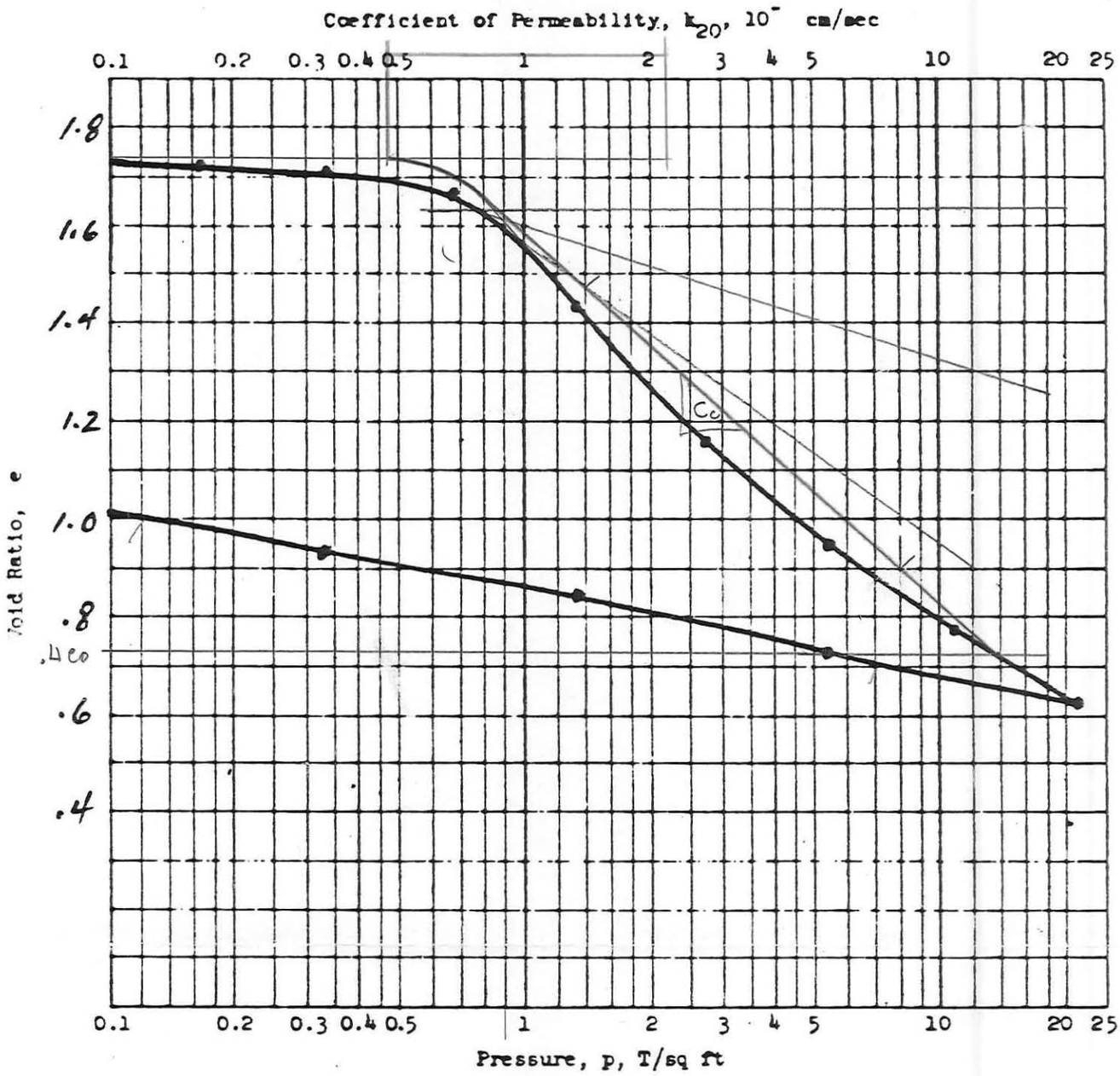
$p_o = 37(25) = 950$ psf
$p_o' =$ 1800 psf

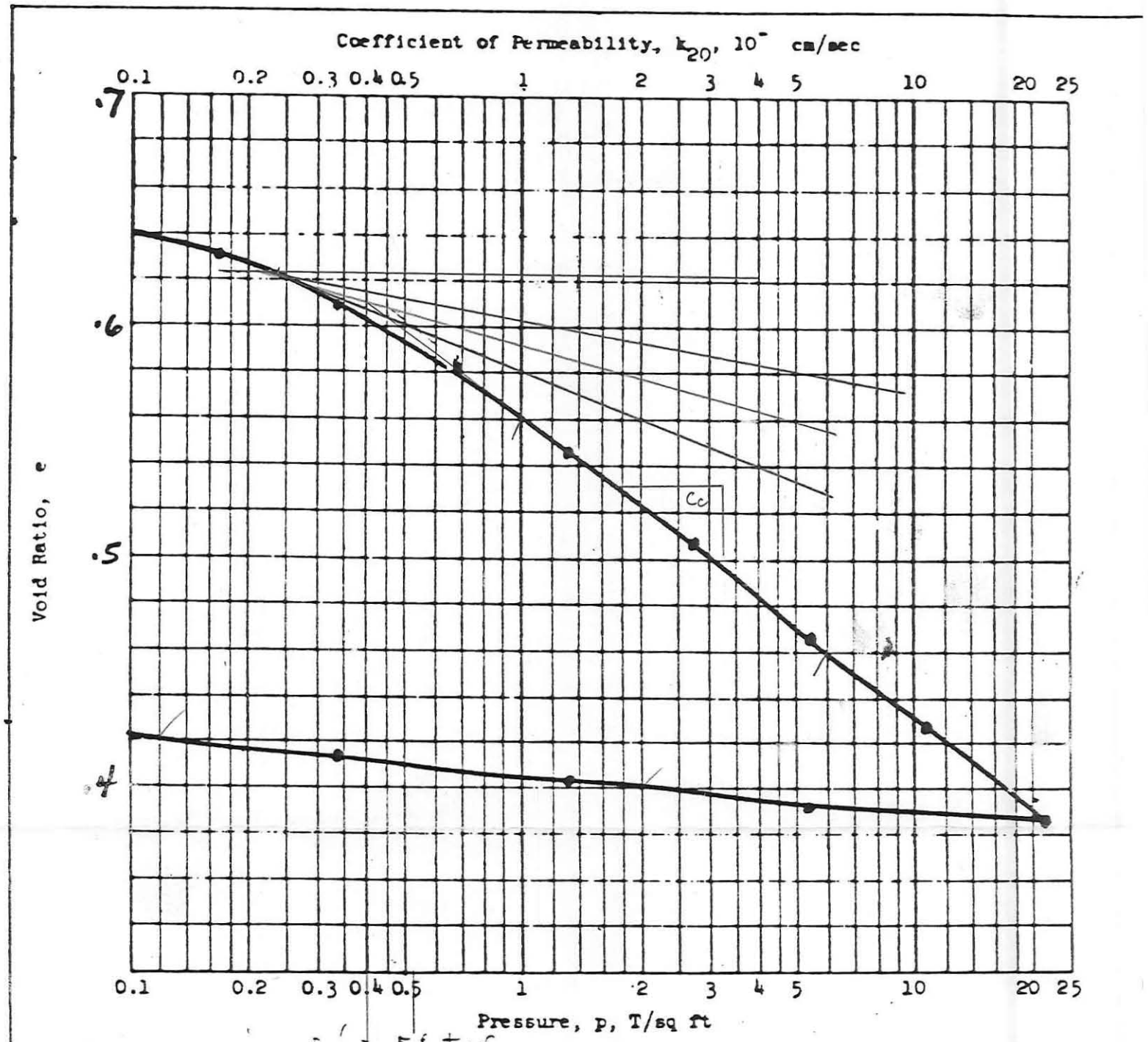


Type of Specimen UNDISTURBED		Before Test		After Test	
Diam 2.50 in.	Ht .75 in.	Water Content, w_o	65.9 %	w_f	45.5 %
Overburden Pressure, p_o	T/sq ft	Void Ratio, e_o	1.748	e_f	1.072
Preconsol. Pressure, p_c	T/sq ft	Saturation, S_o	100 %	S_f	112 %
Compression Index, C_c		Dry Density, γ_d	60.2 lb/ft^3		
Classification Grey Clay (CH)		k_{20} at e_o =	$\times 10^-$ cm/sec		
* LL — ≈86	G_s 2.65	Project Corps of Engineers (83-431)			
PL — 32	D_{10}	WALLISVILLE DAM			
Remarks Based on		Area			
83-402 22-24 and		Boring No. 83-402		Sample No. 13	
26-28		Depth El 24-26		Date 6-29-84	
		CONSOLIDATION TEST REPORT			

ENG FORM 1 MAY 63 2090 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PLATE VIII-5

p_o = 785 psf
p_o' = 800 psf
∴ Normally Consolidated



p_o' = .8 tsf

Type of Specimen UNDISTURBED		Before Test		After Test	
Diam 2.50 in.	Ht .75 in.	Water Content, w_o	23.7 %	w_f	18.4 %
Overburden Pressure, p_o T/sq ft		Void Ratio, e_o	.667	e_f	.433
Preconsol. Pressure, p_c T/sq ft		Saturation, S_o	94 %	S_f	113 %
Compression Index, C_c		Dry Density, γ_d	99.3 lb/ft^3		
Classification Grey Sandy Clay (CL)		k_{20} at e_o =	$\times 10^{-}$ cm/sec		
LL — 30	G_s 2.65	Project Corps of Engineers (83-431)			
PL —	D_{10}	WALLISVILLE DAM			
Remarks Based on		Area			
83-402- 10-12		Boring No. 83-402		Sample No. 7	
		Depth El 12-14		Date 6-29-84	
		CONSOLIDATION TEST REPORT			

ENG FORM 1 MAY 63 2090 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PLATE VIII-5

TRIAXIAL and Direct Shear

SUMMARY OF ~~UNCONFINED~~ COMPRESSION TEST DATA
on UNDISTURBED SAMPLES
"S" Tests TABLE

Boring No.	Depth Ft.	Density Data M.C. %	Density Data U.D.W. P.C.F.	Gradation Gr	Gradation Sa	Gradation Fines	L.L.	P.L.	Shear Data Φ	Shear Data C P.S.F	Classification
83-393	10 - 12	21.7	102		5	95	21	12	33.5	400	Light Grey Sandy Clay (CL), Soft
83-393	14 - 16	27.7	95.		39	60	32	16	30.3	500	Grey Sandy Clay (CL), Very Soft
83-387	2 - 4	71.6	56.		5	95	81	26	14.0	140	Grey Clay (CH), Soft
83-402	10 - 12	28.9	94		15	65	29	20	29.3	0	Light Grey and Tan Sandy Clay (CL), Soft
						"R" Tests					
83-387	4 - 6	71.6	57		5	95	61	28	5.0	200	Grey Clay (CH), Very Soft
83-402	8 - 10	23.5	101.		34	66	28	18	13.5	480	Grey Silty Clay (CL), Soft
						"Q" Tests					
83-394	12 - 14	42.3	78		24	76	58	18	0	400	Grey Clay (CH), Soft
83-392	16 - 18	32.7	90	3	57	40	66.	21	0	200	Grey Clayey Sand (SC). Very Soft
83-393	12 - 14	22.0	100		29	71	20	14	19.8	720	Grey Sandy Clay (CL), Soft
83-401	10 - 12	33.0	89	1	30	69	52	19	0	400	Grey Clay (CH), Very Soft
83-406	14-16	18.3	104	1	50	49	31	13	13	200	Grey Sandy Clay (CL), Soft.

SUMMARY OF UNCONFINED COMPRESSION TEST DATA
WALLISVILLE RESERVOIR
NON-OVERFLOW DAM

Boring No.	Depth Ft.	Density Data M.C. %	Density Data U.D.W. P.C.F.	Gradation Gr	Gradation Sa	Gradation Fines	L.L.	P.L.	% Strain @ Max. Stress	Max. Stress T.S.F.	Classification		
378	2-4	25	103	0	19	81	59	22	10.2	1.53	Tan Red-Brown and Light Gray Clay	Stiff	(CH)
381	2-4	32	88	0	25	75	55	23	4.9	.22	Gray and Tan Clay	Soft	(CH)
382	2-4	35	84	0	1	99	77	27	3.1	.14	Gray and Tan Clay	Medium	(CH)
385	2-4	35	90	0	5	95	50	19	5.5	.36	Gray Clay	Stiff	(CH)
"	6-8	63	62	0	0	100	73	23	6.8	.37	Gray Clay	Soft	(CH)
"	12-14	86	52	0	0	100	90	39	3.1	.22	Gray Clay	Very Soft	(CH)
387	6-8	75	60	0	11	89	65	28	4.7	.12	Gray Clay	Very Soft	(CH)
"	13-15	84	51	0	0	100	97	38	4.2	.19	Gray Clay	Soft	(CH)
390	2-4	46	73	0	2	98	99	36	2.4	.49	Black Clay	Soft	(CH)
392	2-4	43	80	0	4	96	87	20	5.1	.38	Gray and Tan Clay	Soft	(CH)
393	0-2	47	72	0	2	98	91	31	5.4	.43	Gray Clay	Soft	(CH)
"	22-24	57	67	0	6	94	76	30	4.0	.23	Gray Clay	Very Soft	(CH)
"	34-36	48	80	0	14	86	72	27	6.3	.34	Gray Clay	Very Soft	(CH)
395	12-14	61	61	0	21	79	110	27	3.4	.51	Dark Gray & Gray Clay	Med	(CH)
"	18-20	65	63	0	12	88	82	27	3.4	.61	Gray Clay	Stiff	(CH)
400	2-4	45	77	0	1	99	91	33	4.4	1.34	Gray Clay	Stiff	(CH)
401	2-4	45	77	0	2	98	89	32	3.8	.60	Gray, Dark Gray & Tan Clay	Stiff	(CH)
402	4-6	28	101	0	10	90	35	22	14.3	.64	Gray Sandy Clay	Soft	(CL)
"	14-16	33	91	—	—	—	56	19	7.9	.22	Gray Clay	Soft	(CH)
"	22-24	68	67	0	0	100	85	33	3.0	.21	Gray Clay	Very Soft	(CH)
"	26-28	63	68	0	0	100	89	31	3.9	.40	Gray Clay	Very Soft	(CH)
405	2-4	32	91	0	9	91	65	20	5.2	.52	Gray & Tan Clay	Med	(CH)
407	2-4	33	91	0	9	91	56	24	4.8	.28	Gray & Tan Clay	Soft	(CH)
410	2-4	35	90	0	5	95	62	32	6.6	.57	Dark Gray & Tan Clay	Soft	(CH)
412	0-2	37	84	0	4	96	76	26	5.0	.30	Gray & Tan Clay	Soft	(CH)
"	22-24	75	62	0	12	88	84	27	6.1	.45	Gray Clay	Soft	(CH)
"	30-32	34	90	0	1	99	76	24	7.5	1.74	Gray & Tan Clay	Stiff	(CH)

.85 Reach 6 Sta. 121+50 83-402

EL

Lyr No	Depth	w	γ_d	e_o	γ	γ_b	Surcharge	H_z	$\Delta\sigma$	$\bar{\sigma}_o$	$\bar{\sigma}_f$	MC	LL	C *C_R	S
1	0-2	42	81	1.042	115	53	1512	1	1512	53	1565		78	*.13	.188
2	2-4	43	81	1.042	116	53		1		159	1671		75	*.16	.175
3	4-6	28	101	.638	129	67		1		280	1792		35	.2	.197
4	6-8	32	89	.859	117	55		.99	1497	402	1898			.3	.218
5	8-10	24	101	.638	125	63		.98	1482	519	2001		28	.15	.107
6	10-12	23	94	.760	116	53		.97	1467	635	2102		29	.15	.089
7	12-14	24	99	.671	123	60		.95	1436	749	2185			.15	.083
8	14-16	33	91	.818	121	59		.94	1421	868	2289		56	.4	.185
9 *	16-20	52	68	1.433	103	41		.92	1391	1008	2399			.55	.340
10	20-22	57	70	1.363	110	47		.90	1361	1137	2498			.55	.159
11	22-24	68	67	1.469	113	50		.87	1315	1235	2551		85	.7	.179
12	24-26	66	60	1.757	100	37		.85	1285	1322	2608			.7	.150
13	26-28	63	68	1.433	111	48		.84	1270	1406	2678		89	.6	.138
14	28-30	58	68	1.433	107	45		.82	1240	1501	2741			.6	.129
15	30-32	14	110			63		.81	1225	1609	2834			0	0
16 *	32-35	36	91	.818	124	61		.77	1164	1764	2928			.3	.109
17 *	35-40	47	68	1.433	100	38		.74	1119	1949	3068		76	.1	.040

2.4

COMPUTATION SHEET

SHEET ___ OF ___

PROJECT

FEATURE

DATE

DATE

BY

CHKD BY

DETAILS

SWD Form 521-R
Rev 24 Feb 81

SWGED-FG
SUBJECT: Wallisville Lake, Texas - Staking Request

TO: Soils Design Sec FROM: SWGED-FG DATE: 4 Jan 83 CMT 2
ATTN: John M. Cleveland

Subject request for boring stake-outs has been completed as of this date. The following are coordinates and elevations for the respective borings:

Boring No.	X	Y		Elevation
83-388	3,345,479.92	749,137.59	54+00	1.6
83-389	3,345,935.97	749,300.53	59+00	1.3
83-390	3,346,196.03	749,604.38	63+00	0.9
83-391	3,346,519.00	749,986.08	68+00	1.4
83-392	3,346,841.97	750,367.77	73+00	1.3
83-393	3,347,164.95	750,749.46	78+00	1.5
83-394	3,347,491.45	751,127.89	83+00	1.2
83-395	3,347,953.72	751,272.24	88+00	1.4
83-396	3,348,383.65	751,033.11	93+00	1.0
83-397	3,348,774.08	750,720.76	98+00	1.3
83-398	3,349,140.06	750,382.57	103+00	1.4
83-399	3,349,346.17	749,931.38	108+00	1.3
83-400	3,349,396.10	749,585.03	111+50	1.2
83-401	3,349,462.67	749,089.48	116+50	2.0
83-402	3,349,522.51	748,643.51	121+50	1.5
83-403	3,349,595.80	748,098.38	126+50	1.1
83-404	3,349,662.37	747,602.84	131+50	0.9
83-405	3,349,728.93	747,107.29	136+50	1.1
83-406	3,349,795.50	746,611.74	141+50	0.9
83-407	3,349,862.06	746,116.19	146+50	1.1

SWG FD 24
26 Nov 68

SUMMARY OF LABORATORY TEST DATA

PROJECT Corp. of Engineers
DATE 83-431V

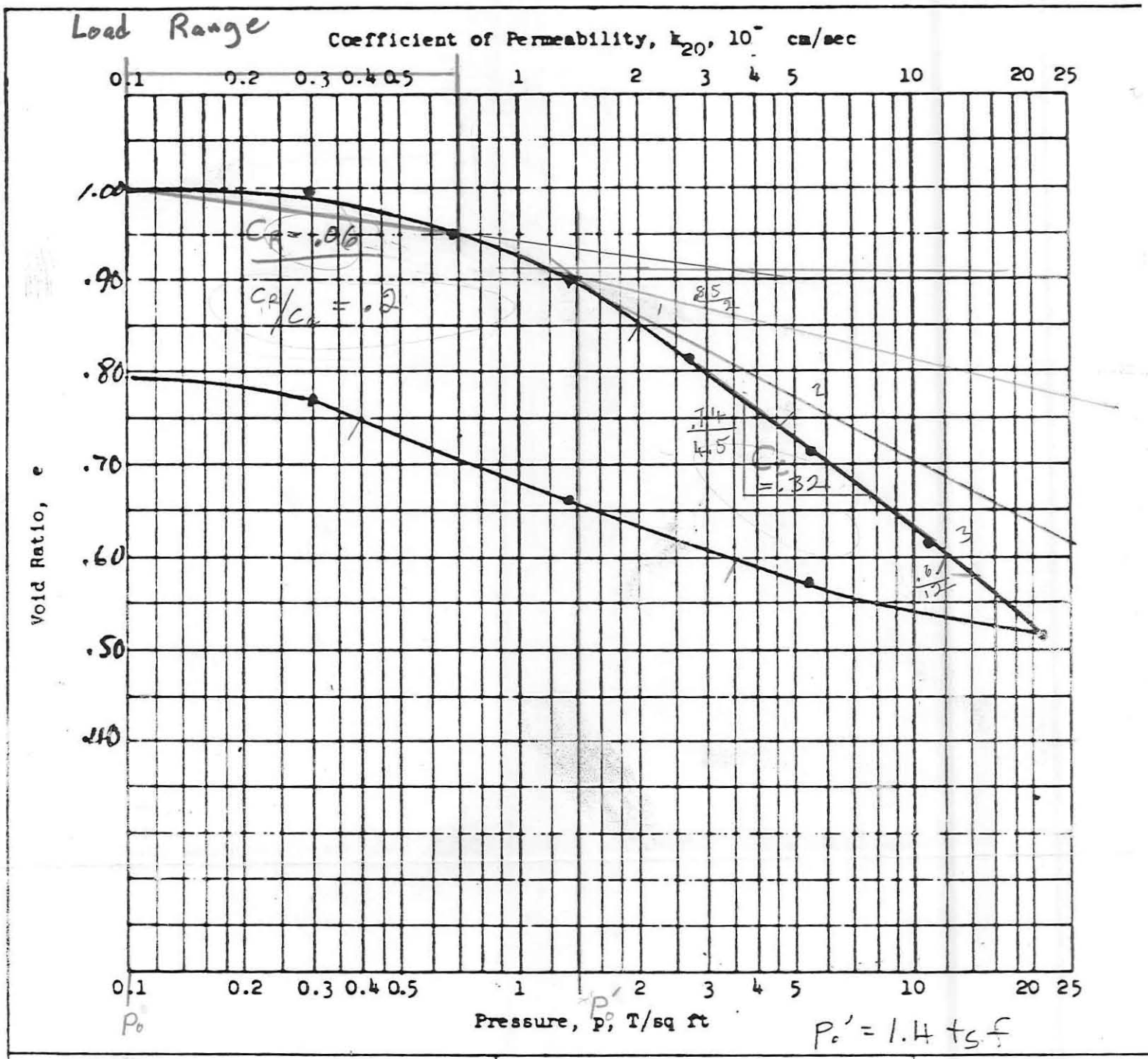
BORING NO.	DEPTH IN FEET	TYPE OF MATERIAL	MOISTURE CONTENT %	DRY DENSITY pcf	ATTERBERG LIMITS LL	PL	PI	COMPRESSION TEST: COMPRESSION tsf	STRAIN %	LATERAL PRESSURE psi	TYPE FAILURE	Sieve Analysis % Passing #4	#10	#40	#200
402	0-2	Dark gray, gray and tan clay with ferrous nodules (CH)	42	81	78	21	57					-	-	100	96
	2-4	Dark gray, gray and tan clay with ferrous nodules (CH)	43	81											
	4-6	Gray sandy clay with silt pockets, slightly sandy (CL)	28	101	35	22	13	.64	14.3	0	BULGE	TV = 0.24 TSF -	-	100	90
	6-8	Light gray and tan silty clay with sand pockets (CL)	32	89.4								TV = 0.13 TSF			
	8-10	Gray sandy clay, slightly silty (CL)	23.5	101.2	28	18	10					TV = 0.17 TSF -	100	96	66
	10-12	Light gray and tan sandy clay with sand pockets (CL)	23	94	29	20	9					TV = 0.39 TSF -	100	98	65
	12-14	Gray sandy clay with sand pockets and shell fragments (CL)	23.7	99.3								TV = 0.17 TSF -	100	99	79
	14-16	Gray clay with sand pockets and partings (CH)	33	91	56	19	37	.22	7.9	0	BULGE	TV = 0.14 TSF			
	18.5-20	Gray clay with sand seams, slightly silty (CH)	52												
	20-22	Dark gray and tan clay, slightly silty (CH)	57	70											
	22-24	Gray clay with sand pockets and partings (CH)	68	67	85	33	52	.21	3.0	0	SHEAR	TV = 0.2 TSF -	-	100	100
	24-26	Gray clay (CH)	65.9	60.2											
	26-28	Gray clay with sandy silt partings and pockets (CH)	63	68	89	31	58	.40	3.9	0	SHEAR	TV = 0.26 TSF -	-	100	100
	28-29.5	Gray and tan clay with silt pockets (CH)	58												
	~~30-32~~	Light gray sand (SM)	14												

$p_o = 3(51) = 150$ psf $e_o = G\frac{\gamma_w}{\gamma_d} - 1 =$

$p_o' =$ 2800 psf

∴ Over consolidated

Note: Lab curve same as field curve $\Delta\sigma = .7$ tsf



Type of Specimen UNDISTURBED		Before Test		After Test	
Diam 2.50 in.	Ht 0.750 in.	Water Content, w_o	36.9 %	w_f	32.9 %
Overburden Pressure, p_o T/sq ft		Void Ratio, e_o	.996	e_f	.793
Preconsol. Pressure, p_c T/sq ft		Saturation, S_o	98 %	S_f	110 %
Compression Index, C_c		Dry Density, γ_d	82.9 lb/ft³		
Classification GREY Clay w/ roots (CH)		k_{20} at e_o =	x 10^{-} cm/sec		
LL 85	G_s 2.65	Project Corps of Engineers (83-431)			
PL 26	D_{10}	WALLISVILLE DAM			
Remarks		Area			
		Boring No. 83-393		Sample No. 2	
		Depth El 2-4'		Date 6-29-84	
		CONSOLIDATION TEST REPORT			

ENG FORM 1 MAY 63 2090 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PLATE VIII-5

$\gamma = 113.5$

$\gamma_L = 51$