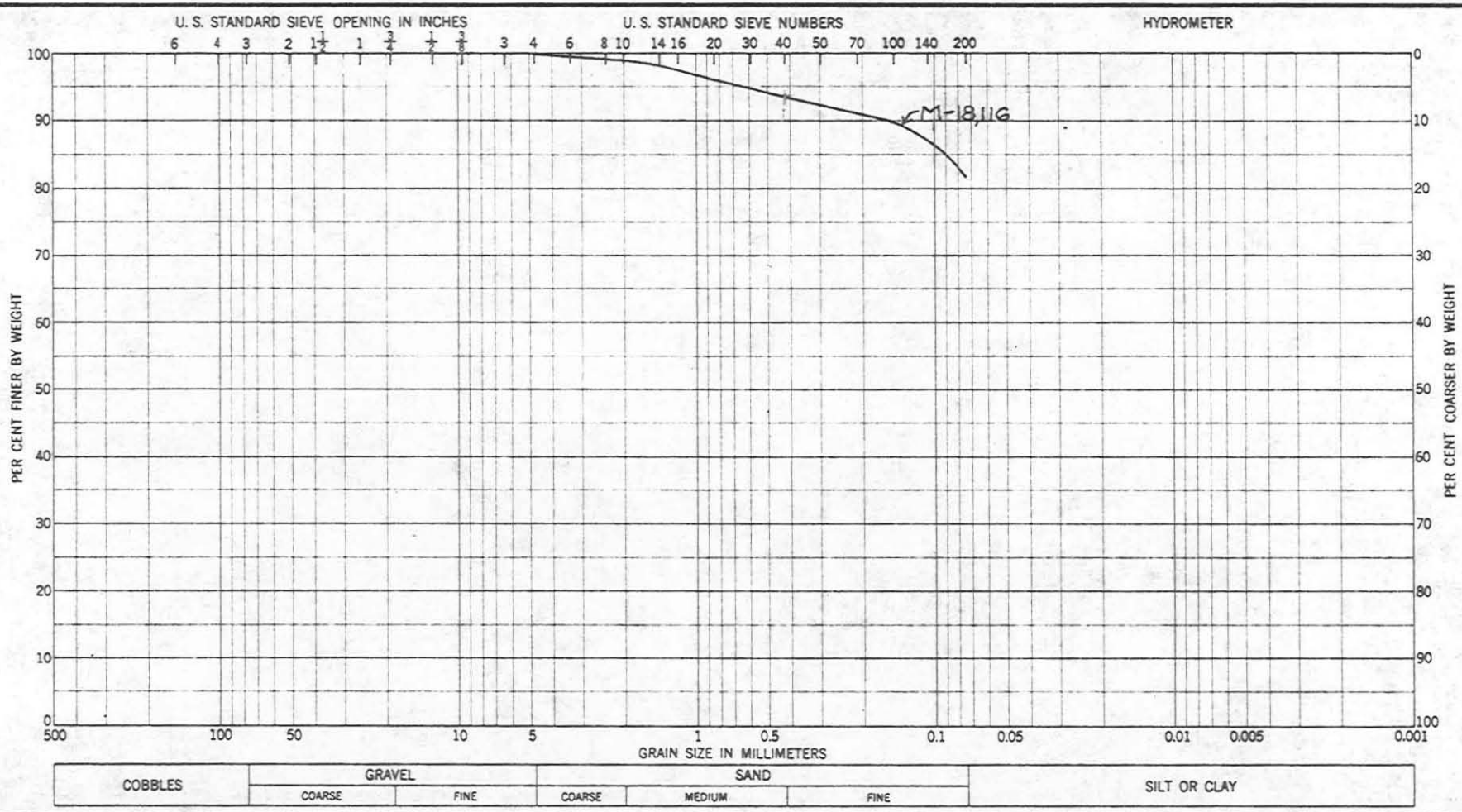
WALLISVILLE DAM

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_I %	W_F %	S_I %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_m T/SQ FT	σ_I 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} *	LS	REMARKS
3ST-267																																		
M-18	120	0.5-10.0	CH	0	9	91		65	18	2.70est			22.5	98.6																			21	
				CLAY, grayish brown.											.805	93	27.8	30.1	93	DS	3X3X0.5	1			0.3	17.7								
															.797	94	27.8	28.4	94	"	"	2												
															.797	94	27.8	26.2	94	"	"	3												
3ST-274																																		
M-18	121	15.0-30.0	CH	0	16	84		70	19	2.70est			23.2	97.7																			22	
				CLAY, pale red.											.830	92	28.4	30.2	93	DS	3X3X0.5	1			0.1	17.9								
															.832	92	28.6	28.9	93	"	"	2												
															.834	92	28.7	26.7	93	"	"	3												
3ST-284																																		
M-18	116	6.0-9.0	CL	0	18	82		50	15	2.69est			17.0	109.0																			18	
				CLAY, grayish brown; some small calcareous particles.											.658	101	22.2	22.4	91	DS-S	3X3X0.5	1			0.1	26.8								
															.659	101	22.2	21.1	91	"	"	2												
															.655	102	22.1	20.2	91	"	"	3												
3ST-290																																		
M-18	117	4.0-7.5	CH	0	14	86		65	17	2.70est			19.7	102.2																			22	
				CLAY, gray and grayish brown; some small calcareous particles.											.789	94	25.2	27.4	86	DS-S	3X3X0.5	1			0.3	16.3								
															.793	94	25.6	25.5	87	"	"	2												
															.786	94	25.5	22.6	88	"	"	3												

ENG FORM 1 MAR 58 2086 (PREVIOUS EDITIONS MAY BE USED) (EM 1110-2-1803) (TRANSLUCENT)

Specimens remolded with a water content of optimum+5% and dry density taken from wet leg of compaction curve.

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



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
M-18,116	6.0-9.0	CLAY (CL)		50	15	35

Project WALLISVILLE DAM

Area

Boring No. 3ST-284

Date JUL 66

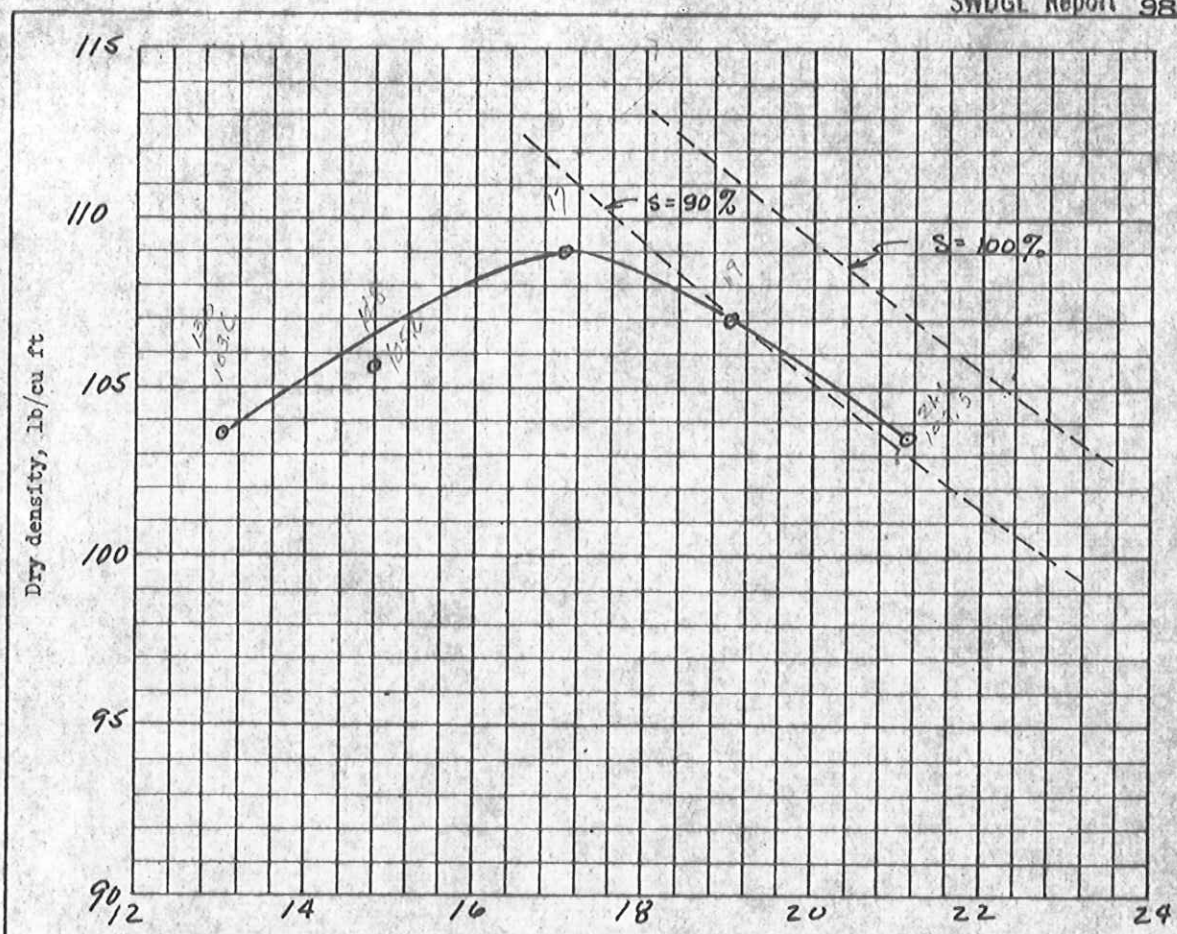
GRADATION CURVES

Plate No. 3

SWDGL Report 9829

ENG FORM 1 MAY 63 2087 REPLACES WES FORM NO. 1241, SEP 1962, WHICH IS OBSOLETE. (TRANSLUCENT)

C 0436



EM 1110-2-1906
Appendix VI

Water content, per cent of dry weight

Standard compaction test

25 blows per each of 3 layers, with 5.5 lb rammer and

12 inch drop. 4 inch diameter mold

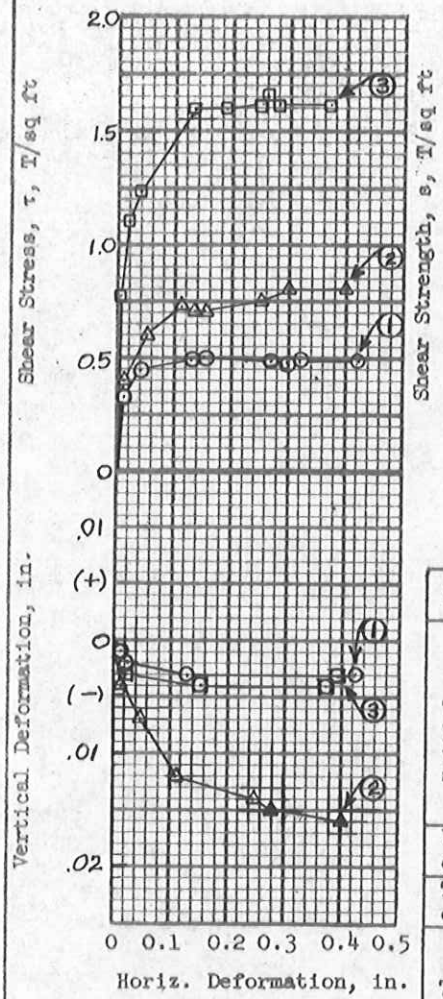
Sample No.	~~Elev or~~ Depth	Classification	G	LL	PL	% > No. 4	% > 3/4 in.
	6.0-9.0	CLAY (CL)	2.69 est.	50	15		

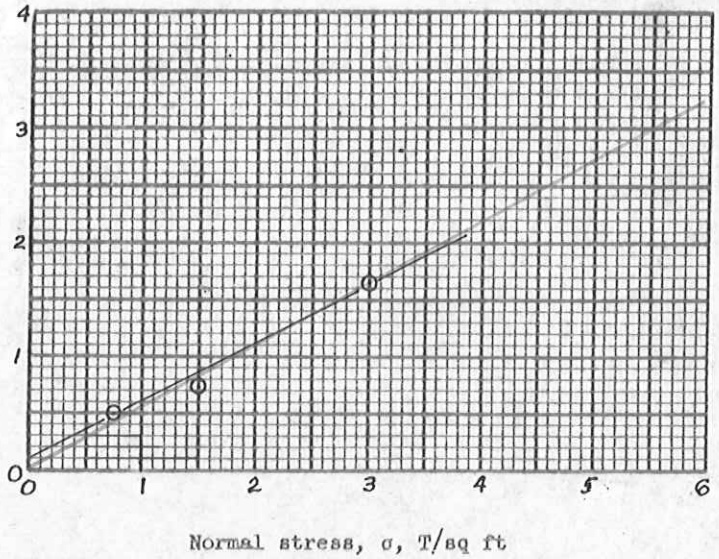
Sample No.	M-18,116			
Natural water content in per cent				
Optimum water content in per cent	17.0	17.0		
Max dry density in lb/cu ft	109.0	109.0		

Remarks	Project WALLISVILLE DAM
	Area
	Boring No. 3ST-284 Date JUL 66
	COMPACTION TEST REPORT

ENG FORM 1 MAY 63 2091 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT) 0 3425

Plate No. 8





Test No.			1	2	3	
Initial	Water content	w_o	22.2 %	22.2 %	22.1 %	%
	Void ratio	e_o	.658	.659	.655	
	Saturation	S_o	91 %	91 %	91 %	%
	Dry density, lb/cu ft	γ_d	101	101	102	
Void ratio after consolidation		e_c				
Time for 50 percent consolidation, min		t_{50}	—	—	11	
Final	Water content	w_f	22.4 %	21.1 %	20.2 %	%
	Void ratio	e_f				
	Saturation	S_f	%	%	%	%
Normal stress, T/sq ft		σ	0.75	1.50	3.00	
Maximum shear stress, T/sq ft		τ_{max}	0.50	0.73	1.65	
Actual time to failure, min		t_f	1600	1600	3500	
Rate of strain, in./min			0.0001	0.0001	0.0001	
Ultimate shear stress, T/sq ft		τ_{ult}				

Shear Strength Parameters

ϕ' = 26.8 ° 28.5°

tan ϕ' = .506

c' = 0.1 T/sq ft

☐ Controlled stress

☑ Controlled strain

Type of specimen Remolded | 3.0 in. square | 0.5 in. thick

Classification CLAY (CL)

LL 50 | PL 15 | PI 35 | G_s 2.69 (est.)

Remarks Specimens remolded with a water content of optimum +5 % and dry density taken from wet leg of compaction curve.

Project WALLISVILLE DAM

Area

Boring No. 3ST-284 | Sample No. M-18,116

Depth 6.0-9.0 | Date JUL

DIRECT SHEAR TEST REPORT