

Results of Tests of Foundation Materials

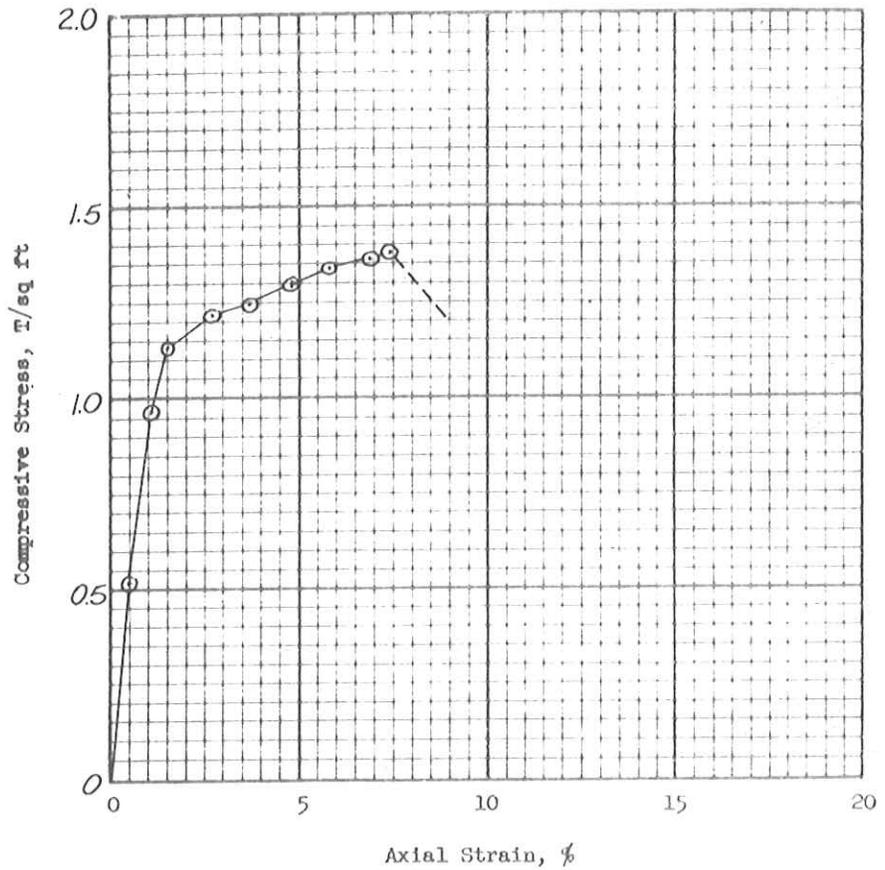
Hole No.	SWD Sample No.	Depth, feet	Type of Sample	Mechanical Analysis, % Passing											Natural Conditions			Classification		
				1"	3/4"	1/2"	3/8"	No.						- Limits			Water Contents %		Dry Density lbs/cu.ft.	
								4	10	20	40	100	200	LL	PL	LS				
3ST-255B (Cont'd)	X-3569	20.0 - 20.5	Ctn															20.5		CL CLAY, sandy, dark gray, very stiff.
	X-3569A	20.5 - 22.0	"															27.4		CL CLAY, dark gray, stiff.
	X-3570	22.0 - 24.0	"															34.3	90	CH CLAY, dark gray, stiff.
	X-3571	24.0 - 26.0	"															33.8		CH CLAY, dark gray to gray and yellow, stiff.
	X-3572	26.0 - 28.0	"															29.8	92	CH CLAY, gray and olive, stiff.
	X-3573	28.0 - 30.0	"															30.2		CH CLAY, gray, olive and yellow stiff.
	X-3574	30.0 - 32.0	"															26.5	98	SC SAND, clayey, gray; numerous irregular 1/4" clay seams.
	X-3575	32.0 - 34.0	"															31.4		CH CLAY, gray, stiff.
	X-3576	34.0 - 36.0	"															38.2	83	CH CLAY, dark gray, stiff.
	X-3577	36.0 - 36.3	"															20.5		SP SAND, gray.
	X-3577A	36.3 - 38.0	"															43.4		CH CLAY, gray, few sandy seams.
	X-3578	38.0 - 40.0	"															21.2		SM-SP SAND, gray.
	X-3579	43.5 - 46.0	Jär															41.1	81	CH CLAY, gray to olive, stiff; few 1/4" sandy seams.
	X-3580	46.0 - 48.0	Ctn															37.3		CH CLAY, bluish-gray, olive and yellow, very stiff.
	X-3581	48.0 - 50.0	"															43.1	78	CH CLAY, gray and yellowish-brown, medium consistency; contains 1-1/2" sand layer.
3ST-255C	X-3582	0.0 - 2.0	Ctn														43.8		CH CLAY, dark gray, stiff.	
	X-3583	2.0 - 4.0	"														40.6	80	CH CLAY, dark gray, medium consistency.	
	X-3584	4.0 - 6.0	"														49.5		CH CLAY, dark gray, soft. Disturbed.	
	X-3585	6.0 - 8.0	"														59.6	65	CH CLAY, dark gray, soft.	
	X-3586	8.0 - 10.0	"														54.5		CH CLAY, dark gray, very soft.	
	X-3587	10.0 - 12.0	"														51.3	71	CH CLAY, dark gray, soft.	
	X-3588	12.0 - 14.0	"														56.3		CH CLAY, dark gray, very soft; few sandy seams.	
	X-3589	14.0 - 14.5	"														47.0	73	CH CLAY, dark gray, very soft.	
	X-3589A	14.5 - 16.0	"														23.5	104	SC SAND, clayey, gray.	
	X-3590	16.0 - 18.0	"														34.1		CH CLAY, dark gray, stiff.	
	X-3591	18.0 - 20.0	"														26.0	96	CH CLAY, sandy, dark gray, stiff.	
	X-3592	20.0 - 22.0	"														30.8	93	CH CLAY, dark gray, stiff. UNCONFINED COMPRESSION TEST PLATE 6.	
	X-3593	22.0 - 24.0	"														31.2		CH CLAY, dark gray, stiff.	
	X-3594	24.0 - 26.0	"														27.1	100	CH CLAY, gray and yellow, stiff.	
	X-3595	26.0 - 28.0	"														24.8		CH CLAY, gray and olive yellow, stiff.	
X-3596	28.0 - 30.0	"														27.2	97	CL CLAY, sandy, gray to olive, stiff, some CH clay in lower 0.5'.		

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				1"		3/4"		1/2"		3/8"		Limits		Water Contents %	Dry Density lbs/cu.ft.		
				No. 4	No. 10	No. 20	No. 40	No. 100	No. 200	LL	PL	LS					
3ST-255C (Cont'd)	X-3597	30.0 - 32.0	Ctn												25.7	99	CL CLAY, sandy, gray, stiff; layers of sand to 1" thickness.
	X-3598	32.0 - 34.0	"							100	99	54	17		30.2	95	CH CLAY, gray and olive, stiff. UNCONFINED COMPRESSION TEST PLATE 77
	X-3599	34.0 - 36.0	"	<i>Gray Clay (CH) 28 stiff to very stiff</i>										24.3		CH CLAY, gray, few sand seams.	
	X-3600	36.0 - 38.0	"											32.1	91	CH CLAY, light gray and bluish-gray, very stiff.	
	X-3601	38.0 - 40.0	"												28.9		CH CLAY, gray, red and yellow, very stiff.
	X-3602	40.0 - 42.0	"	<i>Gray Sandy Clay (CL) 20 V stiff to hard</i>										23.3	105	CL CLAY, gray, olive and yellow, V stiff; seams of fine sand.	
	X-3603	42.0 - 44.0	"											17.9		CL CLAY, sandy, gray, hard.	
	X-3604	44.0 - 46.0	"							100	82	29	18		32.9	90	CH CLAY, gray, stiff; 1" sand layer near bottom.
X-3605	46.0 - 48.0	"	<i>Gray Clay (CH) 35 stiff to V stiff</i>										36.2		CH CLAY, gray and brownish-yellow, very stiff.		
X-3606	48.0 - 50.0	"											35.6	85	CH CLAY, gray, olive and yellow, stiff.		

14.5

Failure Sketches



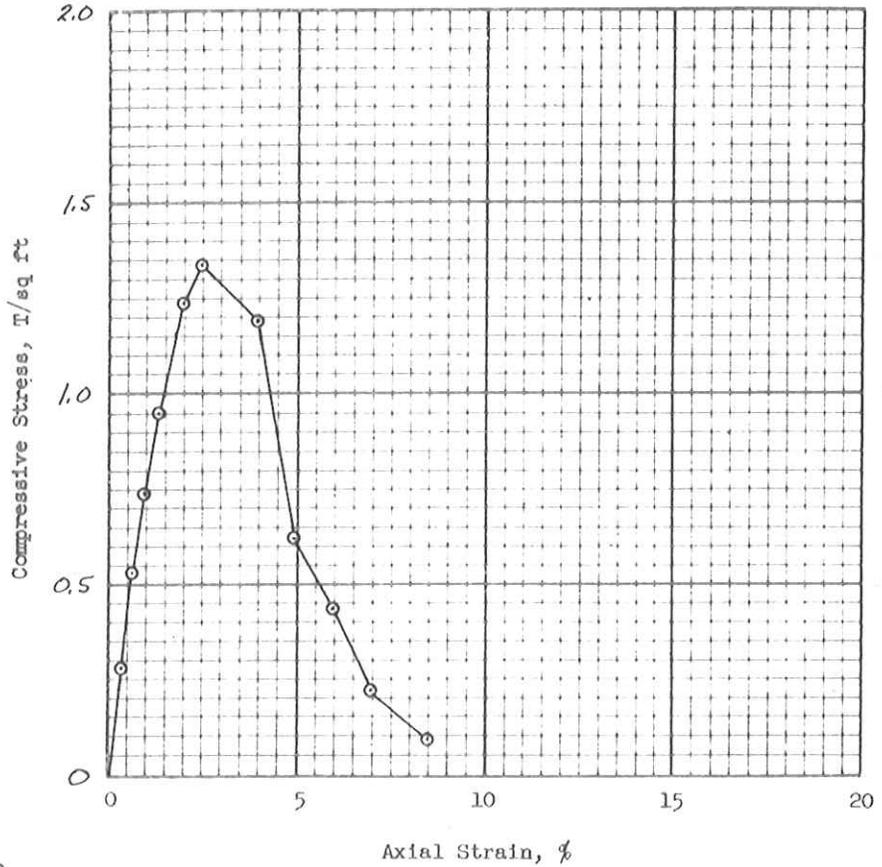
Controlled stress
 Controlled strain
 Rate, 0.4 %/min

Test No.					
Type of specimen		Undisturbed			
Initial	Water content	w _o	30.0	%	%
	Void ratio	e _o			
	Saturation	s _o		%	%
	Dry density, lb/cu ft	γ _d	93		
Time to failure, min		t _f	17		
Unconfined compressive strength, T/sq ft		q _u	1.4		
Undrained shear strength, T/sq ft		s _u	0.7		
Sensitivity ratio		S _t			
Initial specimen diameter, in.		D _o	2.9		
Initial specimen height, in.		H _o	5.7		

Classification			
CLAY (CH)			
LL	65	PL	19
		PI	
		G _B	

Remarks	Project		WALLISVILLE DAM	
	Area		Foundation Material	
	Boring No.		3ST-255C	
	Sample No.		X-3592	
	Depth		200-220	
	Date		JAN 87	
UNCONFINED COMPRESSION TEST REPORT				

Failure Sketches



- Controlled stress
- Controlled strain
Rate 0.3%/min

Test No.					
Type of specimen		Undisturbed			
Initial	Water content	w_o	27.9 %	%	%
	Void ratio	e_o			
	Saturation	S_o	%	%	%
	Dry density, lb/cu ft	γ_d	96		
Time to failure, min		t_f	8		
Unconfined compressive strength, T/sq ft		q_u	1.3		
Undrained shear strength, T/sq ft		s_u	0.7		
Sensitivity ratio		S_t			
Initial specimen diameter, in.		D_o	2.5		
Initial specimen height, in.		H_o	6.0		
Classification <i>CLAY(CH)</i>					
LL	54	PL	17	PI	37
				G_s	
Remarks		Project <i>WALLISVILLE DAM</i>			
		Area <i>Foundation Area</i>			
		Boring No. <i>3ST-255C</i>		Sample No. <i>X-3598</i>	
		Depth <i>32.0-34.0</i>		Date <i>JAN 69</i>	
		UNCONFINED COMPRESSION TEST REPORT			

DRILLING LOG	DIVISION Southwestern	INSTALLATION Galv Dist, Eng Div	SHEET OF SHEETS
1. PROJECT Wallisville Reservoir		10. SIZE AND TYPE OF BIT	
2. LOCATION (Coordinates or Station)		11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	
3. DRILLING AGENCY Dept of the Army, GD, Corps of Engineers		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) 3ST-255C		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN	DISTURBED 25 Cont
5. NAME OF DRILLER Black		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE <input type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE	STARTED 3 Nov
8. DEPTH DRILLED INTO ROCK		COMPLETED 4 Nov 66	
9. TOTAL DEPTH OF HOLE 50.0		17. ELEVATION TOP OF HOLE	
		18. TOTAL CORE RECOVERY FOR BORING %	
		19. SIGNATURE OF INSPECTOR	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
0.0	2.0		Dark gray clay w/roots, med			Cont. 1 0.75
2.0	4.0		Dark gray clay, med			Cont. 2 0.75
4.0	6.0		Gray clay, med			Cont. 3 0.50
6.0	8.0		Same as above, soft			Cont. 4 0.25
8.0	10.0		Same as above, med			Cont. 5 0.50
10.0	12.0		Gray clay, soft			Cont. 6 0.25
12.0	14.0		Gray clay w/sandy layers soft			Cont. 7 0.25
14.0	16.0		Same as above, med			Cont. 8 0.75
16.0	18.0		Gray clay, stiff			Cont. 9 1.25
18.0	20.0		Gray clay, w/sand, stiff			Cont. 10 1.50
20.0	22.0		Gray clay, stiff	Unc		Cont. 11 1.50
22.0	24.0		Gray clay w/cal nods, v/stiff			Cont. 12 2.50
24.0	26.0		Brown and gray clay w/cal nods v/stiff			Cont. 13 2.50
26.0	28.0		Same as above, stiff			Cont. 14 1.75
28.0	30.0		Brown and gray clay w/sandy layers w/cal nods, v/stiff			Cont. 15 2.75
30.0	32.0		Gray clay w/sandy layers, stiff			Cont. 16 1.25
32.0	34.0		Brown and gray clay, stiff	Unc		Cont. 17 1.75
34.0	36.0		Gray clay w/sandy layers v/stiff			Cont. 18 2.50
36.0	38.0		Gray clay, stiff			Cont. 19 1.50
38.0	40.0		Brown and gray clay, stiff			Cont. 20 1.75
40.0	42.0		Brown and gray clay sandy v/stiff			Cont. 21 2.50
42.0	44.0		Gray and brown sandy clay v/stiff			Cont. 22 3.00
44.0	46.0		Brown and gray clay w/sandy layers, v/stiff			Cont. 23 3.00
46.0	48.0		Gray and brown clay, v/stiff			Cont. 24 2.75
48.0	50.0		Gray and brown clay w/sandy layers, v/stiff			Cont. 25 2.00
			BOTTOMED Water -0.5			