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Geotechnical Laboratory Test Results on Piston Core Samples Taken From the Mid-Atlantic Upper Continental Slope by the U.S. Geological Survey during September 1979

By

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William S. Gardner, Ram D. Singh, Paul G. Swanson,
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Open-File Report 81-366

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INTRODUCTION

By Harold W. Olsen, James S. Booth, and James E. Robb

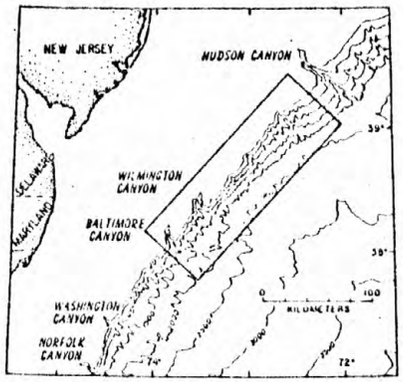
This is the first report that documents the results of geotechnical laboratory tests on piston cores taken from the mid-Atlantic Upper Continental Slope by the U.S. Geological Survey (USGS) from the R/V ENDEAVOR during September 1979. The coring stations are plotted in figure 1. Table 1 documents the longitude, latitude, water depth, and core recovery at each station. Table 1 further shows the geotechnical laboratory in which each core was analyzed. The USGS Conservation Division and the U.S. Bureau of Land Management supported the acquisition and geotechnical testing of the cores from those stations designated with the leters "CD" and "GD," respectively.

The objective of the overall coring program was to sample selected geologic features on the mid-Atlantic Upper Continental Slope within and near lease sale areas 49 and 59. The geotechnical data from these cores are being used, together with geologic, geochemical, and geophysical data, to clarify the character, distribution, and potential instability of the slope, including mass movement features that have been interpreted from geophysical data to date.

This report presents the test results obtained under U.S. Geological Survey Contract No. 14-08-0001-18707 with Woodward Clyde Consultants, Plymouth Meeting, Pa., and under U.S. Geological Survey Contract No. 14-08-0001-18708 with Law Engineering Testing Company, McLean, Va.

The test results in this report are from consolidation, triaxial, and associated material identification tests on specimens selected by USGS personnel on the basis of X-ray radiograph examination of the cores, and also visual examination and index property measurements at the ends of each core section. Because these data are presented without any interpretation, we caution users of this report not to take them out of context. Two factors need to be borne in mind. First, offshore sampling inevitably involves disturbance whose significance on these test results has not yet been evaluated. Second, these results are only part of the data obtained from this coring program. A complete analysis of all the data may lead to conclusions that differ from those indicated solely on the basis of the data included in this report.

USGS SEDIMENT CORE SITES
R/V ENDEAVOR 1979



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KILOMETERS

● CD SITES
♦ GD SITES

Bathymetry in Meters

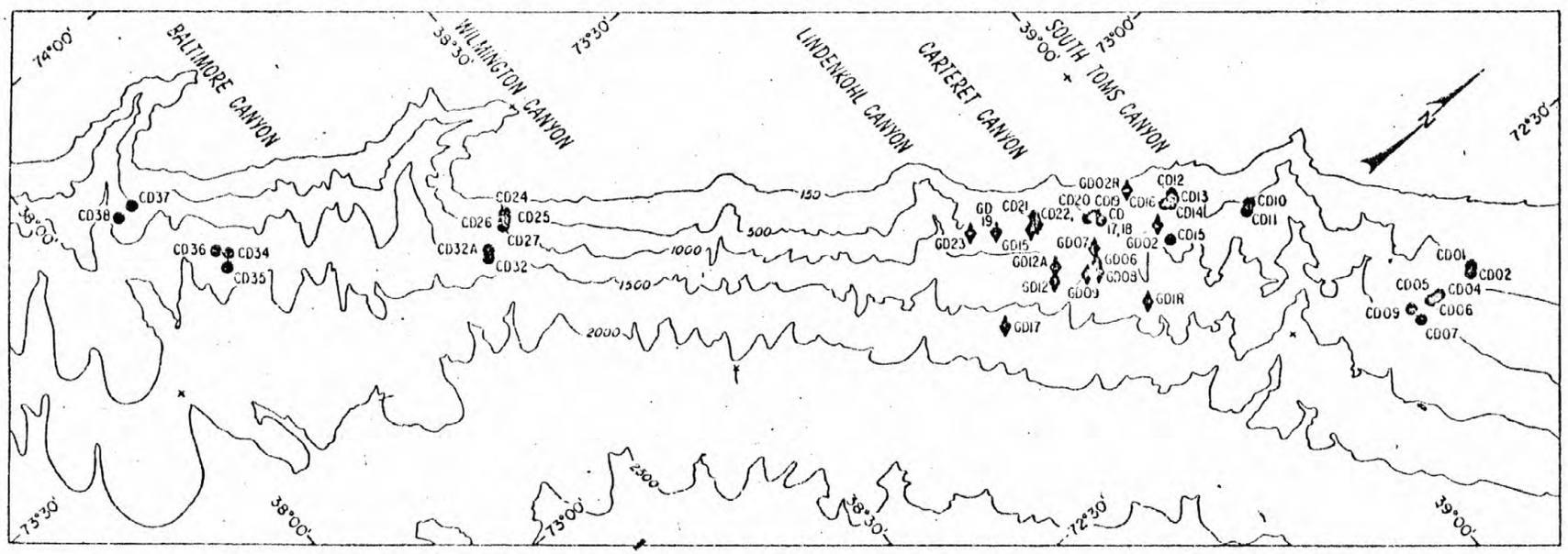

Table 1.--Piston core data, U.S. Geological Survey sediment core program, R/V ENDEAVOR 1979, on the mid-Atlantic Upper Continental Slope

[USGS-CC, U.S. Geological Survey, Corpus Christi, Tex.; WCC-PM, Woodward Clyde Consultants, Plymouth Meeting, Pa.; LAW-MV, Law Engineering Testing Company, McLean, Va.]

Station no.	Core no.	Latitude	Longitude	Water depth (m)	Core recovered (m)	Geotechnical laboratory
GD1R	PC54	38°54.13'	72°40.75'	1145	8.58	USGS-CC
GD2R	PC39	38°57.94'	72°49.40'	246	5.72	USGS-CC
GD07	PC51	38°53.25'	72°46.13'	1103	.17	USGS-CC
GD07	PC52	38°53.02'	72°47.37'	813	6.13	USGS-CC
GD08	PC46	38°52.84'	72°46.53'	930	7.05	USGS-CC
GD09	PC53	38°52.32'	72°46.06'	1035	10.06	USGS-CC
GD12	PC40	38°50.26'	72°47.53'	1113	7.08	USGS-CC
GD12A	PC41	38°50.93'	72°48.08'	1123	4.54	USGS-CC
GD15	PC43	38°51.37	72°52.18	620	9.42	USGS-CC
GD19	PC45	38°49.52'	72°54.03	688	6.97	USGS-CC
GD23	PC44	38°48.11	72°55.42'	575	4.50	USGS-CC
CD01	PC05	39°12.23'	72°24.30'	412	6.66	WCC-PM
CD04	PC03	39°09.12'	72°24.30'	708	6.94	WCC-PM
CD05	PC04	39°08.90'	72°24.09'	740	6.37	WCC-PM
CD06	PC09	39°08.53'	72°24.32'	784	8.03	WCC-PM
CD07	PC10	39°07.27'	72°23.25'	979	7.82	WCC-PM
CD09	PC07	39°07.23'	72°24.94'	1148	4.47	WCC-PM
CD09	PC08	39°07.21'	72°24.82'	1180	5.85	USGS-CC
CD10	PC11	39°03.69'	72°41.32'	435	8.24	WCC-PM
CD11	PC12	39°03.30'	72°40.58'	566	7.72	WCC-PM
CD11	PC13	39°03.32'	72°40.83'	556	5.32	USGS-CC
CD12	PC14	39°00.16'	72°46.43'	403	5.10	WCC-PM
CD13	PC15	38°59.98'	72°46.07'	471	8.19	WCC-PM
CD14	PC16	38°59.66'	72°45.80'	543	5.37	LAW-MV
CD15	PC18	38°57.98'	72°43.52'	810	8.08	LAW-MV
CD16	PC17	38°59.40'	72°46.16'	475	8.33	LAW-MV
CD17	PC19	38°55.36'	72°48.90'	592	6.76	LAW-MV
CD18	PC20	38°55.32'	72°48.80'	598	3.72	LAW-MV
CD19	PC21	38°55.23'	72°49.49'	595	5.05	LAW-MV
CD20	PC22	38°04.71'	72°49.59'	525	6.89	LAW-MV
CD21	PC23	38°52.15'	72°52.74'	505	7.40	LAW-MV
CD22	PC24	38°51.87'	72°52.27'	637	6.26	LAW-MV
CD22	PC25	38°51.86'	72°52.30'	607	6.21	LAW-MV
CD24	PC28	38°24.91'	73°23.54'	328	3.23	LAW-MV
CD25	PC29	38°24.74'	73°23.24'	392	2.75	LAW-MV
CD26	PC30	38°24.51'	73°22.92'	520	5.51	LAW-MV
CD27	PC31	38°24.38'	73°22.80'	553	5.58	LAW-MV
CD32	PC32	38°22.05'	73°21.50'	1098	8.02	LAW-MV
CD32A	PC33	38°22.49'	73°21.98'	1040	8.17	LAW-MV
CD34	PC34	38°08.72'	73°36.42'	1221	5.80	LAW-MV
CD35	PC35	38°08.01'	73°35.57'	1342	7.21	LAW-MV
CD36	PC36	38°08.12'	73°37.25'	1300	7.33	LAW-MV
CD37	PC37	38°05.71'	73°45.02'	573	3.84	LAW-MV
CD38	PC38	38°04.54'	73°45.04'	877	2.90	LAW-MV

Part I

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U.S. GEOLOGICAL SURVEY CONTRACT NO. 14-08-0001-18707

EVALUATION OF GEOTECHNICAL PROPERTIES OF PISTON CORES
OUTER ATLANTIC CONTINENTAL SHELF

Gentlemen:

Presented herein is our report on the Laboratory Investigation of Geotechnical Properties of Piston Cores obtained and furnished to us by U.S. Geological Survey (USGS). It is understood that the primary purpose of the study was to evaluate geotechnical properties of shallow strata on the continental slope off the coasts of New Jersey, Delaware and Maryland with respect to environmental hazards which may affect offshore structures. This work was conducted in accordance with USGS Contract No. 14-08-0001-18707 and Modification No. 1 dated March 7, 1980. This report summarizes the test results, procedures used and pertinent data.

Woodward-Clyde Consultants (WCC) provided transportation and complete laboratory testing services for one group of cores. This work was conducted by the WCC Eastern Region geotechnical laboratory located in Plymouth Meeting, Pennsylvania.

1.0 TRANSPORTATION, STORAGE AND SAMPLE EXTRUSION

1.1 TRANSPORTATION OF CORE SAMPLES

The samples were transported from their USGS storage at Narragansett, Rhode Island to the laboratory in a temperature controlled van at approximately four degrees Centigrade. The sample containers were provided with vibrational energy absorbing materials such as foam rubber. Sample tube racks were used to maintain cores upright during transportation.

1.2 STORAGE OF SAMPLES

The cores were stored upright in a temperature controlled environment at approximately four degrees Centigrade. Free water was made available to maintain high humidity. The cores were only removed from the storage as needed for testing.

1.3 SAMPLE EXTRUSION

All samples were extruded in an upright position without a start/stop action using a motorized hydraulic extruder. Care was used to minimize sample disturbance.

2.0 SPECIMEN PREPARATION

2.1 CONSOLIDATION SPECIMENS

The test specimens were trimmed to diameters of 2.5 inches (6.35 cm) from their original diameter of 3.5 inches (8.9 cm). The method of trimming utilized is similar to that developed by Professor Casagrande at Harvard University. The trimming eliminated the disturbed material at the exterior of the samples. ASTM D 2435-70 requires that specimen diameter be at least 0.25 inch (0.64 cm) less than that of the sample if undisturbed samples are being tested.

2.2 TRIAXIAL SPECIMENS

All the triaxial specimens tested were trimmed to a diameter of 2.0 inches following procedures outlined by Bishop and Henkel. This removed a very substantial portion of disturbed material found on the exterior of samples. Special care was taken to saturate the porous stones, pedestal and the connecting lines. The pore pressure was recorded by electronic transducer. De-aired water was used as cell fluid in order to mnimize migration of air from the cell into the specimen.

3.0 TEST PROCEDURES

The test procedures employed are briefly described below. All pertinent ASTM standards have been followed except as noted herein.

3.1 LIQUID LIMIT

The procedure, in general, followed ASTM D 424-59. However, the specimen tested was obtained by mechanically working the sample through a No. 40 sieve at water content close to liquid limit. The soil was not allowed to dry at all prior to testing.

3.2 PLASTIC LIMIT

The procedure followed is as outlined in ASTM D 424-59 except that specimen was obtained as described in 3.1 above.

3.3 BULK DENSITY

The determination of the size and weight were carried out in accordance with ASTM D 2850-70. The height of the specimen is based on an average of five measurements and the diameter as the average of three measurements made to the nearest 0.001 inch. The dry density is calculated based on the water content of the trimmings or a representative slice of the specimen.

3.4 SPECIFIC GRAVITY OF SOLIDS

The procedure used is similar to the methodology presented in ASTM D 854. Refinements were made in the method by which:

(a) The soil-water solution is mixed and de-aired, and

(b) A uniform and known temperature of the soil-water solution is obtained.

3.5 TEXTURAL ANALYSIS

The procedure is the ASTM D 421 procedure for determining the sediment size distributions.

3.6 WATER CONTENT

Samples were dried in an even heat distribution type oven following procedure as outlined in ASTM D 2216-71.

3.7 CONSOLIDATION TESTS

All tests were done in consolidometers employing highly polished teflon coated consolidation rings. The diameter of all the specimens tested was 2.50 inches (6.35 cm). For all the tests, an unload-reload cycle was introduced after the pre-compression stress had been exceeded. A pressure increment ratio of one was used for all tests, and loads were applied by a pneumatic system so as to preclude impact effects.

Time versus settlement records were maintained for each load increment. The coefficient of consolidation was calculated

for each of the primary loading increments using the square root of time curve fitting procedure. The load, in general, was maintained for a duration equal to (t_{90} + 60) minutes before the next load was imposed. The volumetric strain - log p curves obtained are essentially end of primary consolidation curves. A summary and relevant plots of the 29 consolidation tests conducted are presented in Appendix A.

3.8 TRIAXIAL TESTS

To evaluate both undrained and effective strength parameters, consolidated undrained triaxial compression tests with pore pressure measurements were carried out. The triaxial cells utilized had pedestals, caps and connections made of stainless steel or brass. The cells are specially designed to minimize piston friction, facilitate consolidation and saturation of test specimens, and minimize leakage. This was accomplished by incorporating top and bottom specimen drainage, precision pressure fittings and highly polished surfaces. The pore pressures were measured using an electronic transducer with a very low displacement characteristic.

For all tests, a minimum of 60 psi (420 kPa) back pressure was used to facilitate specimen saturation. For all tests, the pore pressure parameter B obtained before shearing was at least 0.95. The rate of undrained loading was approximately three percent per hour to allow pore pressure equalization. The consolidation time of the specimens was controlled so that any pore pressure increase due to secondary consolidation did not significantly affect the undrained pore pressure response.

For this project, the types of triaxial tests conducted were both isotropically and anisotropically consolidated undrained triaxial compression tests with pore pressure measurements ($\overline{CIU}$ and $\overline{CAU}$, respectively). One series of $\overline{CIU}$ tests was conducted to determine the Normalized Soil Parameters (NSP) of the specimens following the procedures suggested by Ladd & Foott (1974). The other tests followed traditional $\overline{CIU}$ and $\overline{CAU}$ testing procedures as outlined by Bishop & Henkel (1962).

For NSP tests, the specimens were consolidated under pressure three times to six times greater than the preconsolidation pressure. Specimens of known overconsolidation ratios in sets of three were then obtained by reducing the cell pressure and allowing the specimens to rebound prior to shear. The results and pertinent plots of 19 sets of these tests are presented in Appendix B. The associated computer printouts are also included in Appendix D.

For the traditional series, the triaxial tests were performed in sets of four. Three of the tests were isotropically consolidated to approximtely 0.75, 1.5 and 3.0 times the estimated in-situ vertical stress. The fourth specimen of each set was consolidated anisotropically assuming a K_o value of 0.5. The results and pertinent plots of 10 sets of these tests are presented in Appendix C. The computer outputs of the tests are included in Appendix E.

We sincerely appreciate the opportunity to be of service to USGS on this project. If you have any questions regarding the contents of this report, please do not hesitate to contact us.

Very truly yours,

WOODWARD-CLYDE CONSULTANTS

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Ram D. Singh, Ph.D.
Senior Project Engineer

W J Gardner

William S. Gardner, P.E.
Principal

REFERENCES

Bishop,A. W. and Henkel,D. J. (1962) The Measurement of Soil Properties in Triaxial Test, Second Edition, Edward Arnold, Ltd. London.

Ladd,C. C. and Foott,R. (1974) "New Design Procedure for Stability of Soft Clays", ASCE Journal of the Geotechnical Engineering Division, Vol. 100, No. GT7, pp. 763-786.

LIST OF NOTATIONS IN COMPUTER OUTPUT

PP RDG	=	Pore Pressure Transducer Reading
DEFL	=	Axial Deformation Gage Reading
LR	=	Load Ring Reading
S	=	Deviator Stress (Q)
SD/2	=	Maximum Shear Stress
SIGB1	=	Effective Axial Stess
SIGB3	=	Effective Radial Stress
OBLIQ	=	Obliquity
EXC PP	=	Excess Pore Pressure
A-F	=	Pore Pressure
Average ES	=	Average Effective Stress (P)

APPENDIX

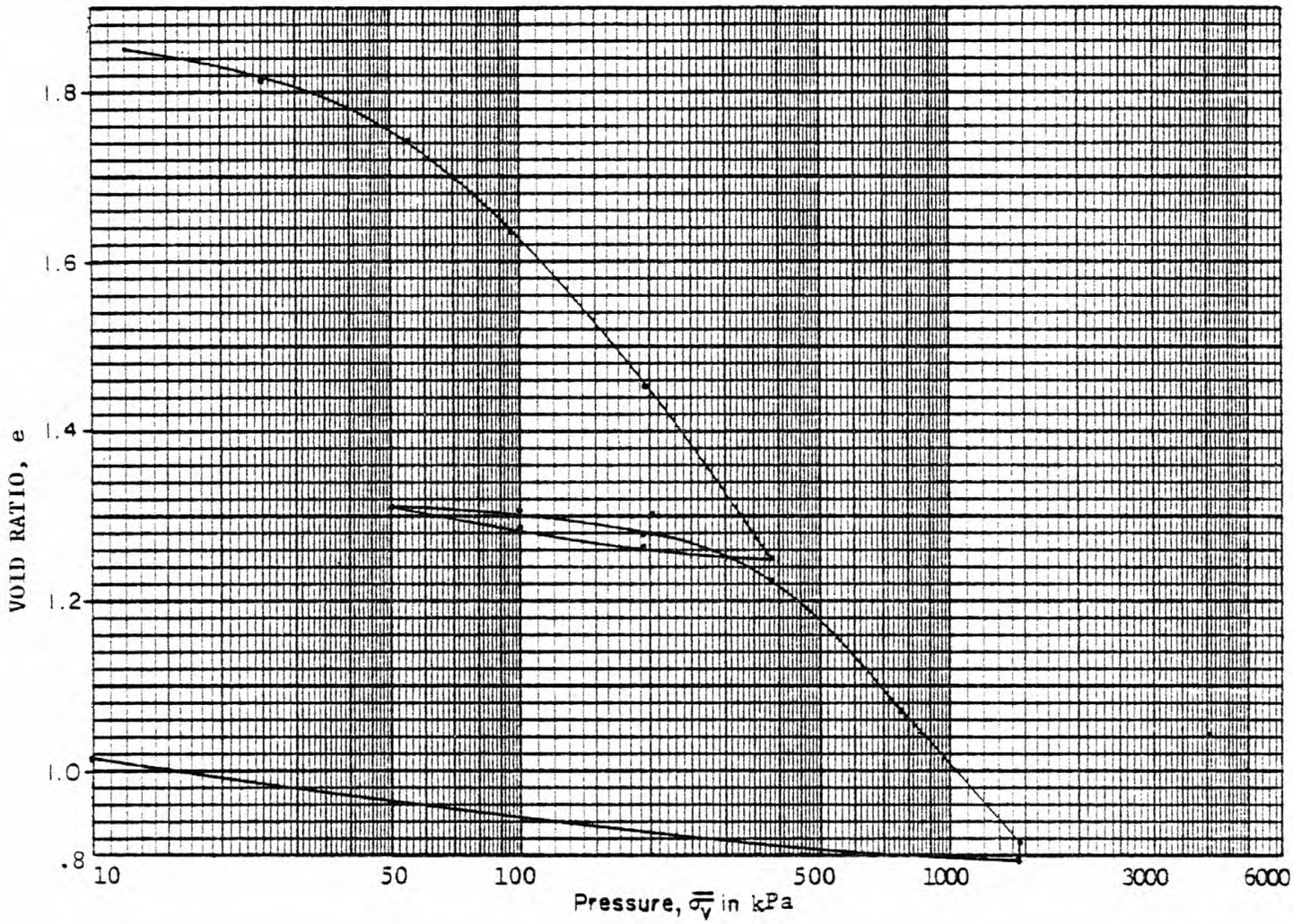
A

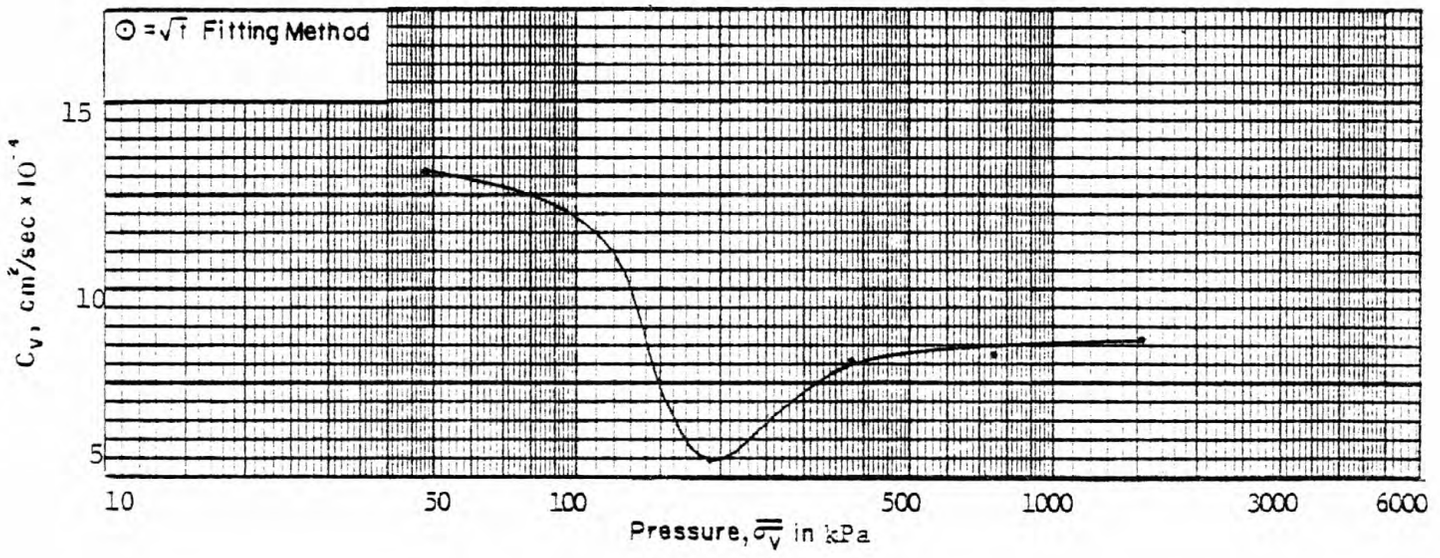
CONSOLIDATION TEST

Boring No: CD-1 Sample No: PC-5 Depth, cms 140-155

Material: DARK GRAY SILTY CLAY

	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	70.6	15.86	1.888	100.-	2.230				
Final	42.3	- -	1.164	100. -	1.671	6.337	2.74	57	26



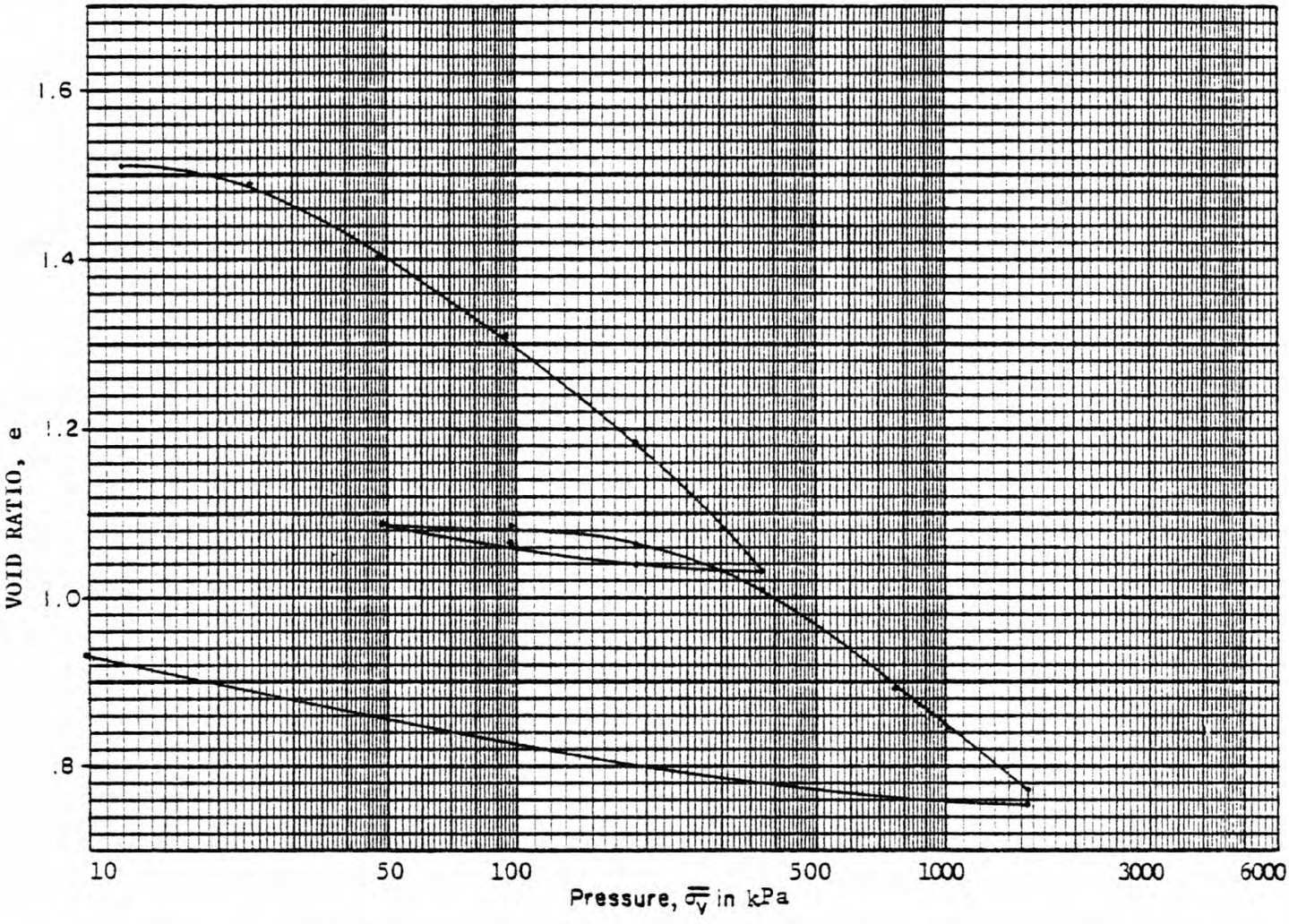


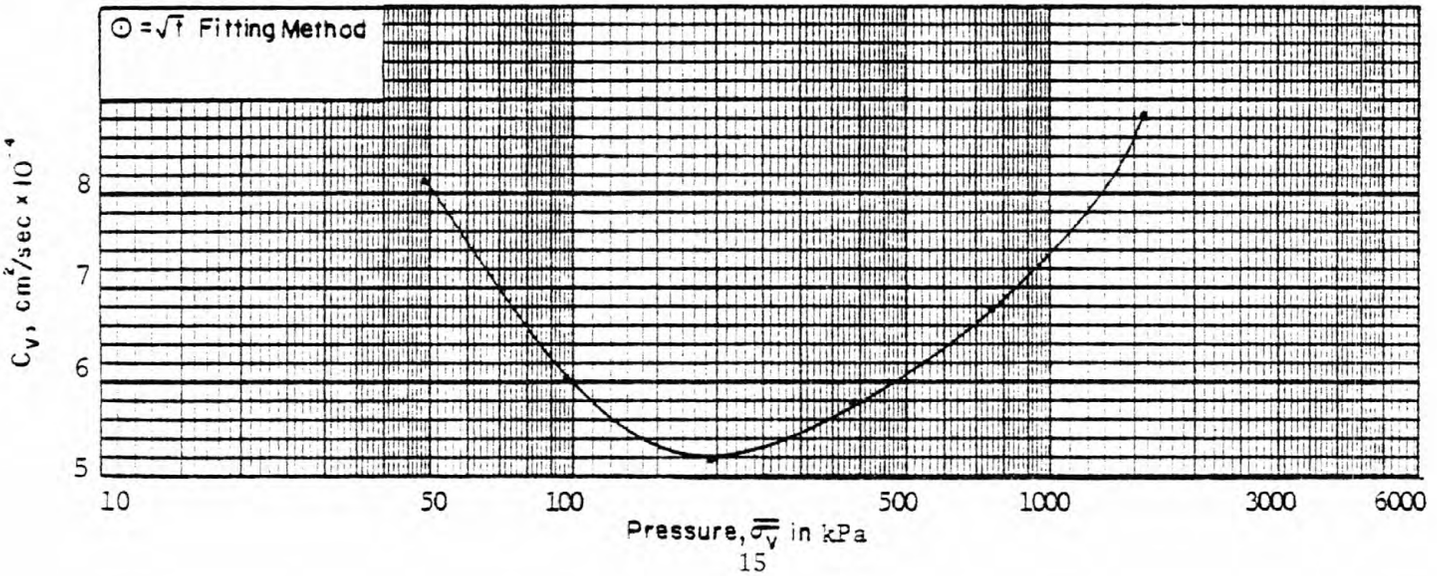
CONSOLIDATION TEST

Boring No: CD -1 Sample No: PC-5 Depth, cms 235-250

Material: DARK GRAY SILTY CLAY

	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	58.0	16.63	1.554	100.-	2.238	6.337	2.74	50	22
Final	33.9	----	.901	100	1.666				



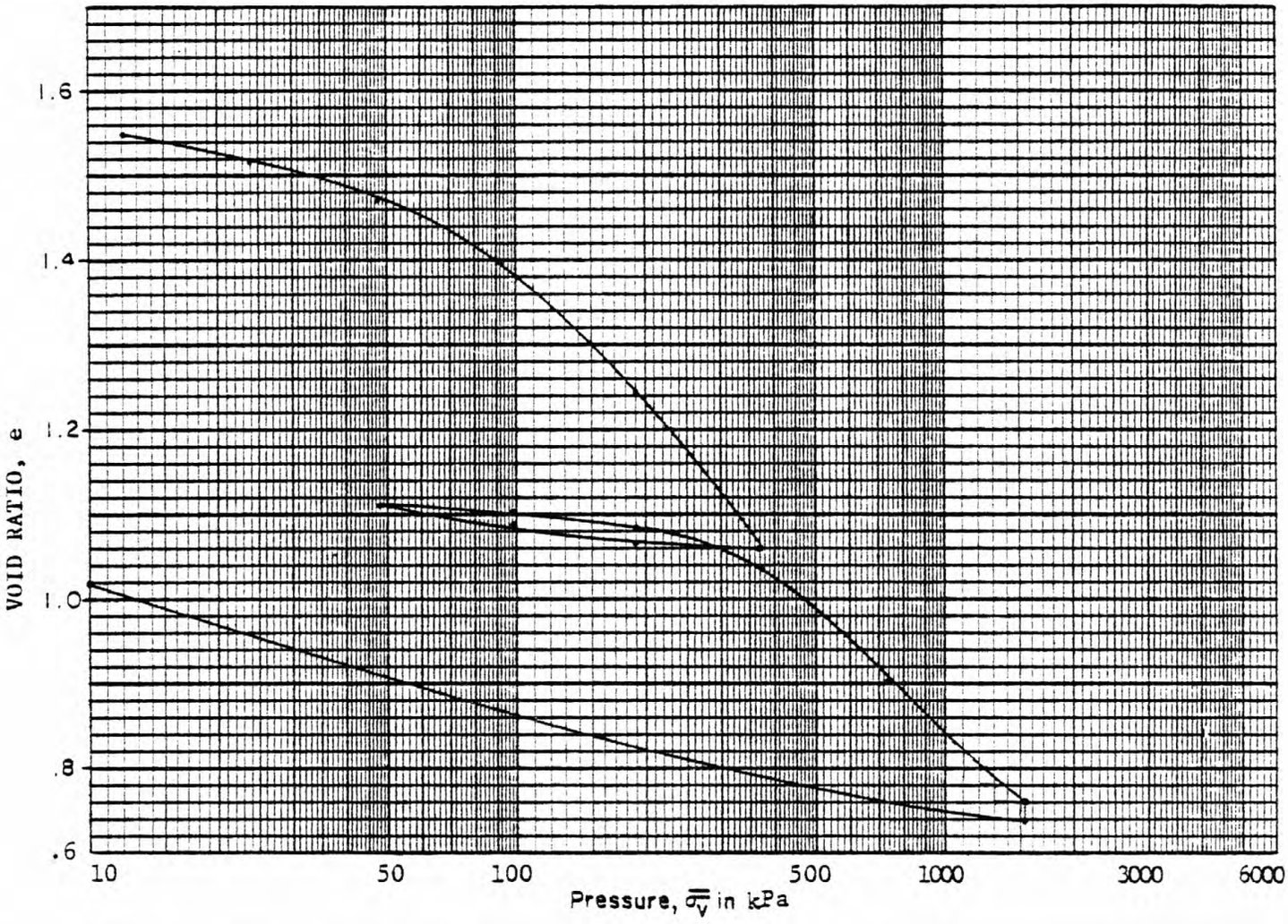


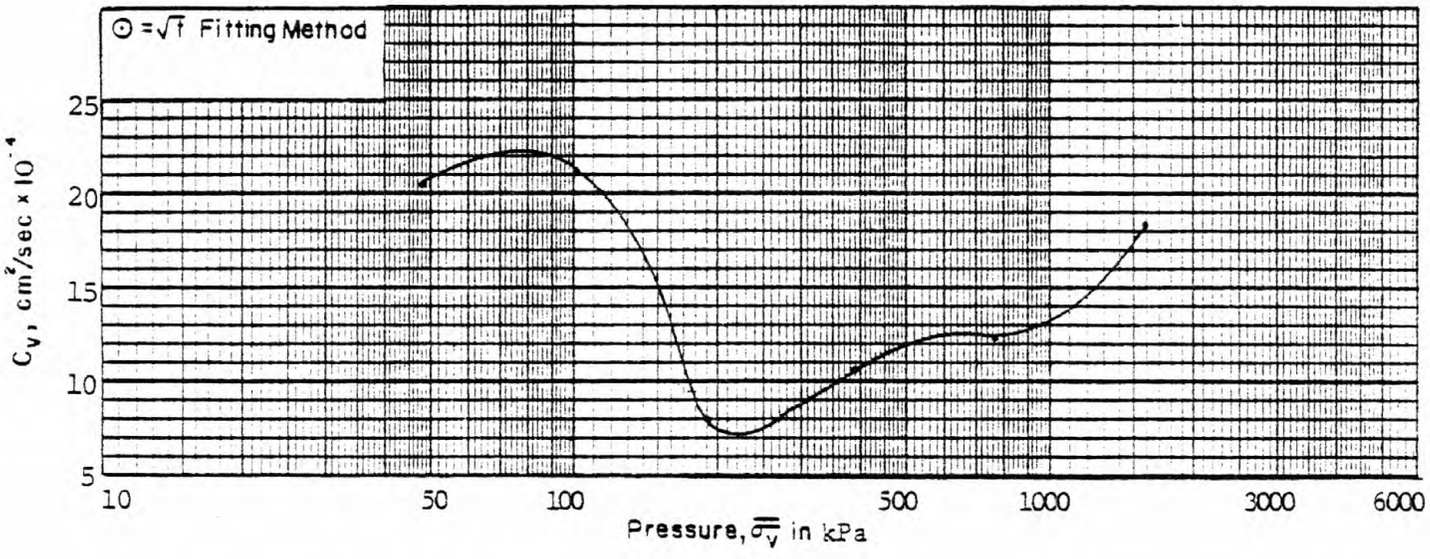
CONSOLIDATION TEST

Boring No: CD - 1 Sample No: PC-5 Depth, cms 500-515

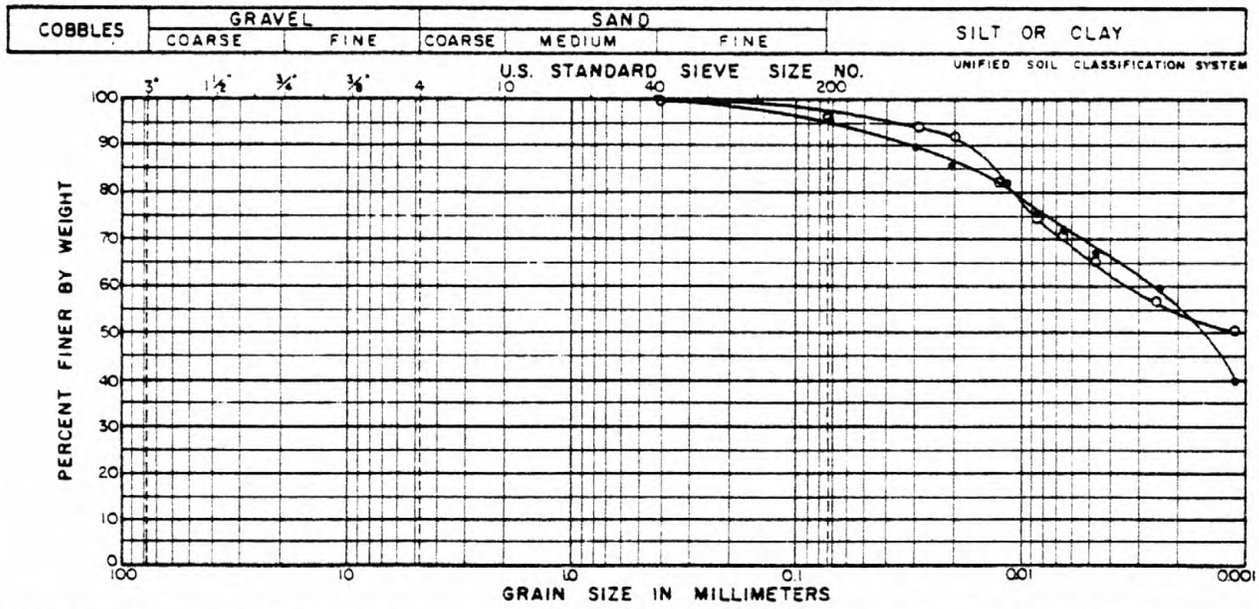
Material: DARK GRAY SILTY CLAY (Scattered Black Spots)

	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	60.1	16.58	1.569	100	2.212	6.337	2.71	51	25
Final	39.5	- -	1.027	100.	1.745				

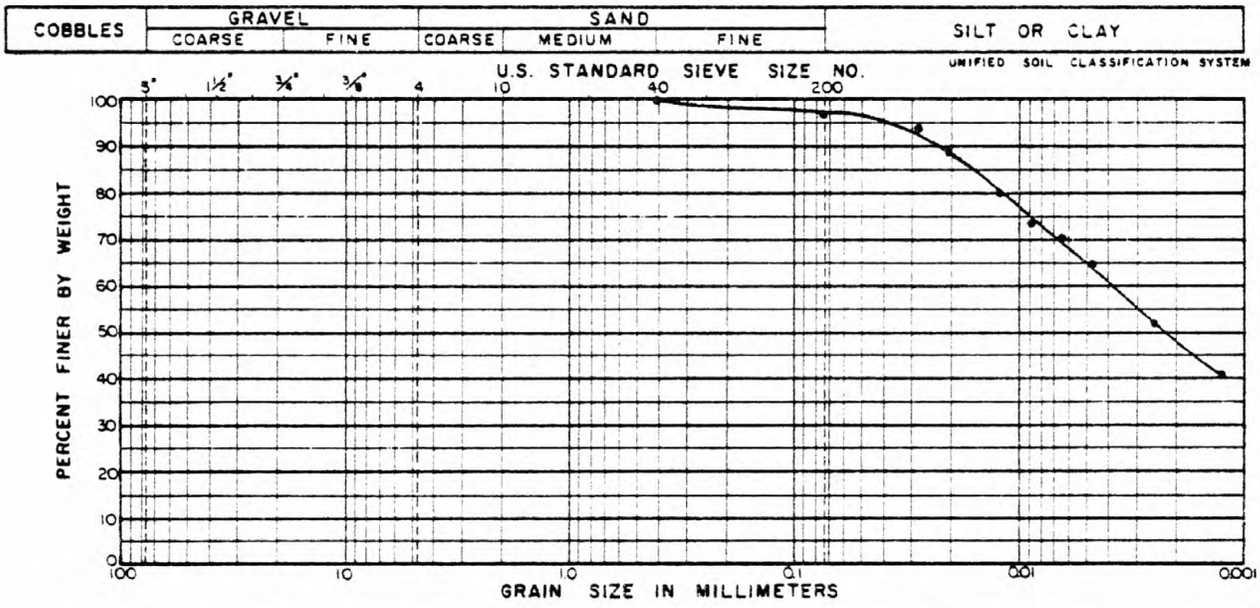




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD1	PC5	140-155	•	Dark Gray Silty Clay Trace Fine Sand	70.6	50	22
CD-1	PC5	235-250	o	Dark Gray Silty Clay	58.0	50	22



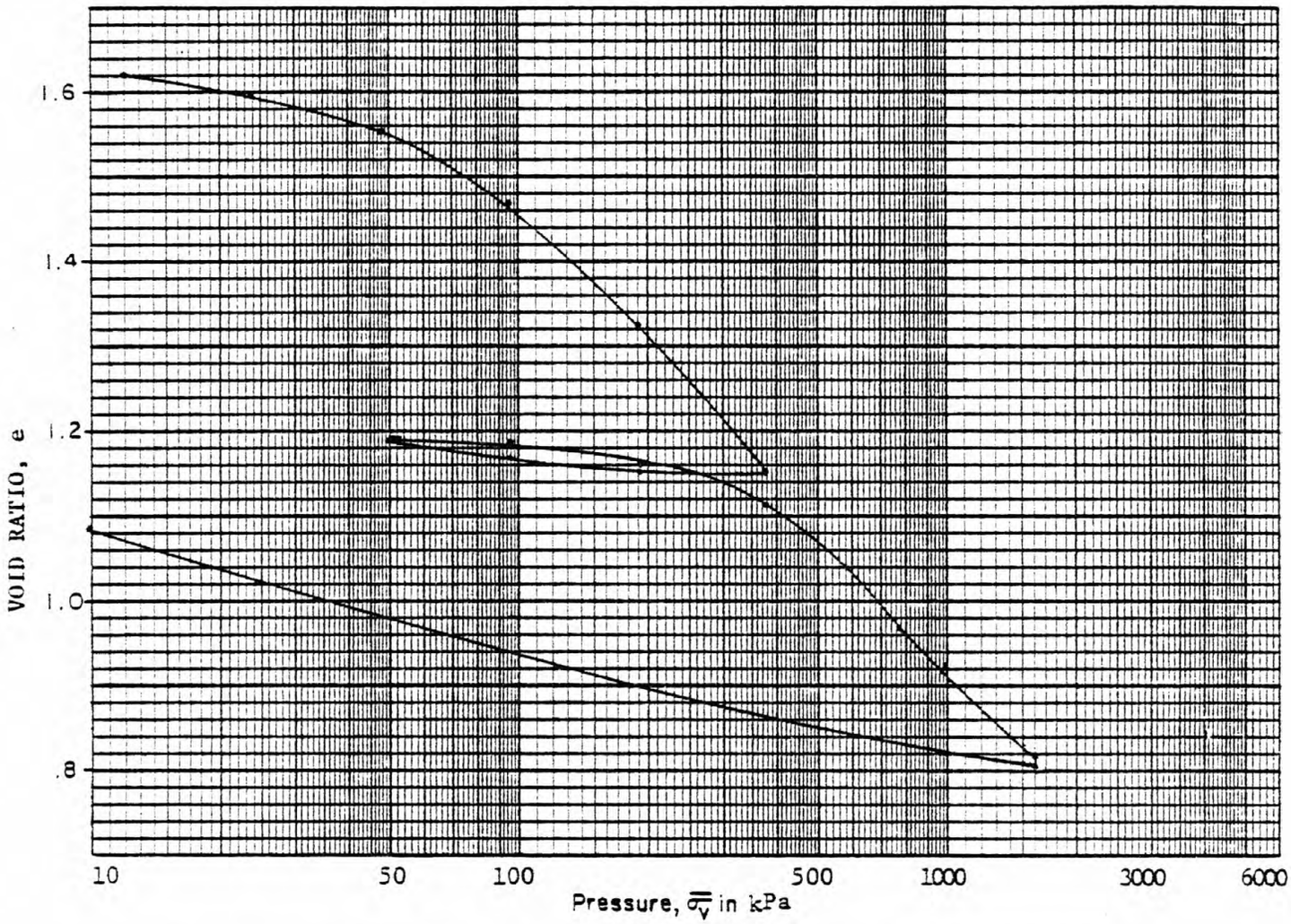
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD1	PC5	500-515	•	Dark Silty Clay Trace Fine Sand	60	51	25

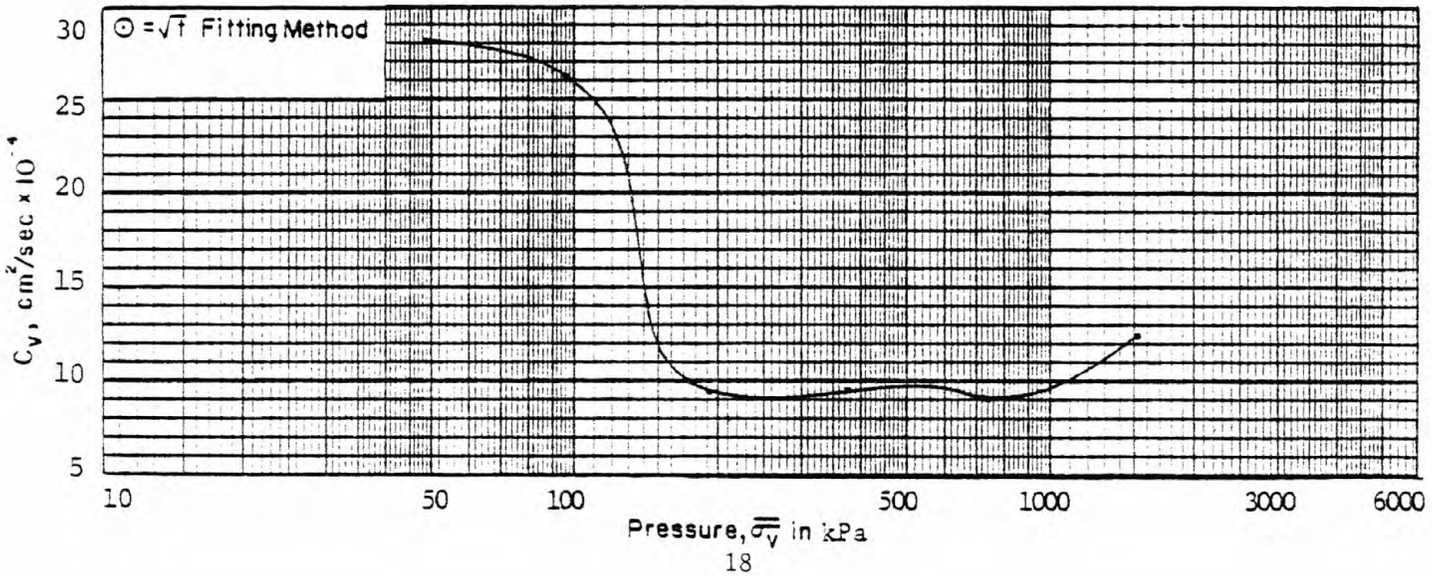
JOB NO.

WG RP-G

CONSOLIDATION TEST

Boring No: CD-4			Sample No: PC-3		Depth, cms 477-492				
Material: DARK GRAY SILTY CLAY									
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	63.2	16.33	1.655	100.-	2.225	6.337	2.71	55	26
Final	42.0	—	1.112	100.-	1.770				



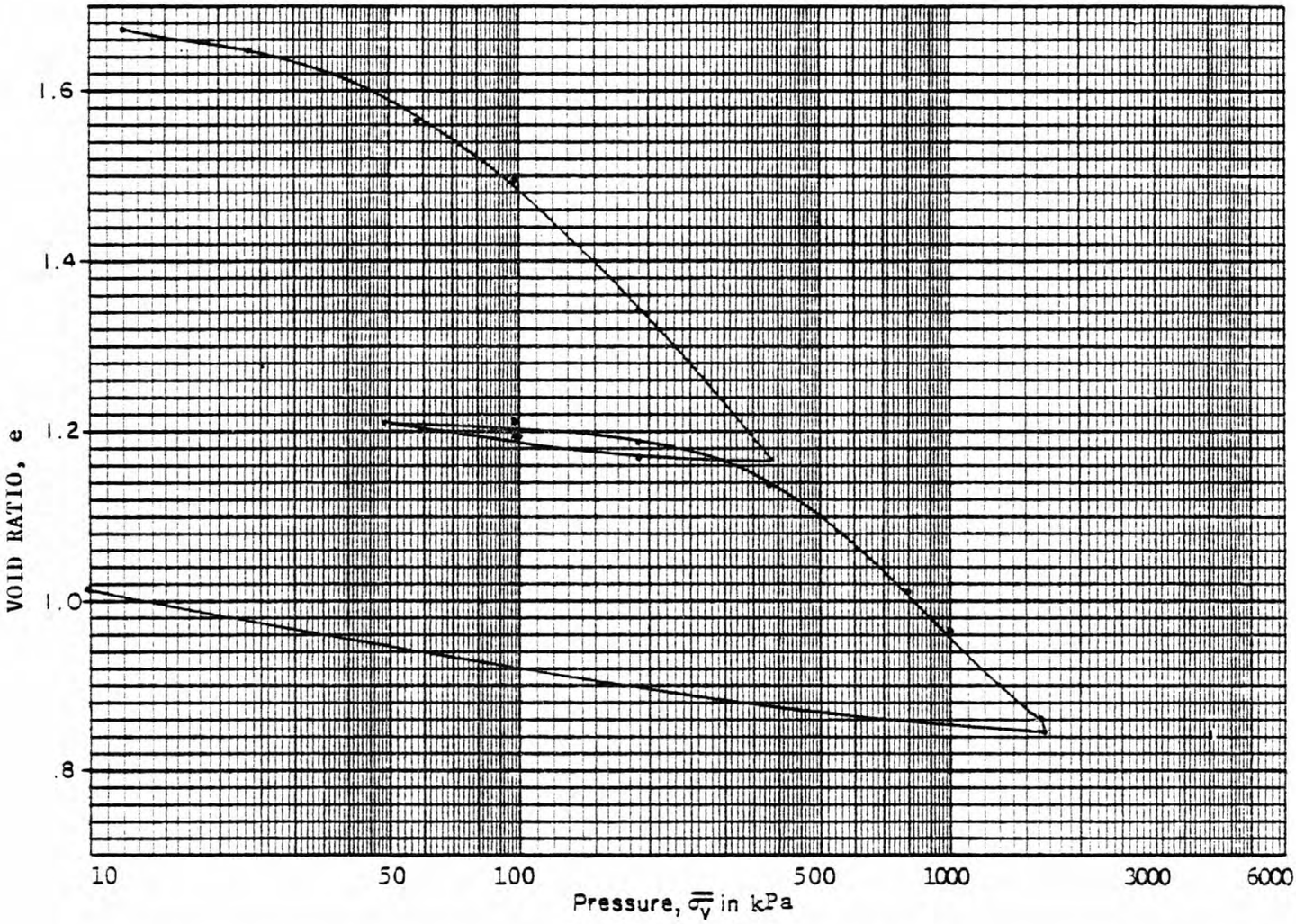


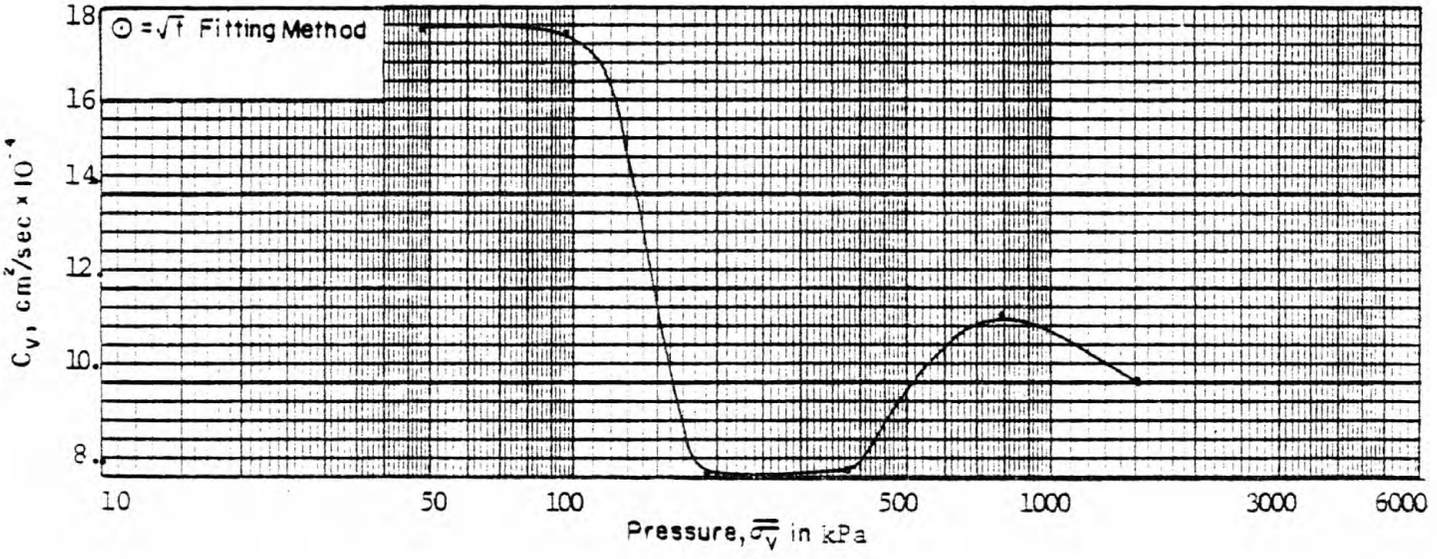
CONSOLIDATION TEST

Boring No: C D-4 Sample No: P C-3 Depth, cms 542-557

Material: DARK GRAY SILTY CLAY

	Water Content,%	Total Unit Wgt. kN/m3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	61.5	16.41	1.596	100.-	2.225	6.337	2.71	50	22
Final	36.1	---	.949	100.-	1.659				



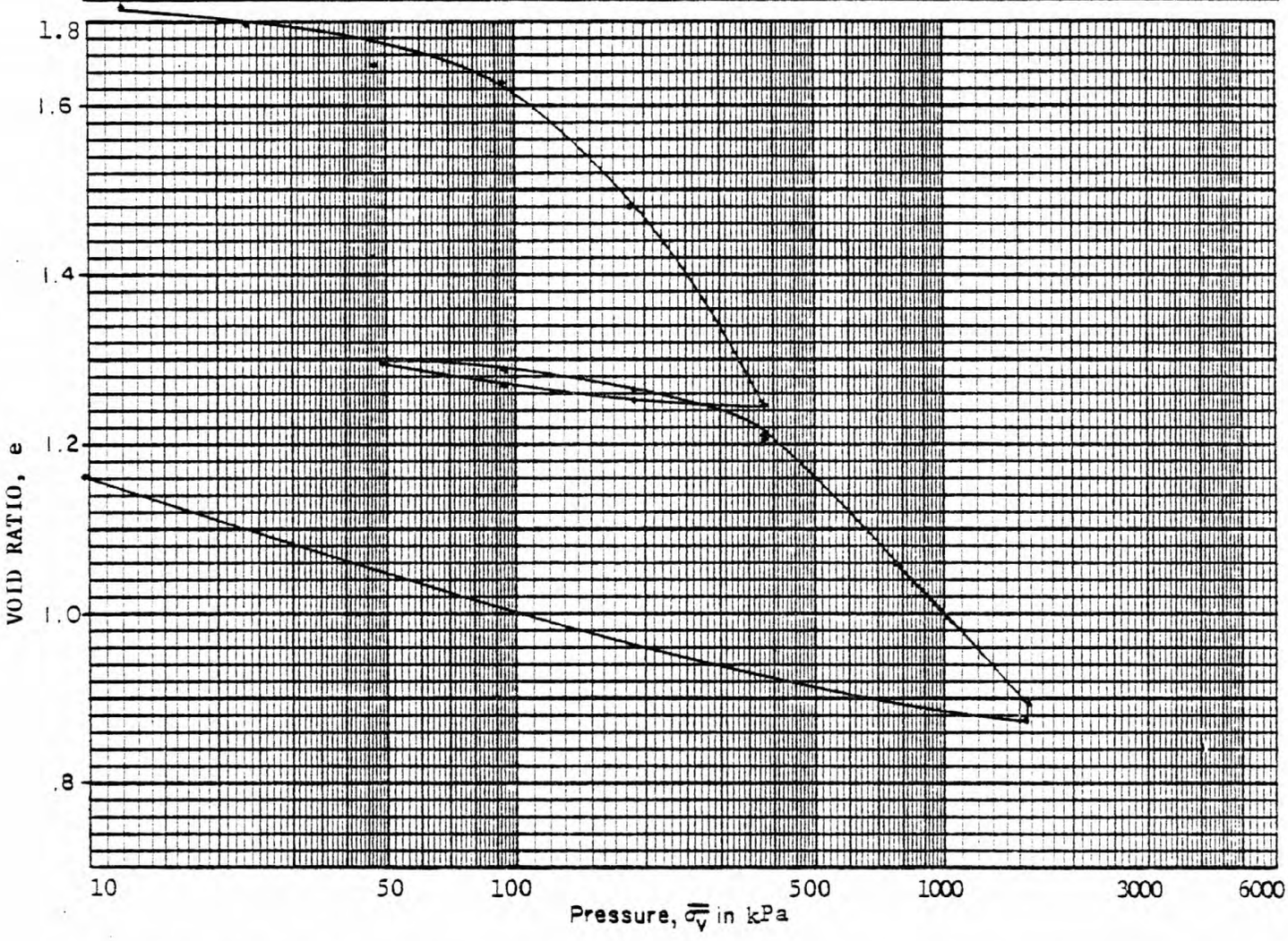


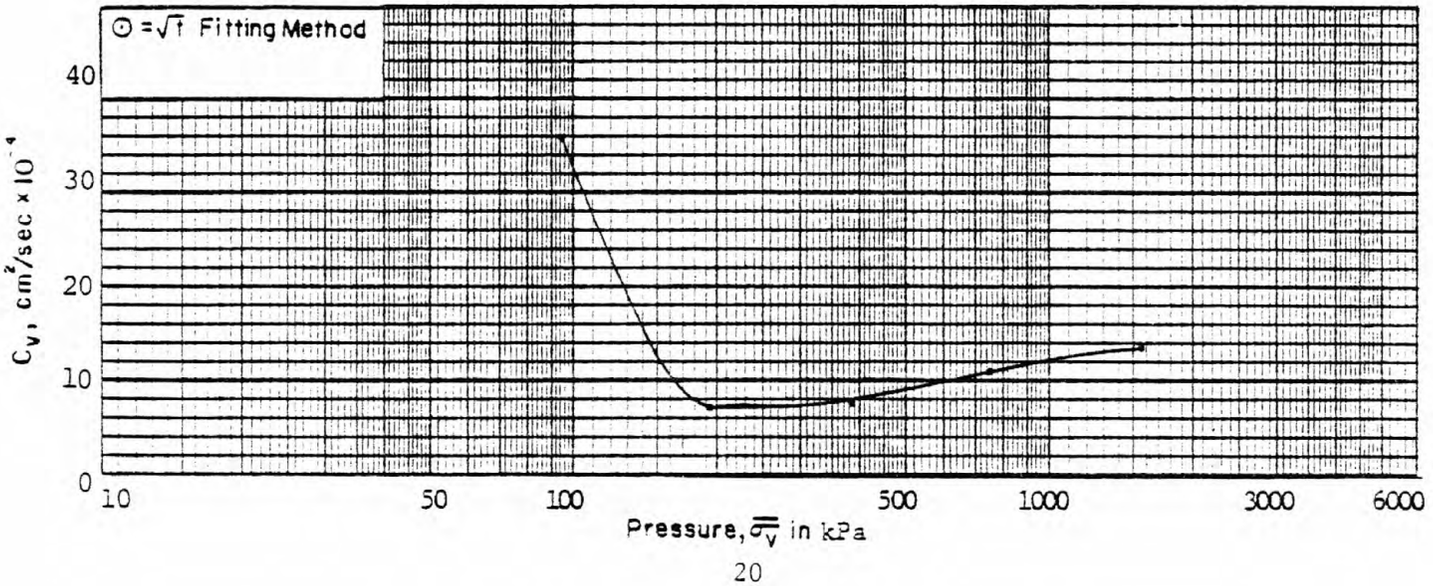
CONSOLIDATION TEST

Boring No: CD-4 Sample No: PC-3 Depth, cms 619-634

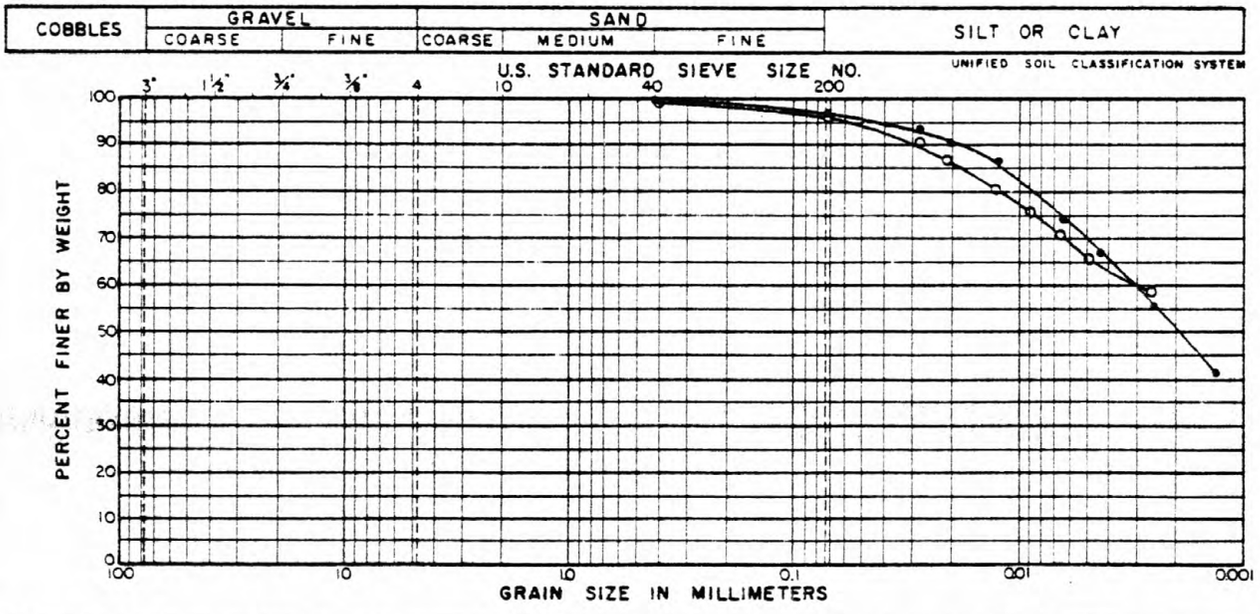
Material: Dark Gray Silty Clay

	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	65.4	16.25	1.743	100.-	2.223	6.337	2.74	56	23
Final	41.6	- -	1.163	100.-	1.753				

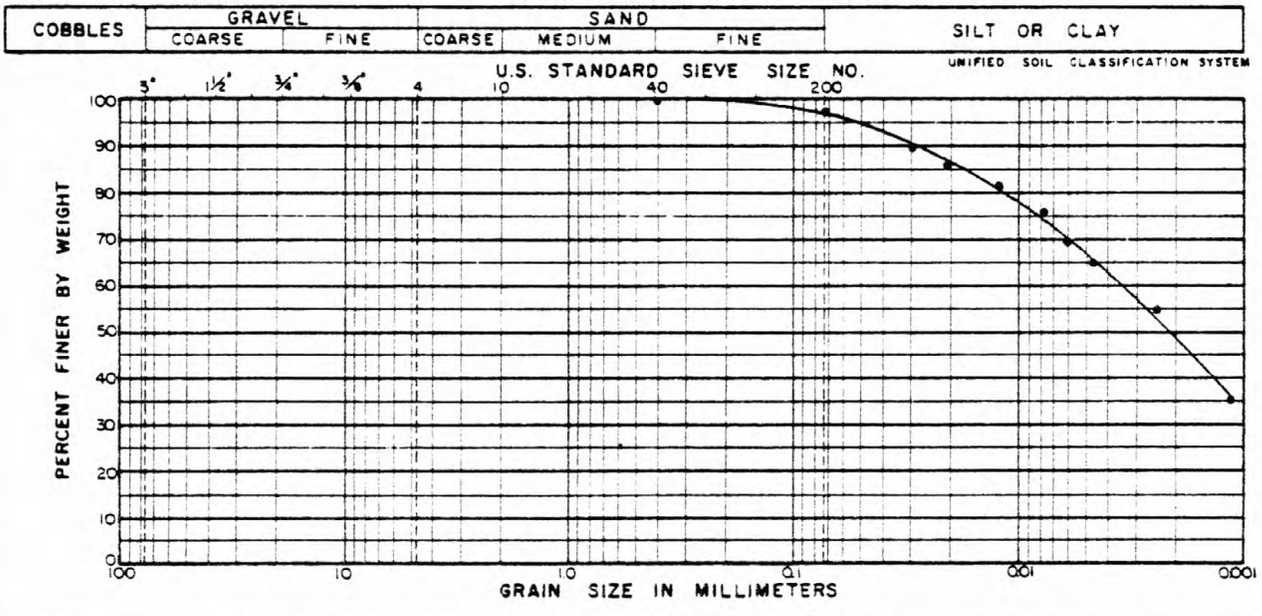




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD4	PC3	477-492	•	Dark Gray Silty Clay Trace Fine Sand	63	55	26
CD4	PC3	542-557	o	Dark Gray Silty Clay	62	50	22



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD4	PC3	619-634	•	Dark Gray Silty Clay	65	56	23

JOB NO.

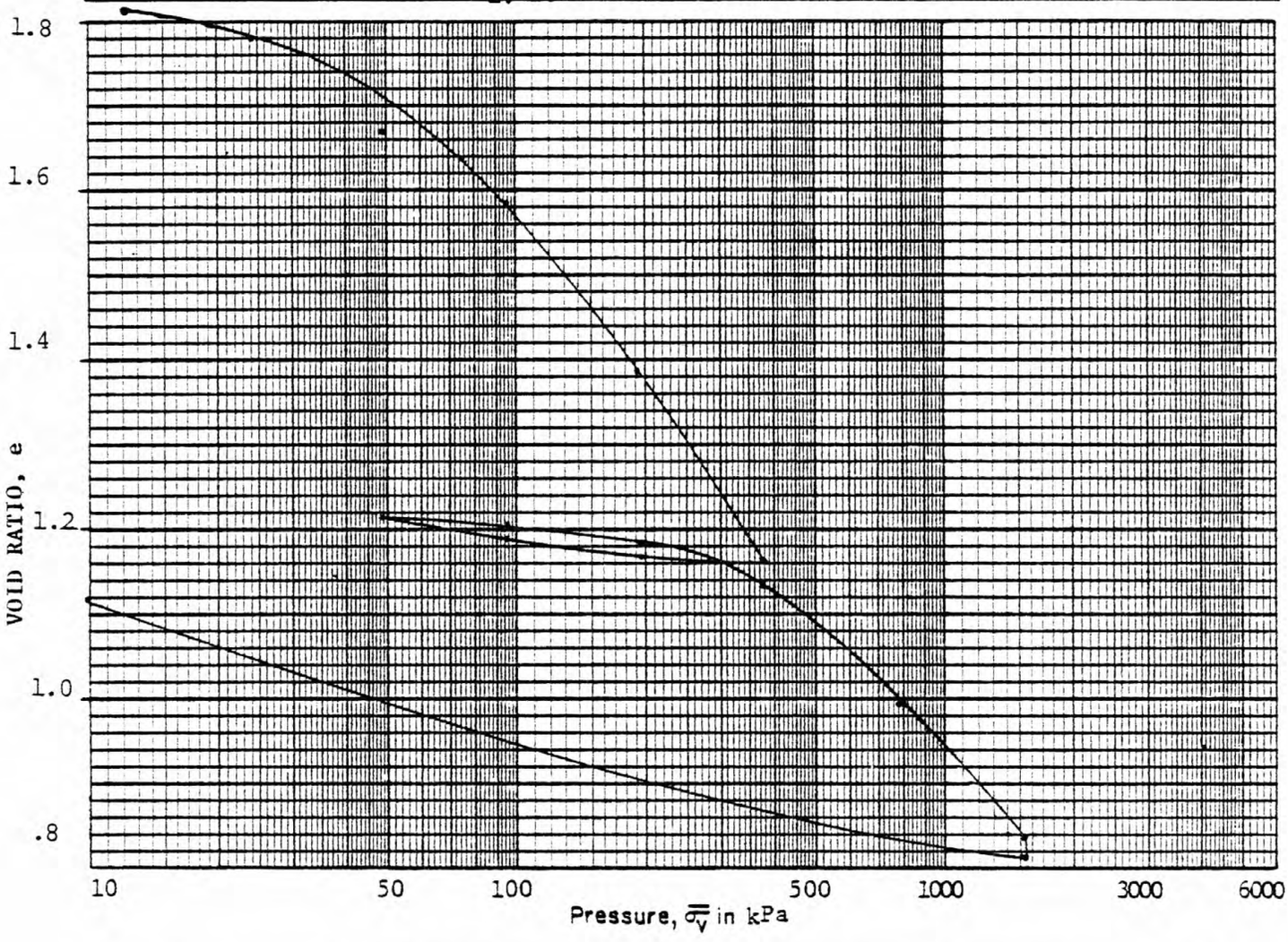
W/G RP-G

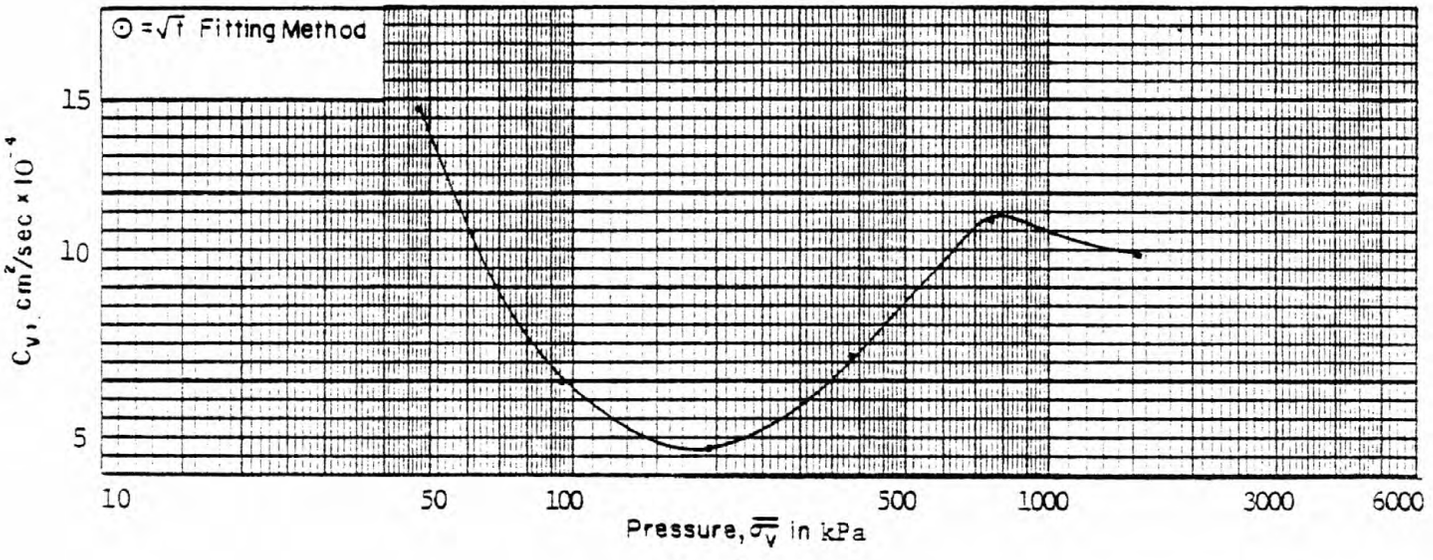
CONSOLIDATION TEST

Boring No: CD-5 Sample No: P C - 4 Depth, cms 261-276

Material: DARK GRAY SILTY CLAY

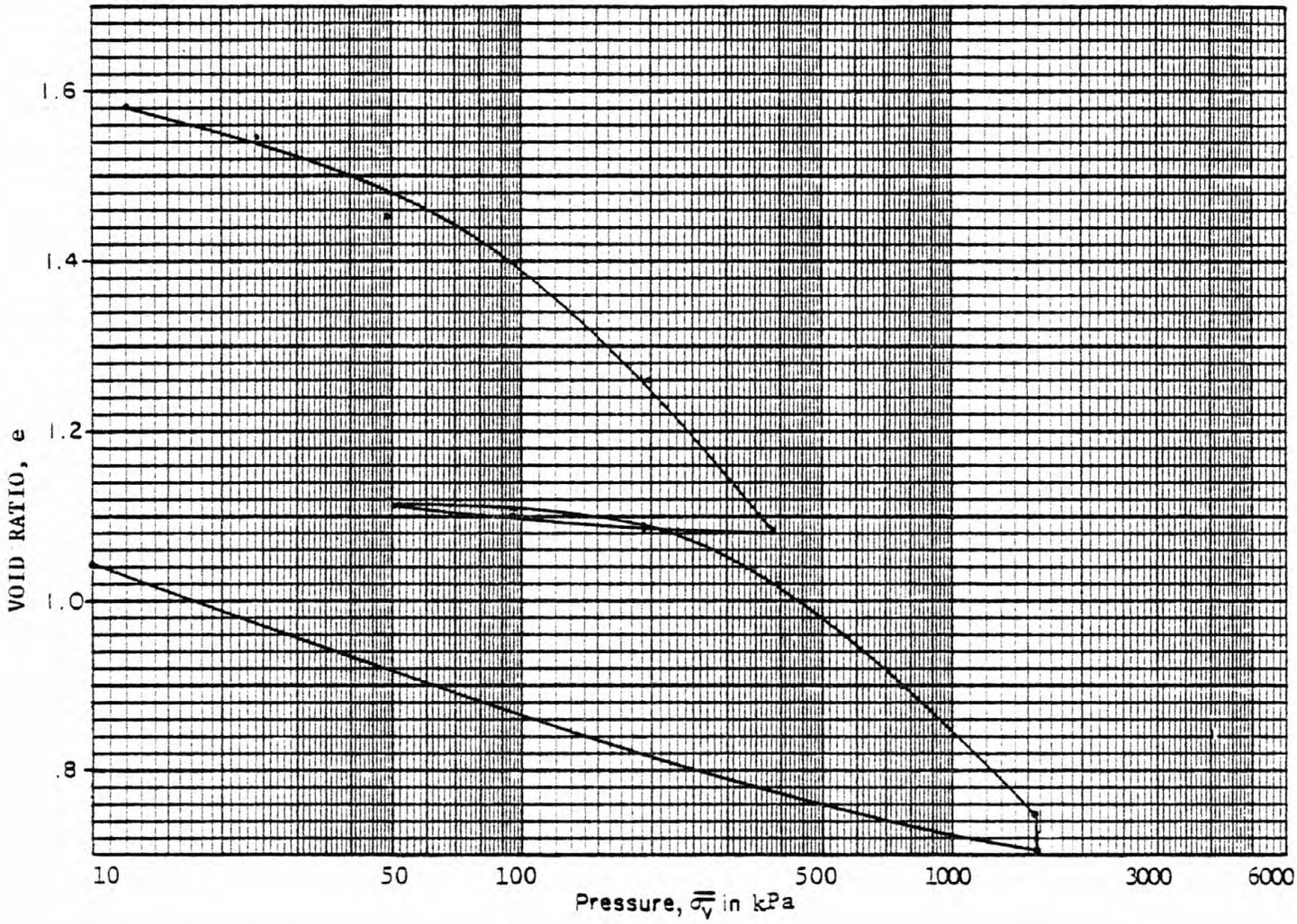
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	69.6	16.00	1.845	100	2.225	6.337	2.74	56	24
Final	42.4	———	1.120	100	1.659				

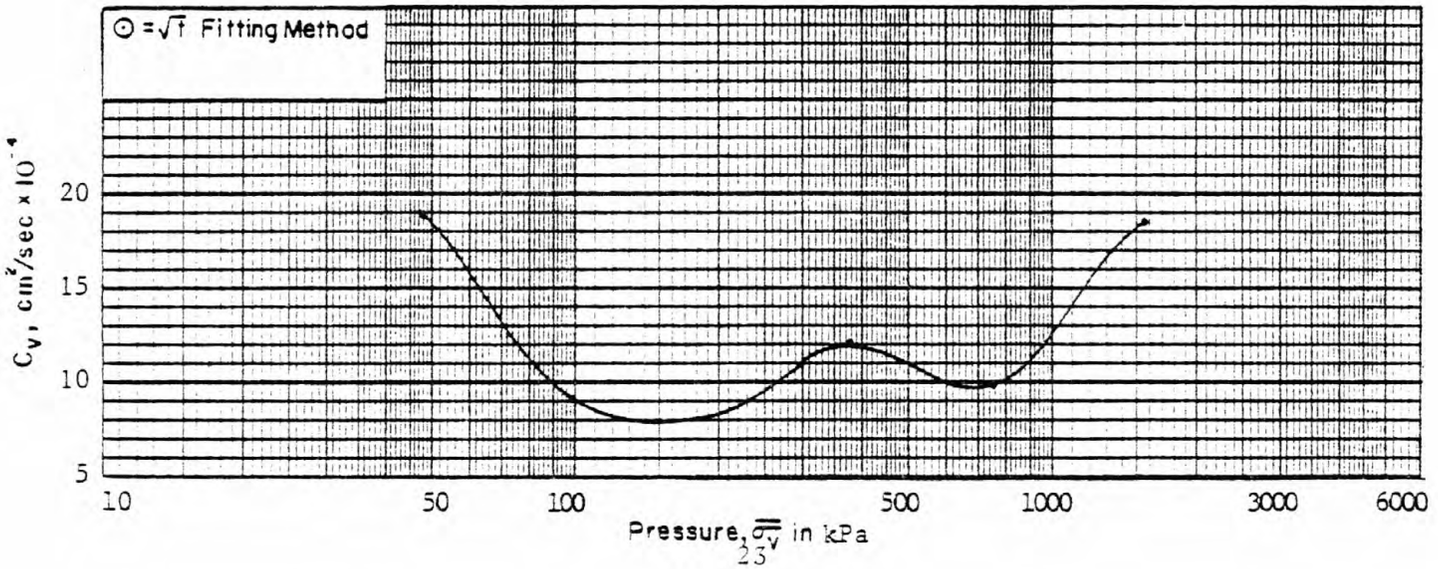




CONSOLIDATION TEST

Boring No: CD - 5			Sample No: PC - 4			Depth, cms 485-500			
Material: DARK GRAY SILTY									
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	61.8	16.55	1.625	100. -	2.207	6.337	2.74	57	27
Final	42.0	-	1.124	100. -1	1.786				



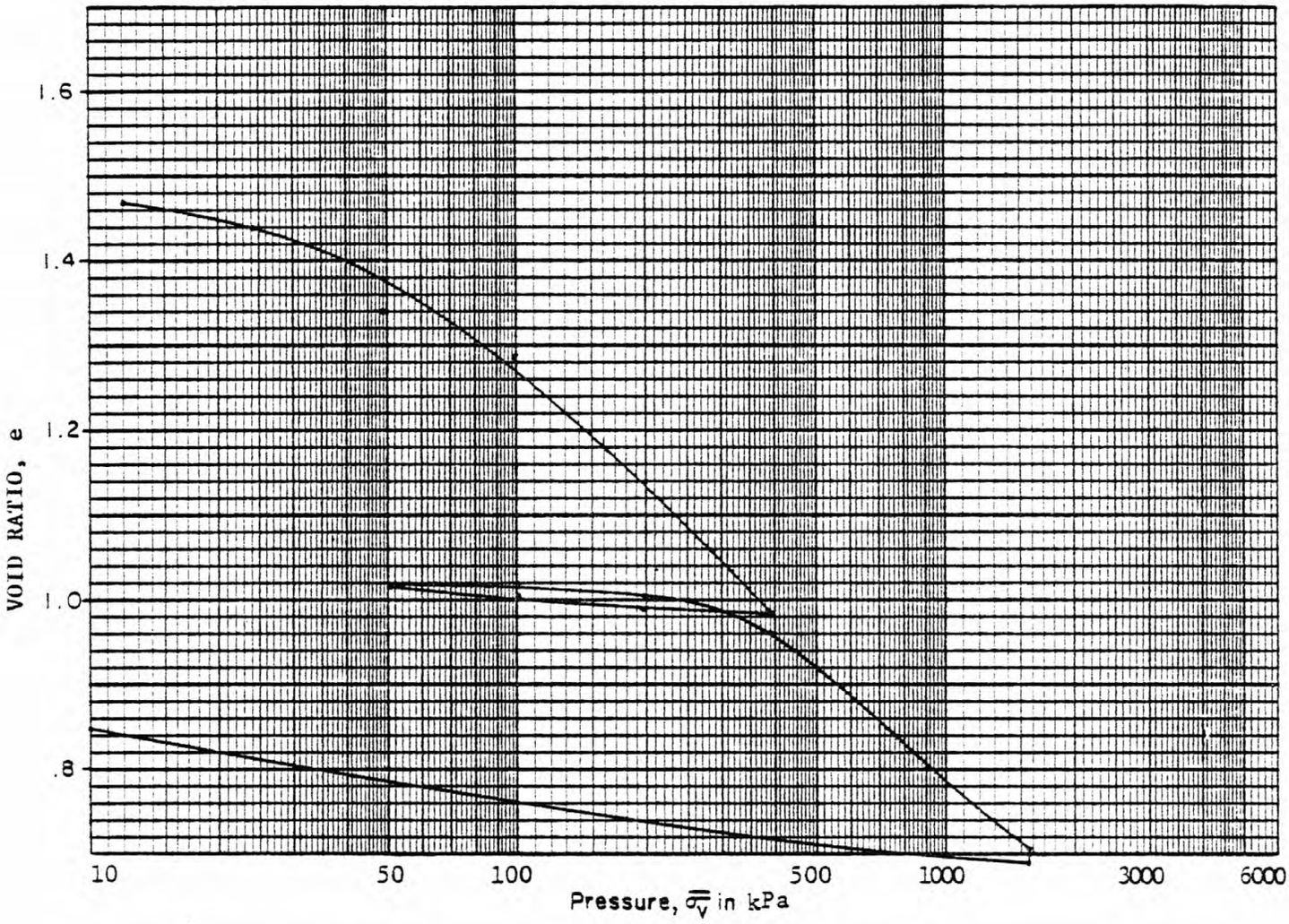


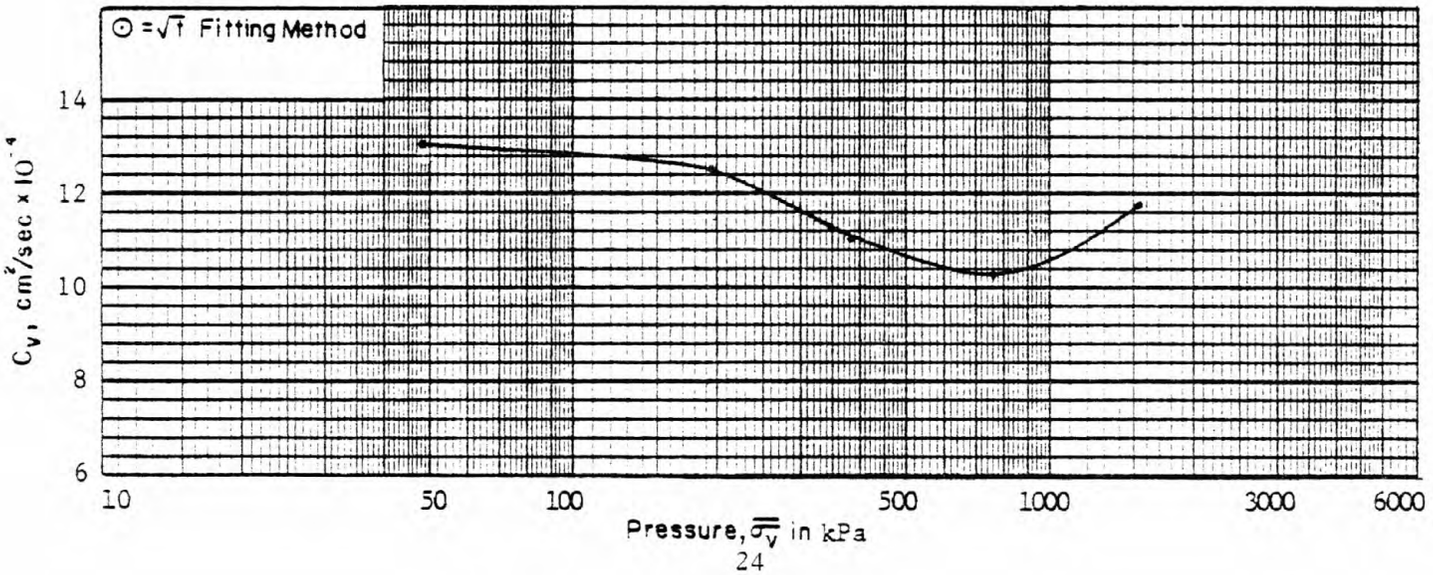
CONSOLIDATION TEST

Boring No: CD - 5 Sample No: PC - 4 Depth, cms 380-395

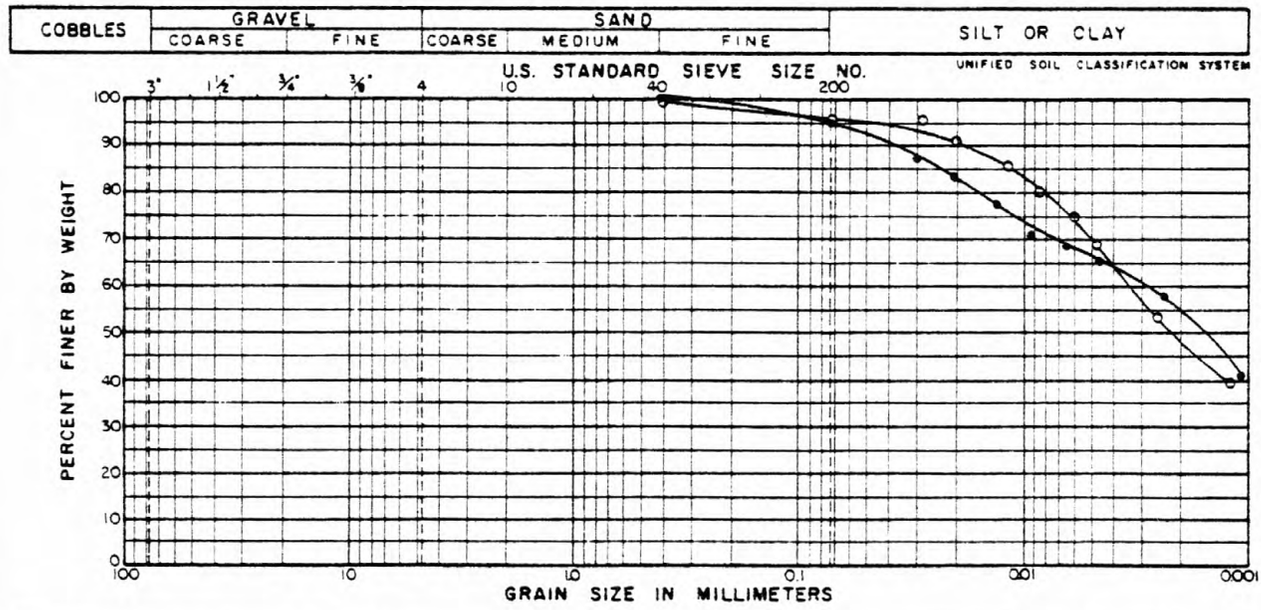
Material: DARK GRAY SILTY CLAY

	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	61.5	16.44	1.507	100. -	2.223	6.337	2.66	50	23
Final	36.3	-	.888	100. -1	1.674				

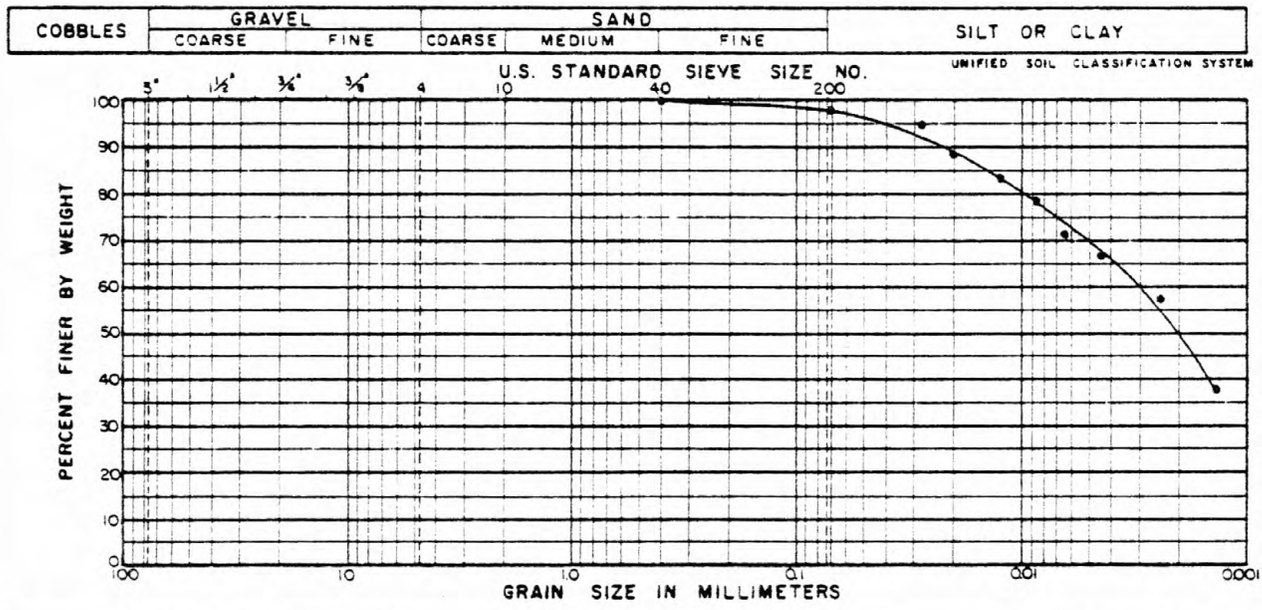




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD5	PC4	261-276	•	Gray Silty Clay Trace Fine Sand	70	56	24
CD5	PC4	380-395	○	Dark Gray Silty Clay	62	50	23



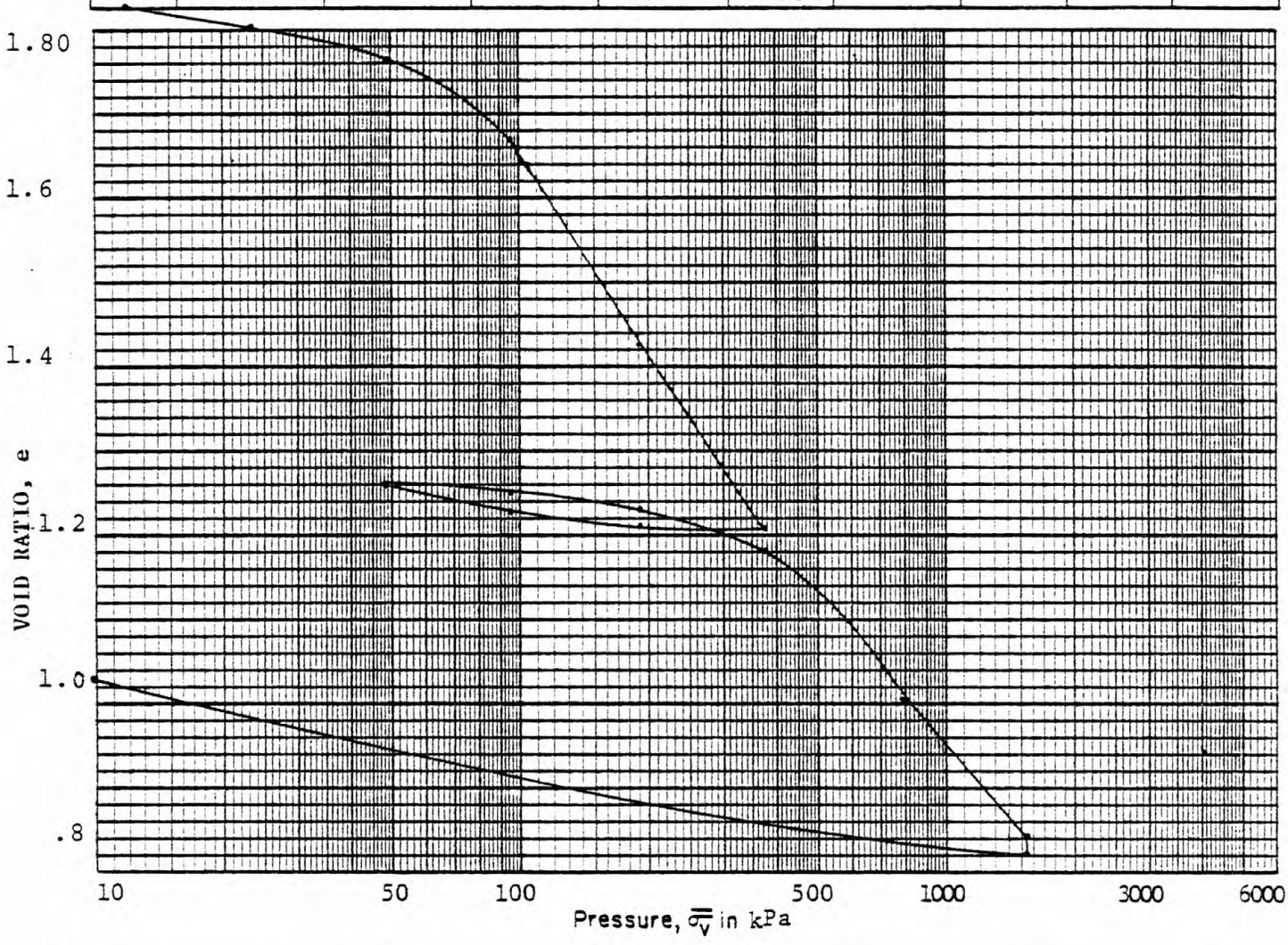
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD5	PC4	485-500	•	Dark Gray Silty Clay Trace Fine Sand	62	57	27

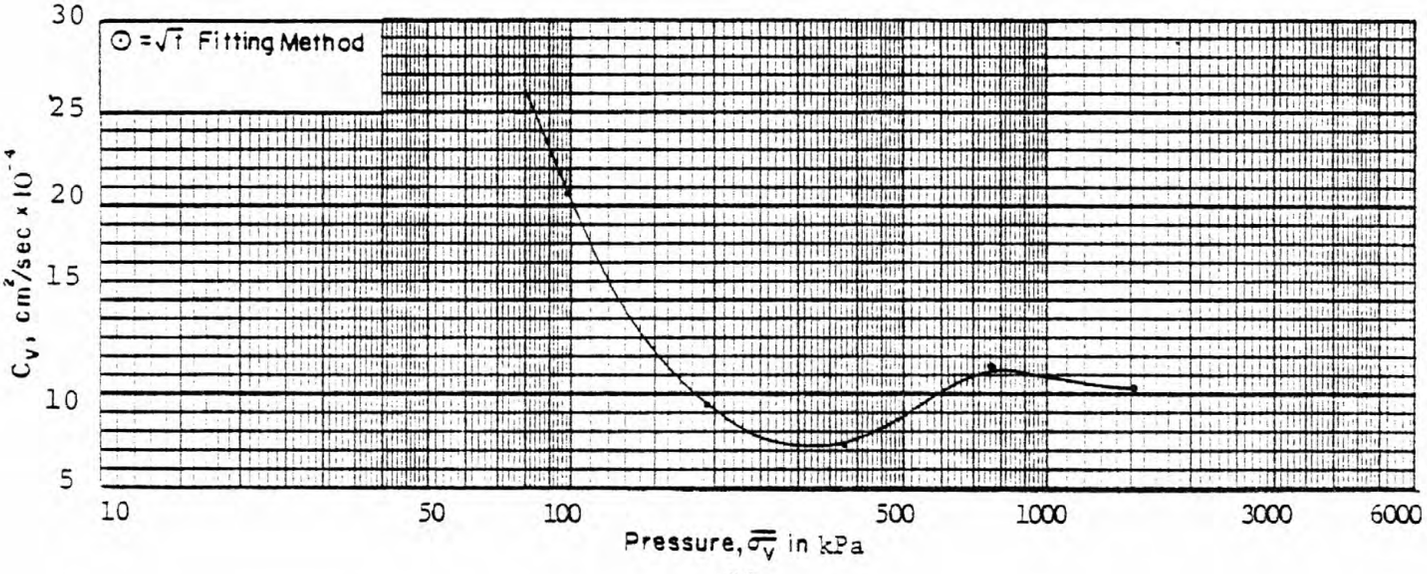
JOB NO.

WG RP-G

CONSOLIDATION TEST

Boring No: CD-6			Sample No: PC-9		Depth, cms 489-504				
Material: Dark Gray Silty Clay									
	Water Content, %	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	72.3	15.83	1.869	100	2.223	6.337	2.68	62	32
Final	41.8	-	1.134	100	1.654				



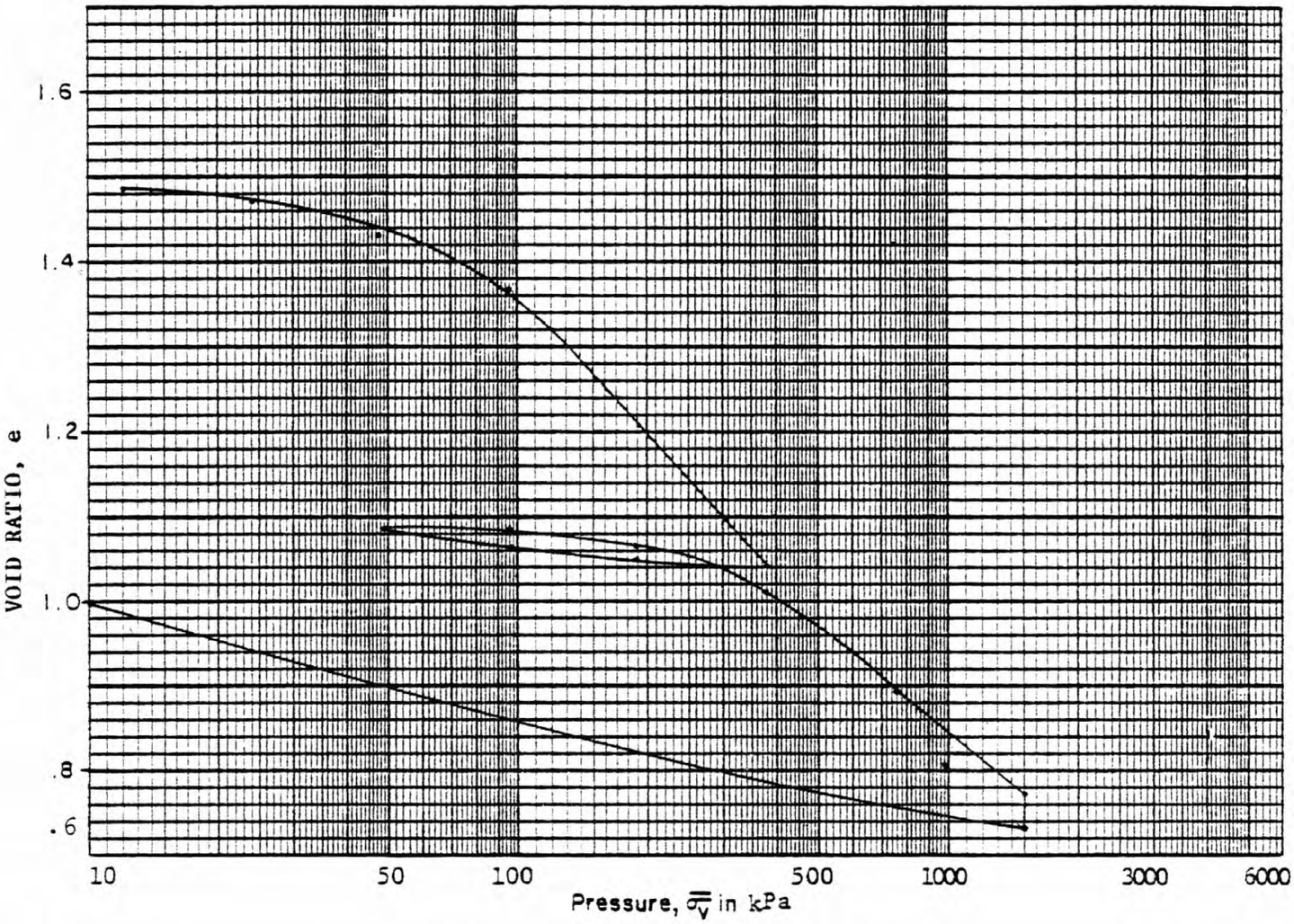


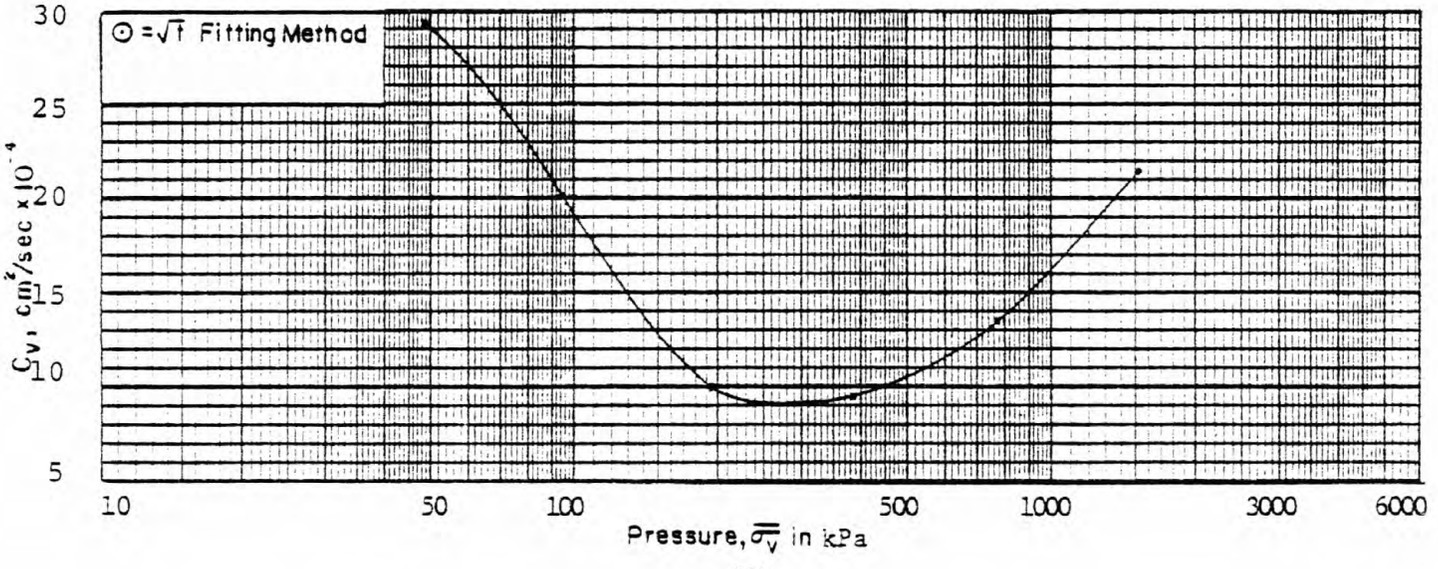
CONSOLIDATION TEST

Boring No: CD-6 Sample No: PC - 9 Depth, cms 641-656

Material: Dark Gray Silty Clay

	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	57.0	16.69	1.506	100.0	2.228	6.337	2.71	50	26
Final	37.6	----	0.989	100.0	1.768				



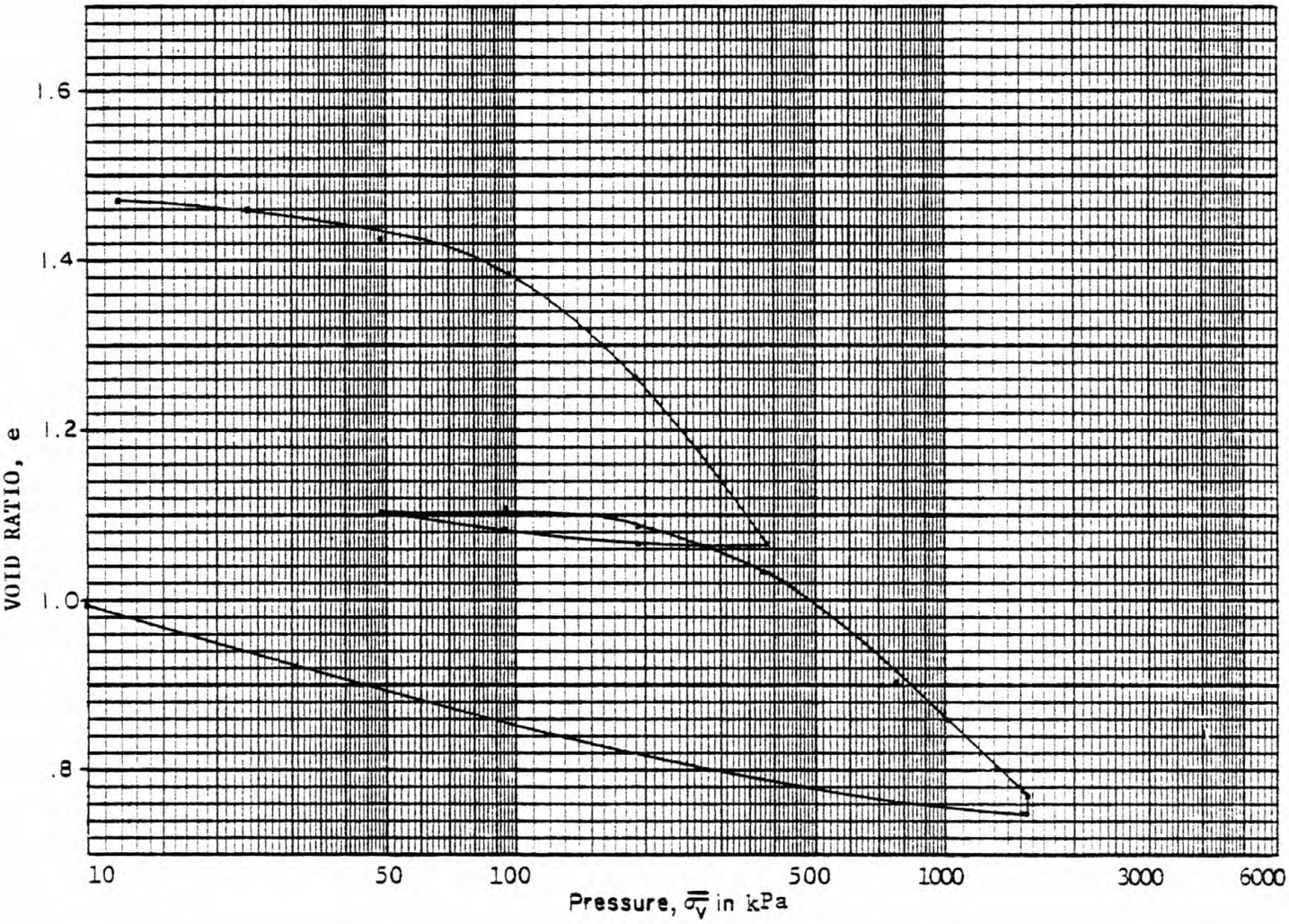


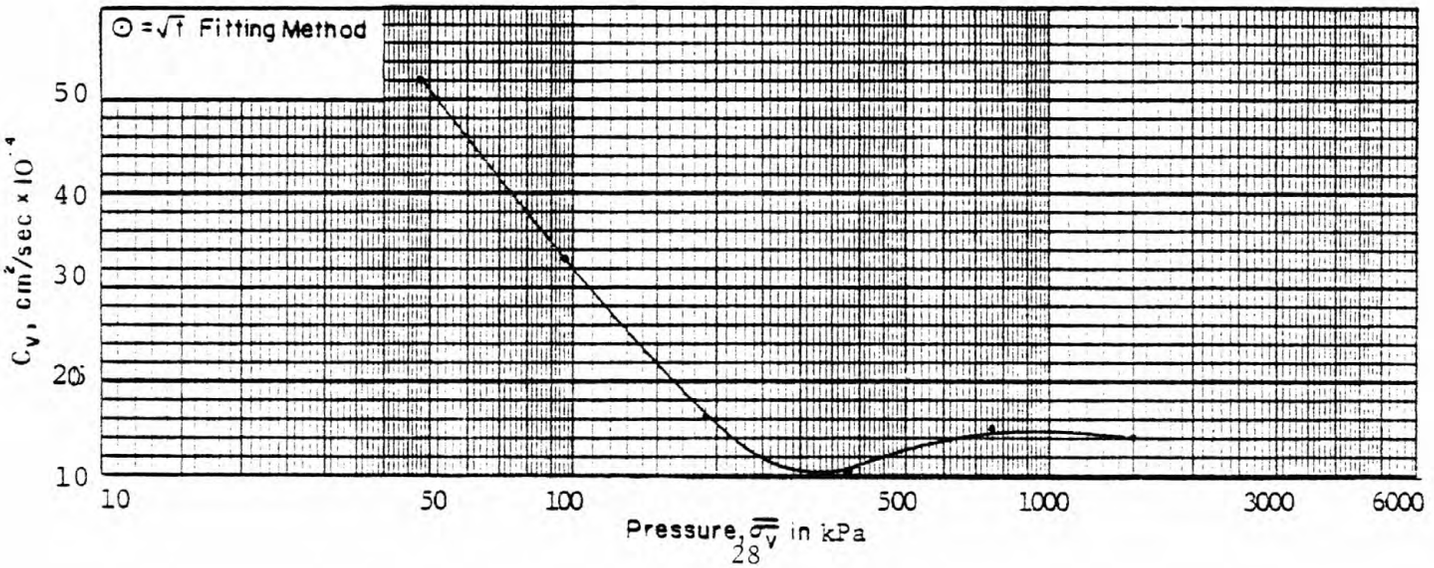
CONSOLIDATION TEST

Boring No: CD-6 Sample No: PC- 9 Depth, cms 730-745

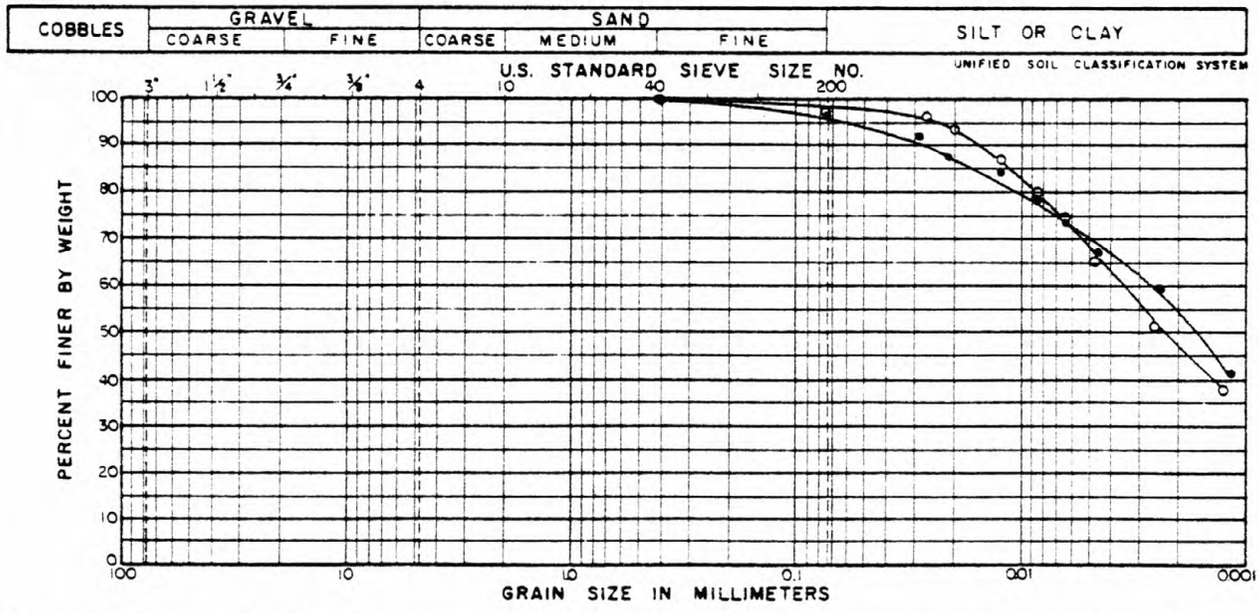
Material: Dark Gray Silty CLAY

	Water Content,%	Total Unit Wgt. kN/m3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	56.0	16.80	1.484	100.	2.228	6.337	2.73	48	25
Final	37.4	—	1.034	100.	1.824				

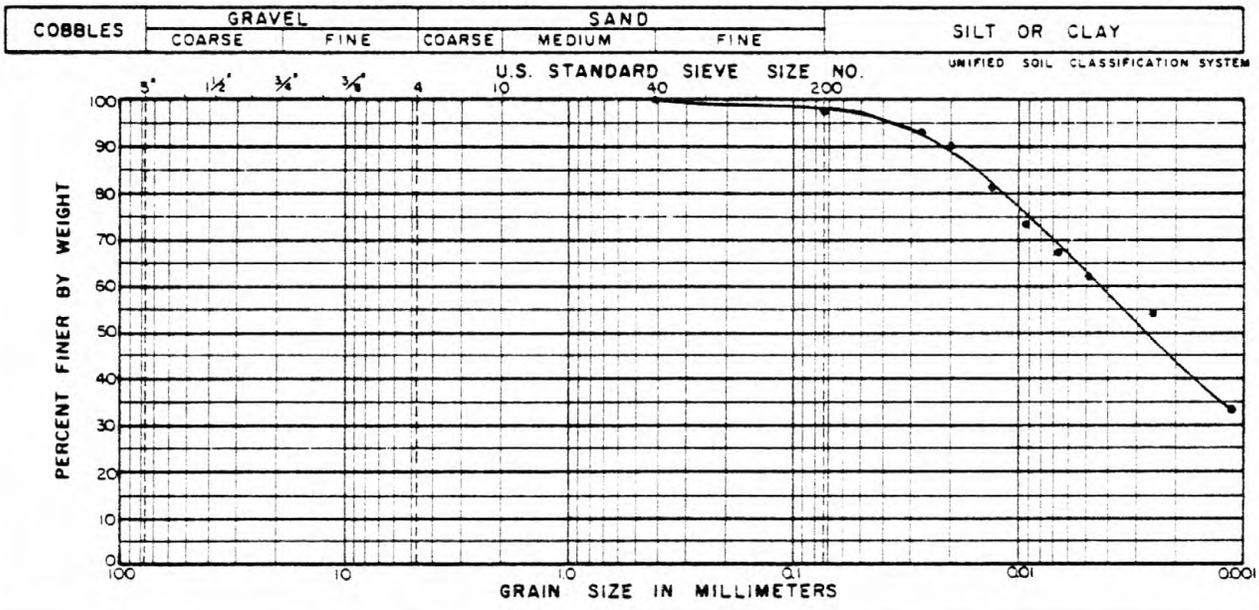




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD6	PC9	489-504	•	Dark Gray Silty Clay	72	62	32
CD-6	PC9	641-656	o	Dark Gray Silty Clay	57	50	26



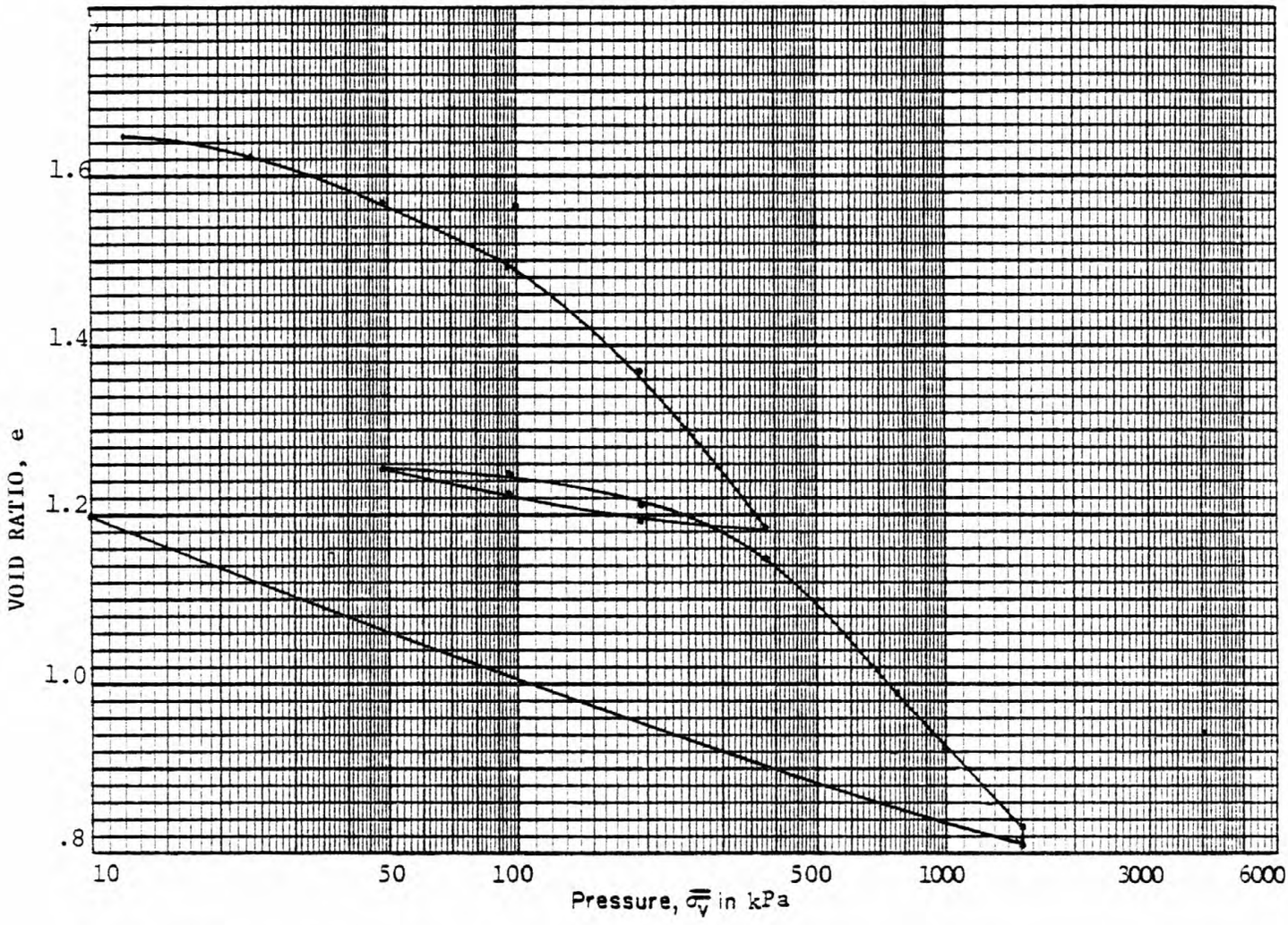
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD6	PC9	730-745	•	Dark Gray Silty Clay Trace Fine Sand	56	48	25

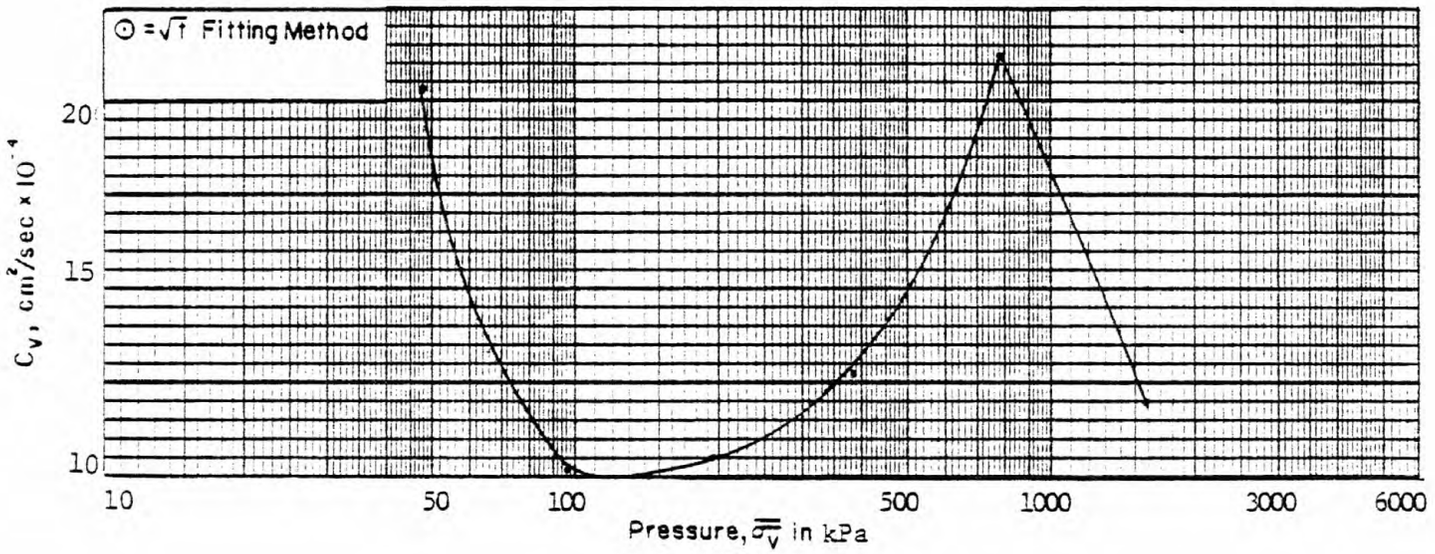
JOB NO.

WG RP-G

CONSOLIDATION TEST

Boring No: CD-7		Sample No: PC-10			Depth, cms 614-629			
Material: DARK GRAY SILTY CLAY								
	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	64.0	16.33	1.680	100.0	2.212	6.337	2.72	61	30
Final	46.9	-	1.234	100.0	1.844				



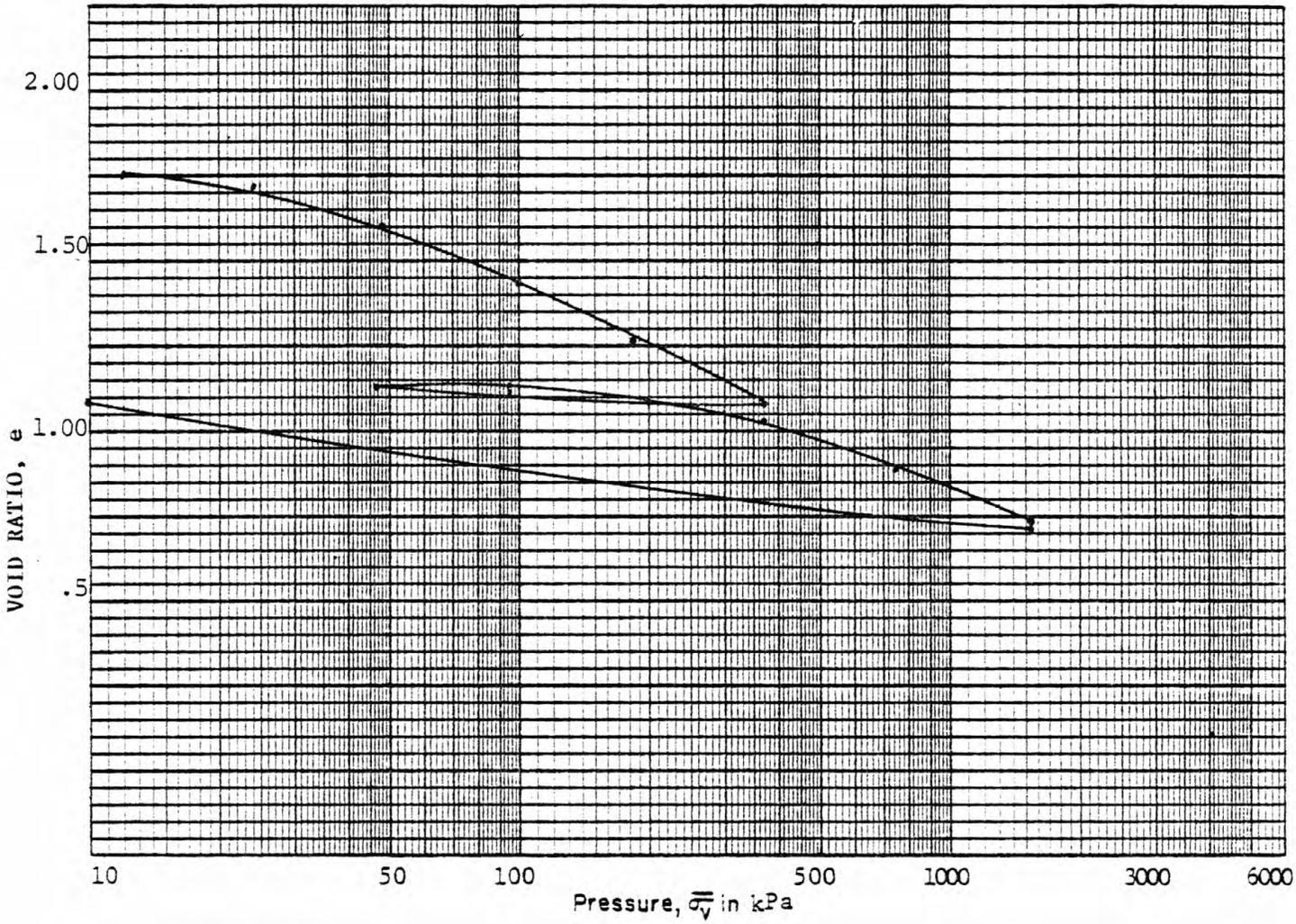


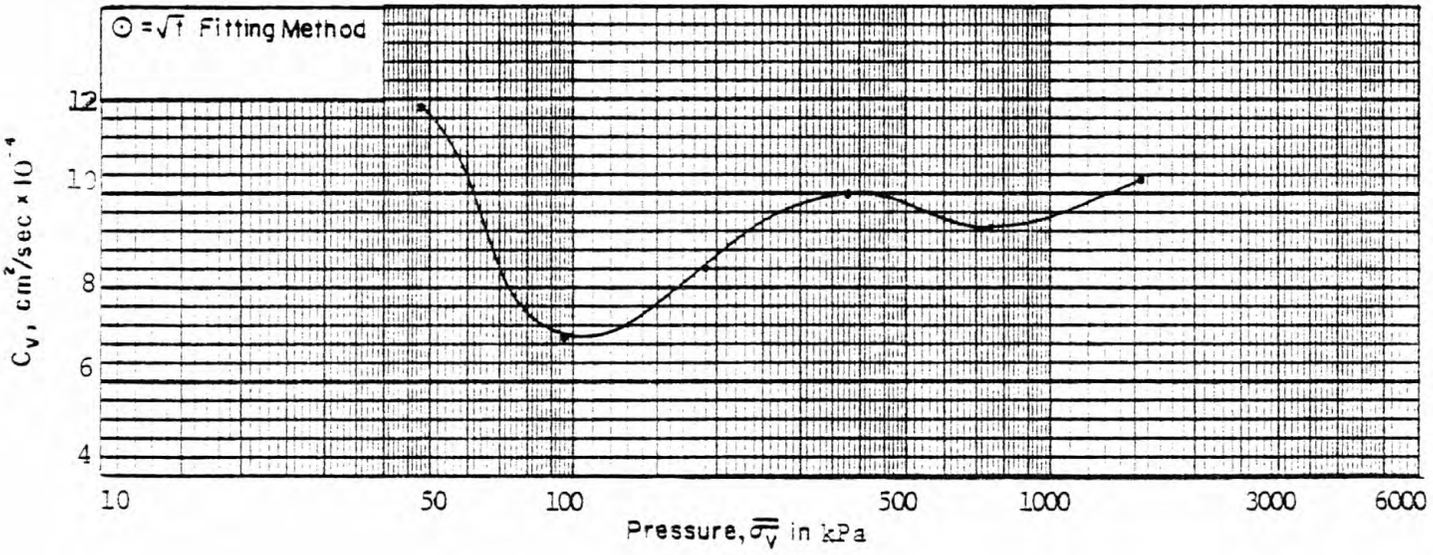
CONSOLIDATION TEST

Boring No: CD-7 Sample No: PC-10 Depth, cms 369-384

Material: DARK GRAY SOFT SILTY CLAY

	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	72.8	15.94	1.852	100.-	2.210				
Final	43.9	- -	1.121	100.	1.643	6.337	2.69	53	22

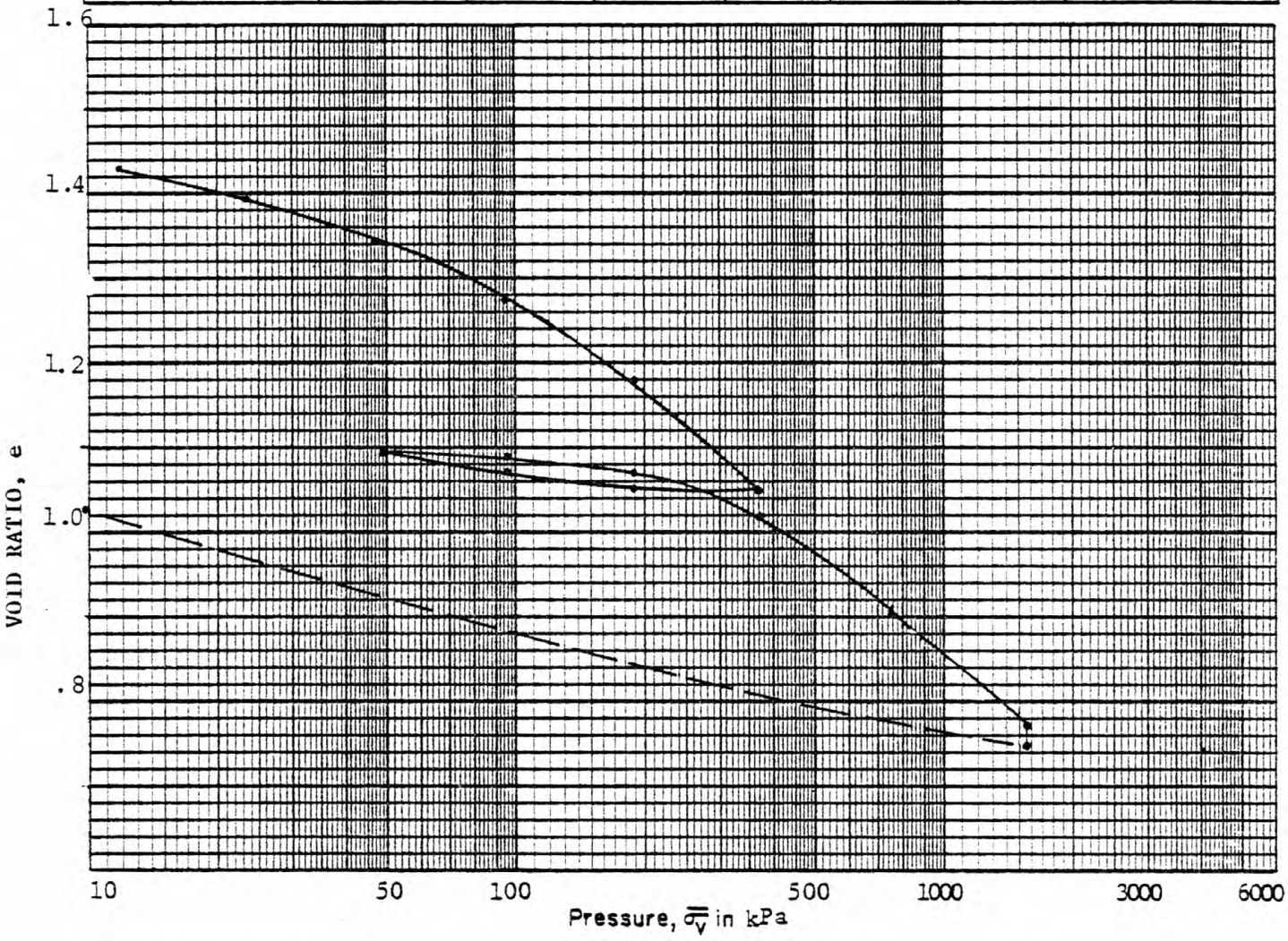


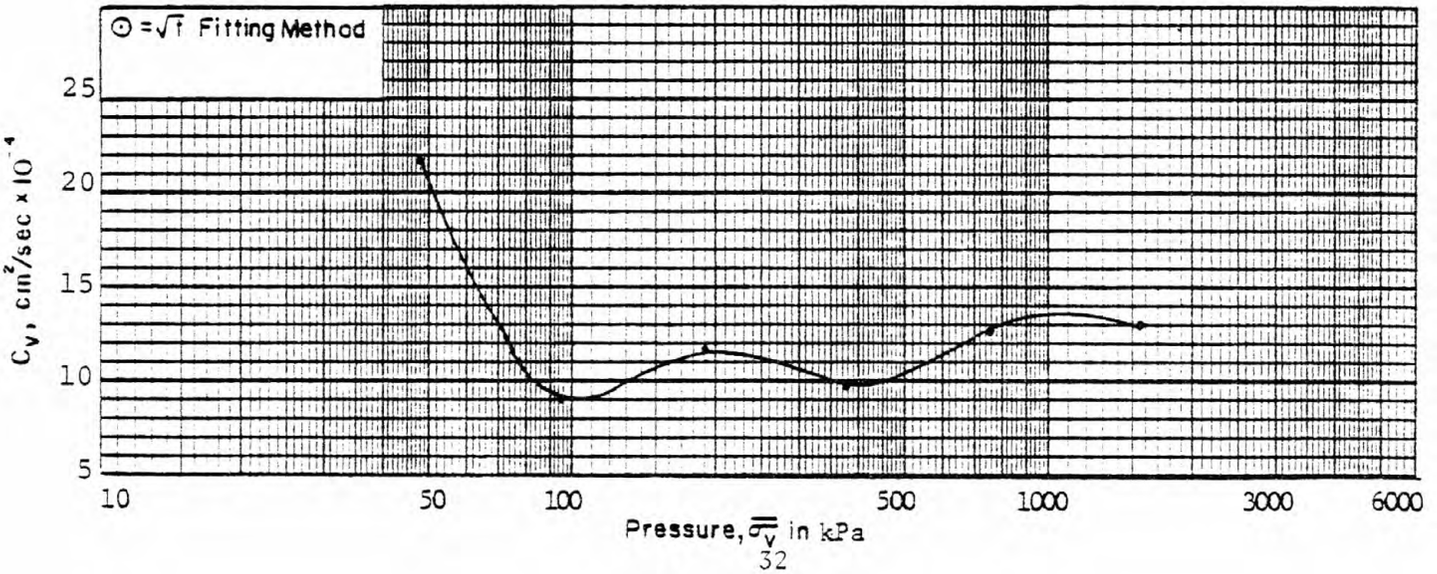


CONSOLIDATION TEST

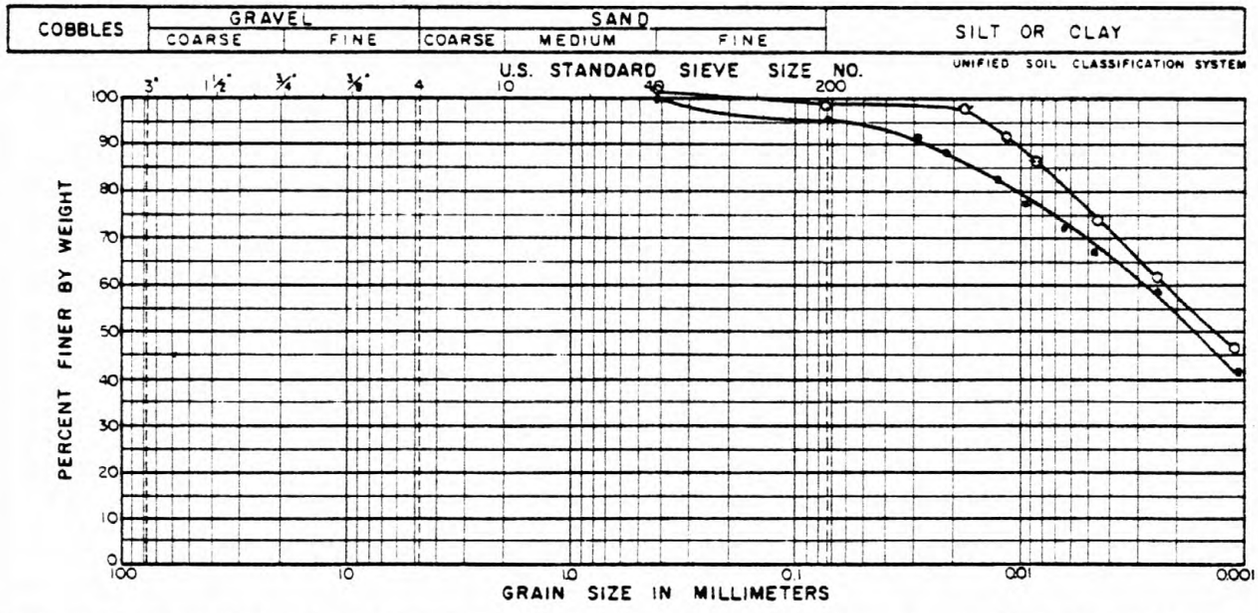
Boring No: CD - 7	Sample No: PC - 10	Depth, cms 719-734
Material: DARK GRAY SILTY CLAY		

	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	54.8	16.88	1.457	100.0	2.228				
Final	39.0	- -	1.056	100.0	1.864	6.337	2.73	54	28

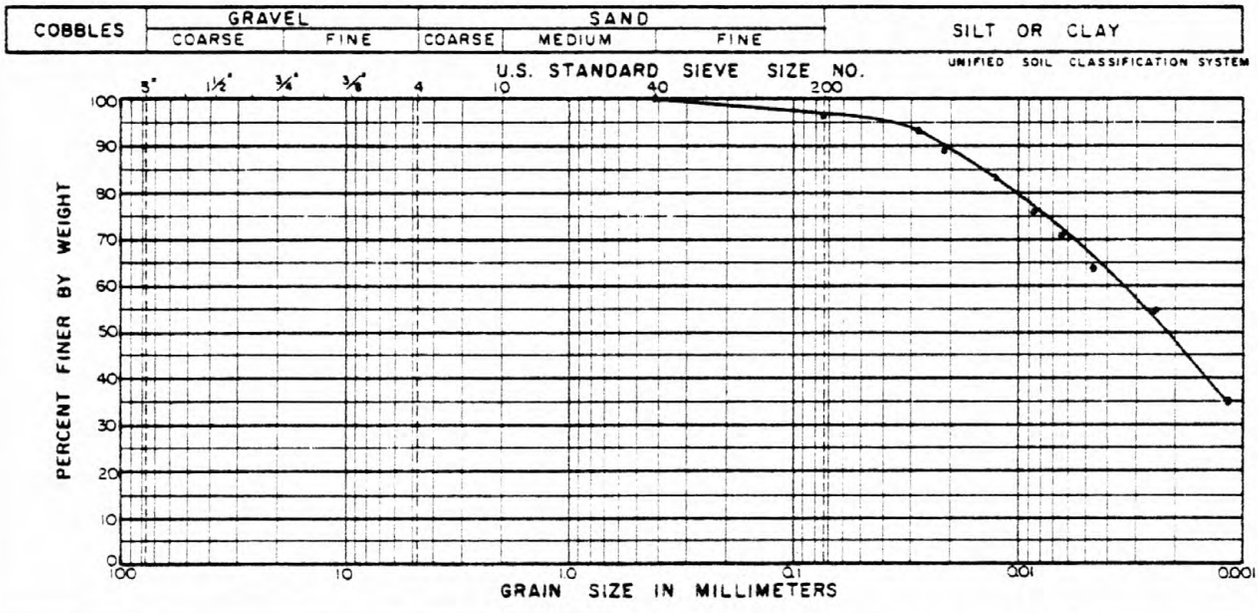




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD7	PC10	369-384	•	Dark Gray Silty Clay	73	53	22
CD7	PC10	614-629	o	Dark Gray Silty Clay	64	61	30



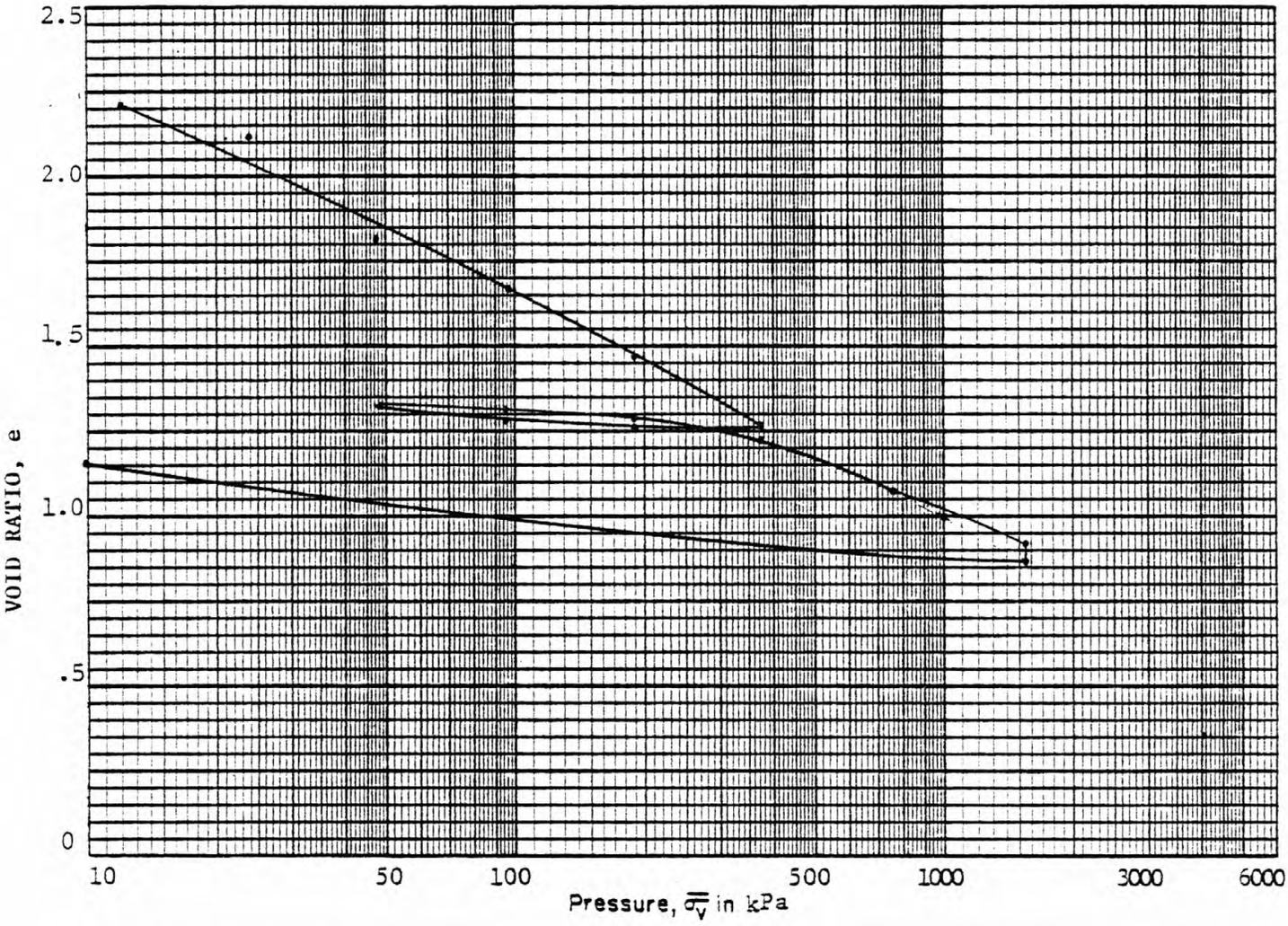
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD7	PC10	719-734	•	Dark Gray Silty Clay	55	54	28
				Trace Fine Sand			

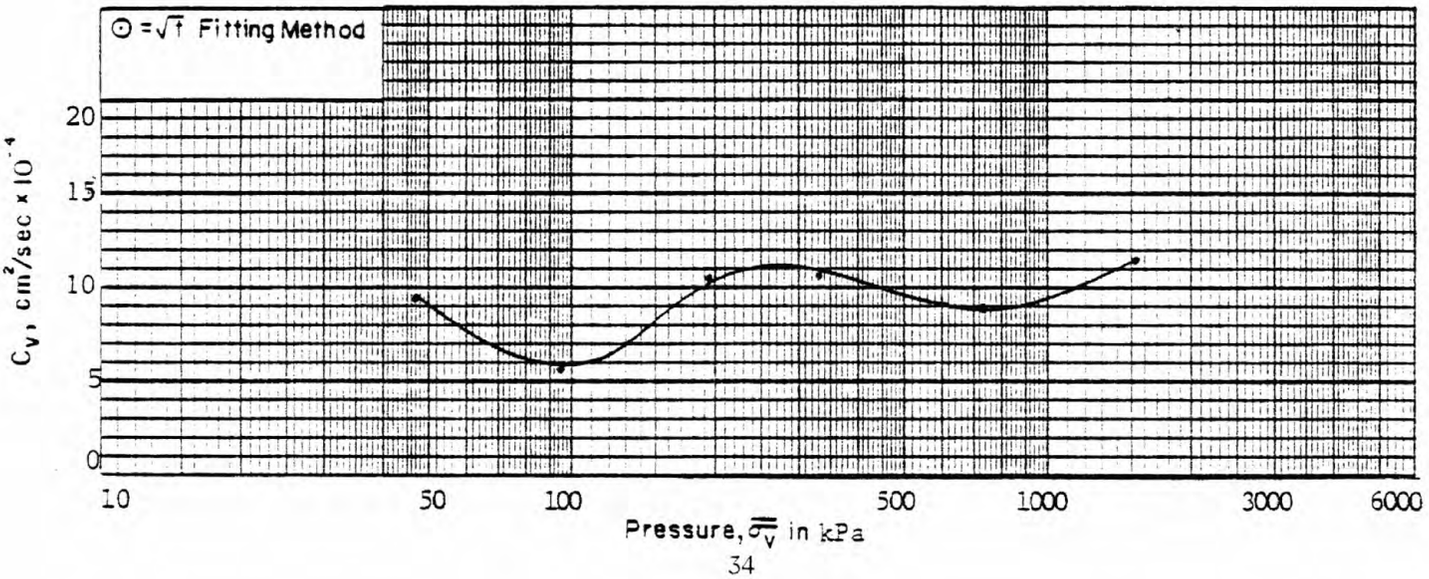
JOB NO.

W/G RP-G

CONSOLIDATION TEST

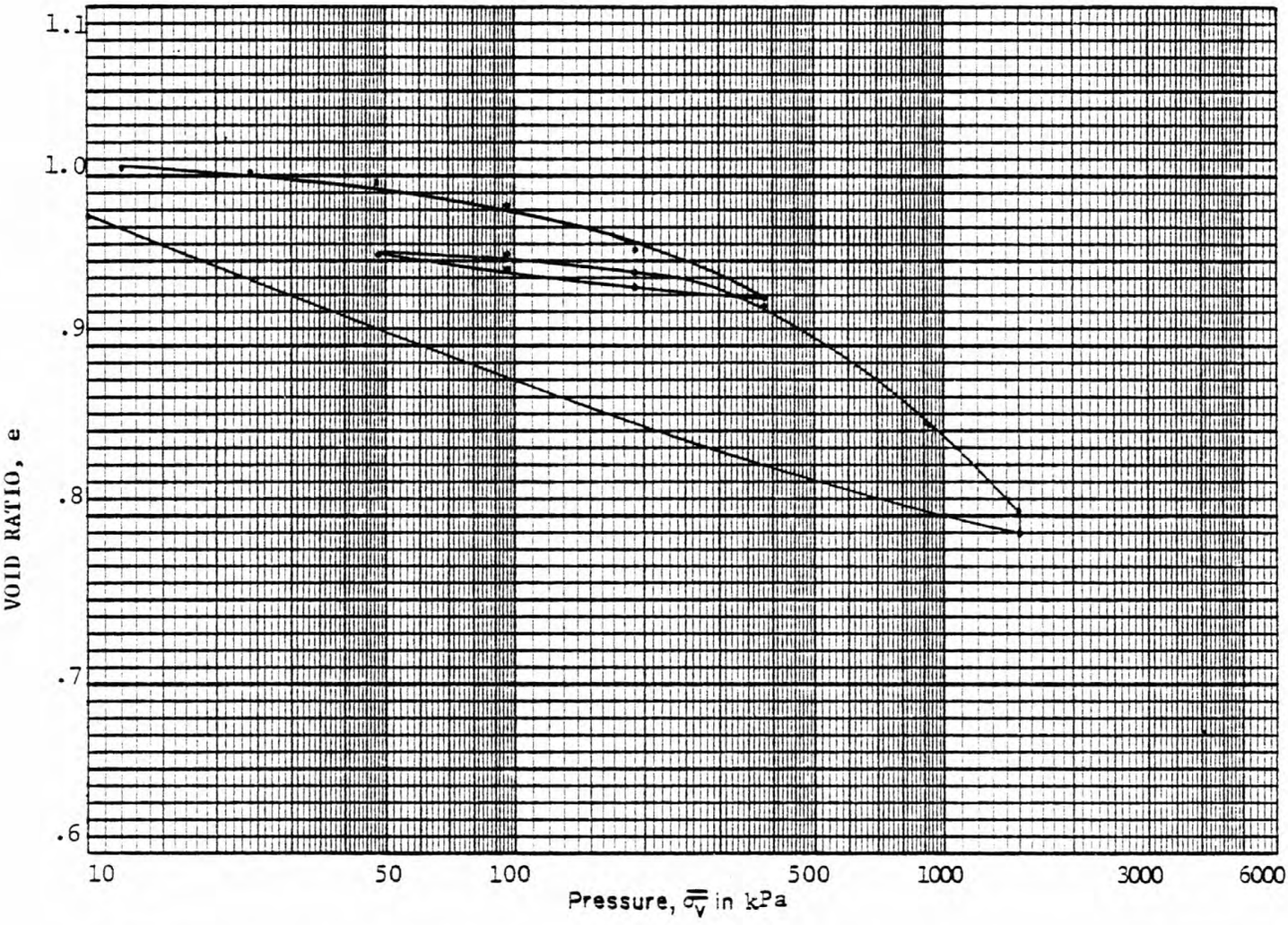
Boring No: CD-9			Sample No: PC-7			Depth, cms 222-237			
Material: Dark Gray Silty Clay									
	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	93.1	14.71	2.412	100.	.884	6.337	2.65	73	32
Final	43.6	-	1.158	100.-	.559				

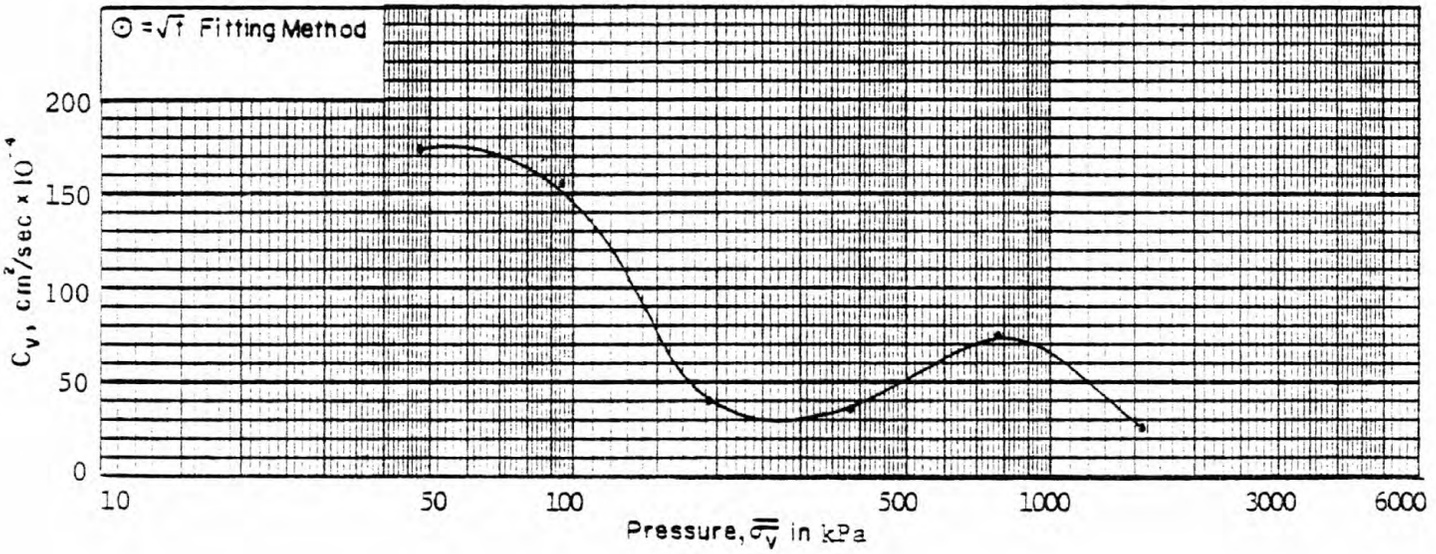




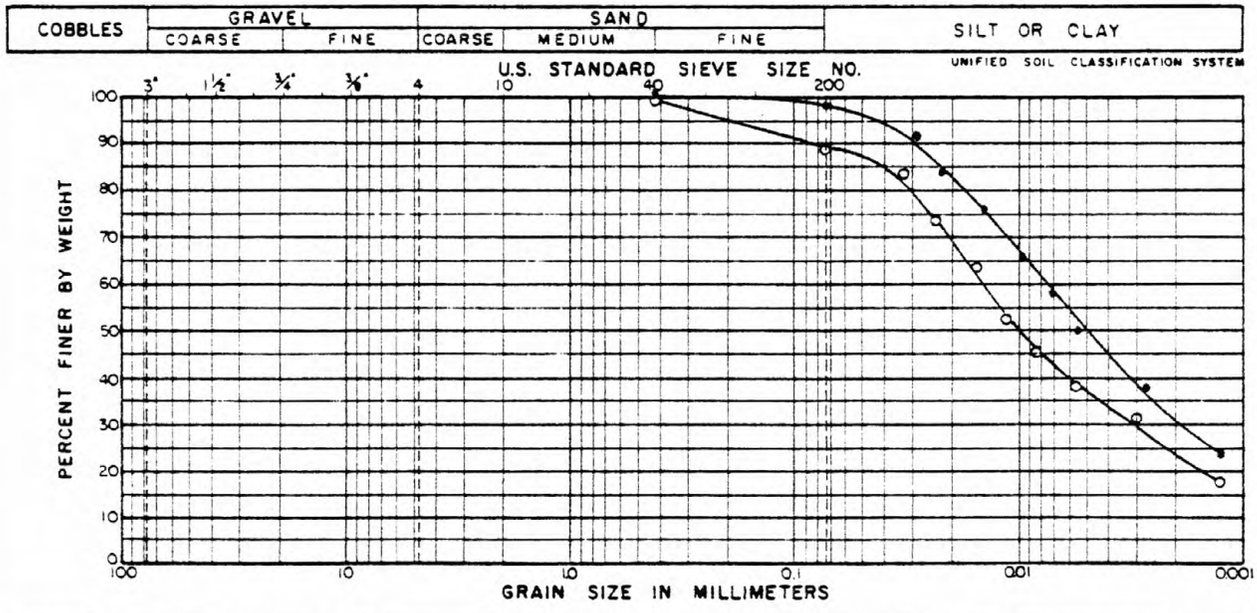
CONSOLIDATION TEST

Boring No: CD-9			Sample No: PC-7			Depth, cms 376-393			
Material: Greenish, Dark Gray, Silty Clay (Hard)									
	Water Content,%	Total Unit Wgt. kN/m3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	39.4	18.20	1.014	100.0 -	1.163	6.337	2.68	57	24
Final	38.0	- -	0.986	100.0	1.123				

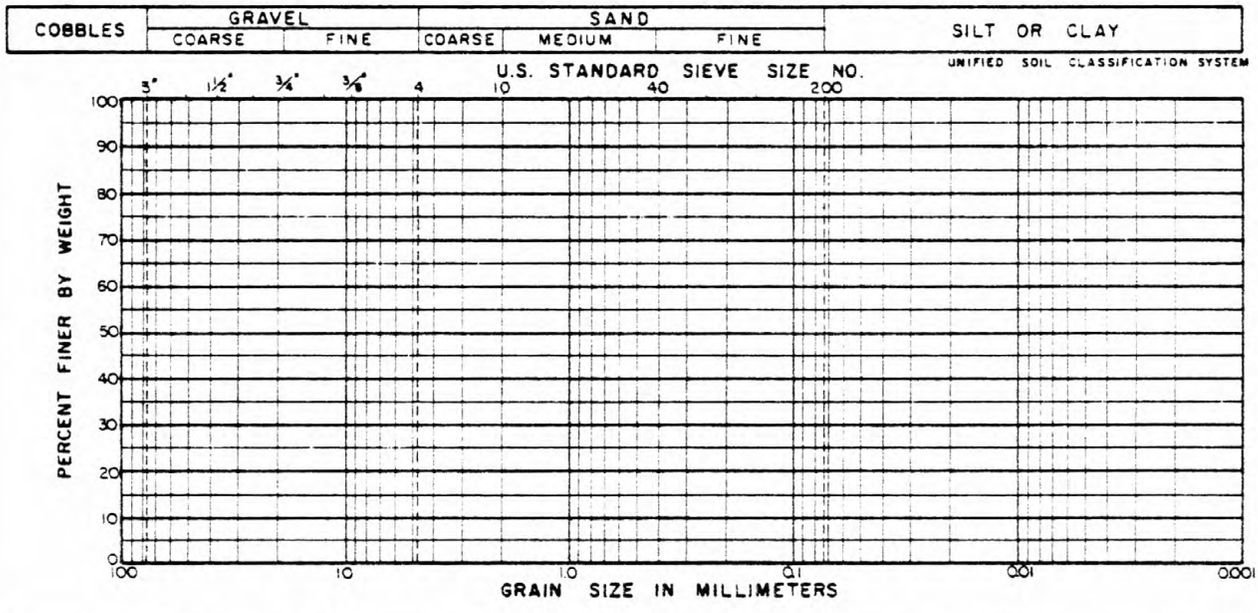




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD9	PC10	222-237	•	Dark Gray Silty Clay	93	73	32
CD9	PC7	376-393	o	Dark Gray Silty Clay	39	57	24



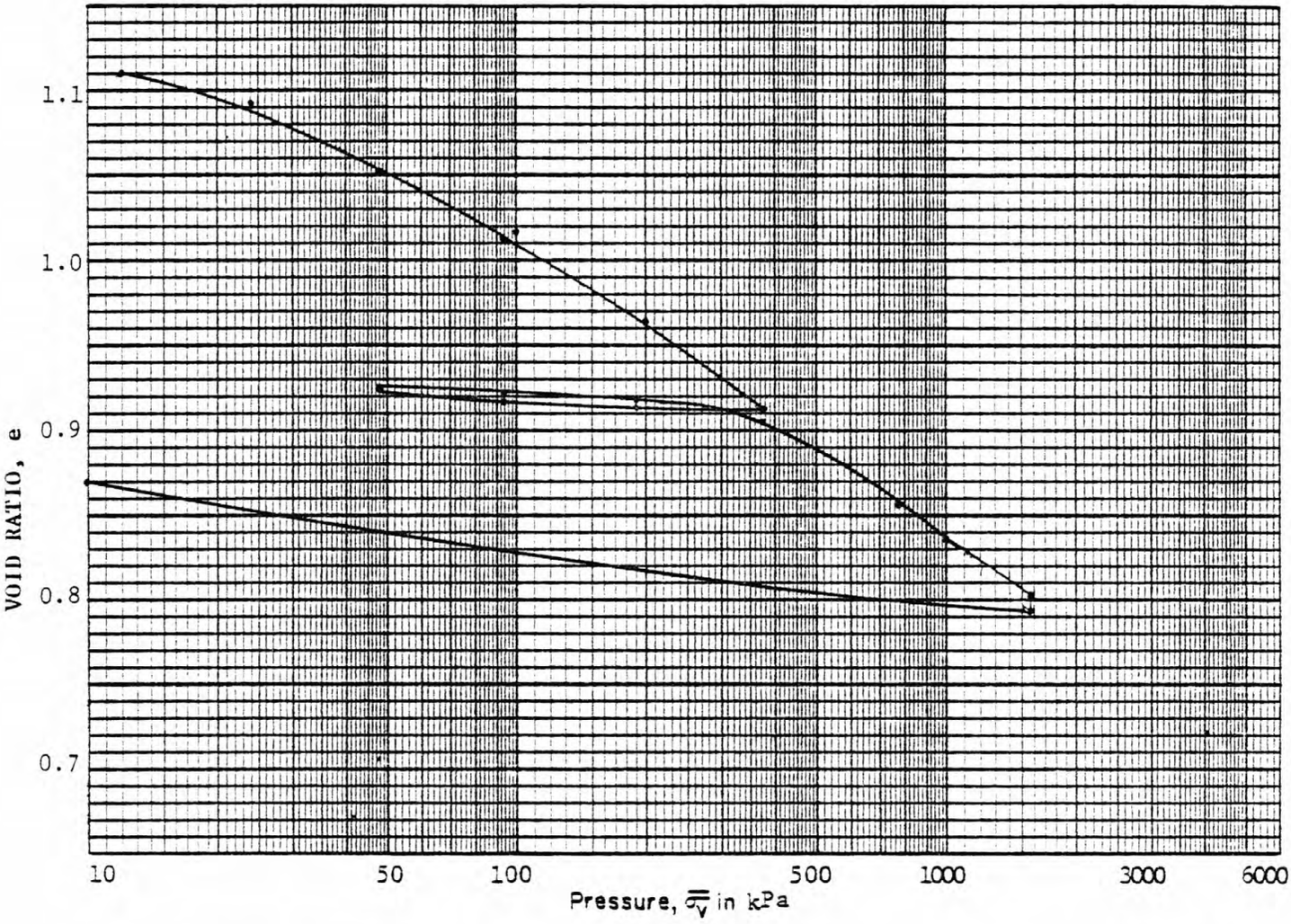
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL

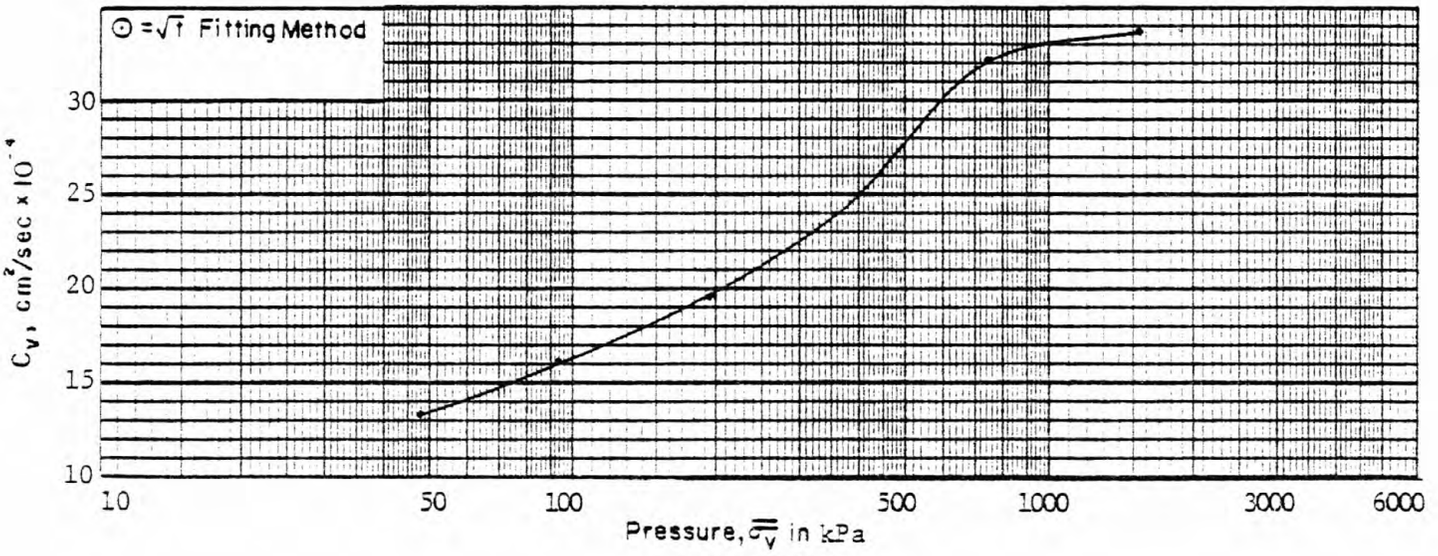
JOB NO.

W/G RP-G

CONSOLIDATION TEST

Boring No: CD-10			Sample No: PC-11				Depth, cms 277-292	
Material: Dary gray silty clay								
	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	29.8	19.41	.793	100.00	2.220	6.337	2.72	40	22
Final	19.3	-	.528	100.00	1.834				



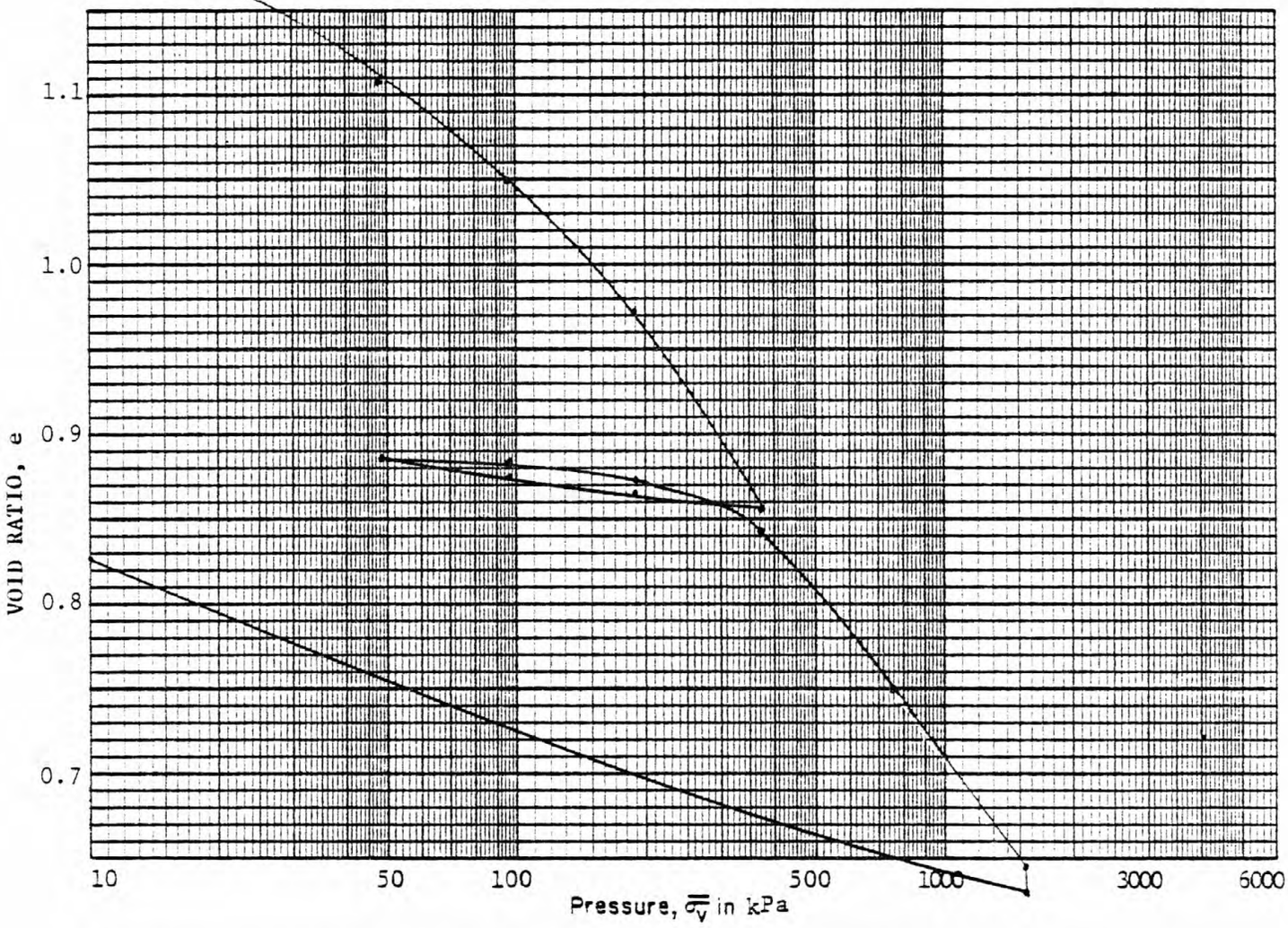


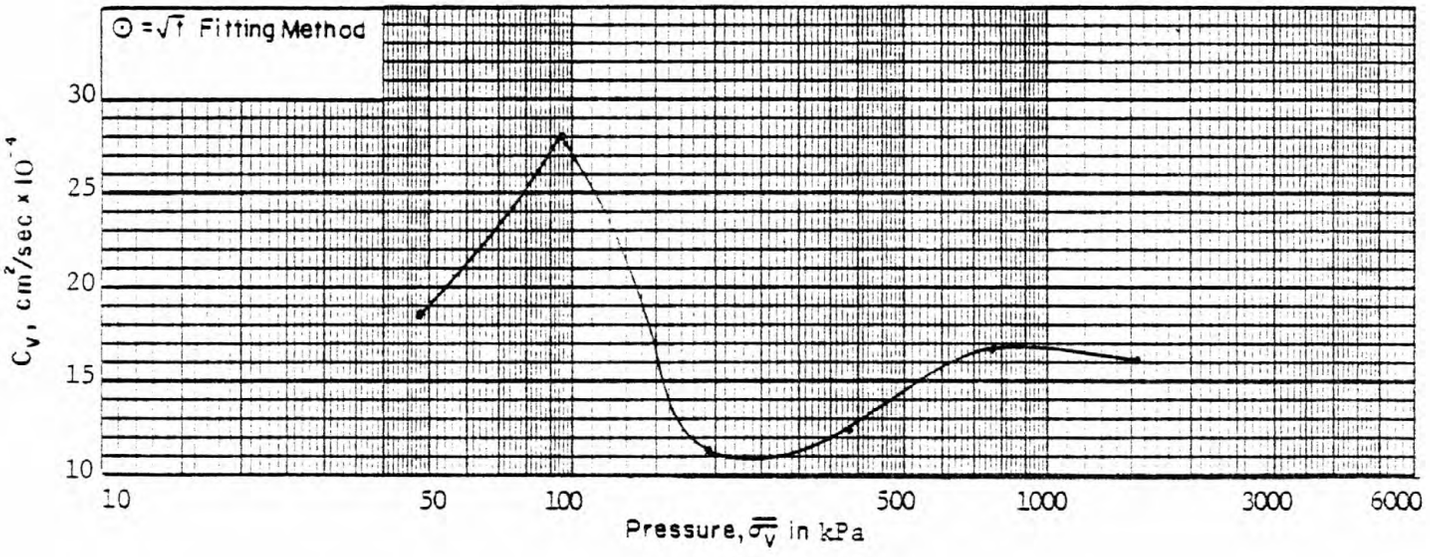
CONSOLIDATION TEST

Boring No: CD-10 Sample No: PC-11 Depth, cms 522-573

Material: Dark gray silty clay

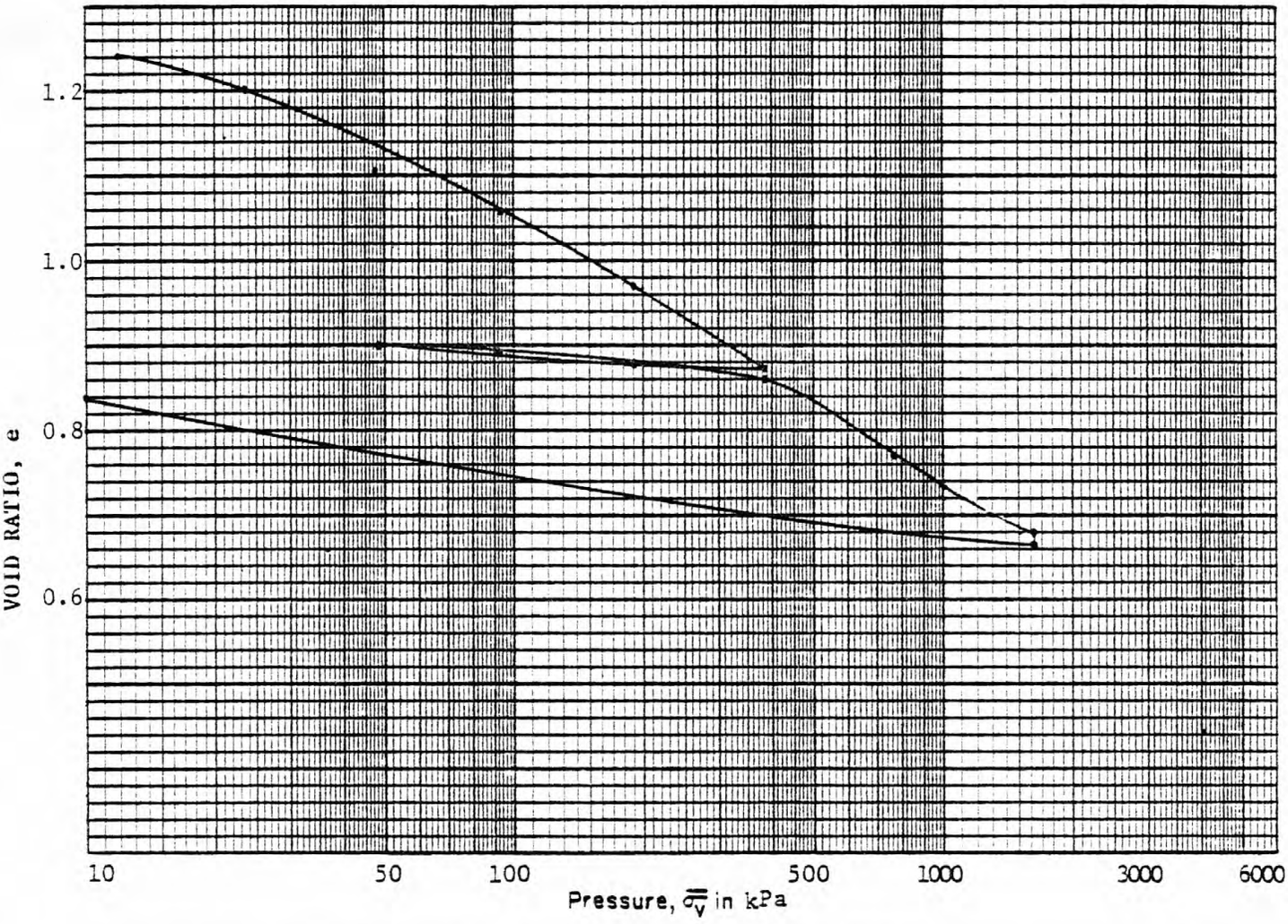
	Water Content,%	Total Unit Wgt. kN/m3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	45.6	17.54	1.212	100.00	2.220	6.337	2.72	40	22
Final	31.5	-	.828	100.00	1.834				

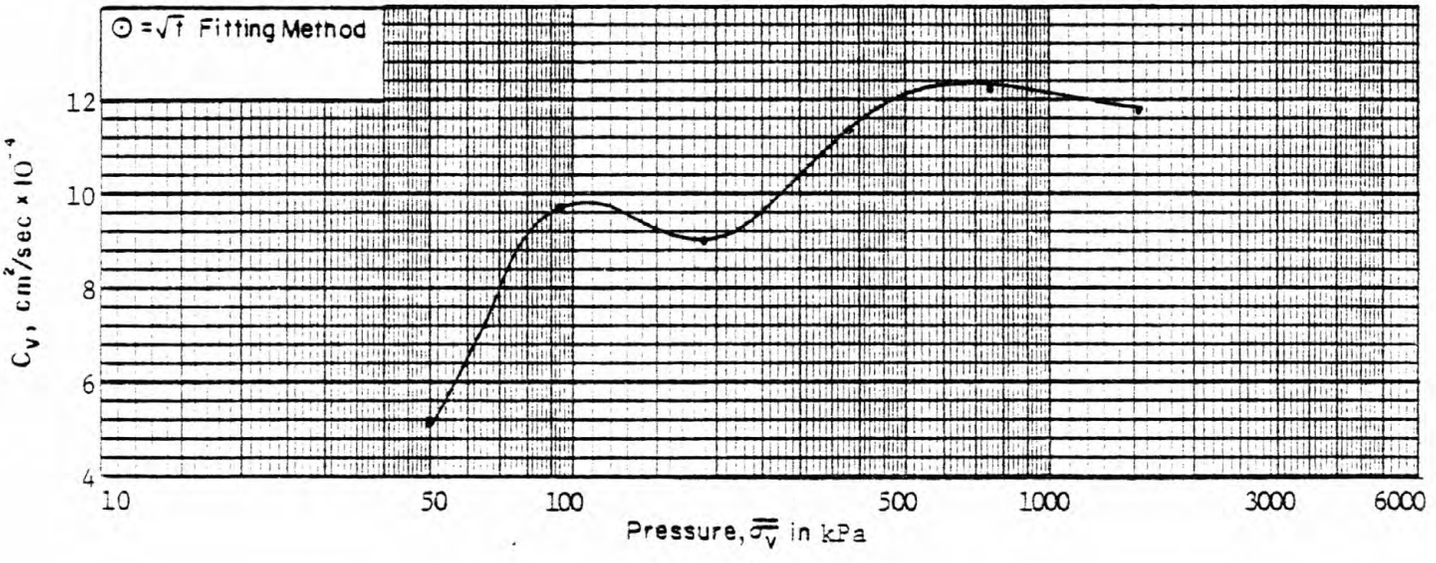




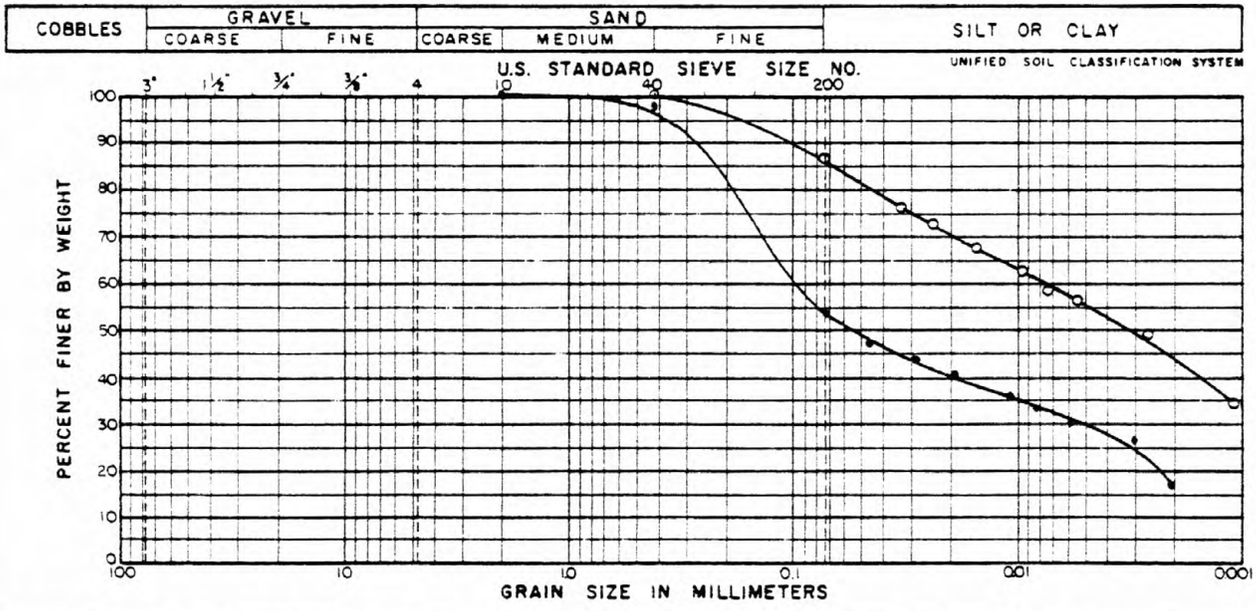
CONSOLIDATION TEST

Boring No: CD-10			Sample No: PC-11		Depth, cms 658-672			
Material: Dary gray silty clay								
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	46.5	17.18	1.280	98.8	2.212	6.337	2.72	45	21
Final	31.0	-	.846	100.00	1.791				

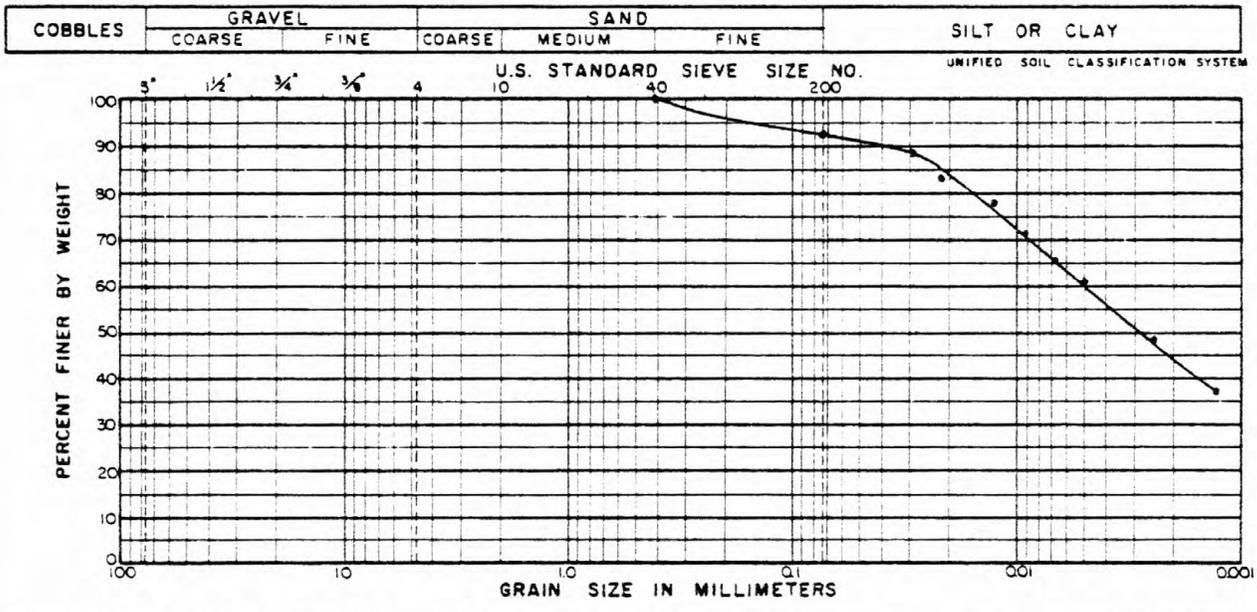




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	PC11	277-292	•	DARK GRAY FINE SANDY SILTY CLAY	30	24	13
CD10	PC11	522-527	o	GRAY FINE SANDY SILTY CLAY	46	40	22



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	PC11	658-672	•	DARK GRAY SILTY CLAY	47	45	21

JOB NO. 79 C 01221

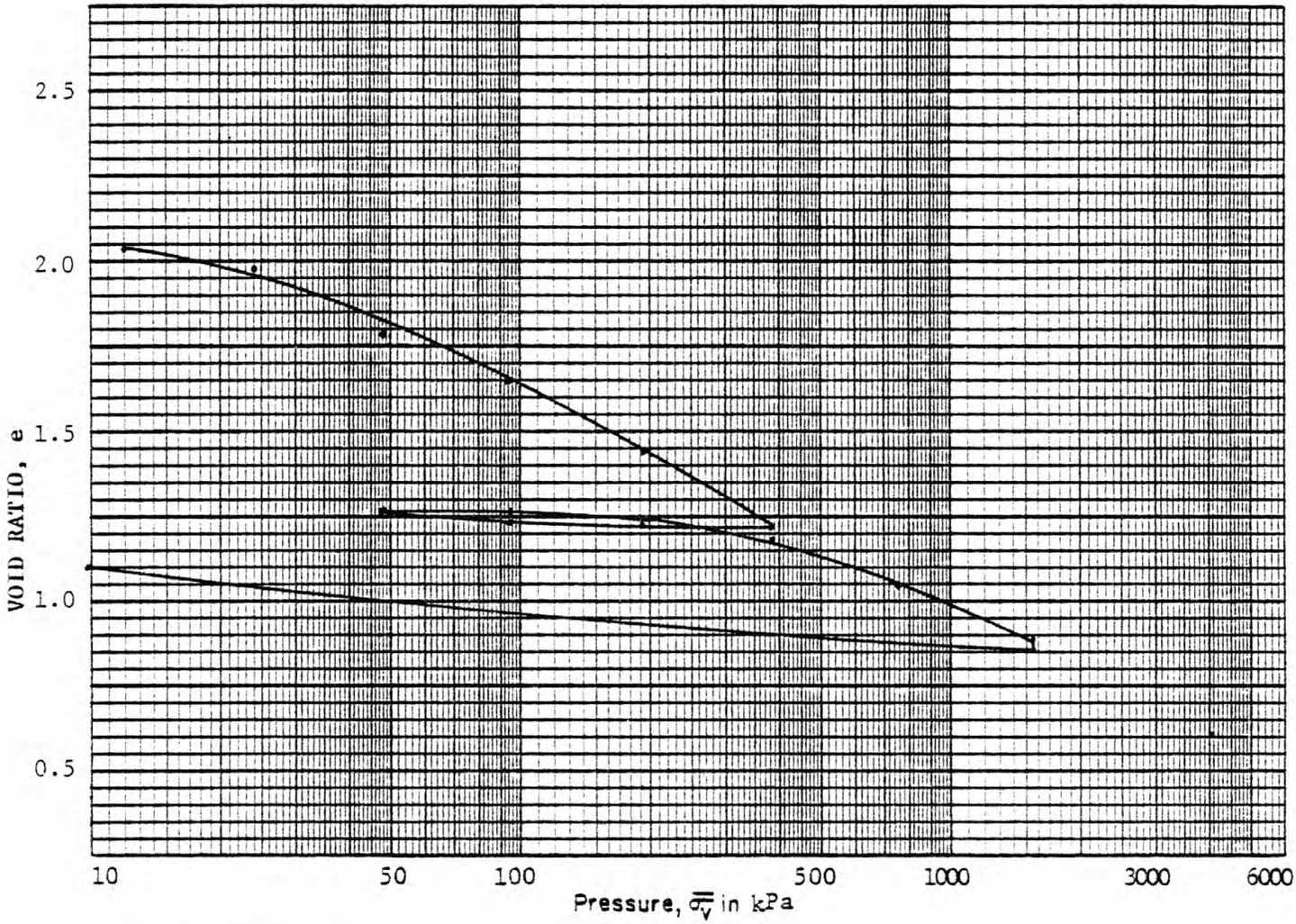
WG RP-G

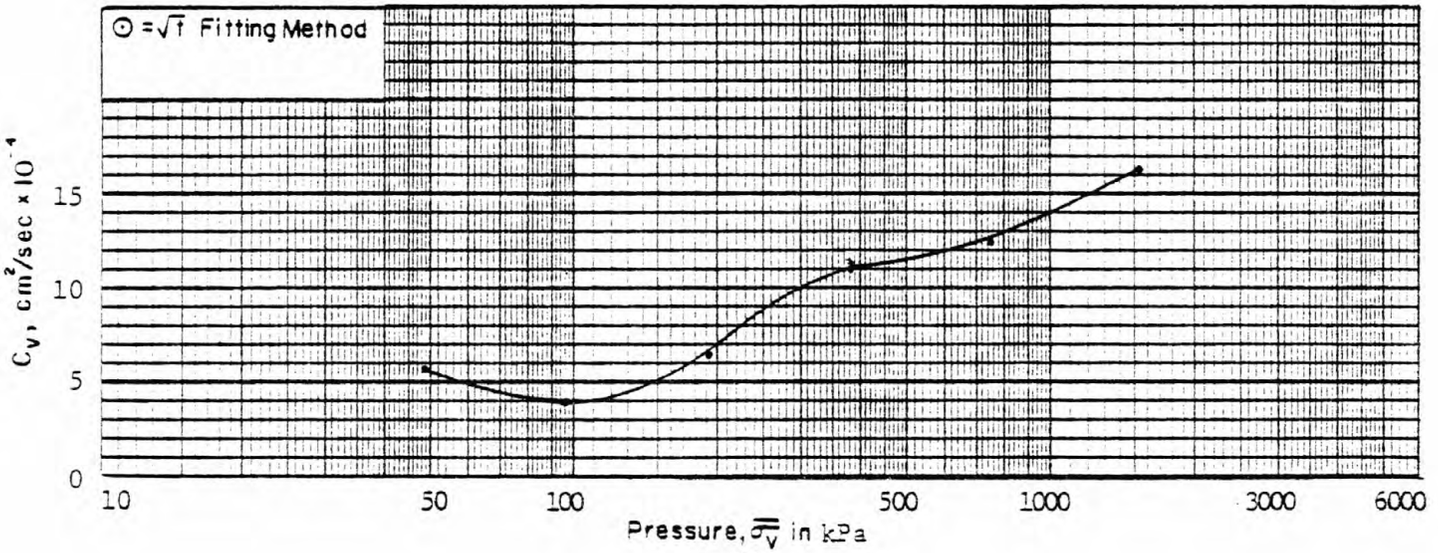
CONSOLIDATION TEST

Boring No: CD-11 Sample No: PC-12 Depth, cms 168-183

Material: Dark gray silty clay

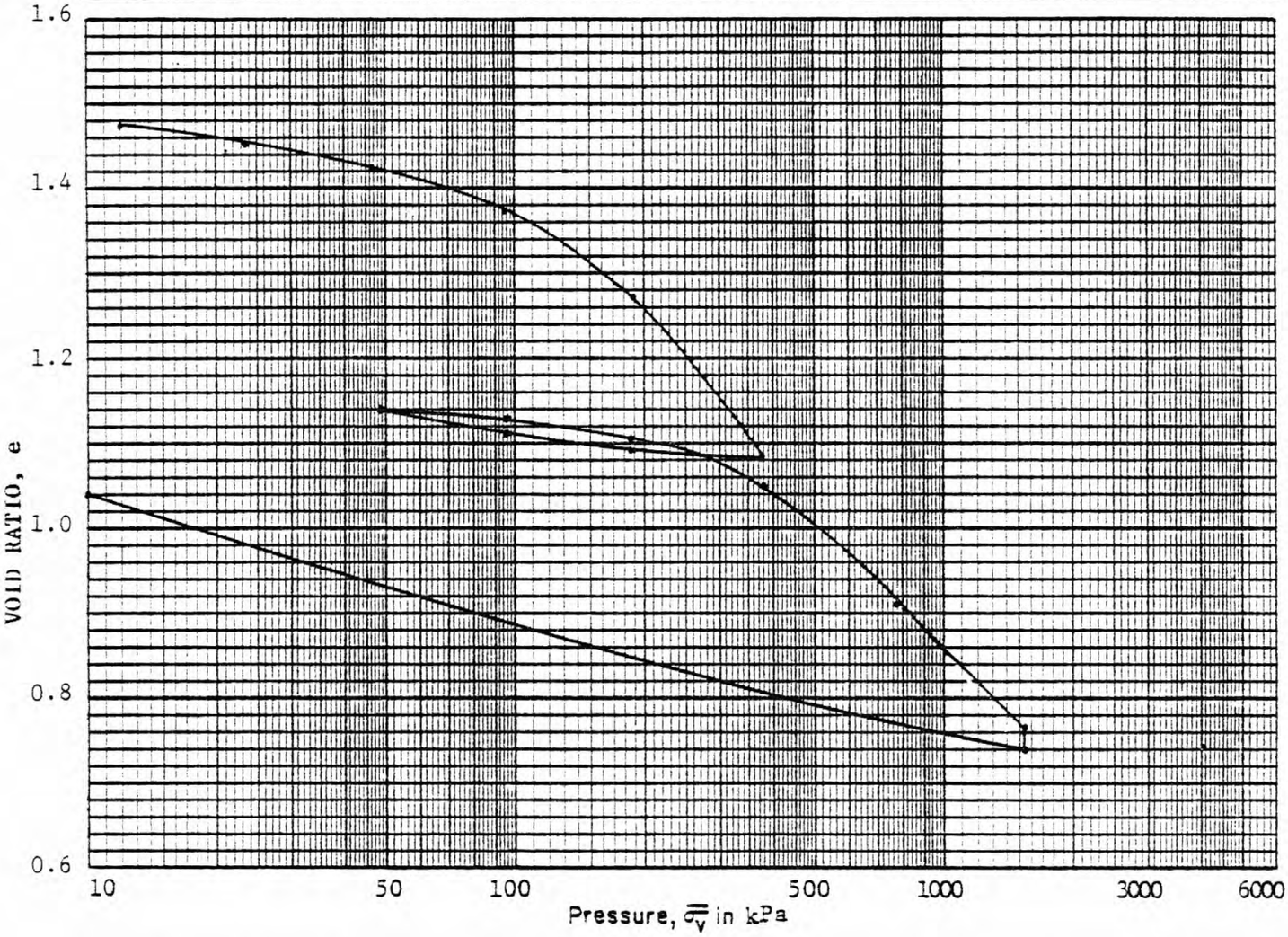
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	80.9	15.42	2.081	100.00	2.230	6.337	2.68	56	24
Final	43.7	-	1.182	100.00	1.580				

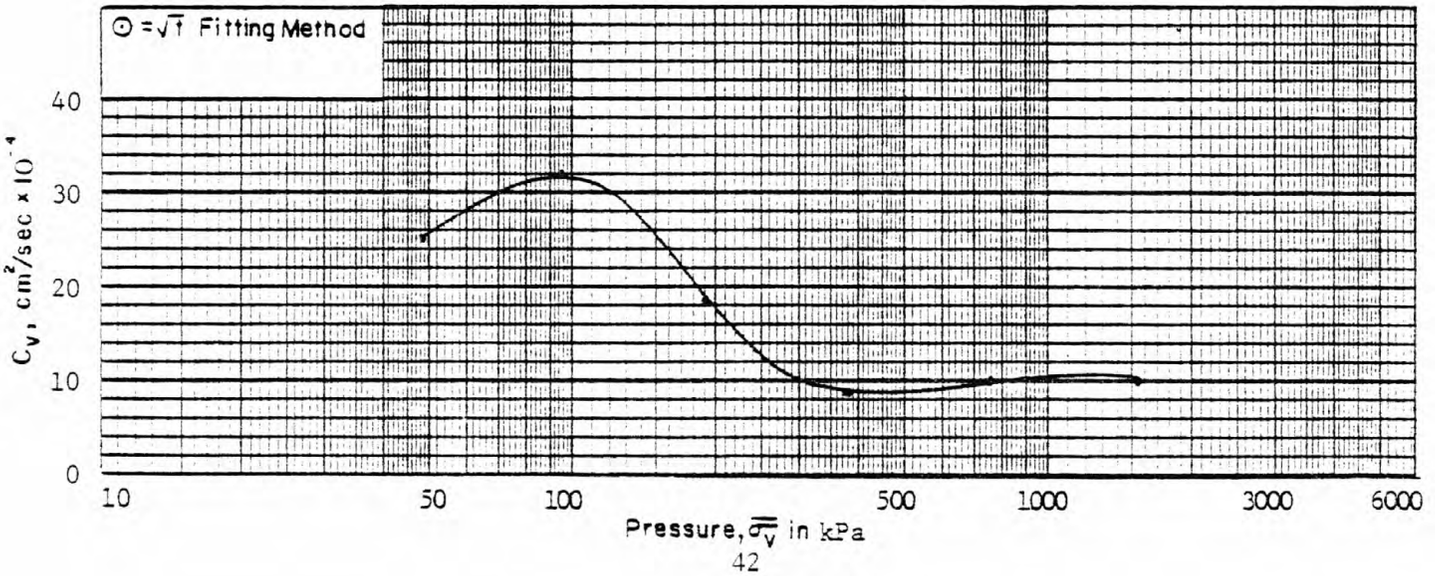




CONSOLIDATION TEST

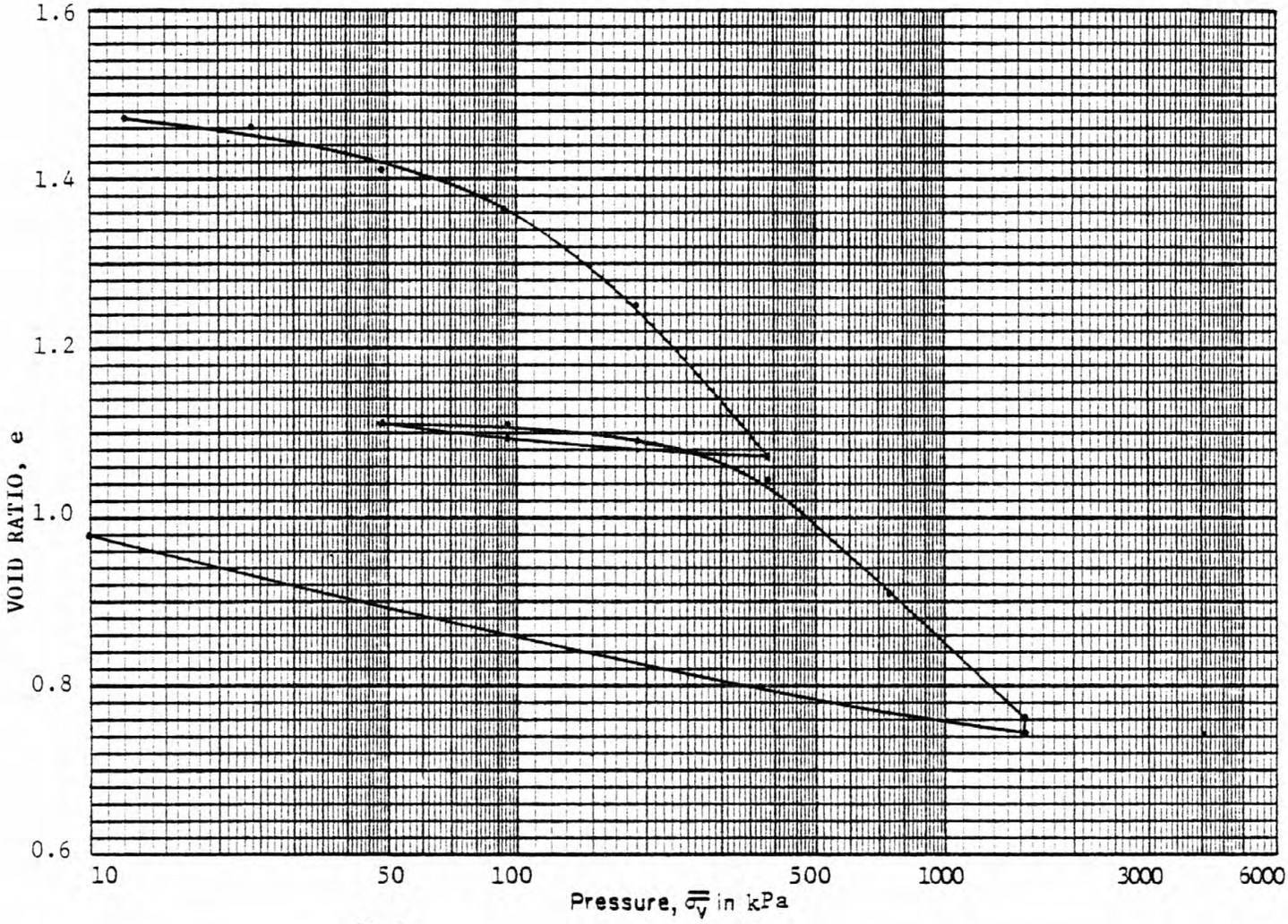
Boring No: CD-11			Sample No: PC-12			Depth, cms 370-385			
Material: Dark gray silty clay									
	Water Content,%	Total Unit Wgt. kN/m3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	58.7	16.66	1.500	100.00	2.228	6.337	2.67	54	26
Final	42.2	-	1.080	100.00	1.854				

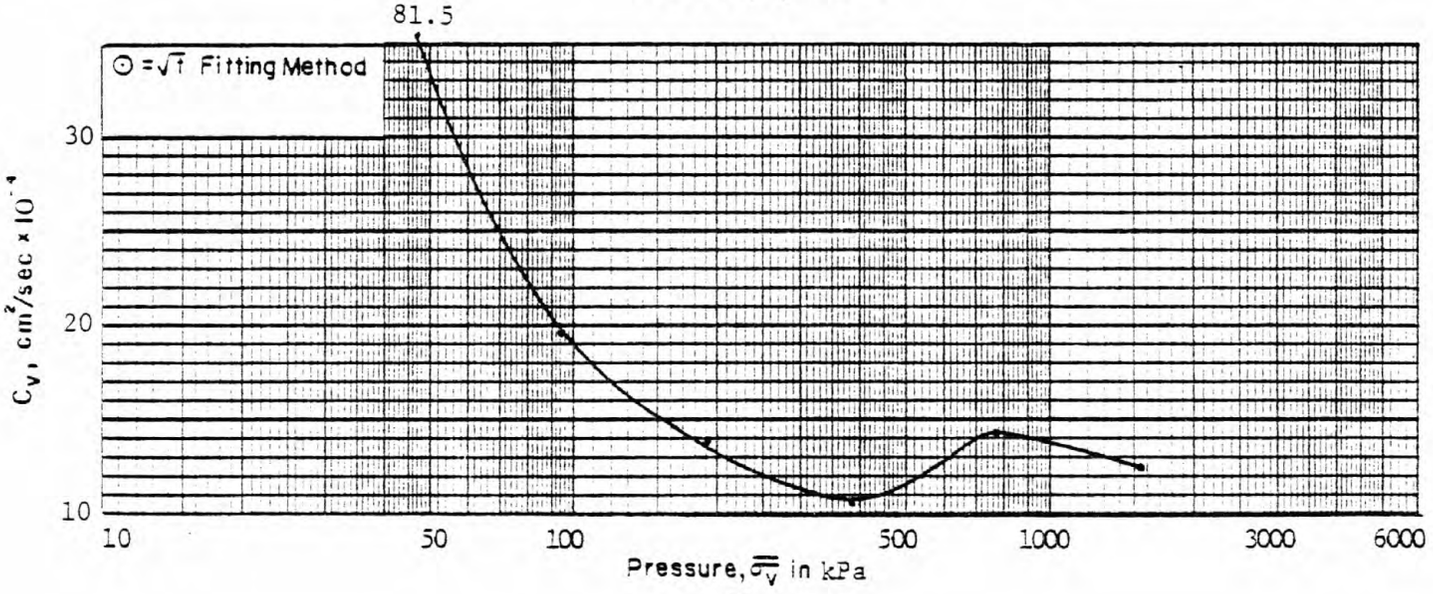




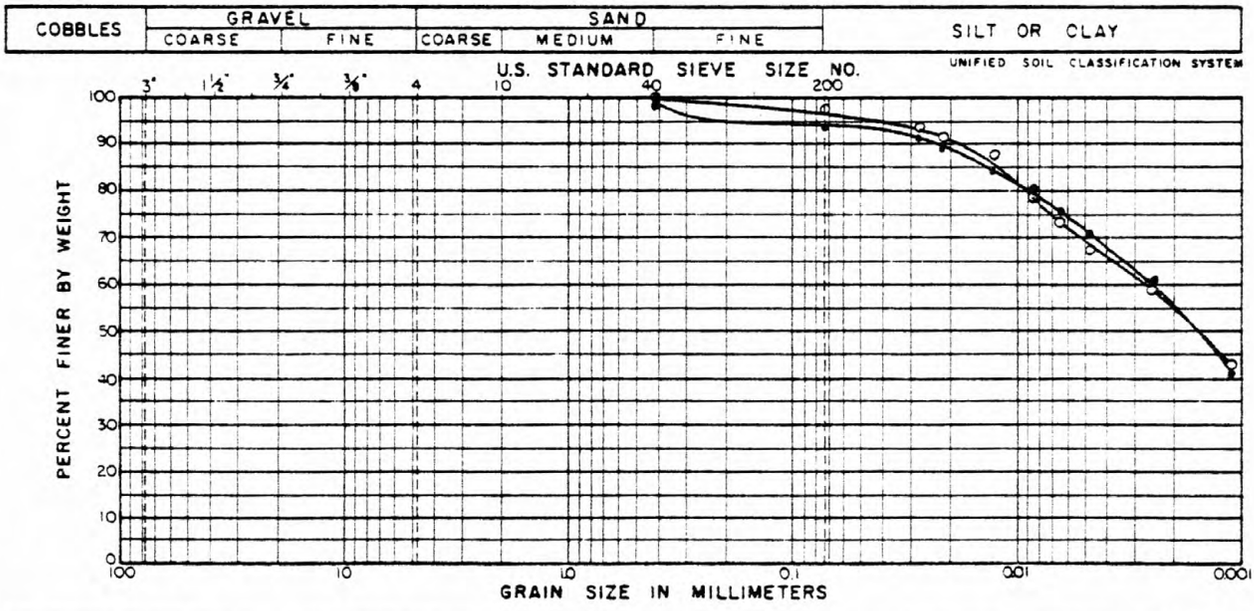
CONSOLIDATION TEST

Boring No: CD-11				Sample No: PC-12			Depth, cms 624-639		
Material: Dark gray silty clay									
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	56.9	16.91	1.505	100.00	2.228	6.337	2.73	49	23
Final	37.9	-	.986	100.00	1.765				

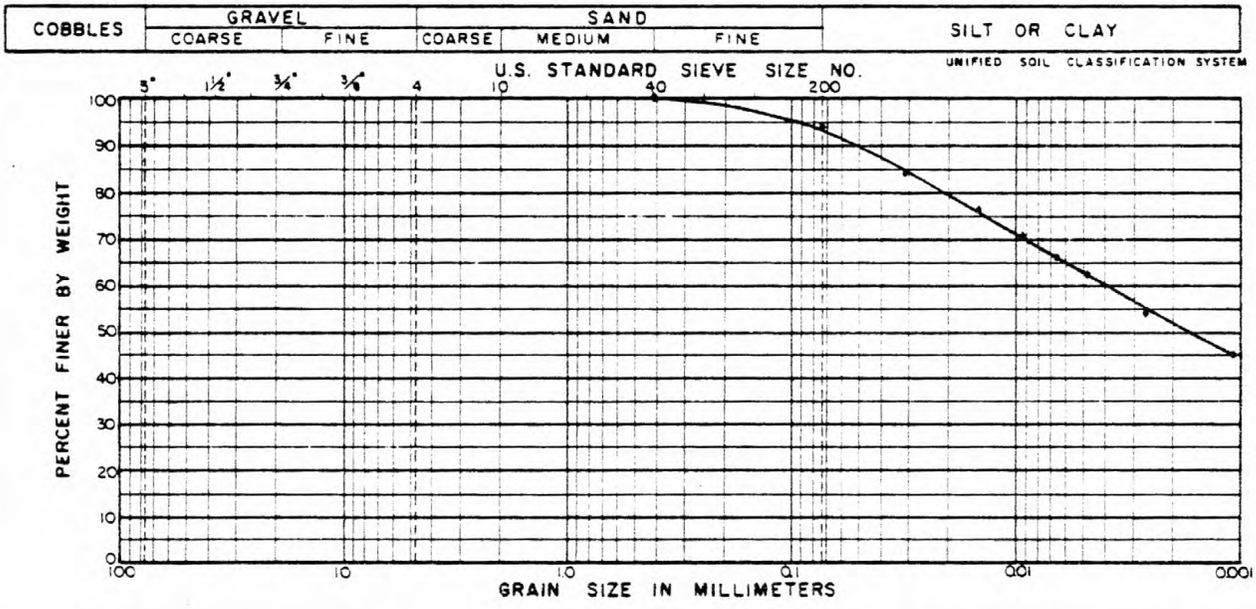




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	PC12	370-385	•	Dark gray silty clay, trace fine sand	59	54	26
CD11	PC12	168-183	o	Dark gray silty clay, trace fine sand	81	56	24



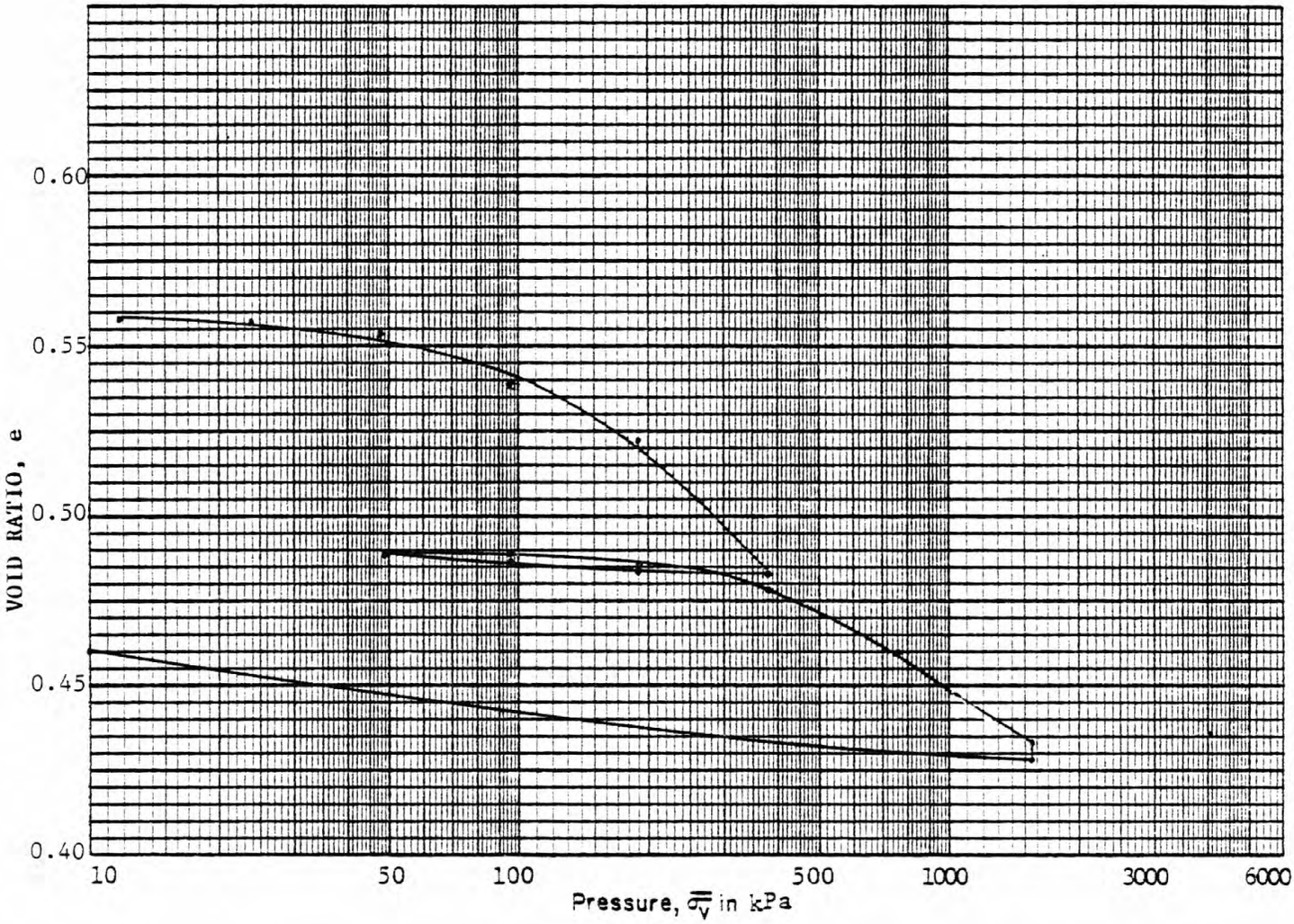
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	PC12	624-639	•	Gray silty clay, trace fine sand	57	49	23

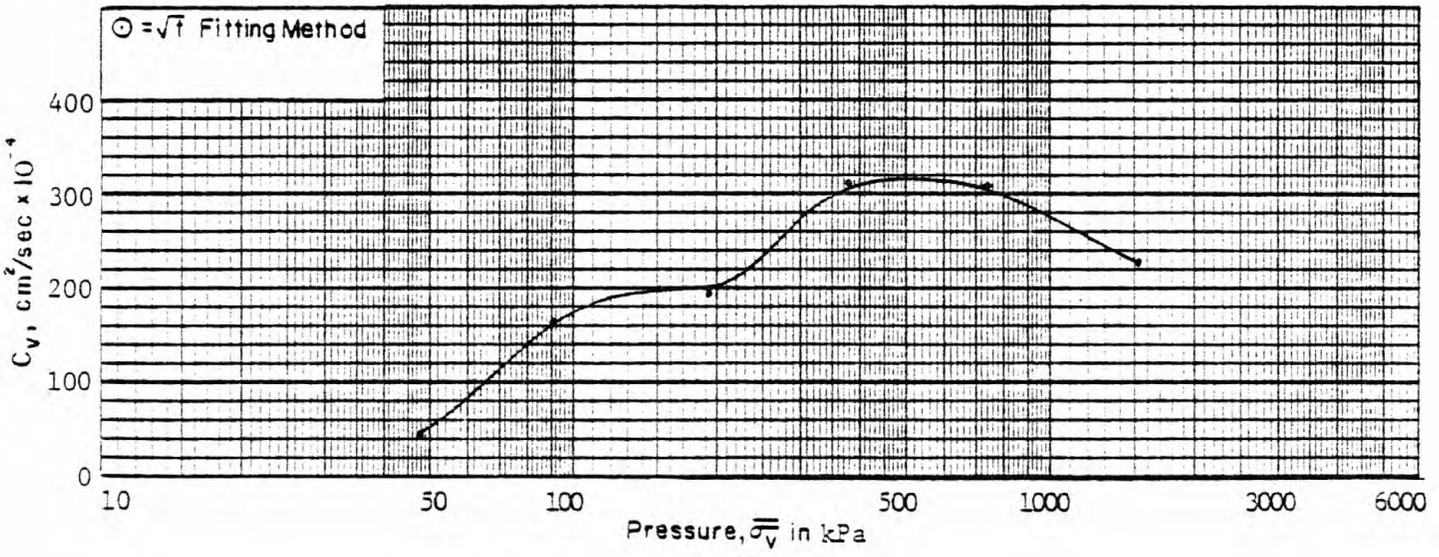
JOB NO. 79 C 01221

WG RP-G

CONSOLIDATION TEST

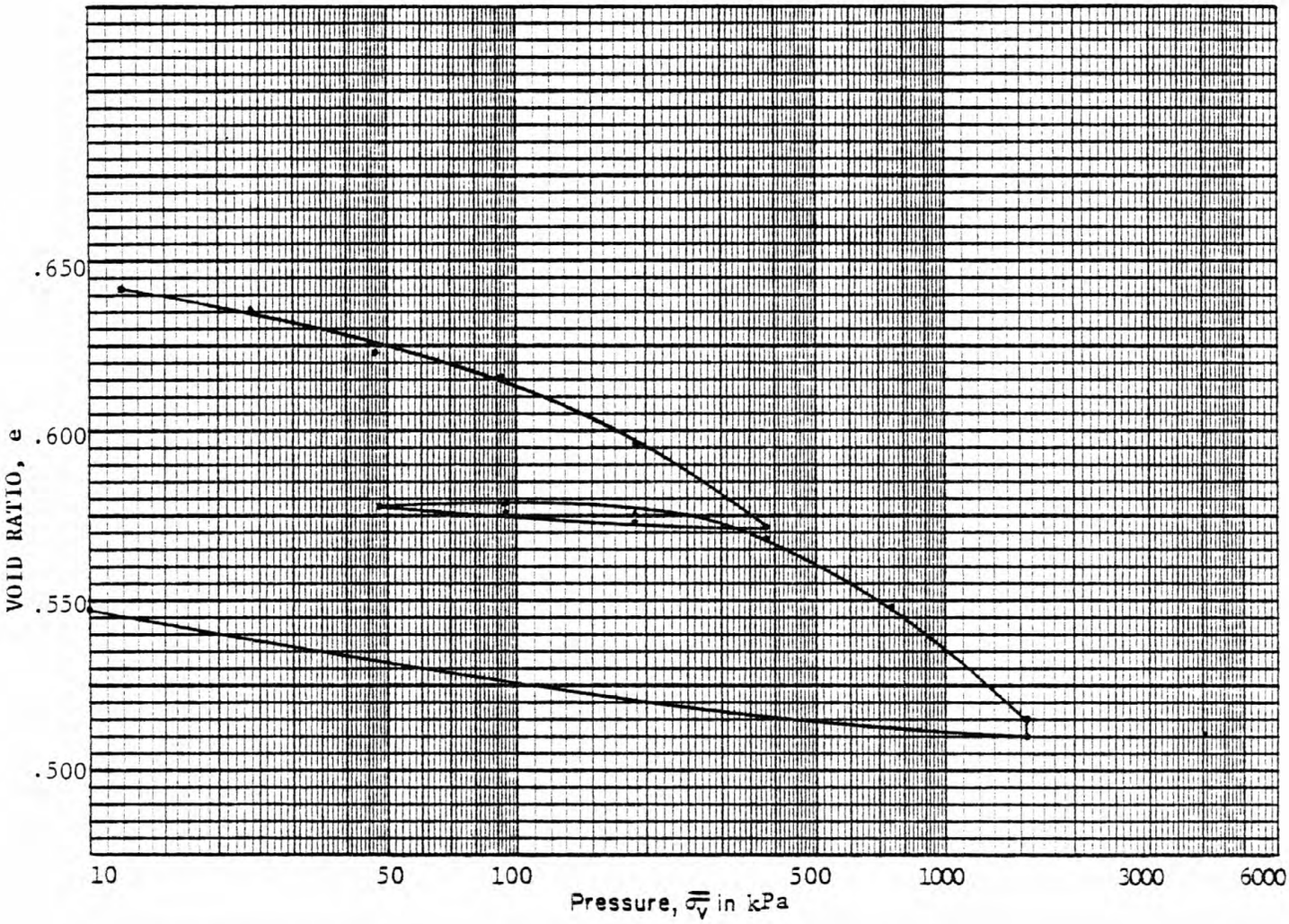
Boring No: CD-12			Sample No: PC-14		Depth, cms 264-279			
Material: Dark gray silty clay								
	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	21.8	20.76	.569	100.00	2.217	6.337	2.72	NP	NP
Final	16.8	-	.460	100.00	2.062				

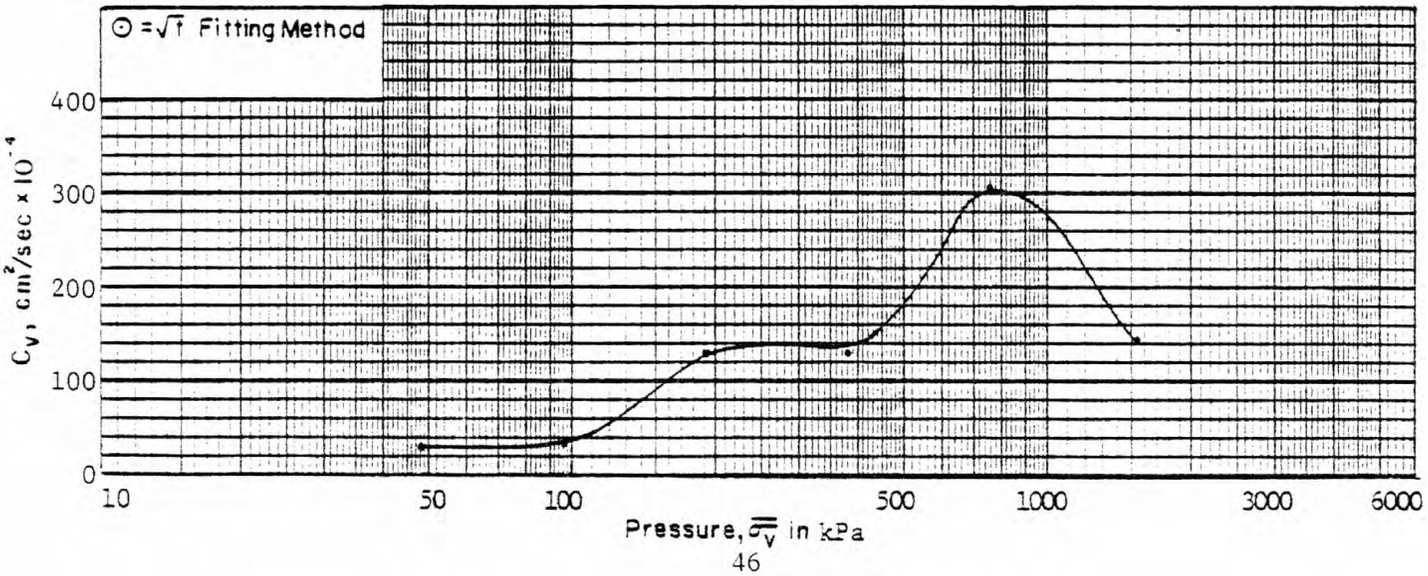




CONSOLIDATION TEST

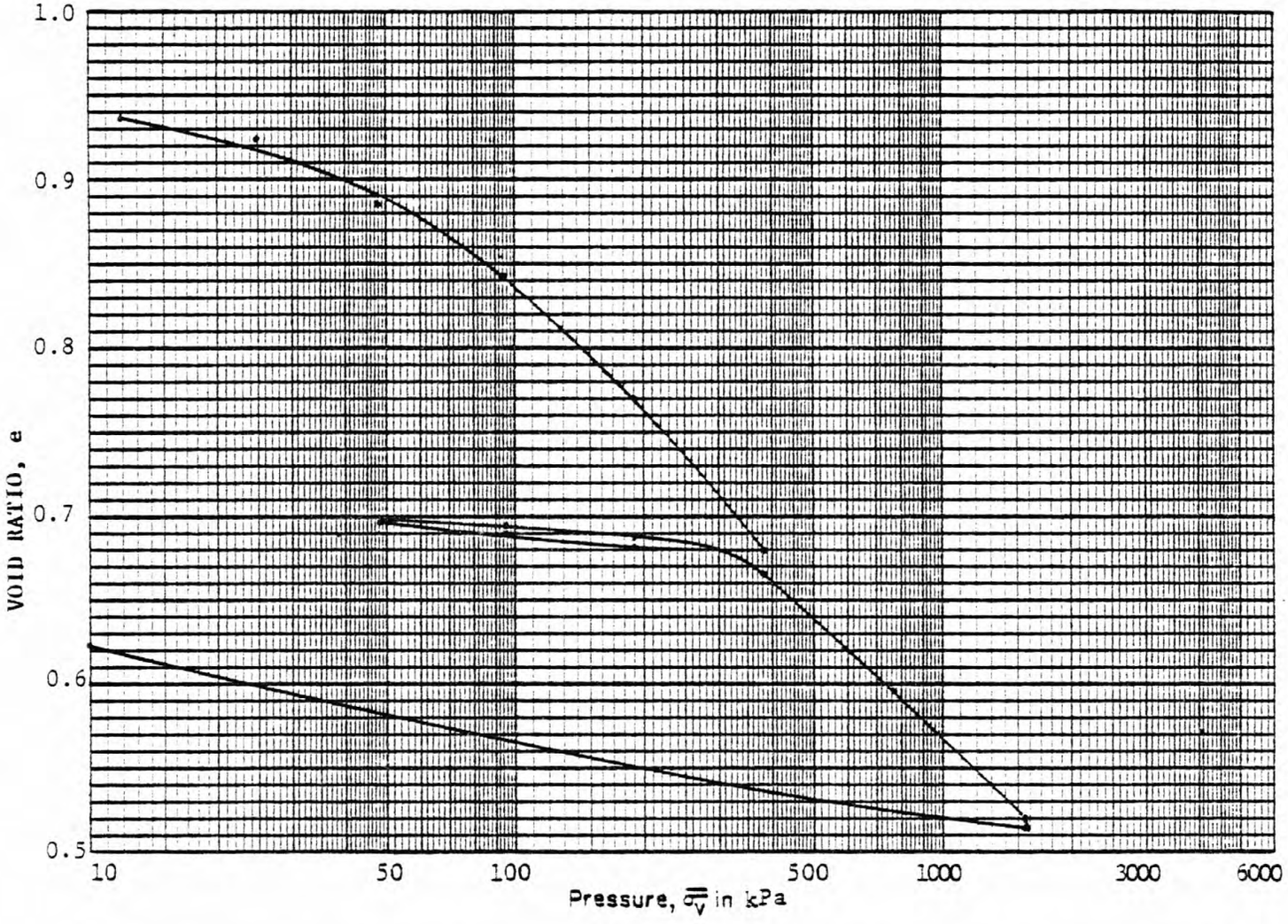
Boring No: CD-12			Sample No: PC-14			Depth, cms 385-400			
Material: Dark gray sandy silty clay									
	Water Content,%	Total Unit Wgt. kN/m3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	24.8	20.04	.656	100.00	2.212	6.337	2.71	NP	NP
Final	19.0	-	.561	100.00	2.085				

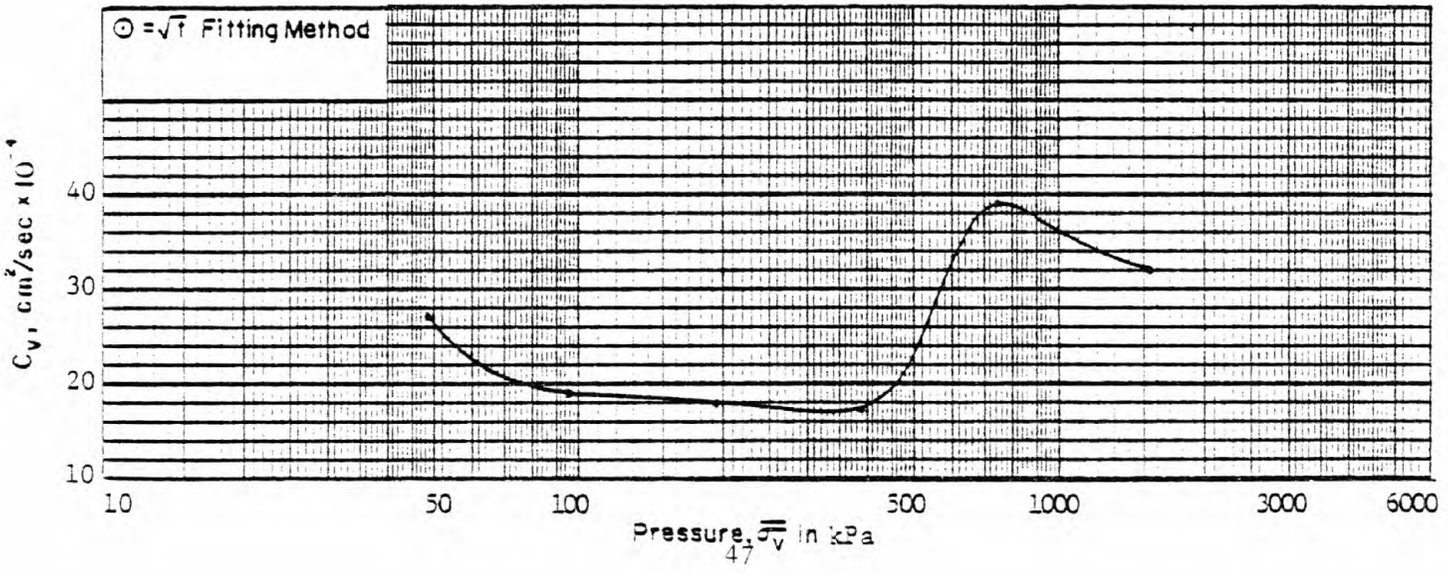




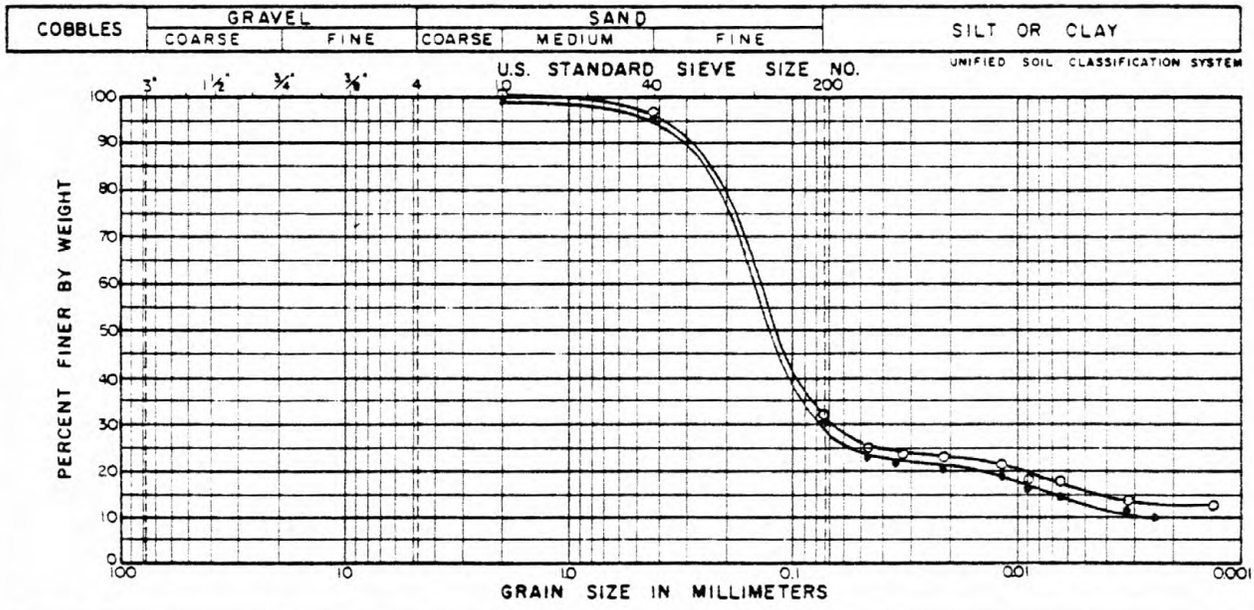
CONSOLIDATION TEST

Boring No: CD-12			Sample No: PC-14		Depth, cms 447-462			
Material: Dark gray sandy silty clay								
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	37.1	18.64	.971	100.00	2.217	6.337	2.72	25	14
Final	23.4	-	.632	100.00	1.836				

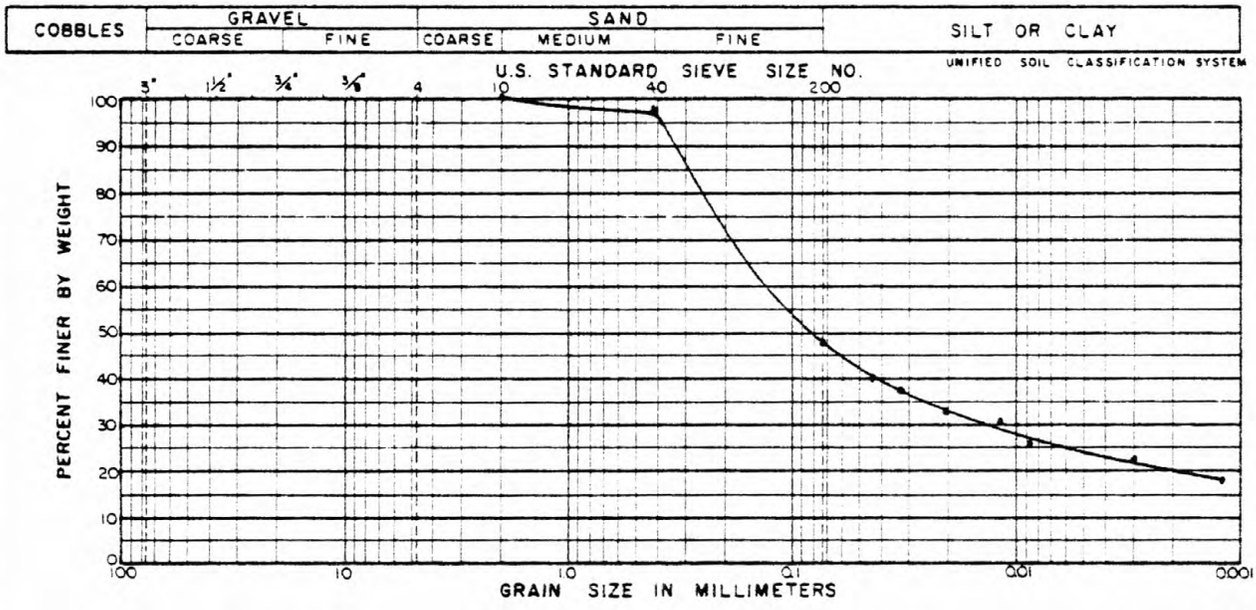




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD12	PC14	264-279	•	Gray silty clayey fine sand, trace medium sand	22	NP	NP
CD12	PC14	385-400	o	Gray silty clayey fine sand, trace medium sand	25	NP	NP



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD12	PC14	447-462	•	Gray silty clayey fine sand, trace medium sand	37	25	14

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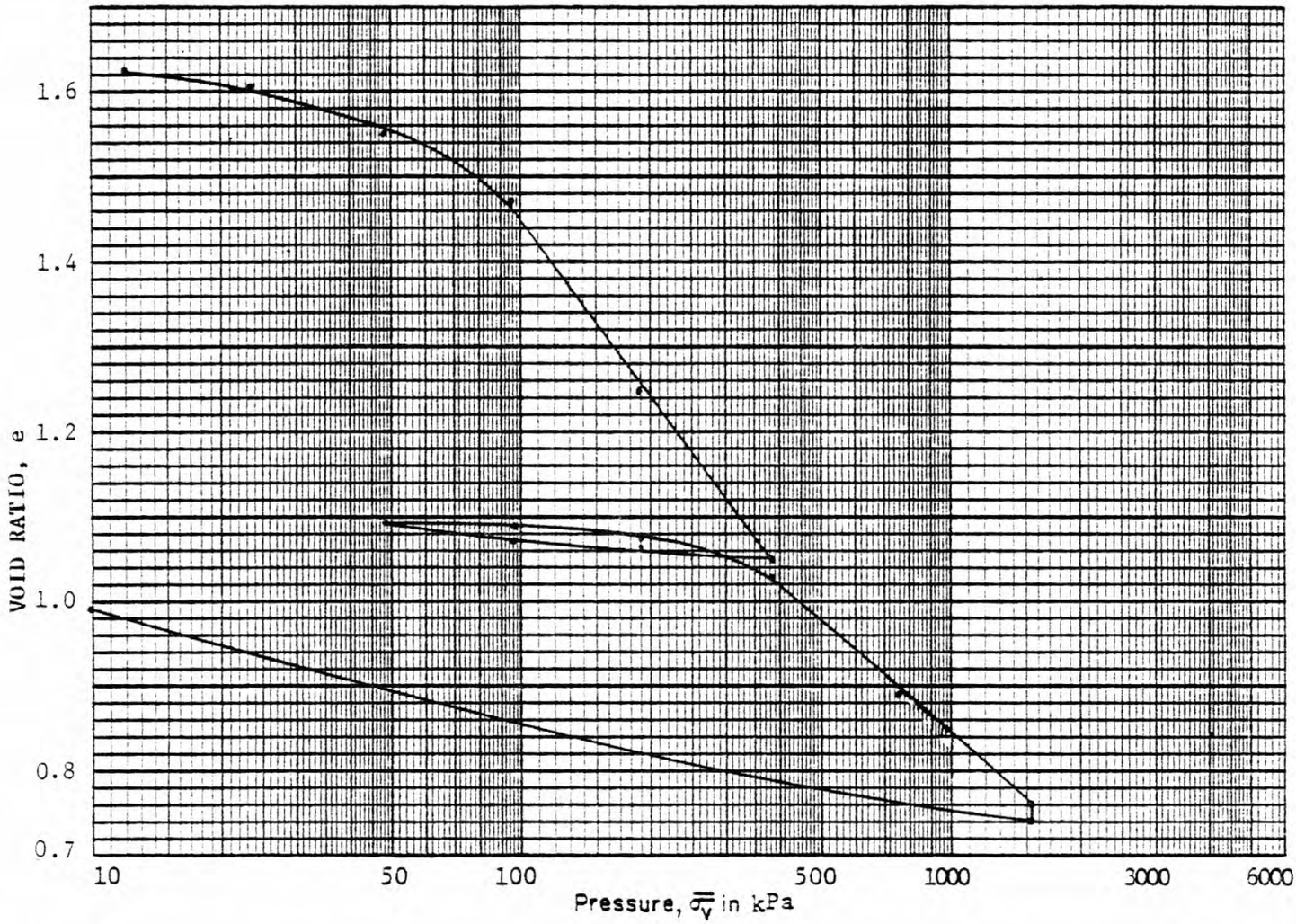
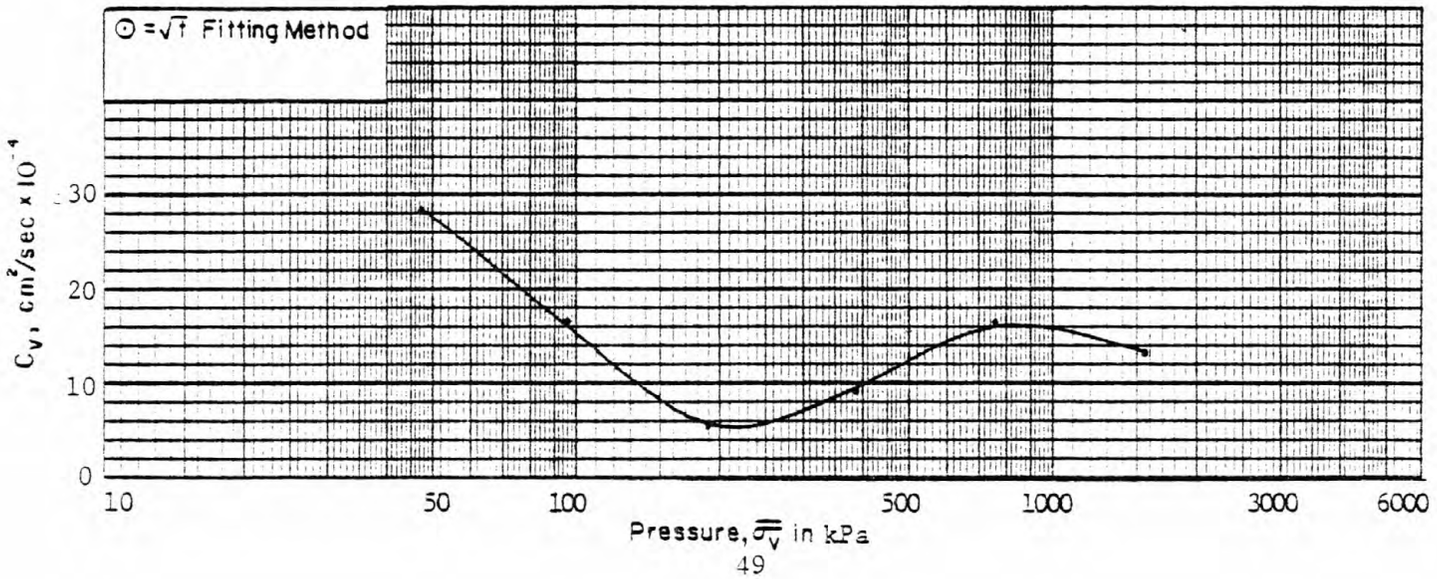
WG RP-G

CONSOLIDATION TEST

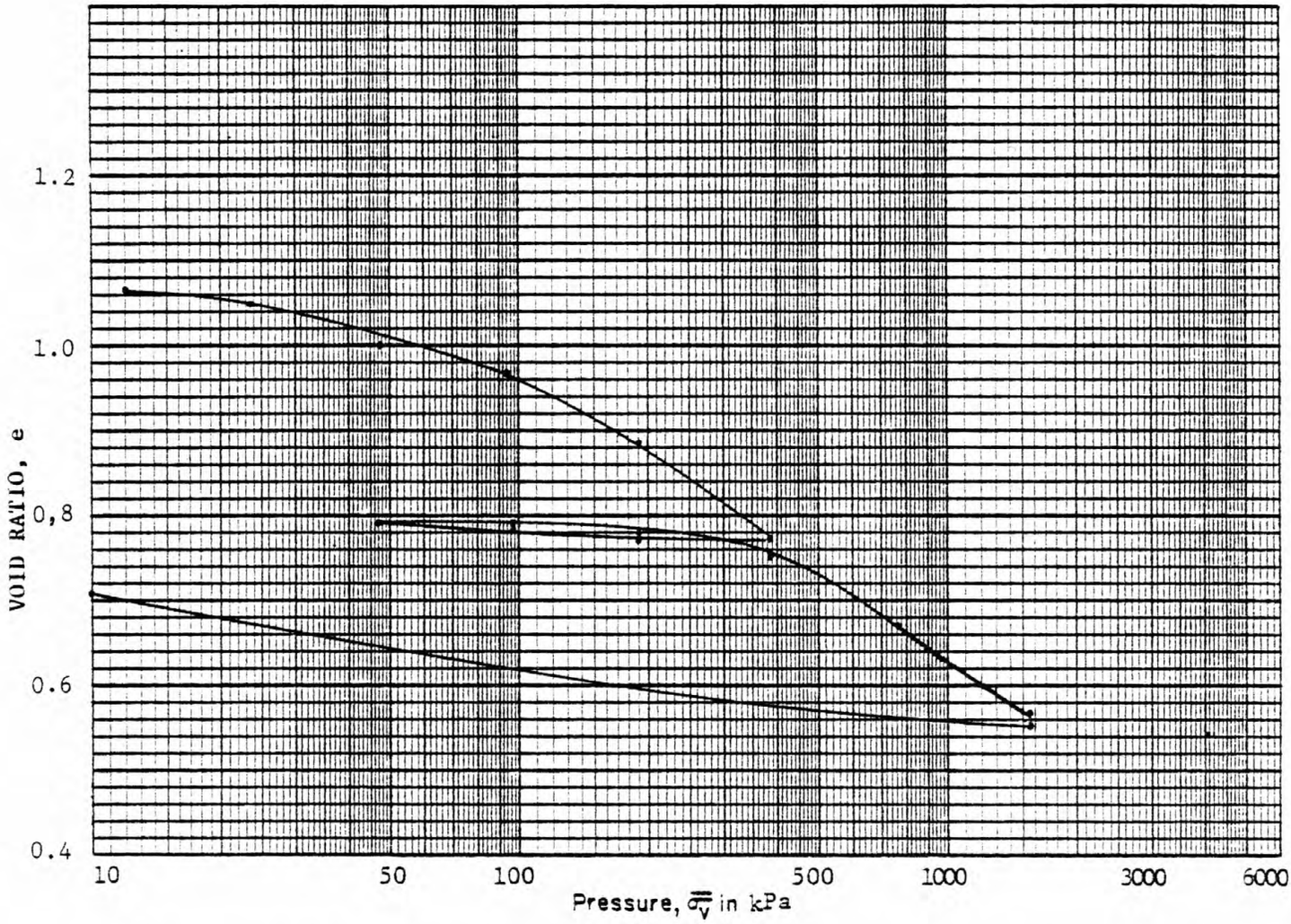
Boring No: CD-13			Sample No: PC-15		Depth, cms 293-307			
Material: Dark gray silty clay								
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	63.5	16.41	1.654	100.00	2.225	6.337	2.71	48	22
Final	37.8	-	.988	100.00	1.666				

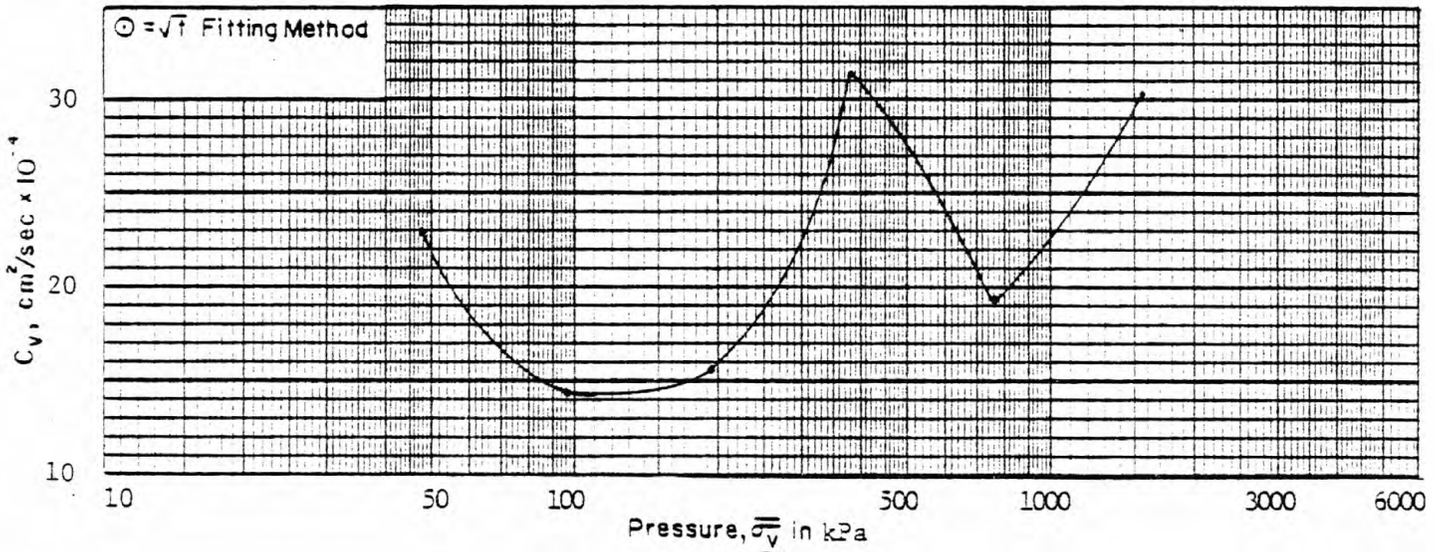




CONSOLIDATION TEST

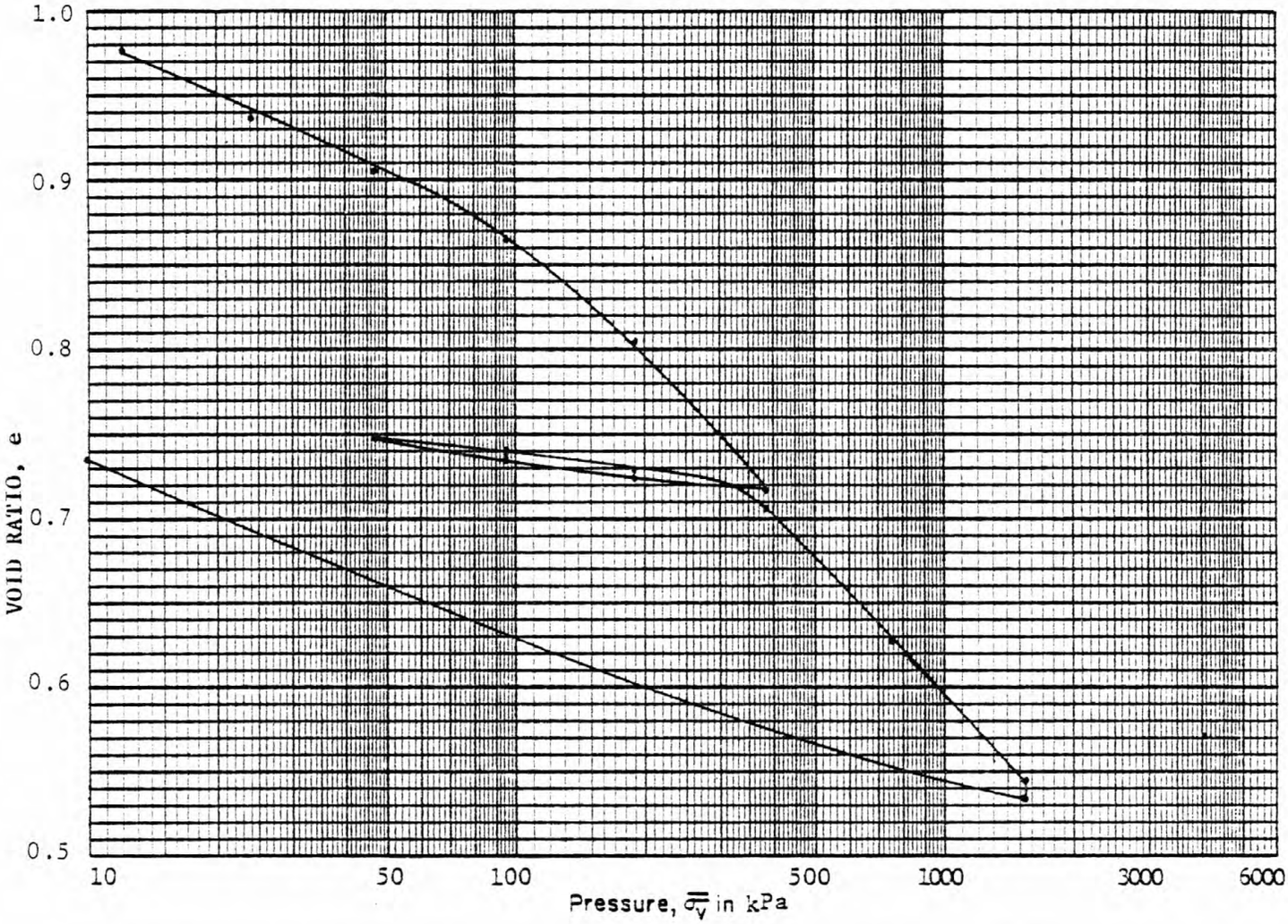
Boring No: CD-13		Sample No: PC-15		Depth, cms 650-665				
Material: Gray sandy silty clay								
	Water Content,%	Total Unit Wgt. kN/m³	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	42.1	18.11	1.085	100.00	2.225	6.337	2.70	34	19
Final	27.2	-	.710	100.00	1.824				

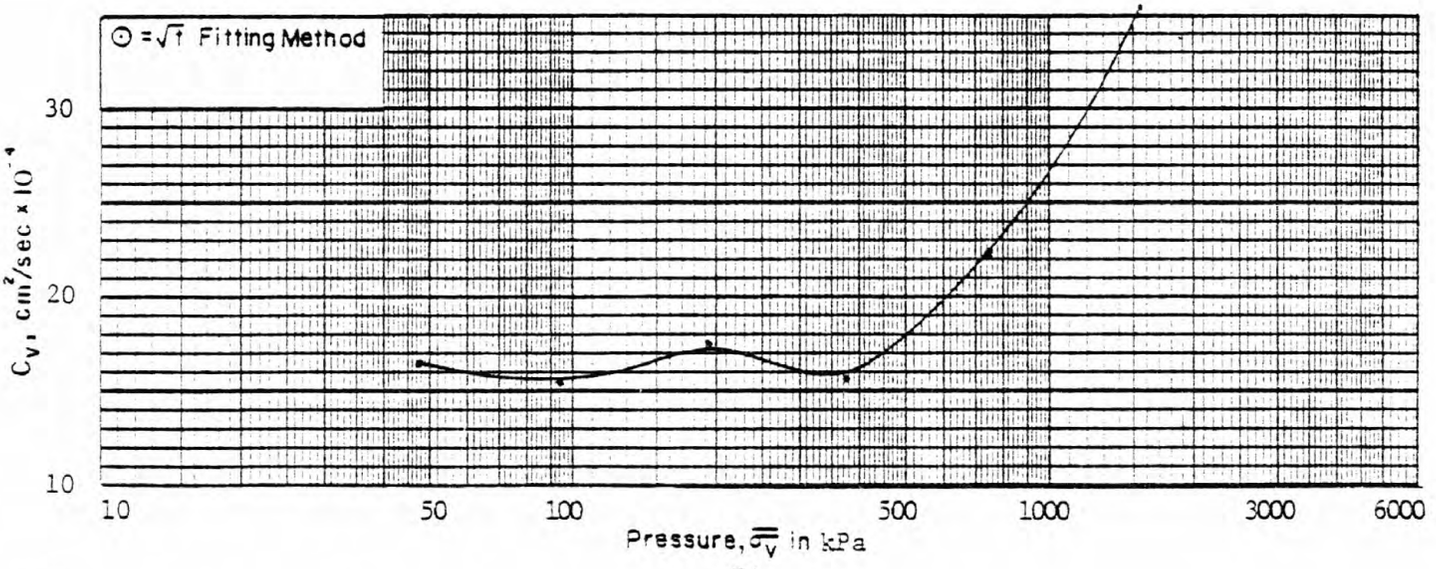




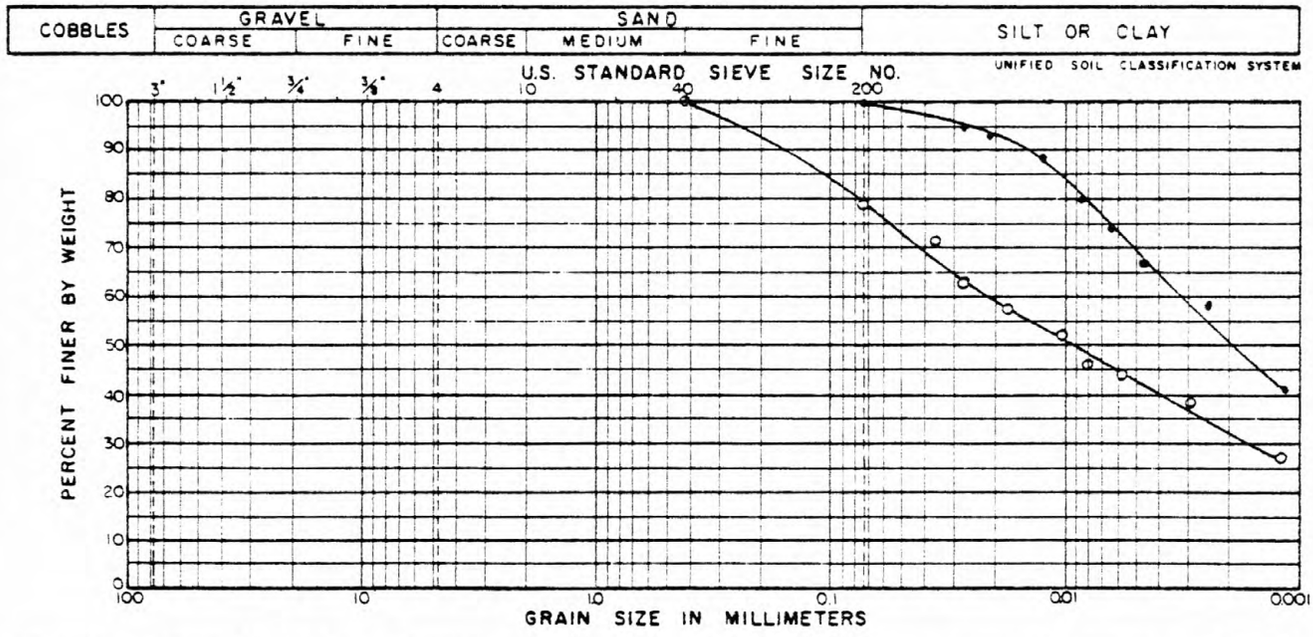
CONSOLIDATION TEST

Boring No: CD-13			Sample No: PC-15		Depth, cms 747-762			
Material: Gray sandy silty clay								
	Water Content,%	Total Unit Wgt. kN/m^3	Void Ratio	Saturation, %	Height, cms	Diameter, cms	Specific Gravity	Liquid Limit, %	Plastic Limit, %
Initial	39.1	18.69	.982	100.00	2.225	6.337	2.71	33	16
Final	29.5	-	.735	100.00	1.948				

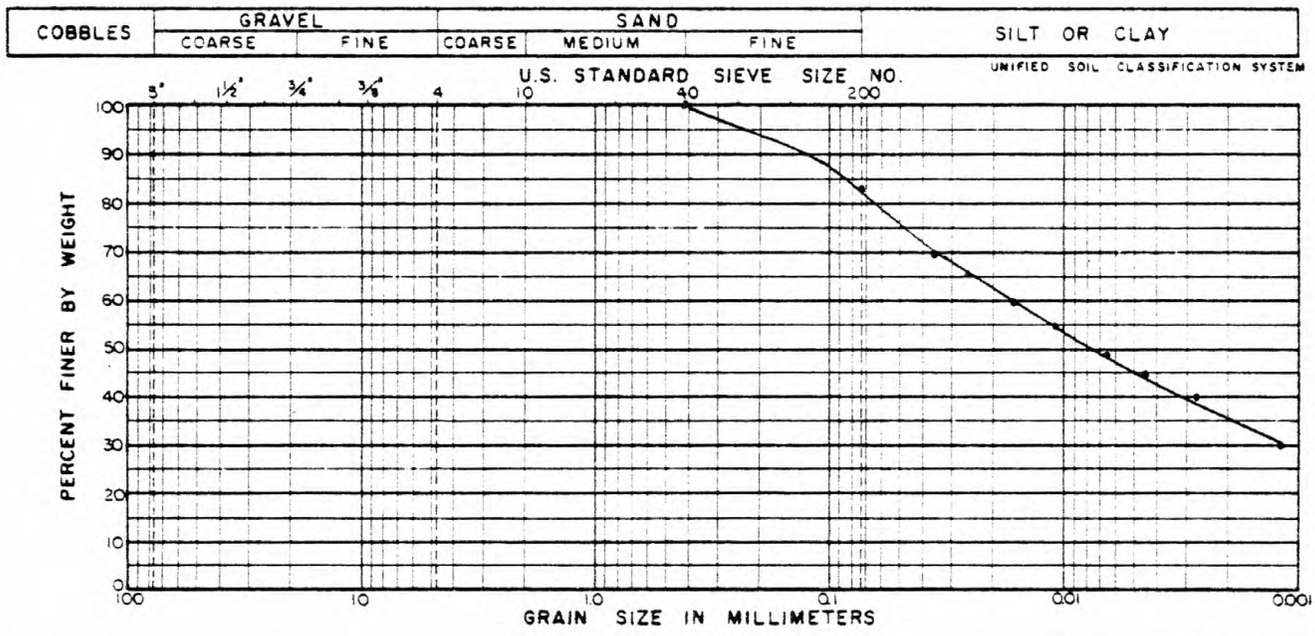




MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	PC15	293-308	•	Gray silty clay	64	48	22
CD13	PC15	650-665	o	Gray fine sandy silty clay	42	34	19



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	PC15	747-762	•	Gray fine sandy silty clay	39	33	16

JOB NO. 79 C 01221

RP-G

APPENDIX

B

NORMALIZED STRESS PARAMETERS (NSP) TESTS

SUMMARY OF LABORATORY TEST RESULTS

BORING and SAMPLE No	DEPTH - feet CM	CLASSIFICATION	OCR	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS		UNICON COMPRESS		UNIT DRY WGT kN/m³	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			UU	*CIU	CELL PRESSURE (psi)	B
CD-1 PC-5	163-203		8	58.2	54	26			10.50	2.67								.970
			4	55.4	55	25			10.84	2.72								.975
			1	59.1	55	26			10.37	2.72								.970
CD-1 PC-5	626-666		4	56.3	50	22			10.32	2.72								.998
			2	54.2	48	26			10.60	2.75								1.00
			1	62.6	49	24			10.19	2.73								.995
CD-4 PC-3	390-430		8	64.9	52	27			9.84	2.68								.950
			4	63.7	55	25			9.87	2.69								.960
			1	66.4	55	26			9.66	2.68								.960
CD-4 PC-3	654-694		4	59.6	61	27			10.23	2.73								.998
			2	61.1	60	26			9.78	2.72								1.000
			1	56.0	56	26			10.65	2.72								.998
CD-5 PC-4	332-372		8	63.8	57	27			9.95	2.70								.965
			4	66.0	58	23			9.73	2.65								.950
			1	66.0	64	27			9.72	2.67								.970

* See Test Curves

NORMALIZED STRESS PARAMETERS (NSP) TESTS

SUMMARY OF LABORATORY TEST RESULTS

BORING and SAMPLE No	DEPTH - feet	CLASSIFICATION	OCR	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS		UNICON. COMPRESS		UNIT DRY WGT kN/m³	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			UU	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-5 PC-4	585-625		4	65.1	57	26			9.88	2.74								.950
			2	55.2	61	34			10.32	2.75								.950
			1	62.1	60	25			10.15	2.73								.950
CD-6 PC-9	312-353		8	61.5	56	26			10.15	2.71								.950
			4	68.3	57	27			9.48	2.69								.978
			1	64.5	61	25			9.80	2.68								.950
CD-6 PC-9	753-793		4	60.4	64	25			10.24	2.73								.998
			2	59.8	57	26			10.37	2.71								.950
			1	60.5	60	30			10.27	2.70								.950
CD-7 PC-10	329-369		8	66.3	54	25			9.73	2.72								.950
			4	65.4	24	24			9.75	2.70								.955
			1	67.9	56	27			9.64	2.72								.960
CD-7 PC-10	742-782		4	49.1	48	29			11.57	2.75								.950
			2	50.4	47	26			11.50	2.75								.973
			1	50.5	48	29			11.45	2.73								.998

* See Test Curves

NORMALIZED STRESS PARAMETERS (NSP) TESTS

SUMMARY OF LABORATORY TEST RESULTS

BORING and SAMPLE No	DEPTH - feet	CLASSIFICATION	OCR	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS		UNCON COMPRESS		UNIT DRY WGT kN/m3	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			U.U.	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-9 PC-7	393-433		4	37.8	56	24			12.82	2.75								.950
			2	33.5	52	22			13.97	2.73								.987
			1	38.5	61	23			12.45	2.73								.950
CD-10 PC-11	483-523		4	41.7	37	20			12.60	2.71								.950
			2	39.5	33	17			13.09	2.72								.950
			1	40.5	40	20			12.71	2.72								.975
CD-10 PC-11	784-824		4	47.9	47	24			11.74	2.71								.950
			2	48.7	47	24			11.49	2.71								.950
			1	46.7	43	24			11.81	2.71								.975
CD-11 PC-12	472-512		4	52.6	48	21			11.27	2.67								.980
			2	56.2	49	23			10.85	2.73								.950
			1	45.0	41	21			12.21	2.72								.950
CD-11 PC-12	720-760		4	56.3	54	25			10.77	2.73								.985
			2	56.1	52	24			10.75	2.69								.970
			1	59.5	54	27			10.39	2.72								.979

* See Test Curves

NORMALIZED STRESS PARAMETERS (NSP) TESTS

SUMMARY OF LABORATORY TEST RESULTS

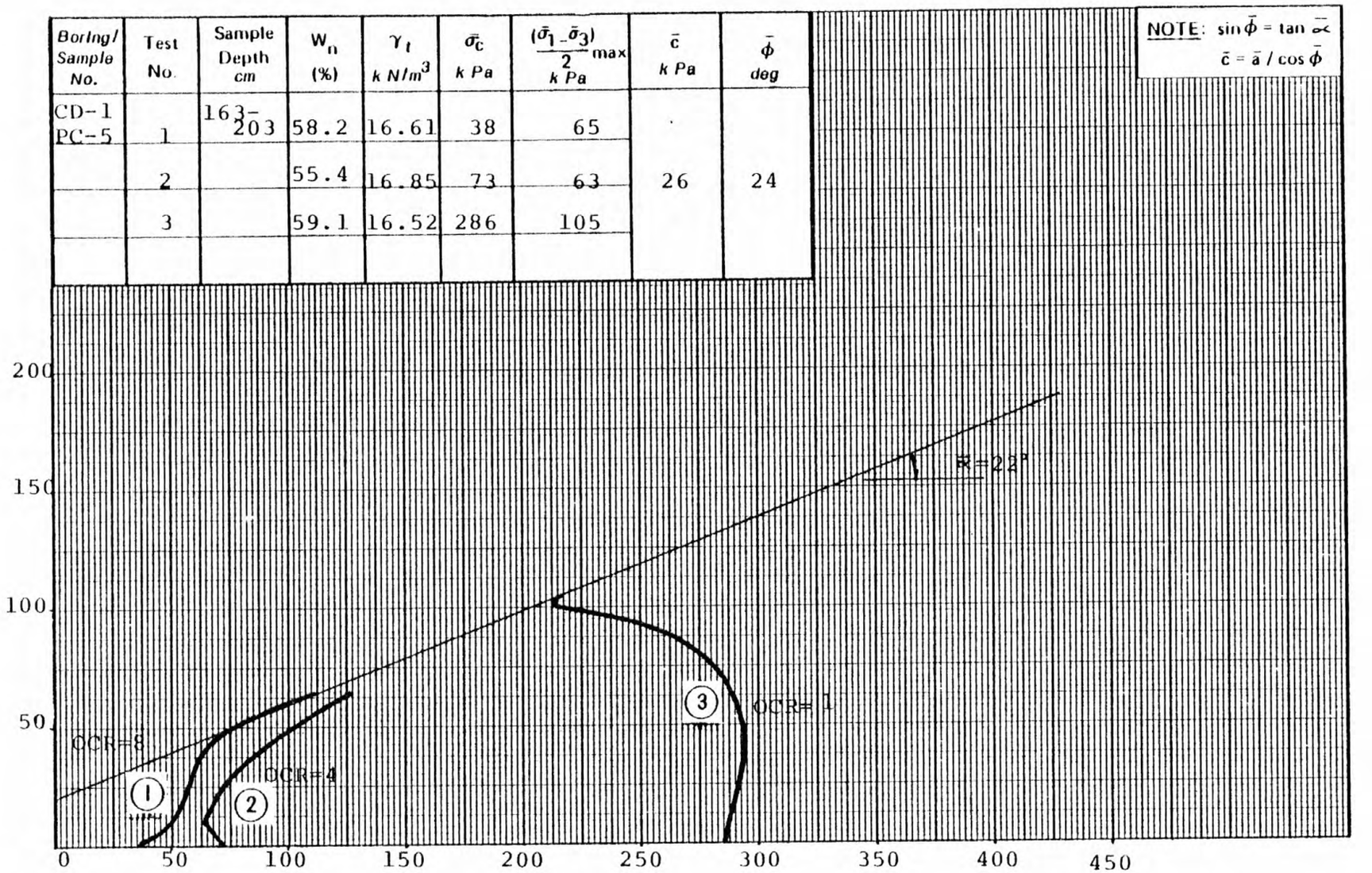
BORING and SAMPLE No	DEPTH - feet	CLASSIFICATION	OCR	NATURAL WATER CONTENT (%)	AFTERBERG LIMITS		UNCON. COMPRESS		UNIT DRY WGT kN/m^3	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			UU	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-12 PC-14	407-447		8	36.5	27	14			13.59	2.69								.950
			4	32.0	27	15			14.58	2.72								.950
			1	33.0	25	14			14.21	2.75								.955
CD-12 PC-14	470-510		4	35.0	27	16			13.90	2.71								.950
			2	33.1	27	18			14.49	2.74								.950
			1	33.2	39	21			14.47	2.74								.950
CD-13 PC-15	477-519		8	37.2	32	16			13.52	2.68								.950
			4	36.8	30	16			13.54	2.71								.950
			1	35.0	25	15			13.78	2.73								.970
CD-13 PC-15	770-810		4	32.1	30	16			14.41	2.75								.970
			2	35.5	34	19			13.75	2.73								1.00
			1	35.3	34	18			13.81	2.74								.970

* See Test Curves

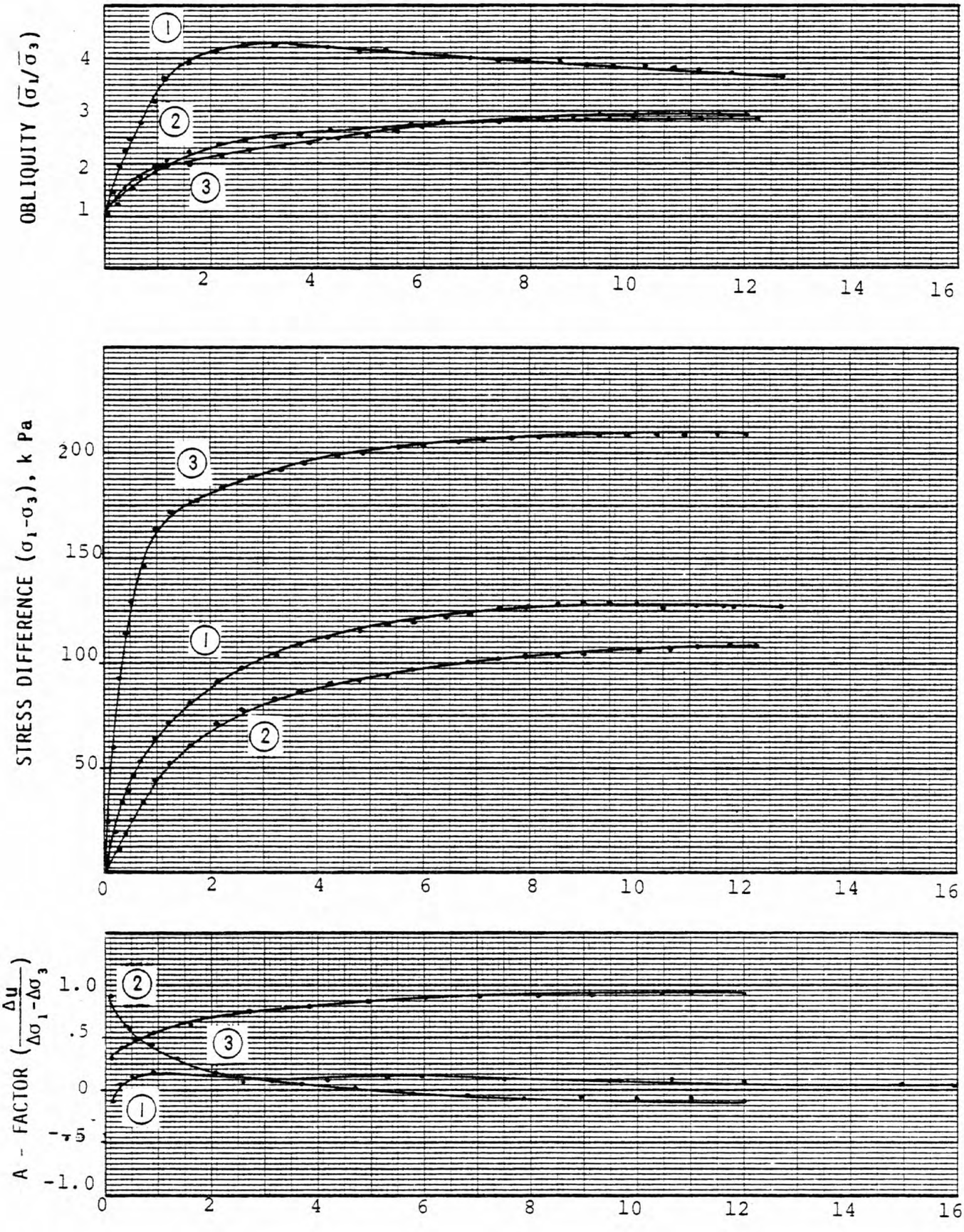
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-1 PC-5	1	163-203	58.2	16.61	38	65		
	2		55.4	16.85	73	63	26	24
	3		59.1	16.52	286	105		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

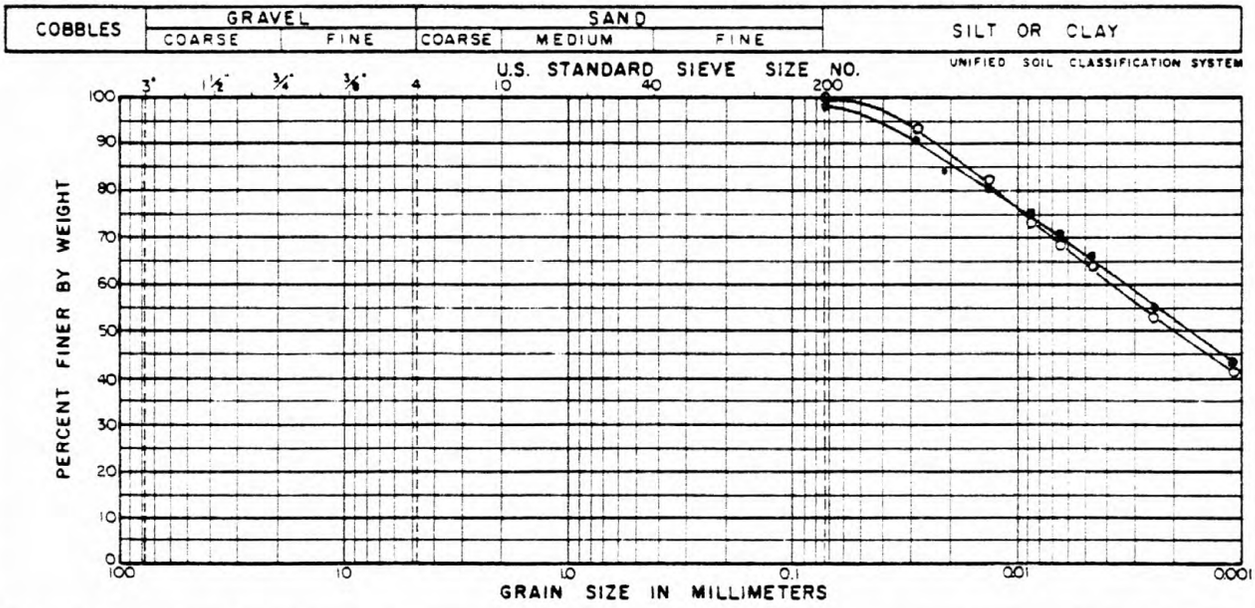
$\bar{c} = \bar{a} / \cos\bar{\phi}$



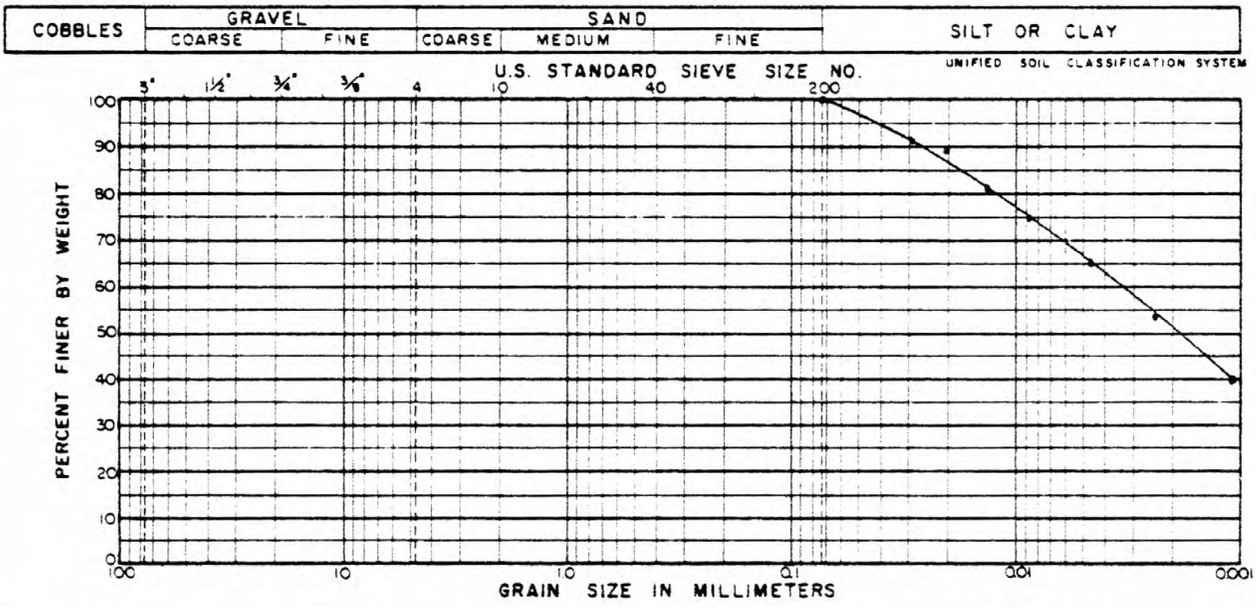
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ),%
1
2
3
4
6
8
10
12
14
16
50
100
150
200
0
.5
-.5
-1.0

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-1	1	163-203	•	Gray Silty Clay	58.2	54	26
CD-1	2	163-203	○	Gray Silty Clay	55.4	55	25



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-1	3	163-203	•	Gray Silty Clay	59.1	55	26

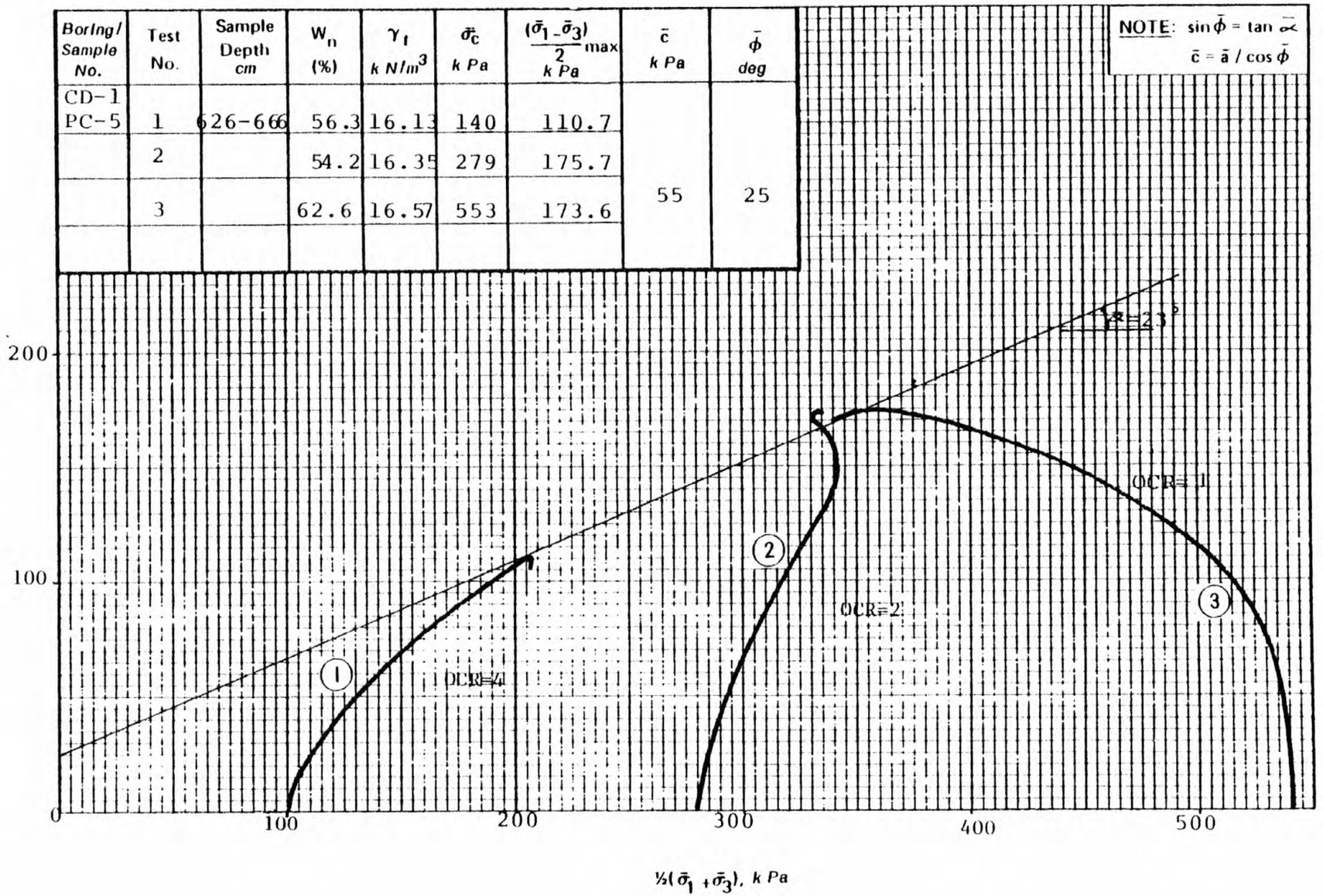
JOB NO.

WG RP-G

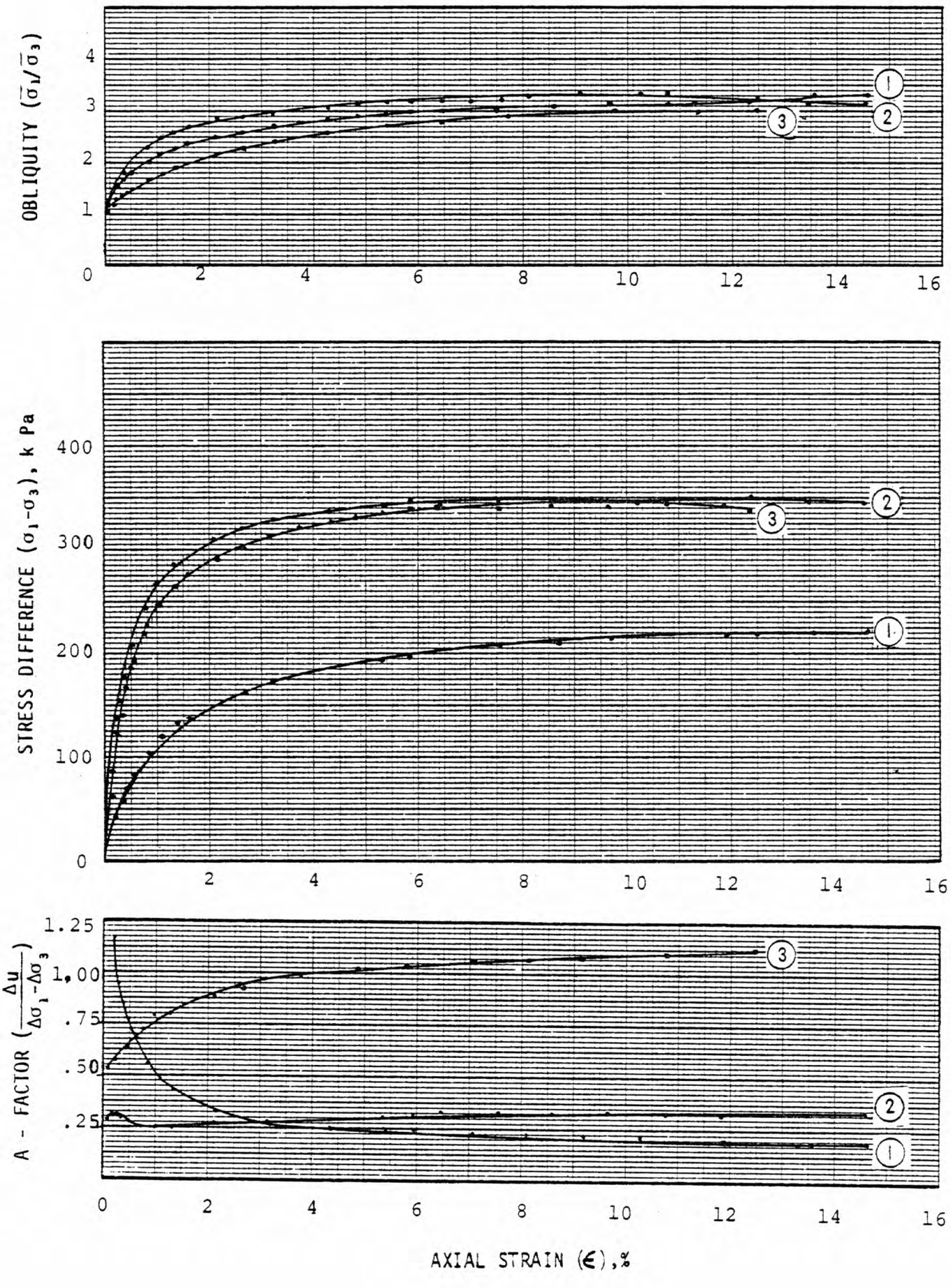
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m^3	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-1 PC-5	1	626-666	56.3	16.13	140	110.7	55	25
	2		54.2	16.35	279	175.7		
	3		62.6	16.57	553	173.6		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

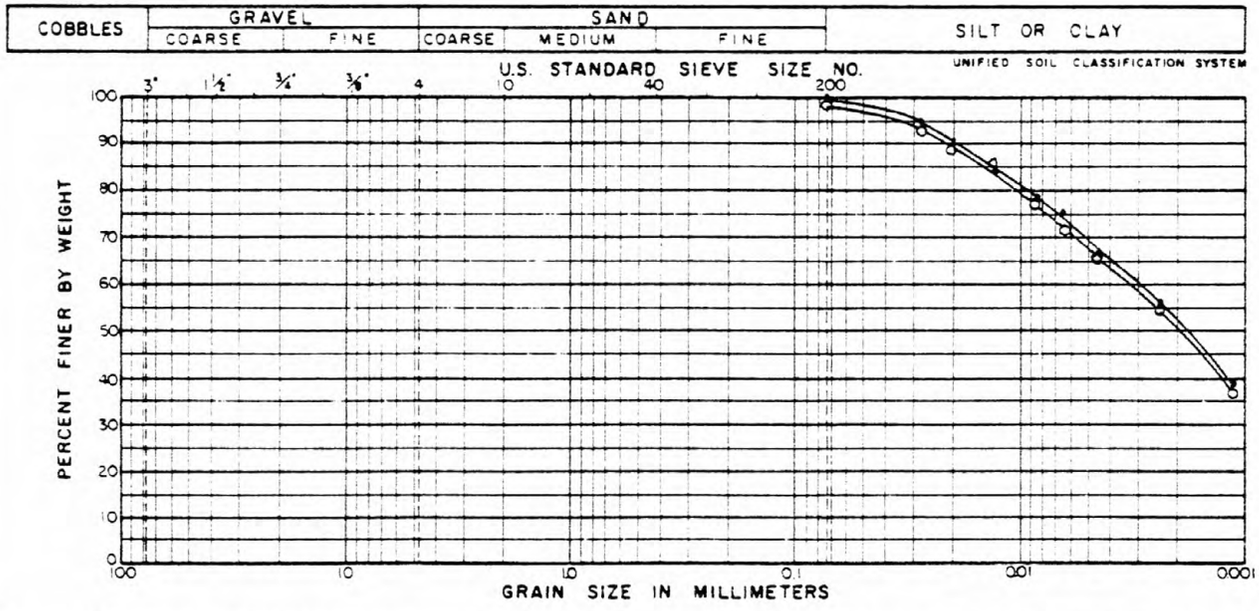
$\bar{c} = \bar{a} / \cos\bar{\phi}$



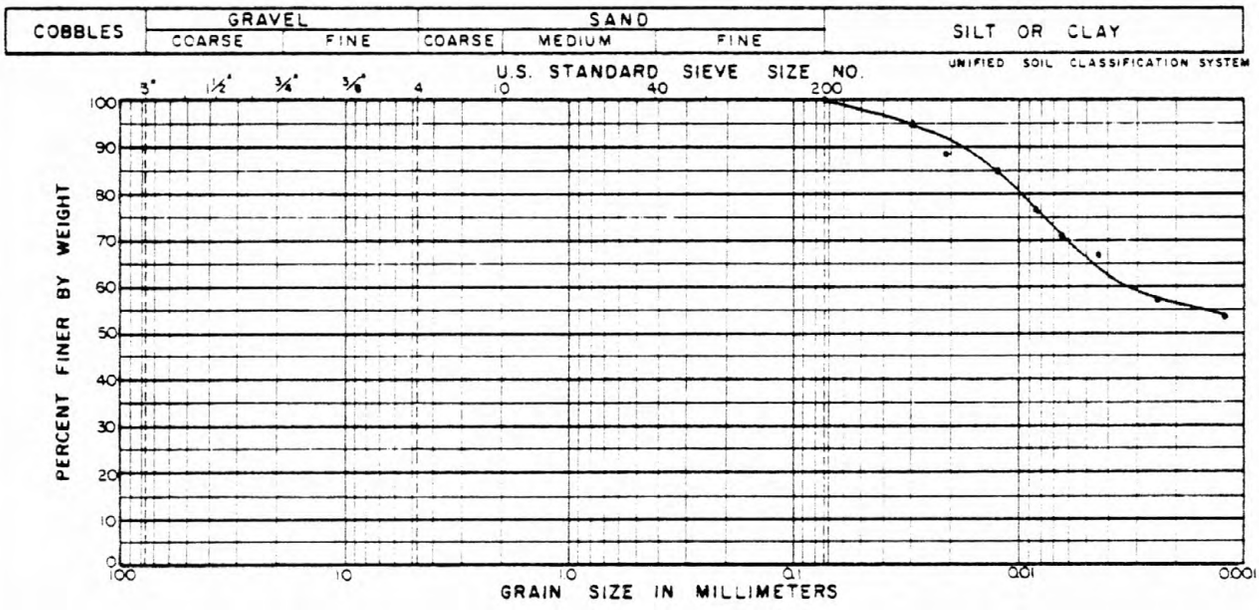
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
0
1
2
3
4
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
0
100
200
300
400
2
4
6
8
10
12
14
16
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
.25
.50
.75
1.00
1.25
0
2
4
6
8
10
12
14
16
3
2
1
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-1	1	626-666	•	Gray Silty Clay	56.3	50	22
CD-1	2	626-666	○	Gray Silty Clay	54.2	48	26



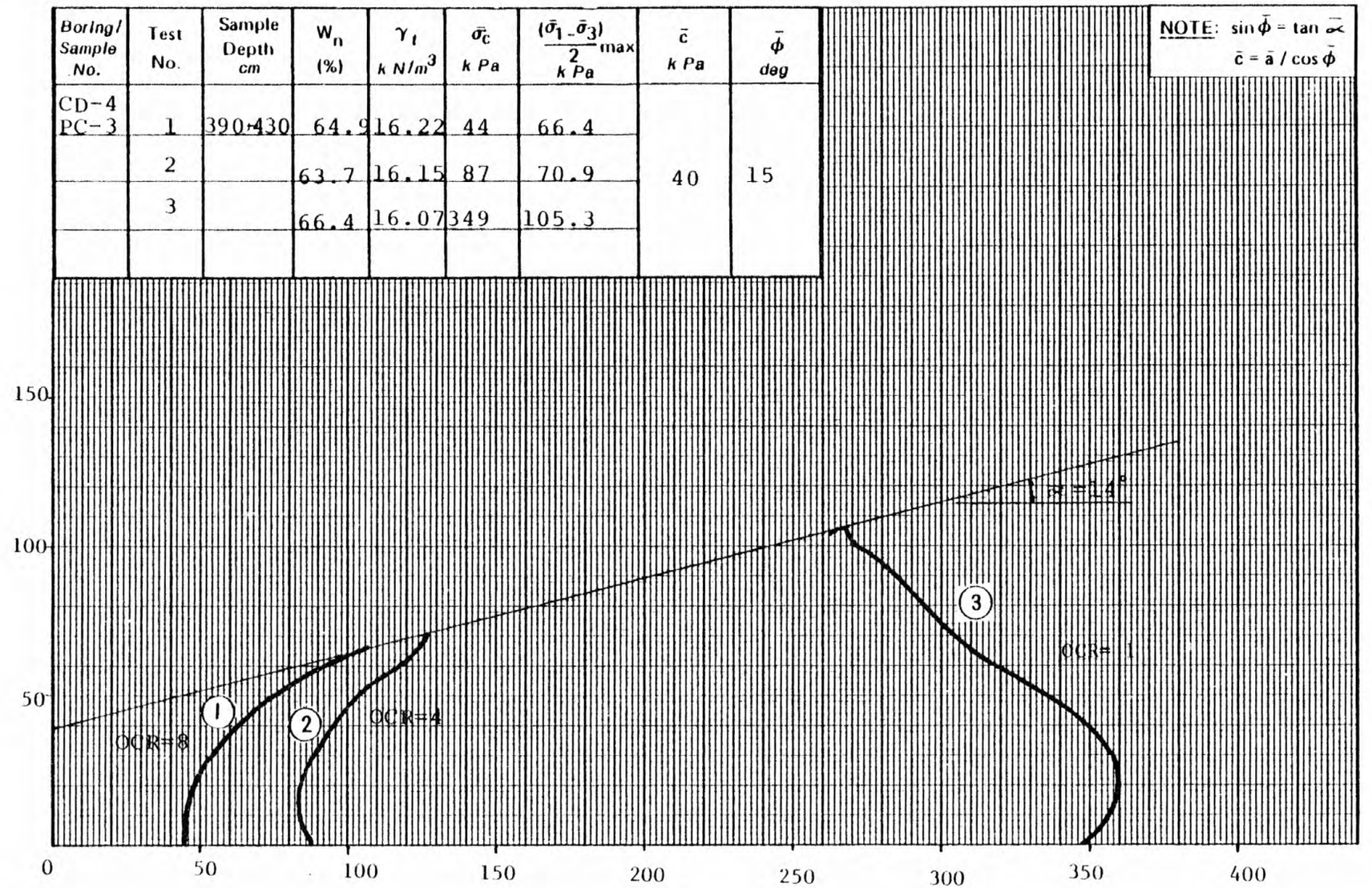
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-1	3	626-666	•	Gray Silty Clay	62.6	49	24

JOB NO.

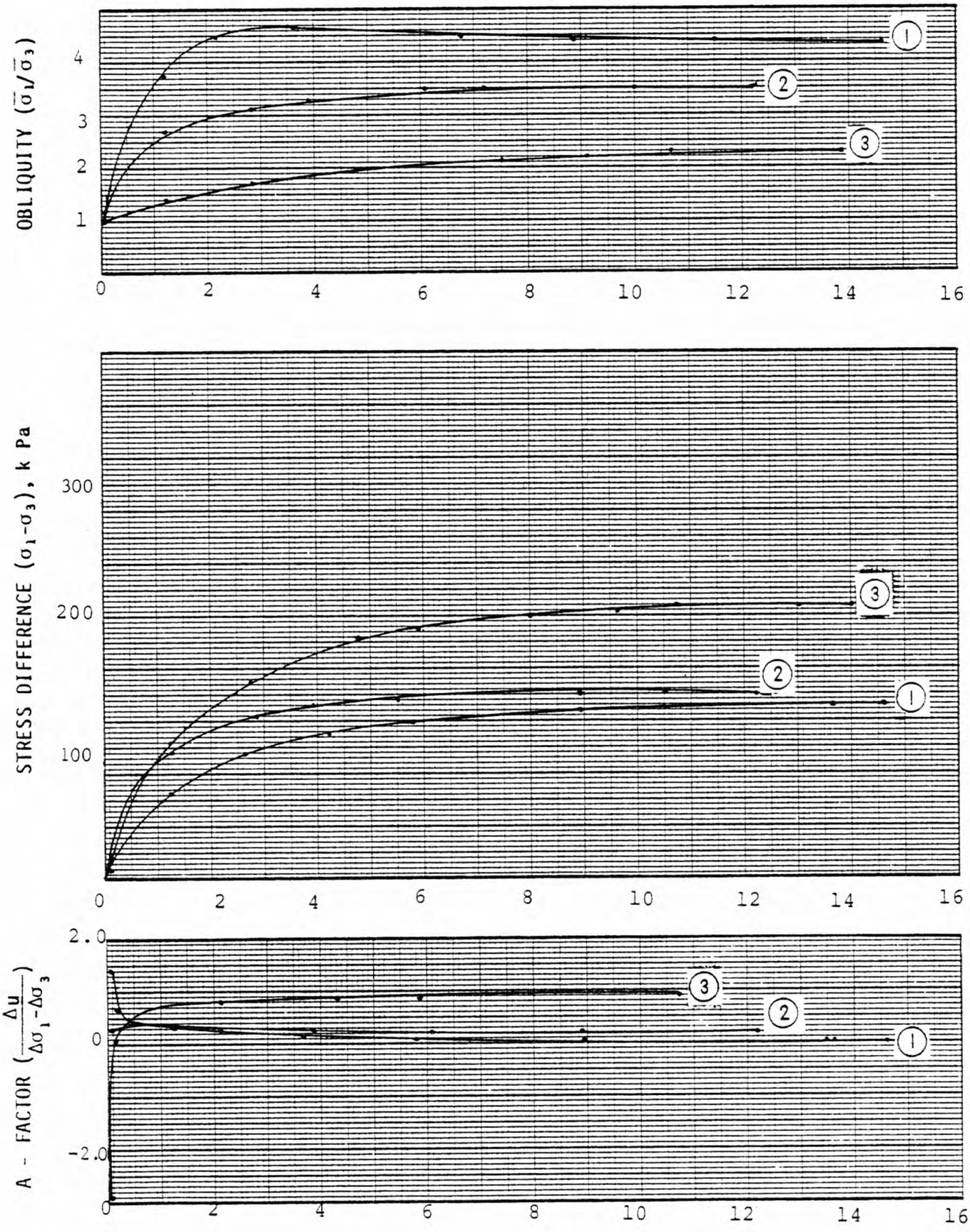
WG RP-G

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-4 PC-3	1	390-430	64.9	16.22	44	66.4	40	15
	2		63.7	16.15	87	70.9		
	3		66.4	16.07	349	105.3		

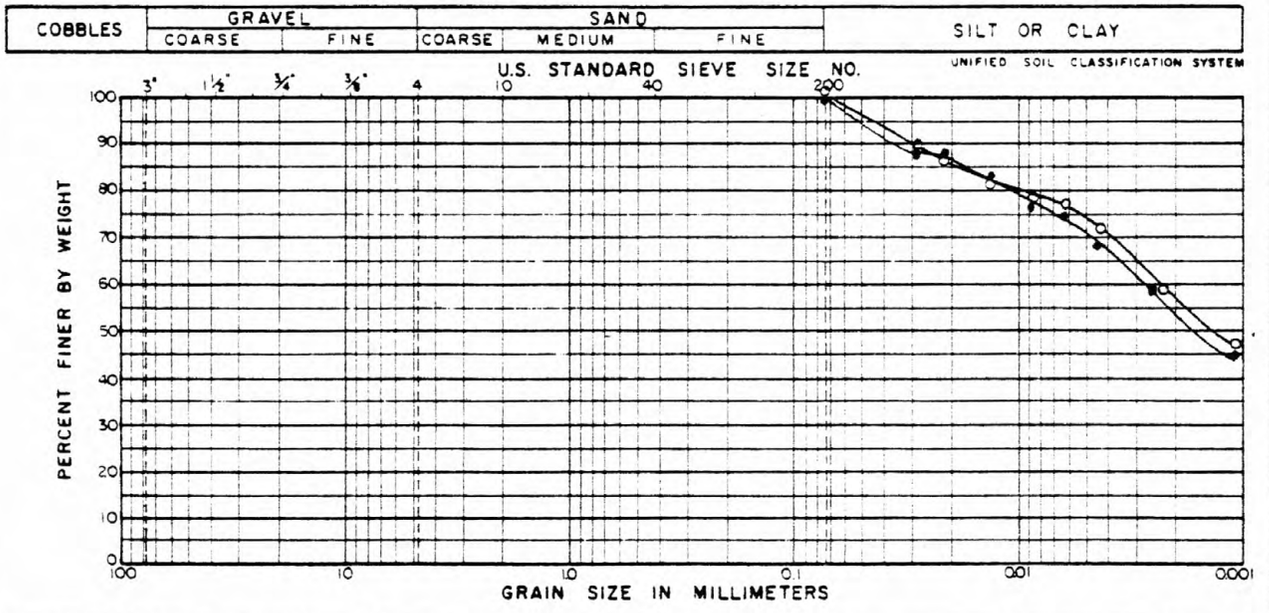
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$, $\bar{c} = \bar{a} / \cos\bar{\phi}$



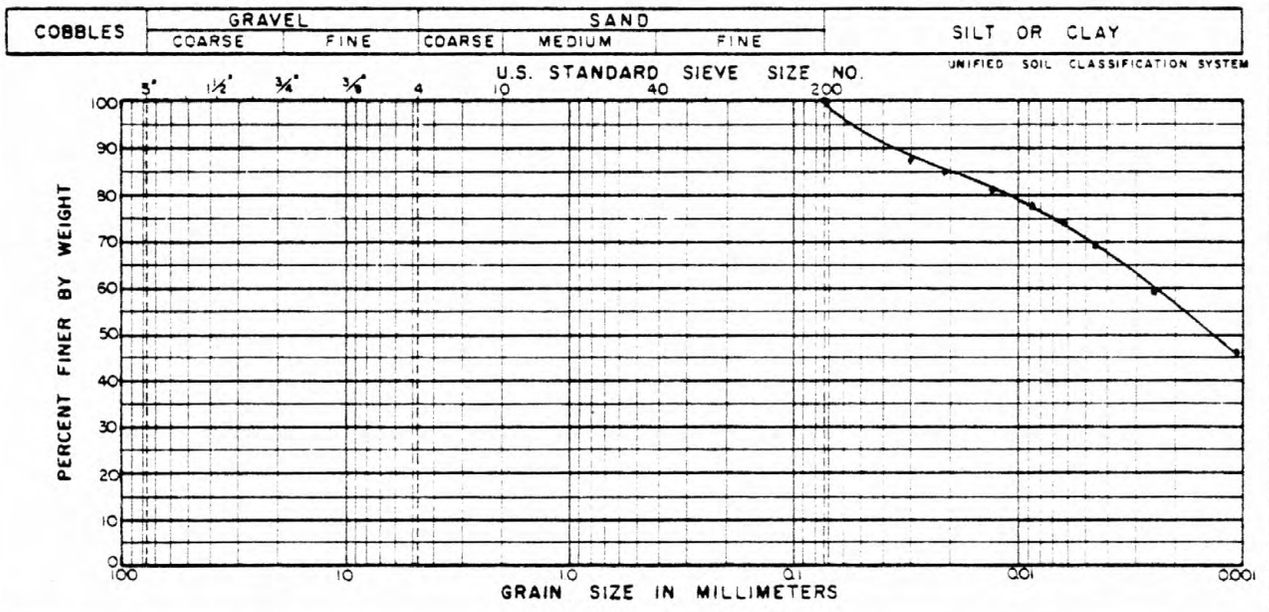
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
4
3
2
1
0
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
300
200
100
0
2
4
6
8
10
12
14
16
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
2.0
0
-2.0
0
2
4
6
8
10
12
14
16
3
2
1
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD4	1	390-430	•	Gray Silty Clay	64.9	52	27
CD4	2	390-430	o	Gray Silty Clay	63.7	55	25



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD4	3	390-430	•	Gray Silty Clay	66.4	55	26

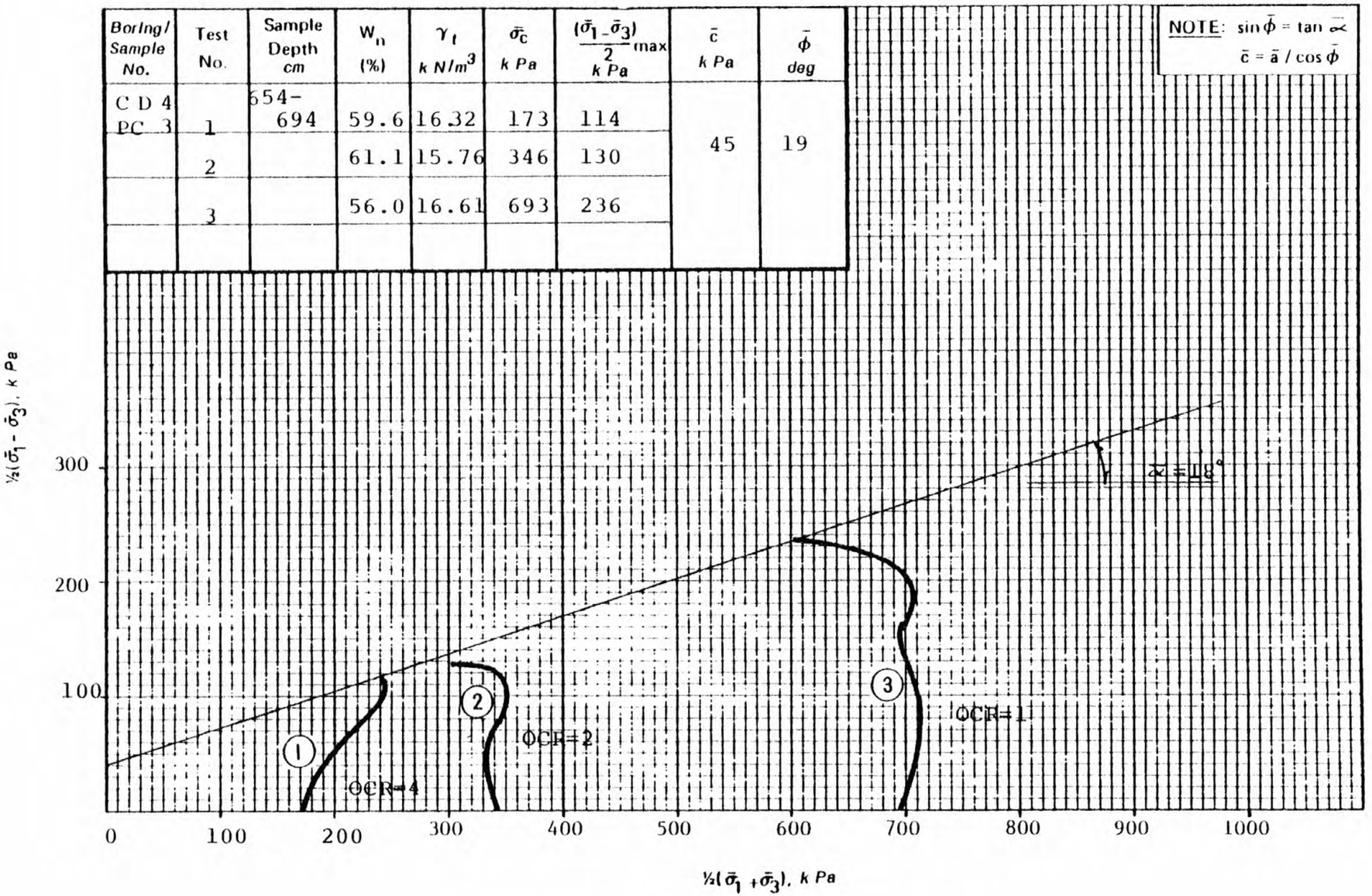
JOB NO.

WG RP-G

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t k N/m^3	$\bar{\sigma}_c$ k Pa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ k Pa	$\bar{c}$ k Pa	$\bar{\phi}$ deg
C D 4 PC 3	1	654–694	59.6	16.32	173	114	45	19
	2		61.1	15.76	346	130		
	3		56.0	16.61	693	236		

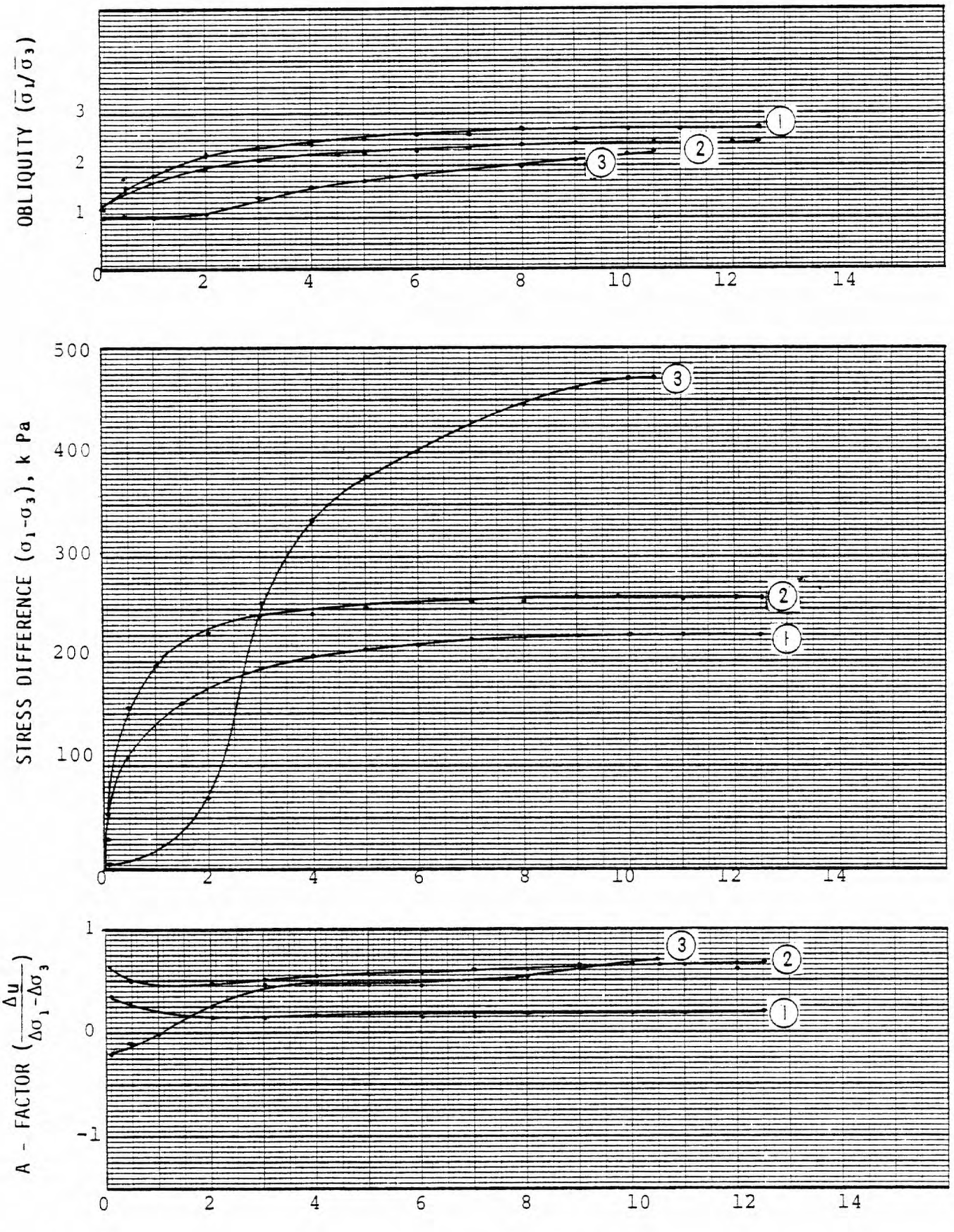
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$

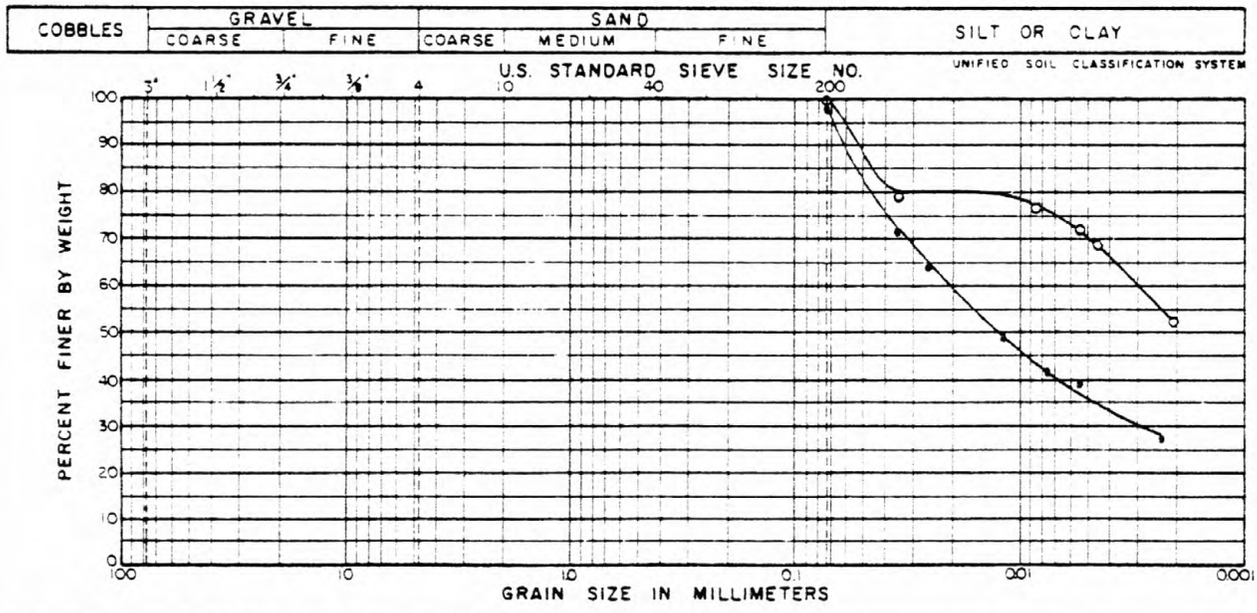


STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS

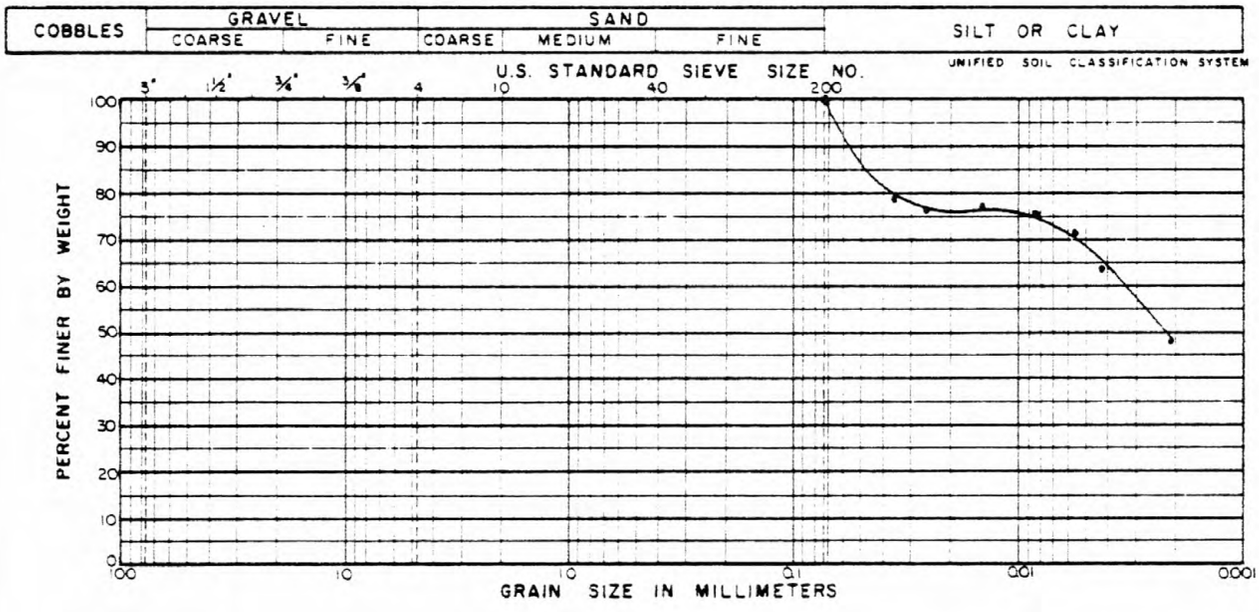
NSP APPROACH


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
0
1
2
3
2
4
6
8
10
12
14
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
100
200
300
400
500
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
-1
0
1
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-4	1	654-694	•	Gray Silty Clay	59.6	61	27
CD-4	2	654-694	°	Gray Silty Clay	61.1	60	26



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-4	3	654-694	•	Gray Silty Clay	56.0	56	26

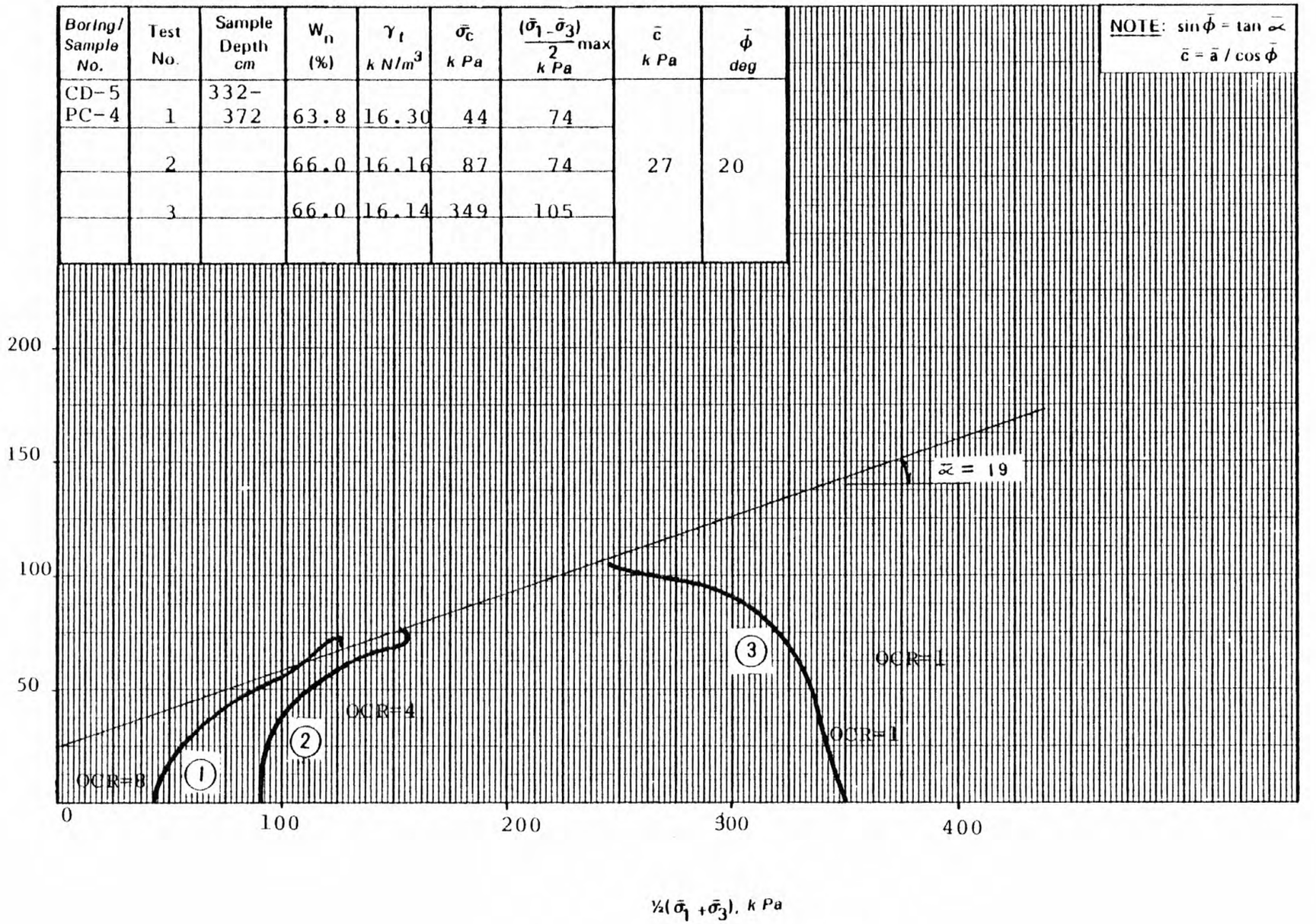
JOB NO.

WG RP-G

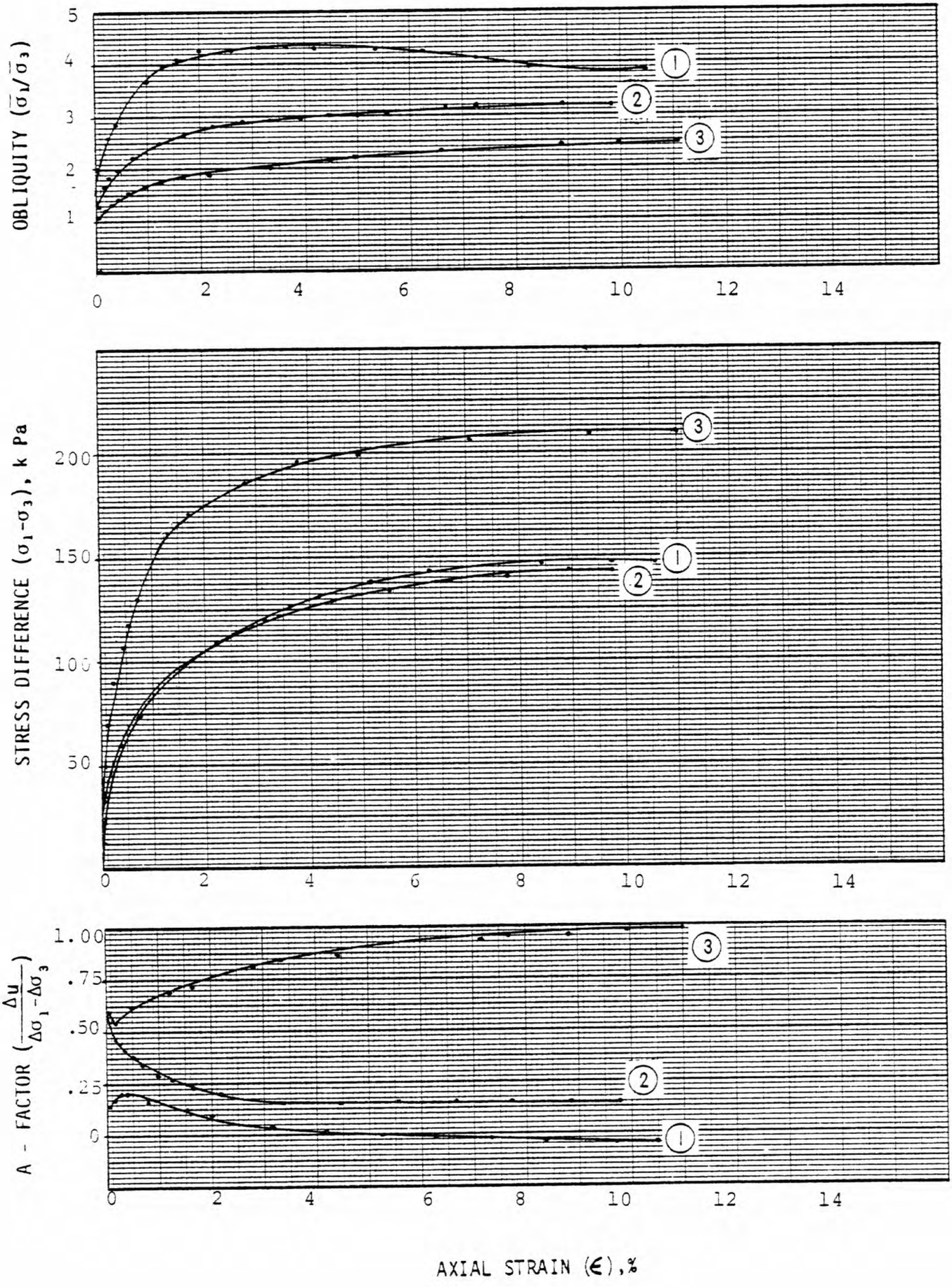
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t k N/m^3	$\bar{\sigma}_c$ k Pa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ k Pa	$\bar{c}$ k Pa	$\bar{\phi}$ deg
CD-5 PC-4	1	332-372	63.8	16.30	44	74		
	2		66.0	16.16	87	74	27	20
	3		66.0	16.14	349	105		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

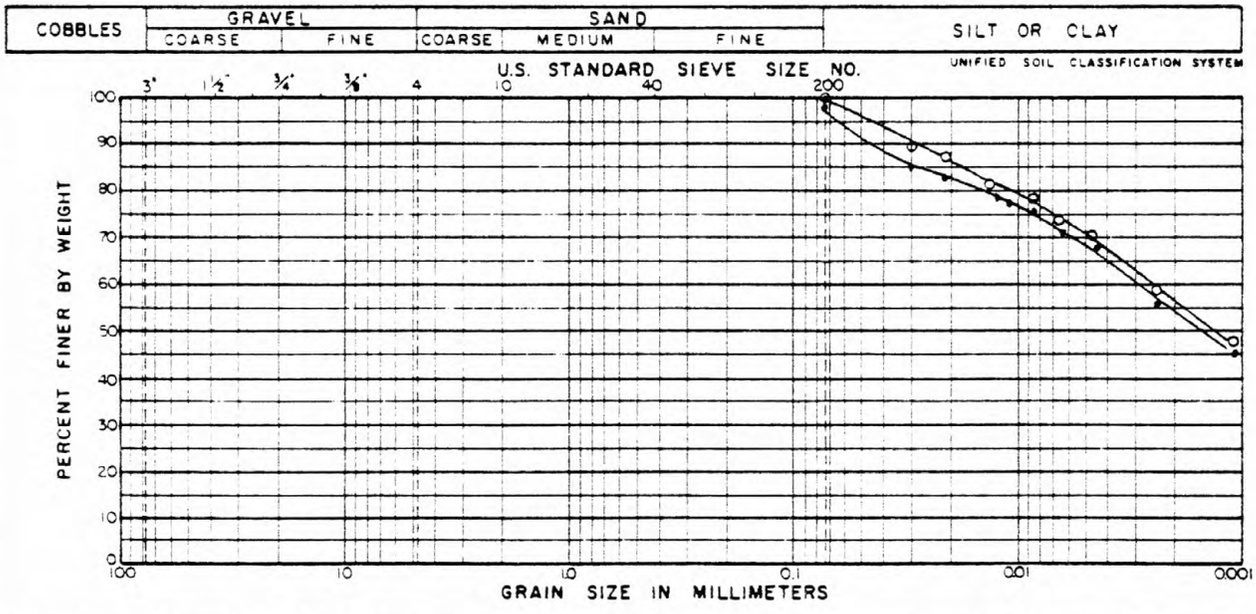
$\bar{c} = \bar{a} / \cos\bar{\phi}$



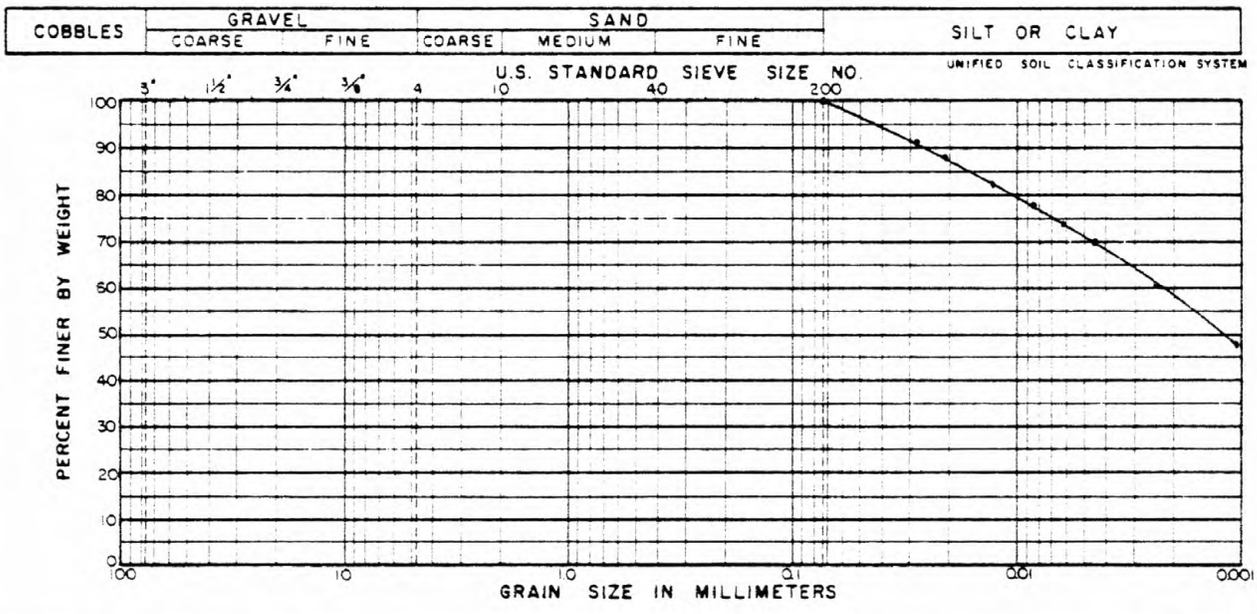
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
5
4
3
2
1
0
2
4
6
8
10
12
14
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
200
150
100
50
0
2
4
6
8
10
12
14
3
1
2
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
1.00
.75
.50
.25
0
0
2
4
6
8
10
12
14
3
2
1
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-5	1	332-372	•	Gray Silty Clay	63.8	57	27
CD-5	2	332-372	▪	Gray Silty Clay	66.0	58	23



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-5	3	332-372	*	Gray Silty Clay	66.0	64	27

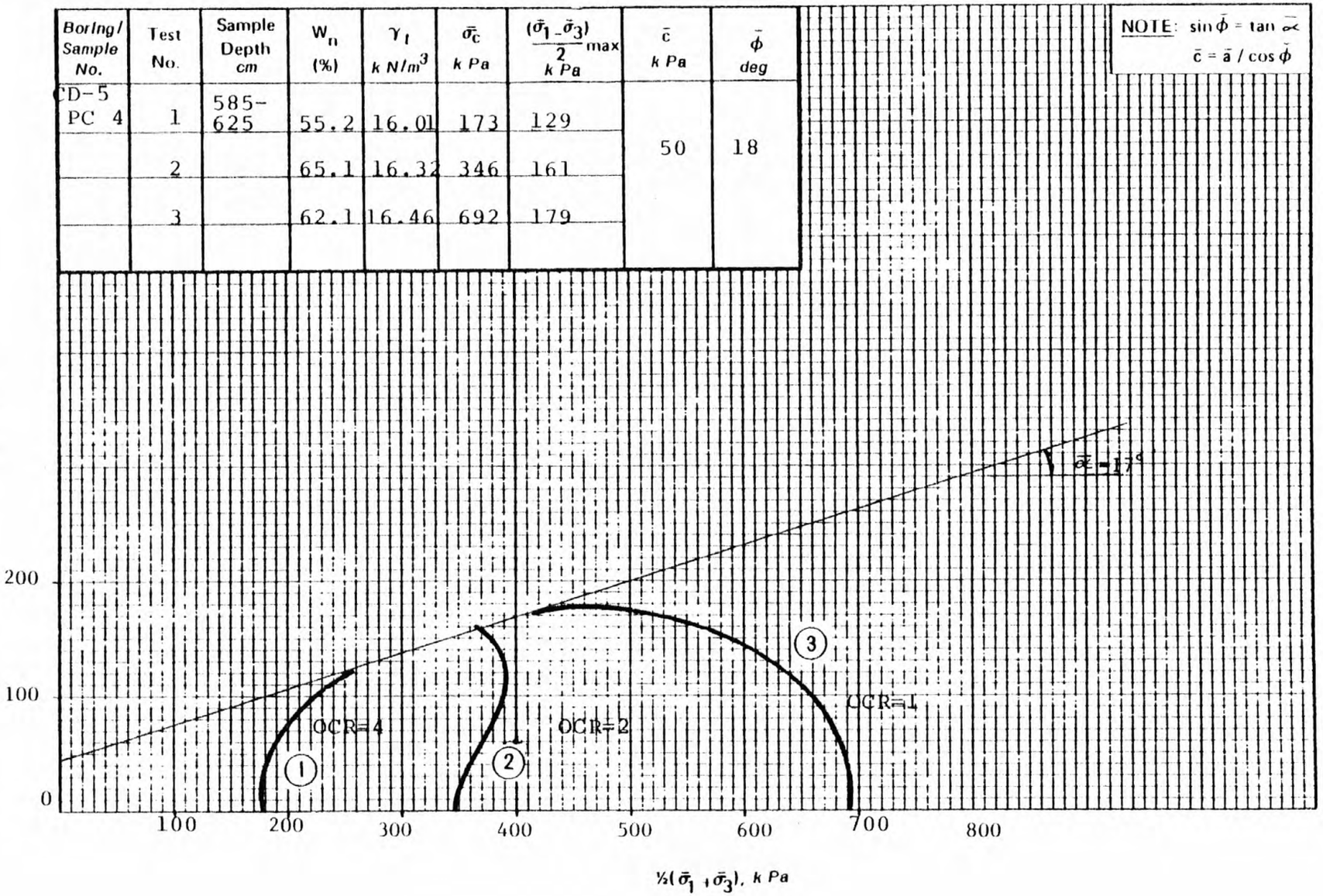
JOB NO. 79 C01221

WG RP-G

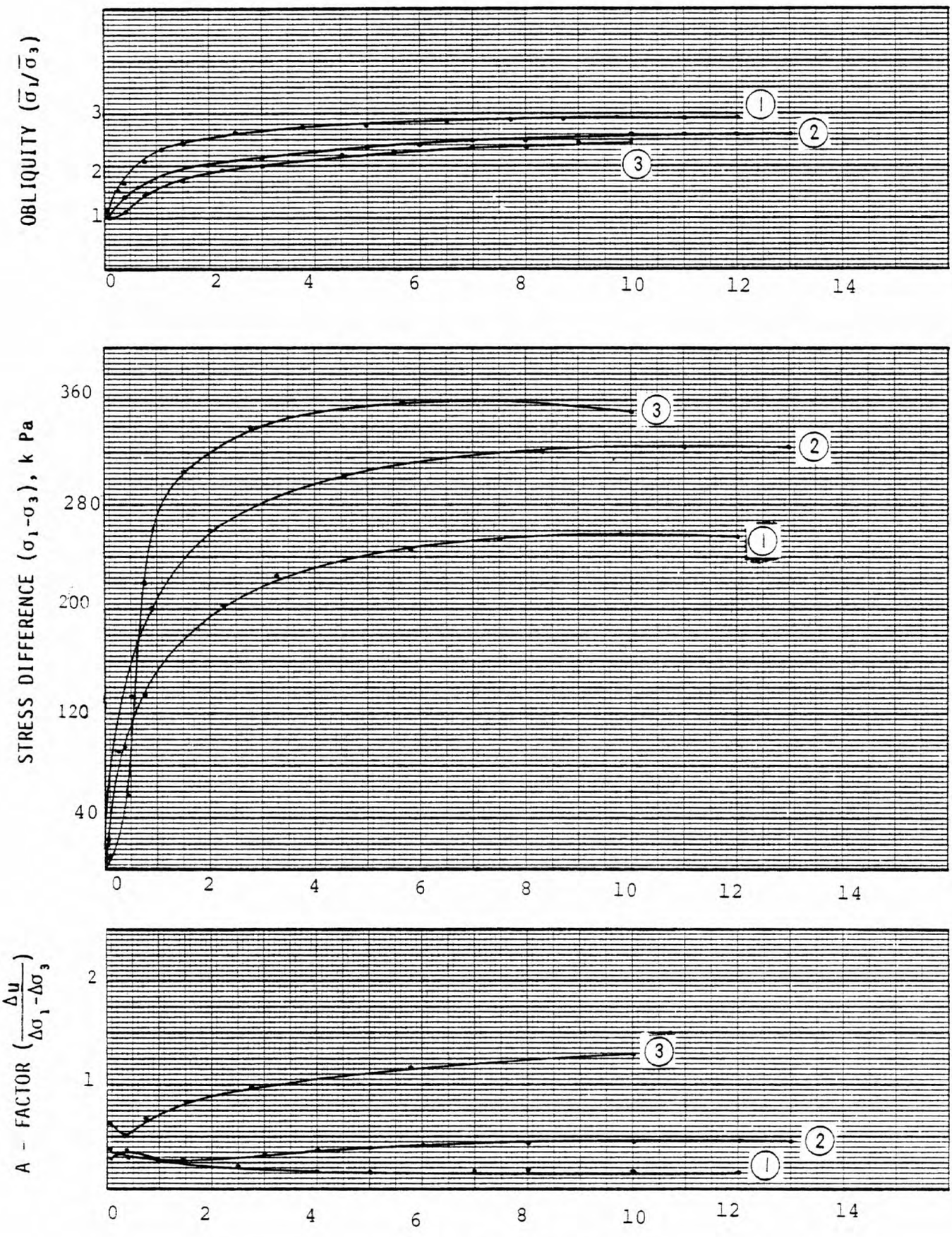
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-5 PC 4	1	585-625	55.2	16.01	173	129	50	18
	2		65.1	16.32	346	161		
	3		62.1	16.46	692	179		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

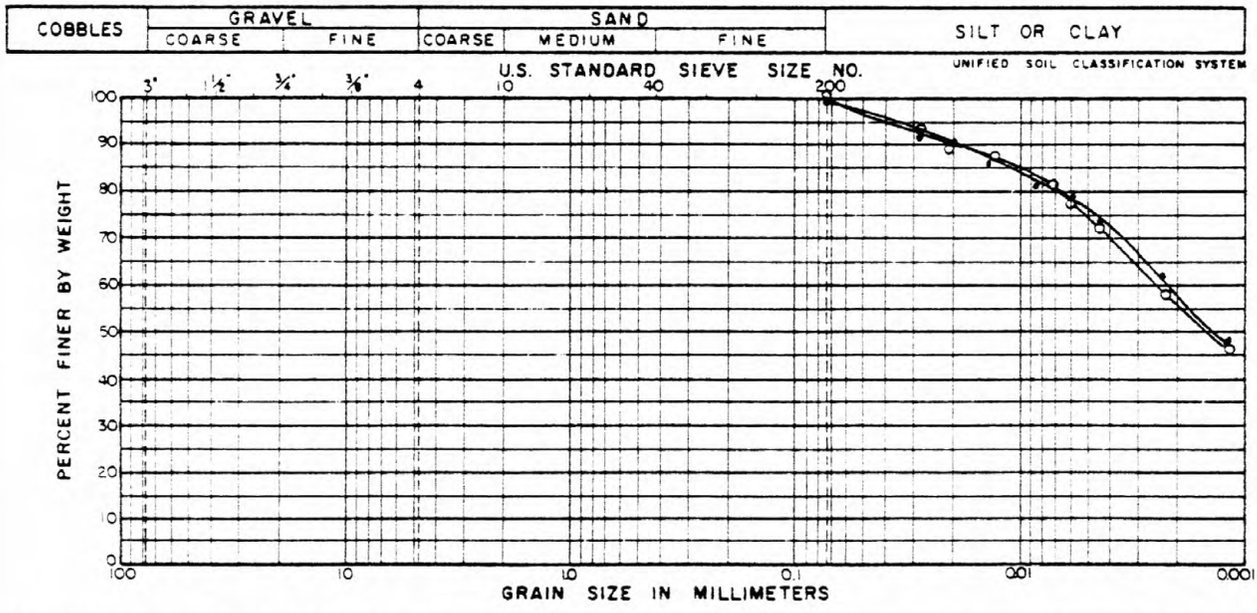
$\bar{c} = \bar{a} / \cos\bar{\phi}$



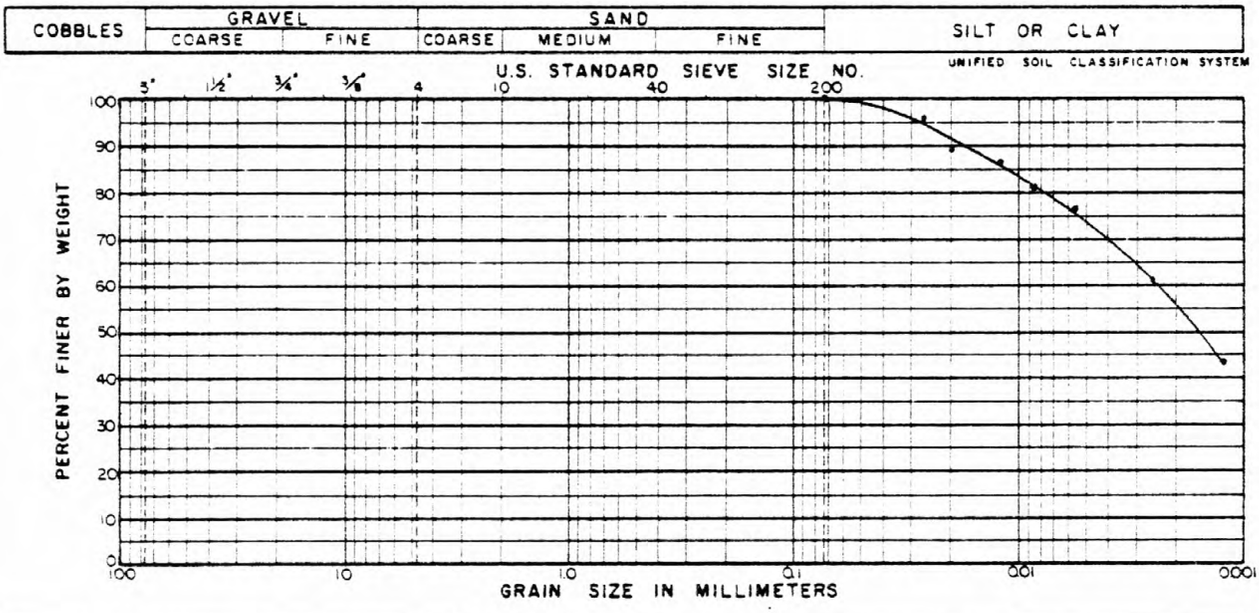
STRESS PATHS FOR C̄IŪ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
3
2
1
0
2
4
6
8
10
12
14
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
360
280
200
120
40
0
2
4
6
8
10
12
14
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
2
1
0
2
4
6
8
10
12
14
3
2
1
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD5	1	585-625	•	Gray Silty Clay	55.2	57	26
CD5	2	589-625	○	Gray Silty Clay	65.1	61	34



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD5	3	589-625	•	Gray Silty Clay	62.1	60	25

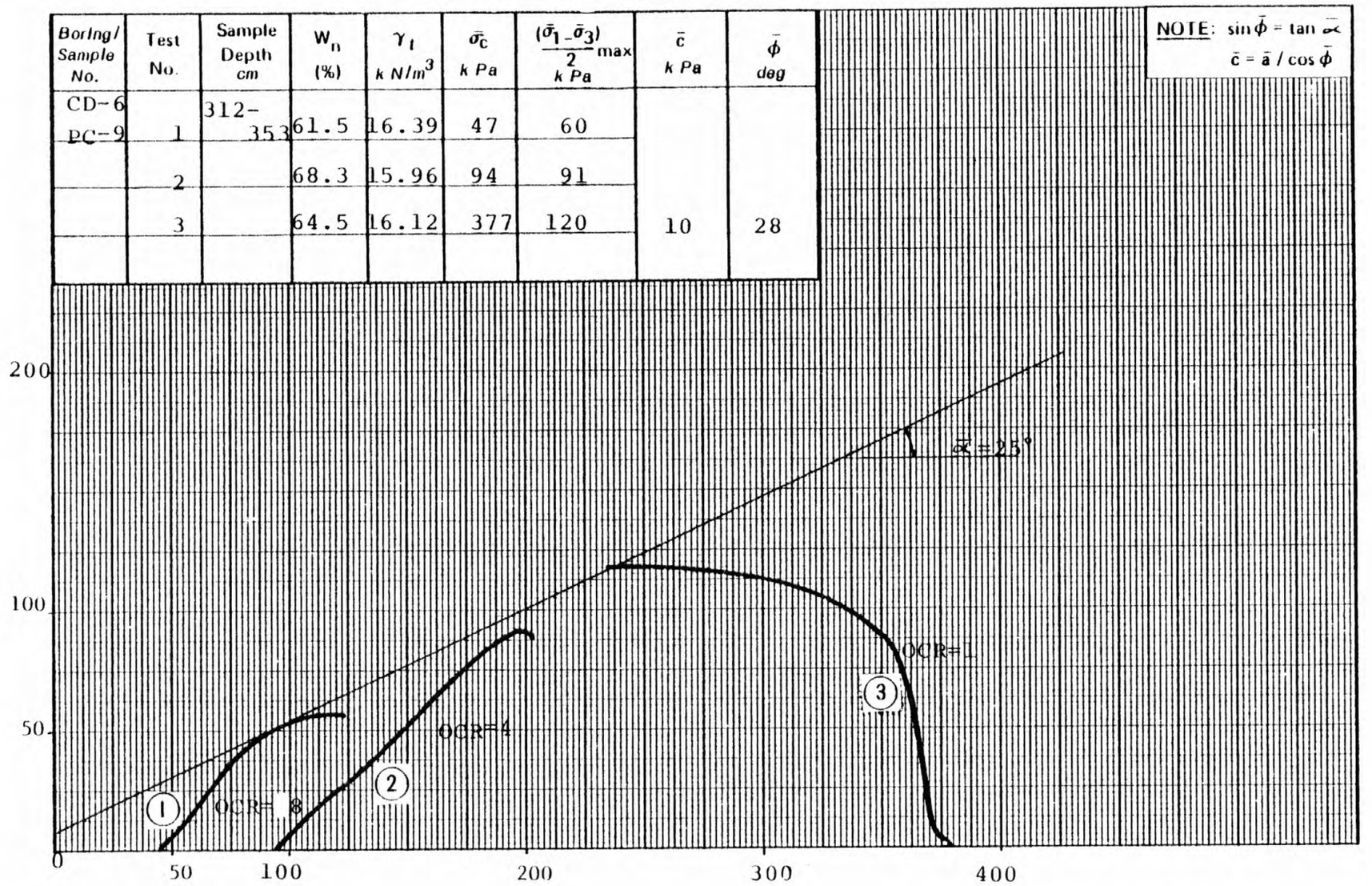
JOB NO. 79 C 01221

WG RP-G

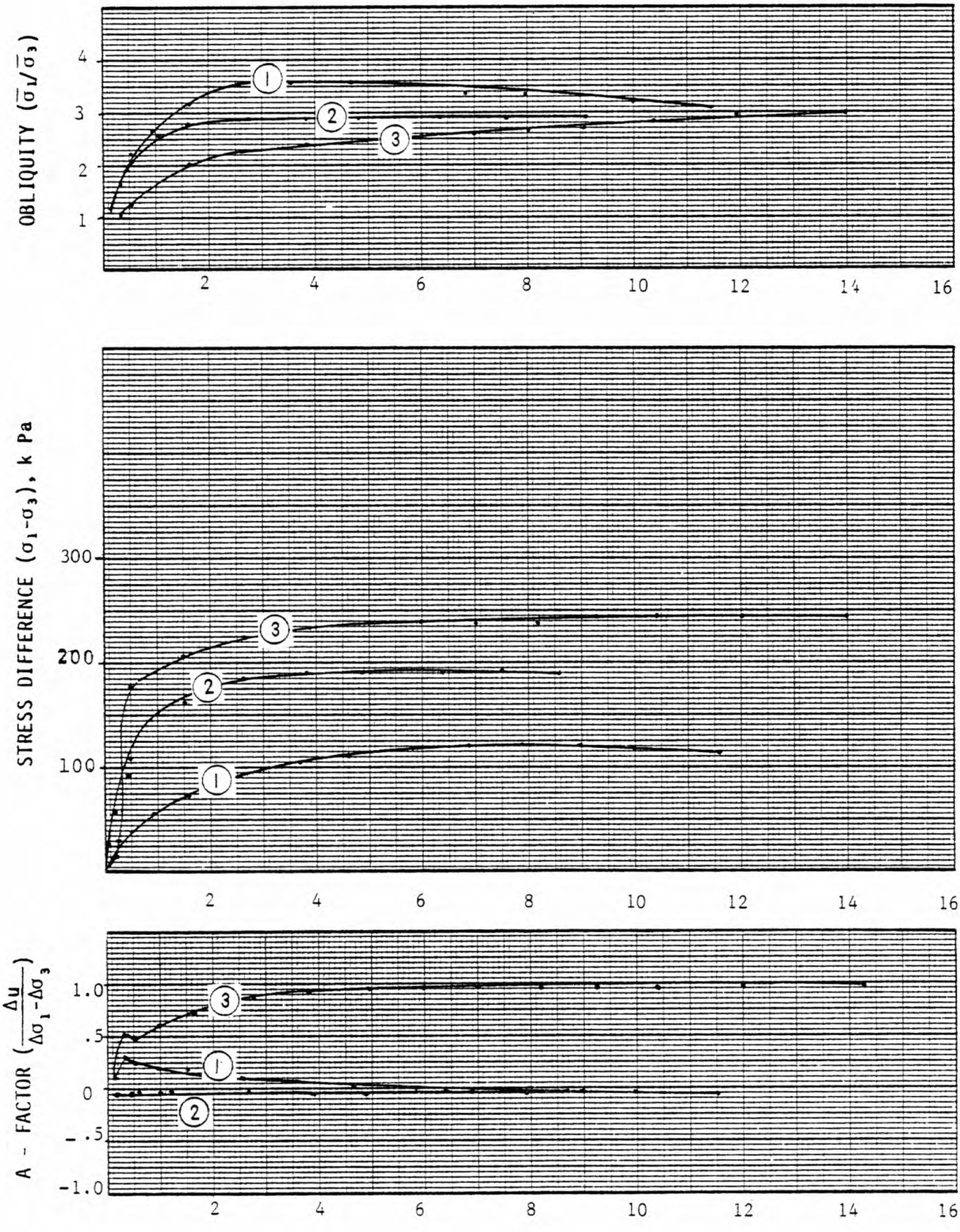
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-6 PC-9	1	312-353	61.5	16.39	47	60		
	2		68.3	15.96	94	91		
	3		64.5	16.12	377	120	10	28

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

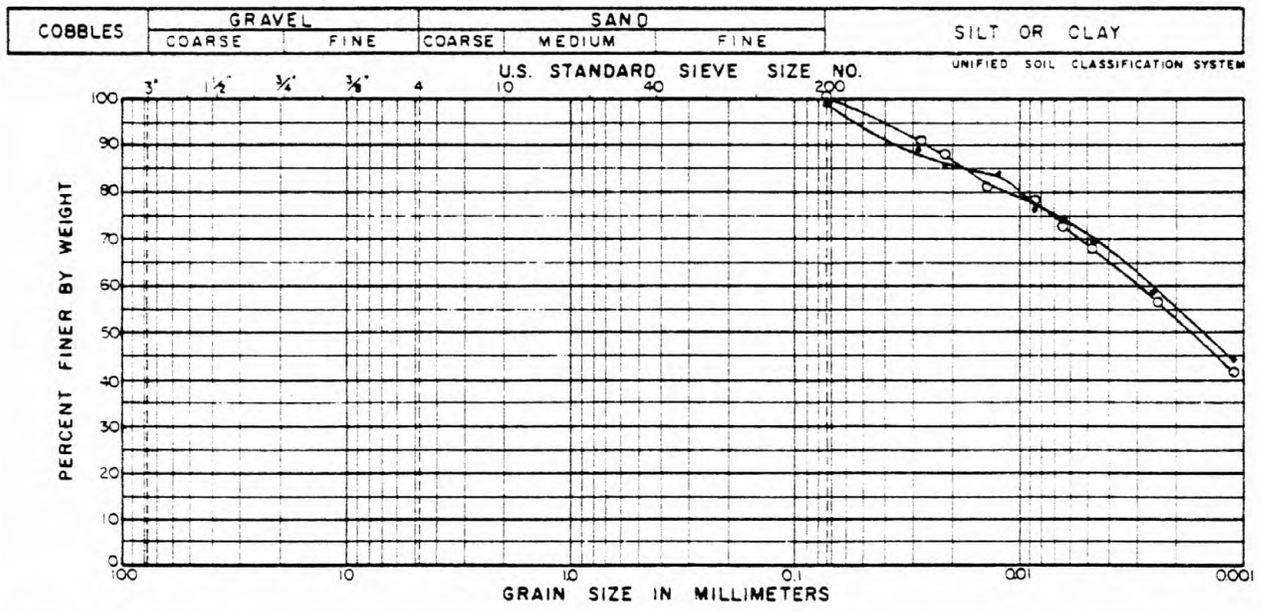
$\bar{c} = \bar{a} / \cos\bar{\phi}$



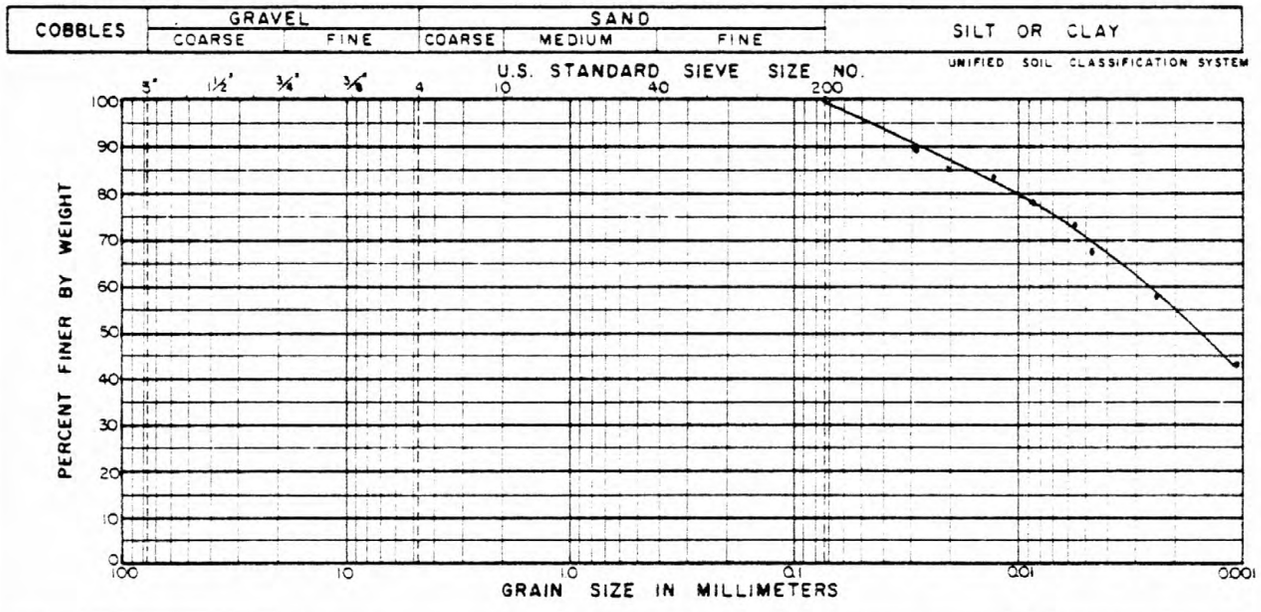
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
4
3
2
1
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
300
200
100
2
4
6
8
10
12
14
16
3
1
2
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
1.0
.5
0
- .5
-1.0
2
4
6
8
10
12
14
16
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-6	1	312-353	•	Gray Silty Clay	61.5	56	26
CD-6	2	312-353	○	Gray Silty Clay	68.3	57	27



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD6	3	312-353	•	Gray Silty Clay	64.3	61	25

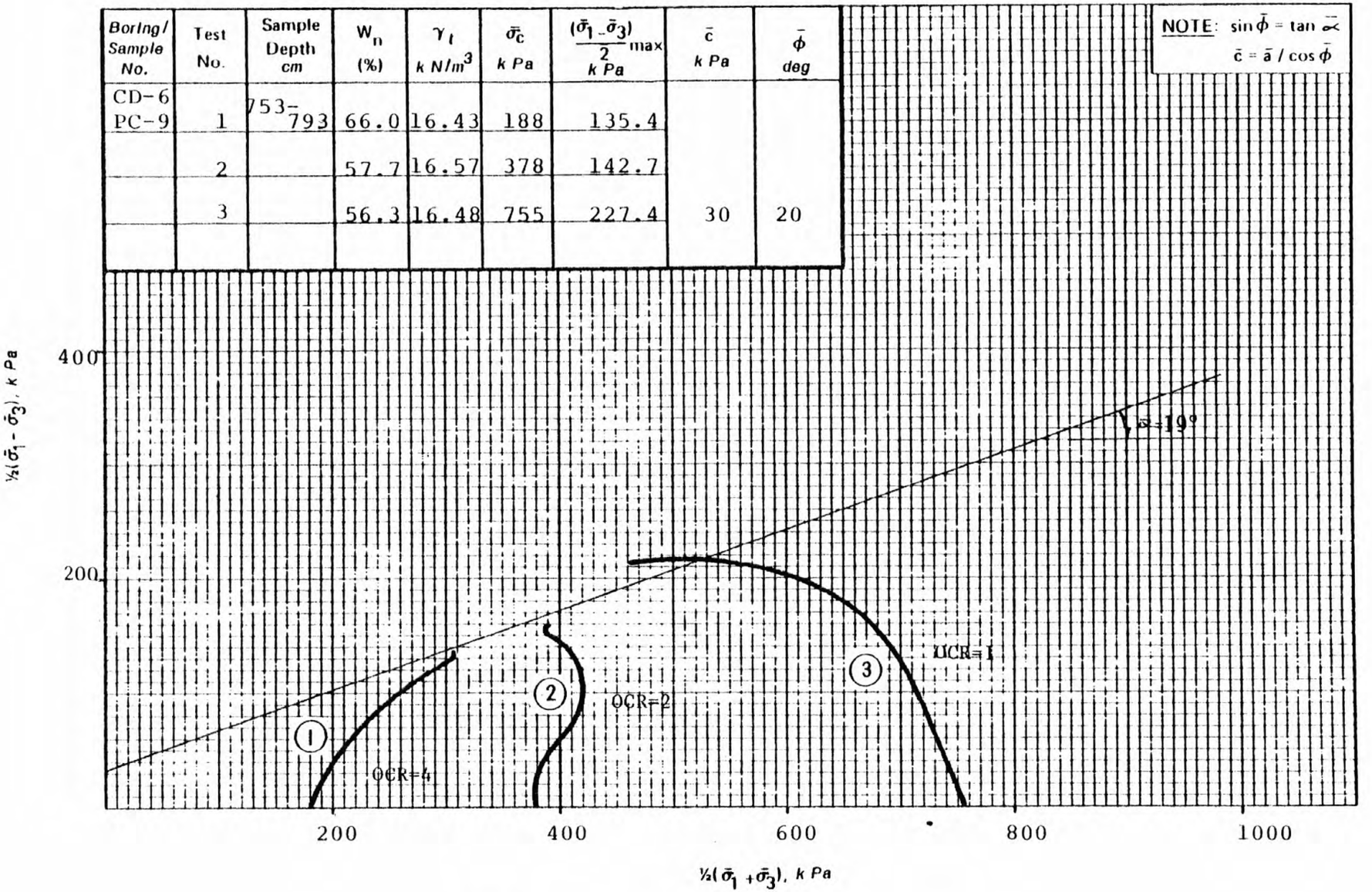
JOB NO. 79 C 01221

WG RP-6

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-6 PC-9	1	753-793	66.0	16.43	188	135.4		
	2		57.7	16.57	378	142.7		
	3		56.3	16.48	755	227.4	30	20

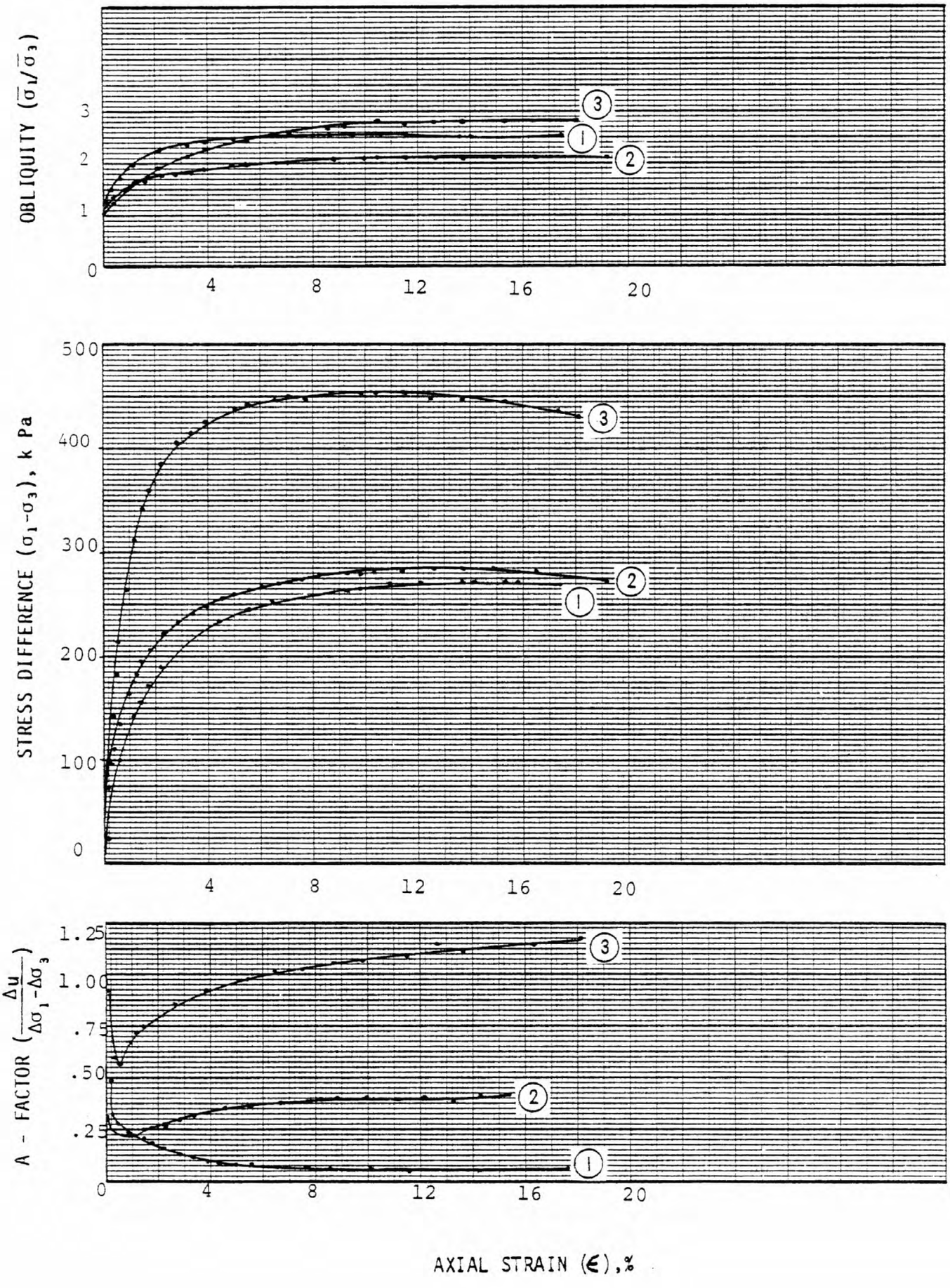
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$

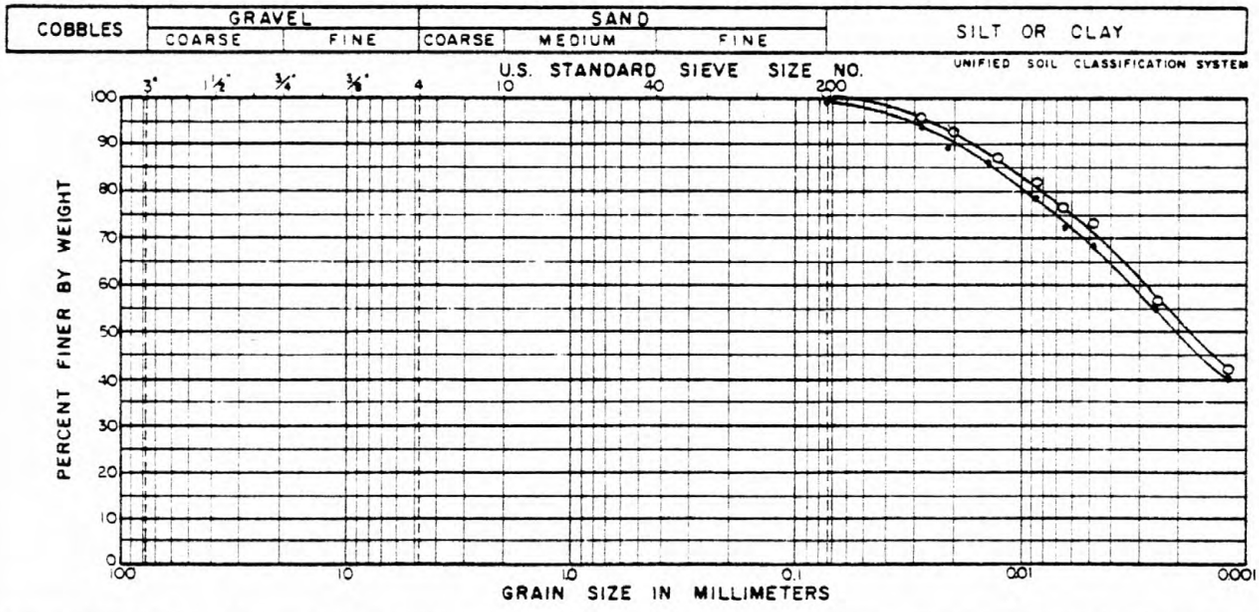


NSP

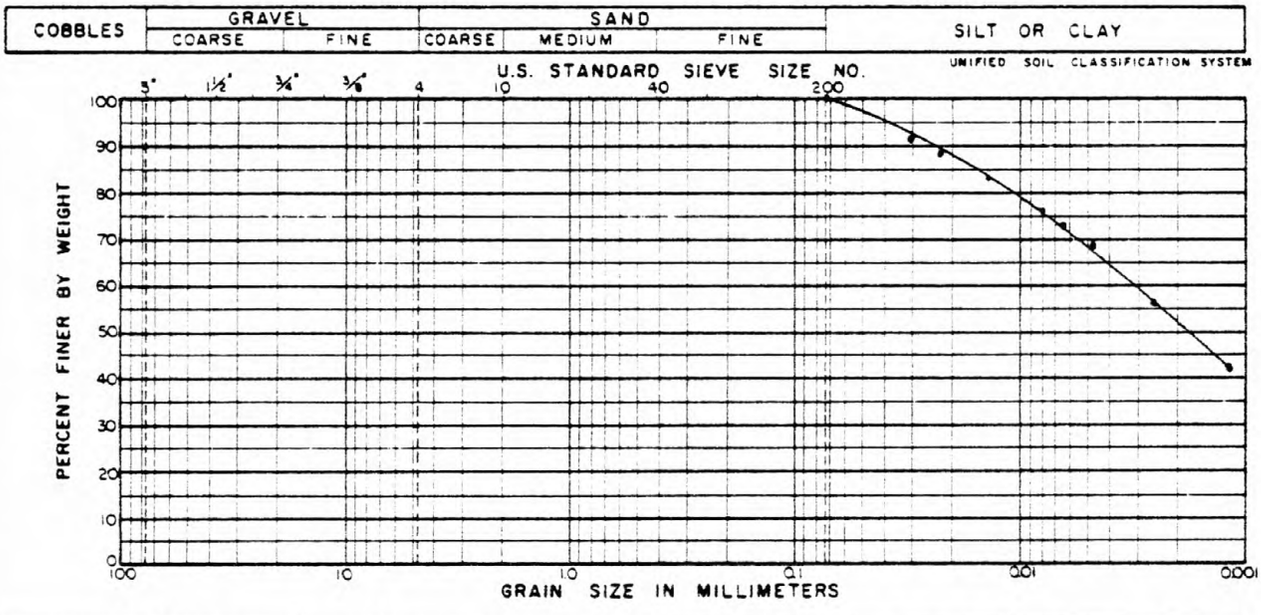
STRESS PATHS FOR $\bar{C}I\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
0
1
2
3
4
8
12
16
20
3
1
2
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
0
100
200
300
400
500
4
8
12
16
20
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
0
.25
.50
.75
1.00
1.25
4
8
12
16
20
3
2
1
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD6	1		•	Gray Clayey Silt	66.0	64	25
CD6	2		○	Gray Clayey Silt	57.7	57	26



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD6			•	Gray Clayey Silt	56.3	60	30

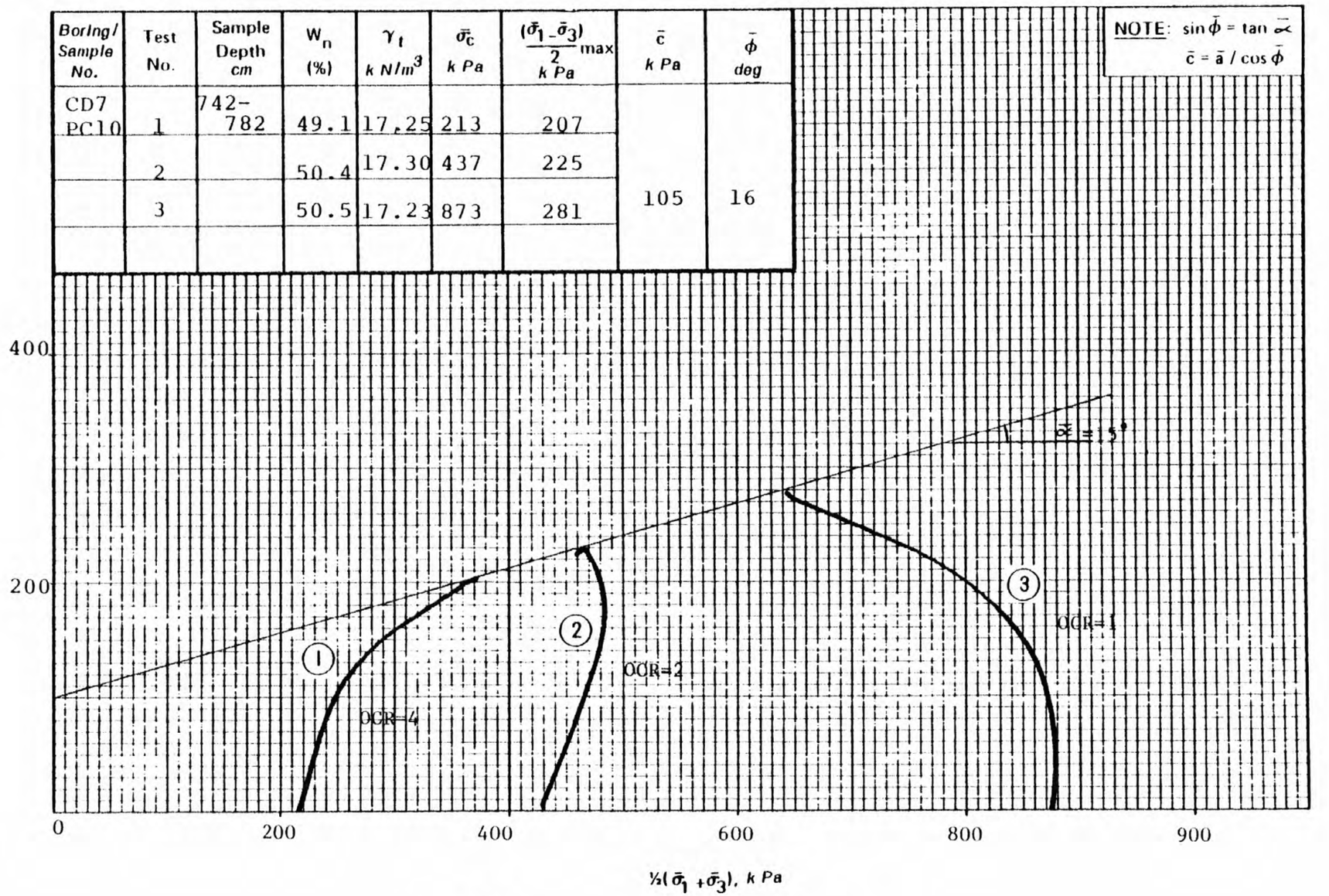
JOB NO.

WG RP-G

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD7 PC10	1	742-782	49.1	17.25	213	207	105	16
	2		50.4	17.30	437	225		
	3		50.5	17.23	873	281		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$

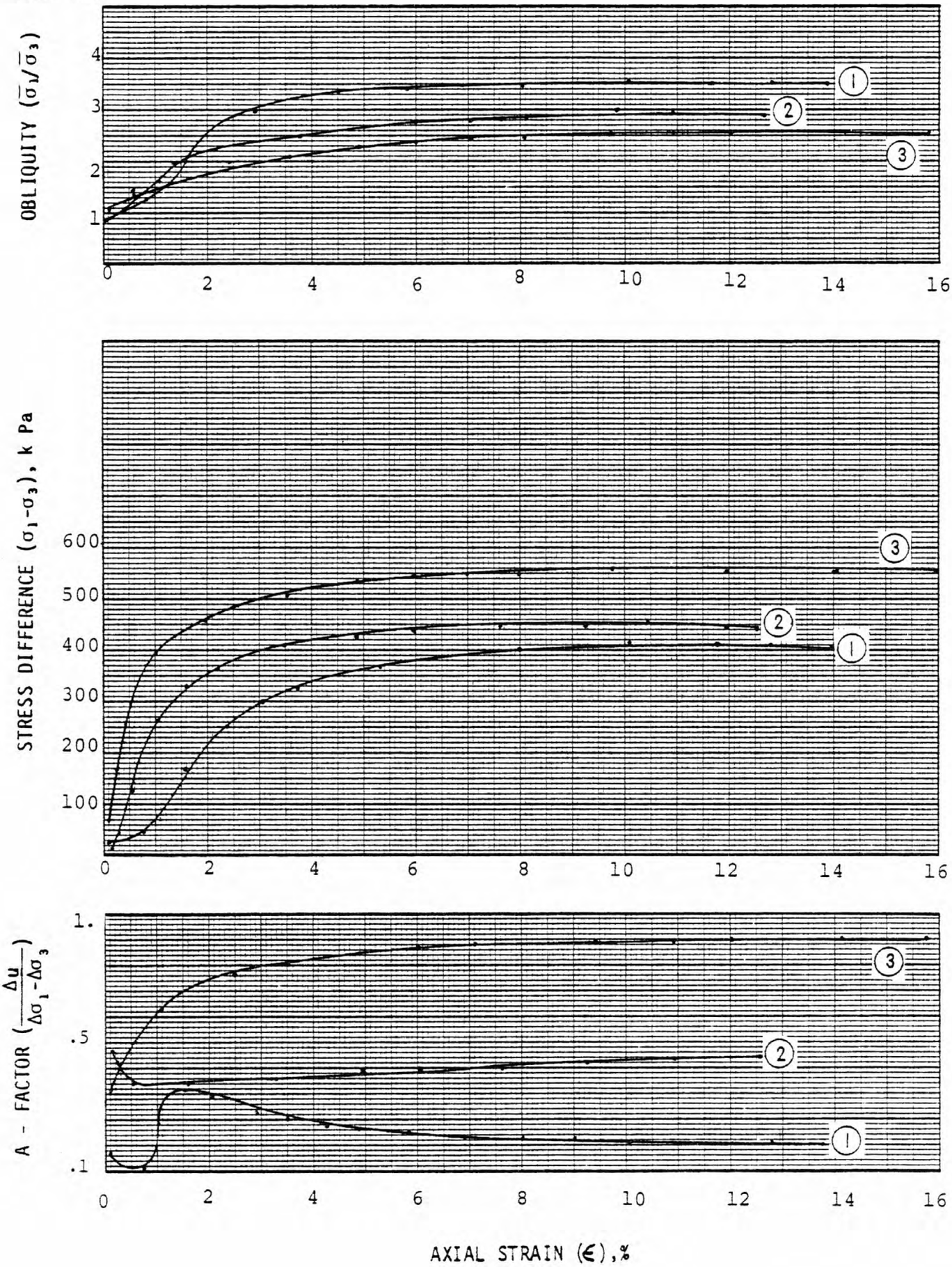


NSP

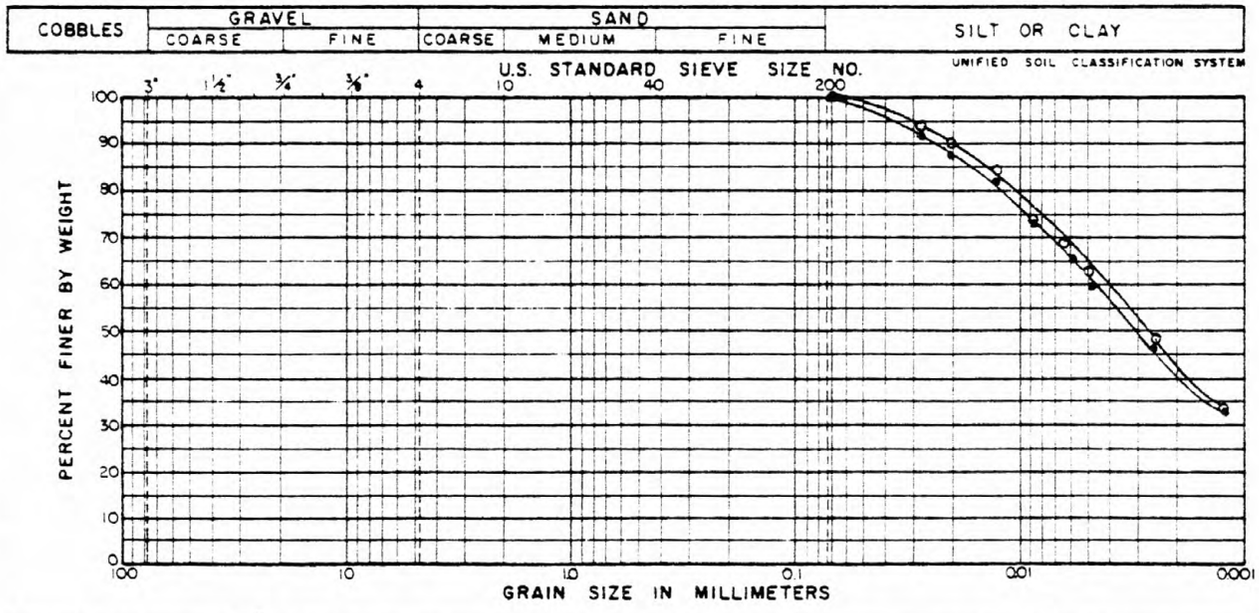
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS

79C01221
CD7-PC10

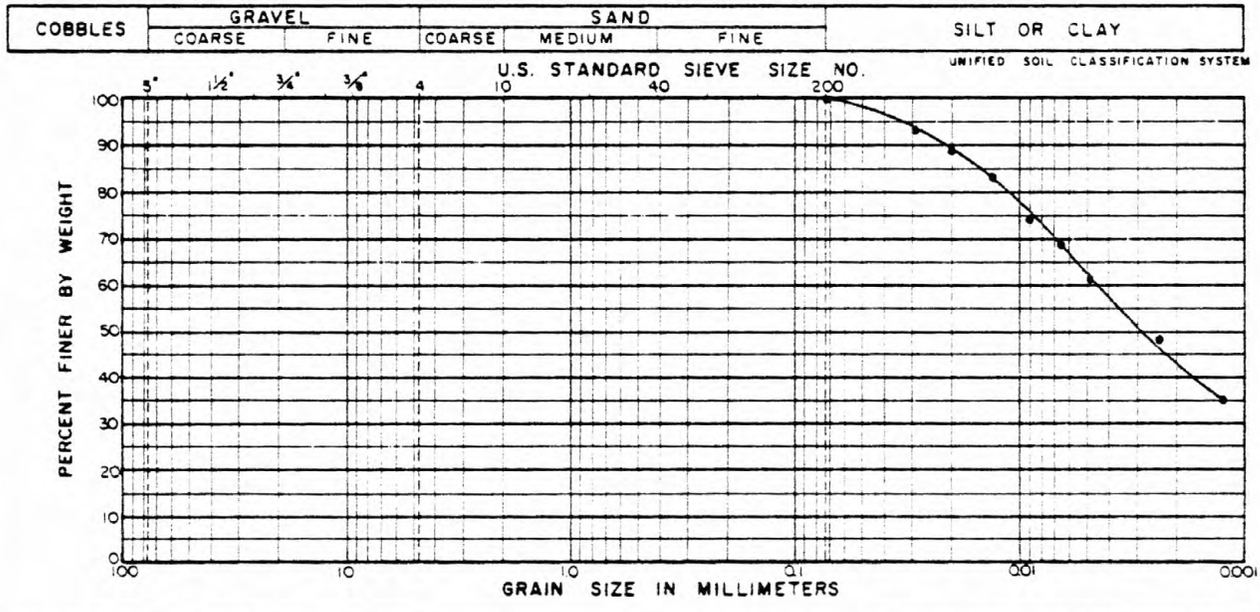
742-782



MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD7	1	742-782	•	Gray Clayey Silt	49.1	48	29
CD-7	2	742-782	o	Gray Clayey Silt	50.4	47	26



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD7	3	742-782	•	Gray Clayey Silt	50.5	48	29

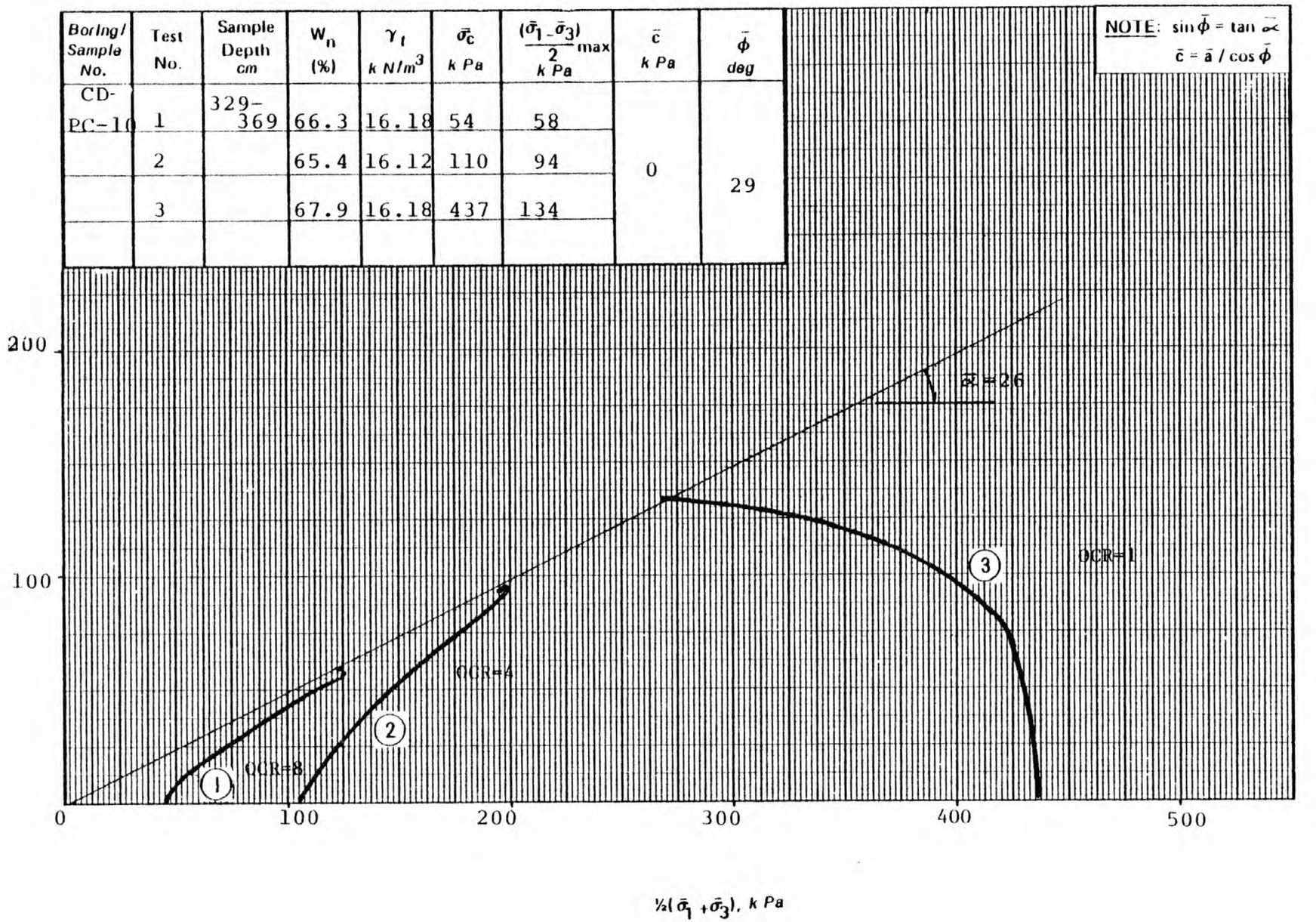
JOB NO. 79 C 01221

WG RP-G

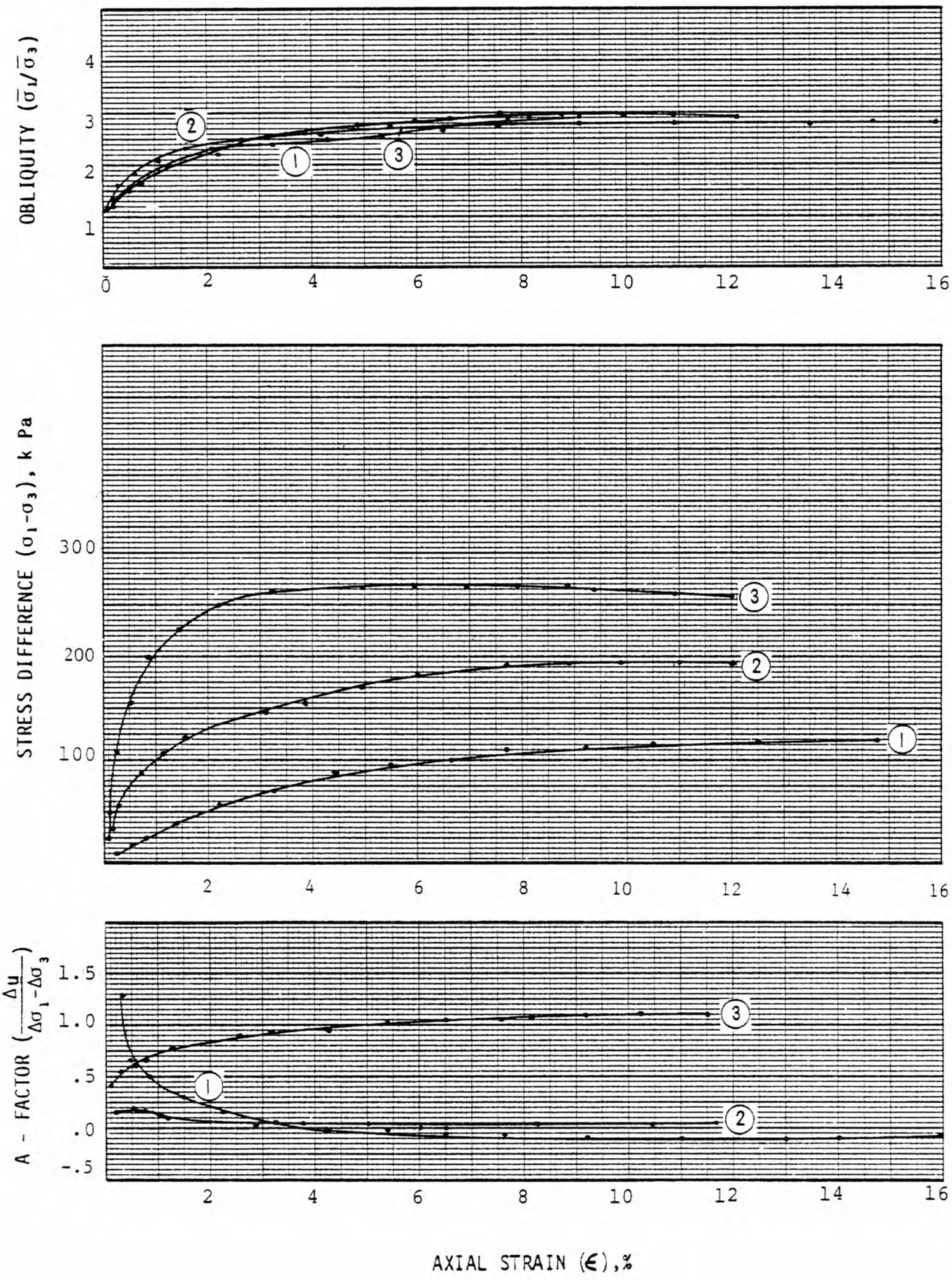
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-PC-10	1	329-369	66.3	16.18	54	58	0	29
	2		65.4	16.12	110	94		
	3		67.9	16.18	437	134		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

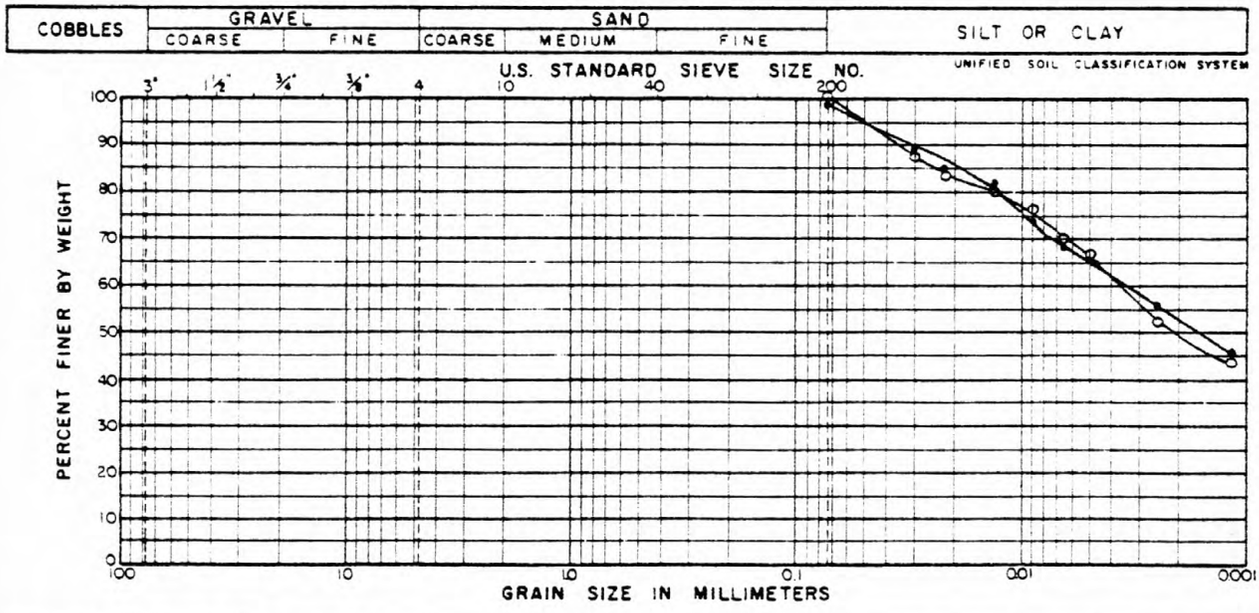
$\bar{c} = \bar{a} / \cos\bar{\phi}$



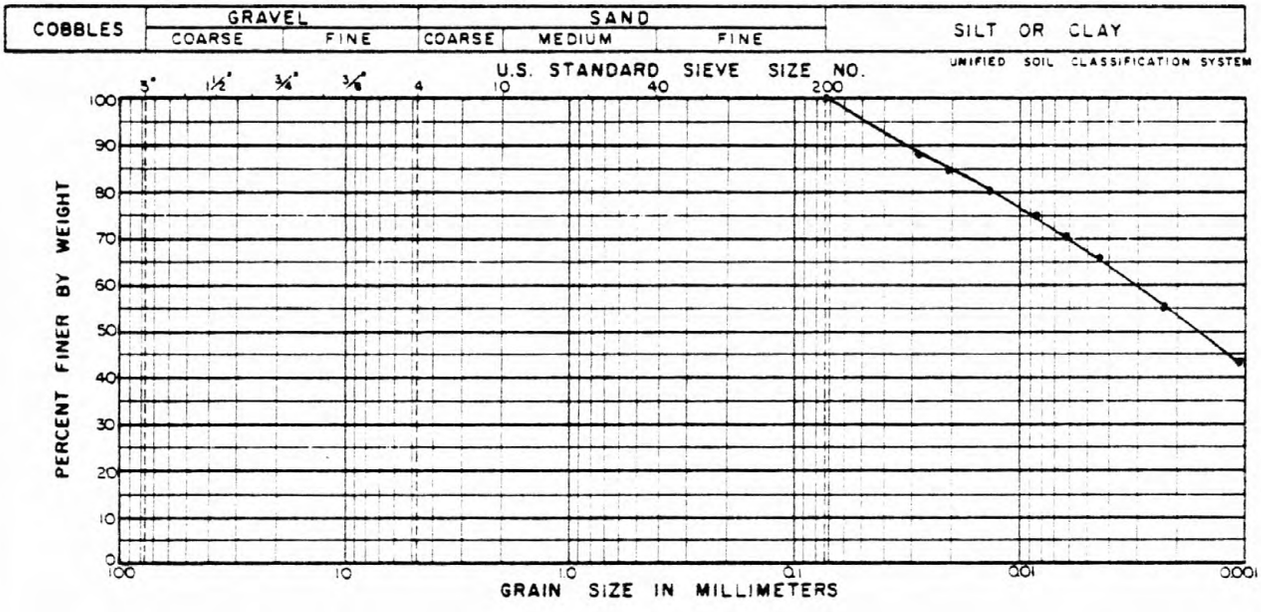
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
4
3
2
1
0
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
300
200
100
2
4
6
8
10
12
14
16
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
1.5
1.0
.5
.0
-.5
2
4
6
8
10
12
14
16
3
1
2
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-7	2	329-369	•	Gray Silty Clay	65.4	54	24
CD-7	1		○	Gray Silty Clay	66.3	54	25



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-7	3	329-369	•	Gray Silty Clay	67.9	56	27

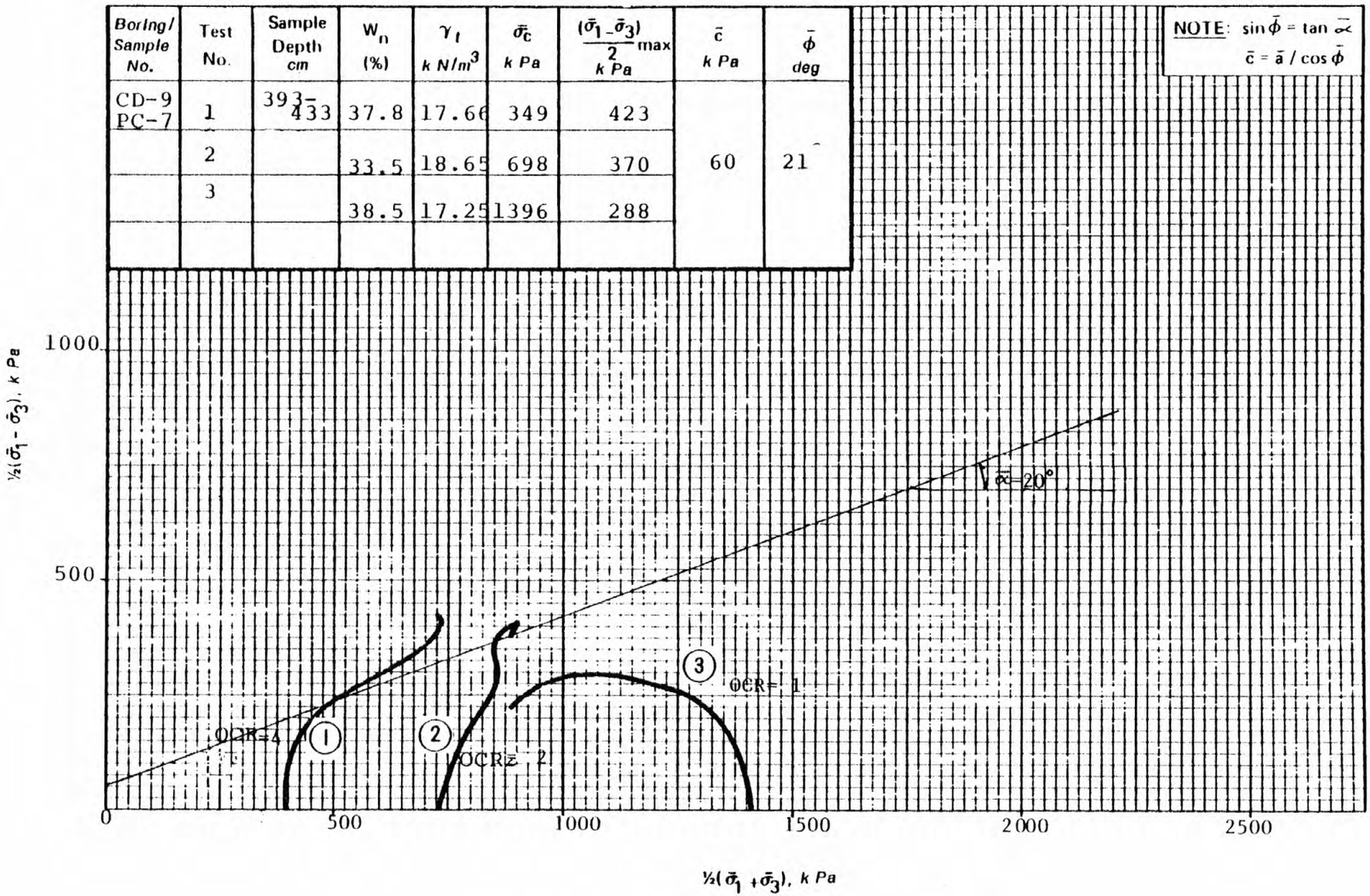
JOB NO.

WG RP-G

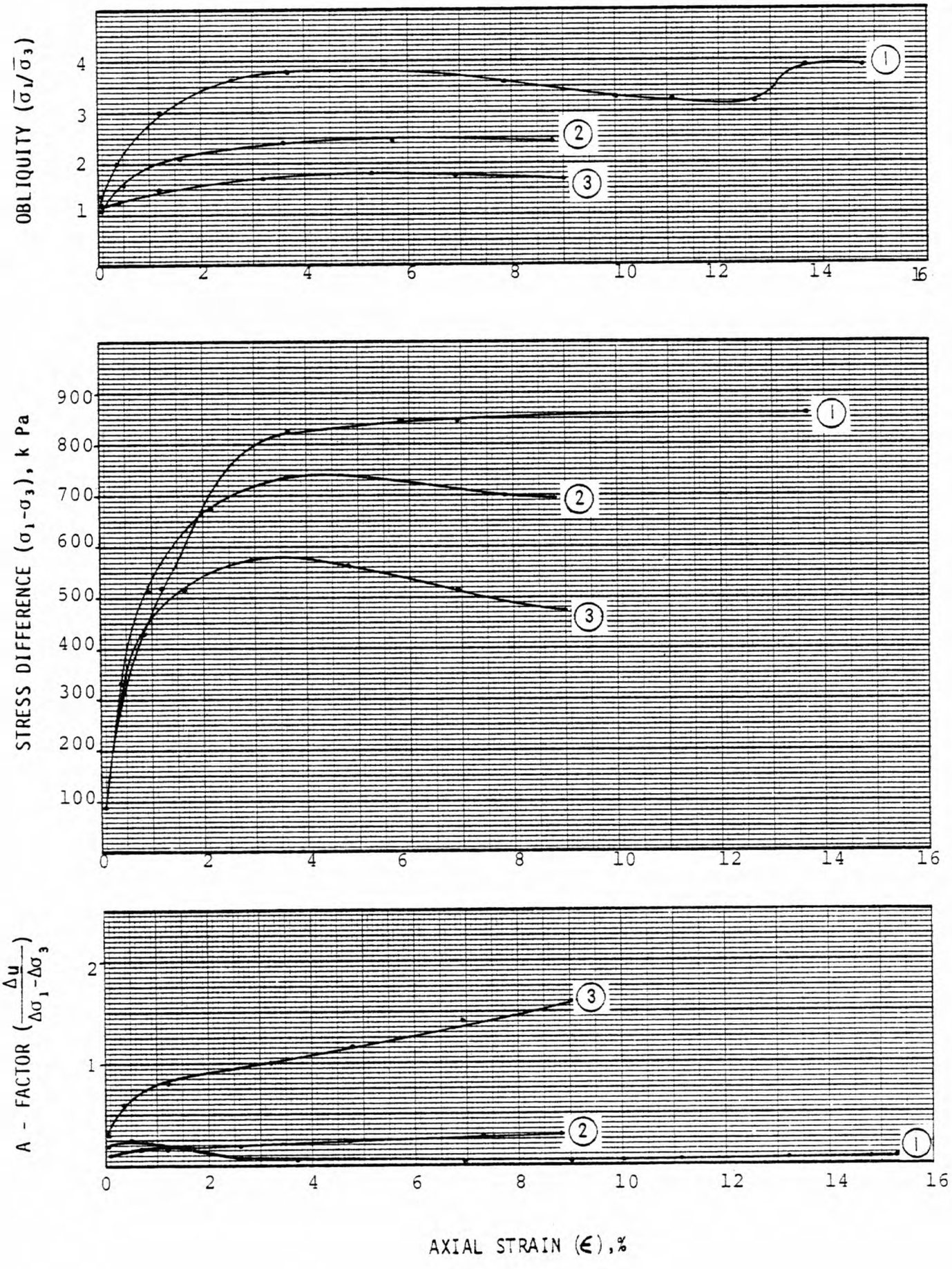
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-9 PC-7	1	393-433	37.8	17.66	349	423	60	21
	2		33.5	18.65	698	370		
	3		38.5	17.25	1396	288		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

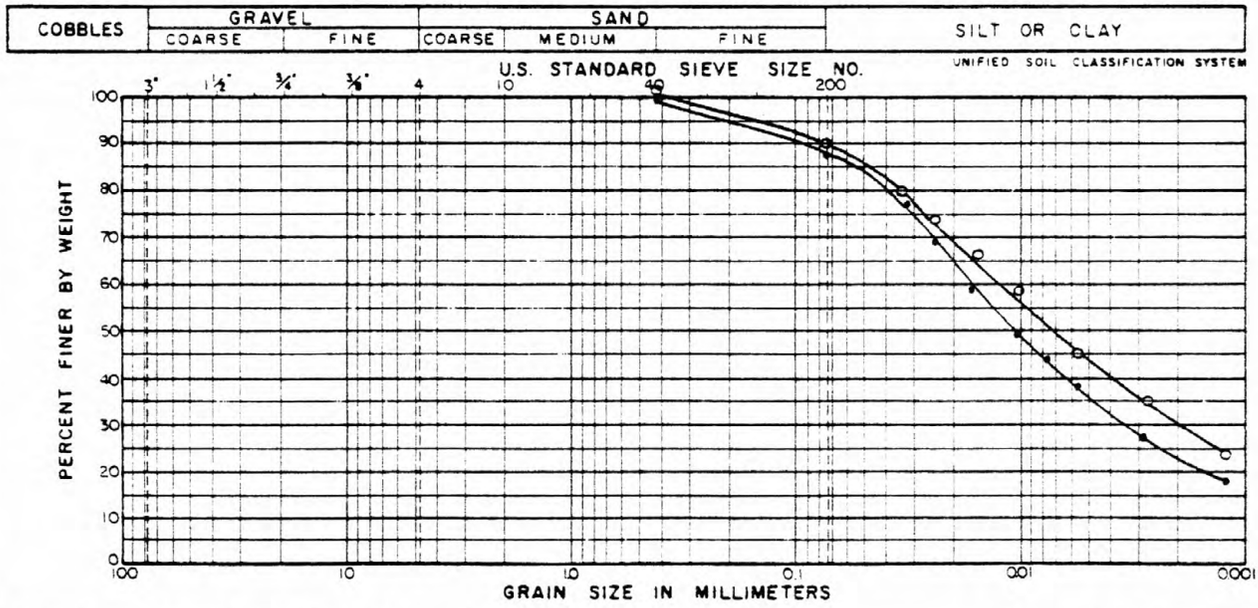
$\bar{c} = \bar{a} / \cos\bar{\phi}$



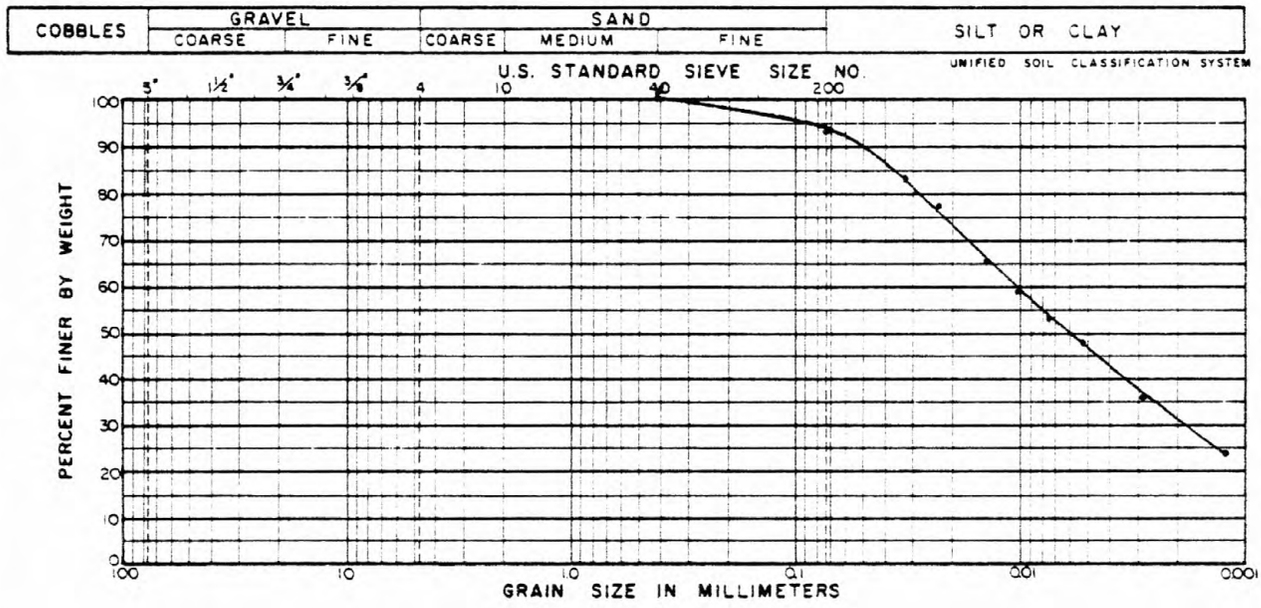
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ),%
1
2
3

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-9	1	393-433	•	Gray Fine Sandy Clayey Silt	37.8	56	24
CD-9	2	393-433	o	Gray Fine Sandy Clayey Silt	33.5	52	22



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-9	3	393-433	•	Gray Clayey Silt, Trace of Fine Sand	38.5	61	23

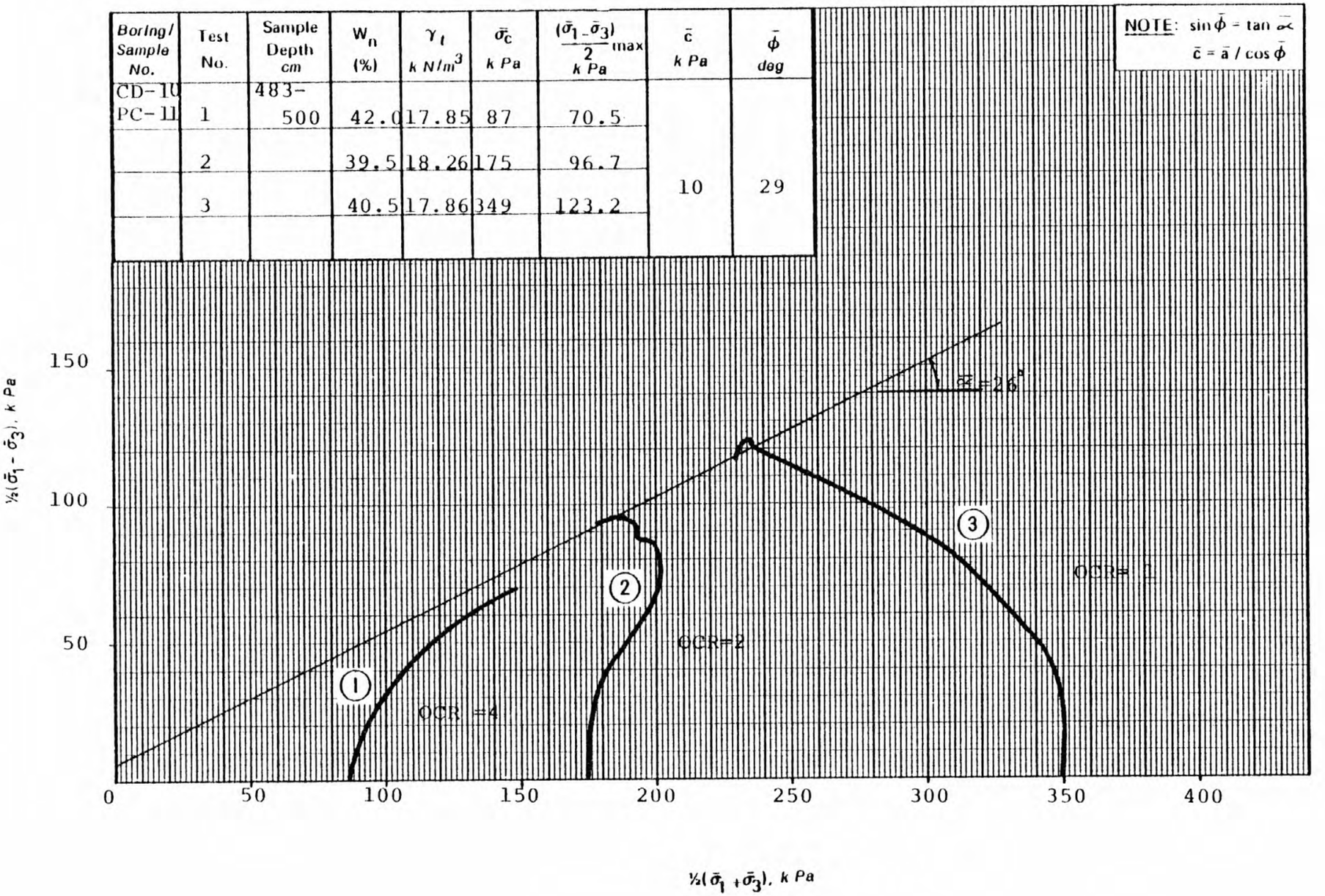
JOB NO. 79 C 01221

WG RP-G

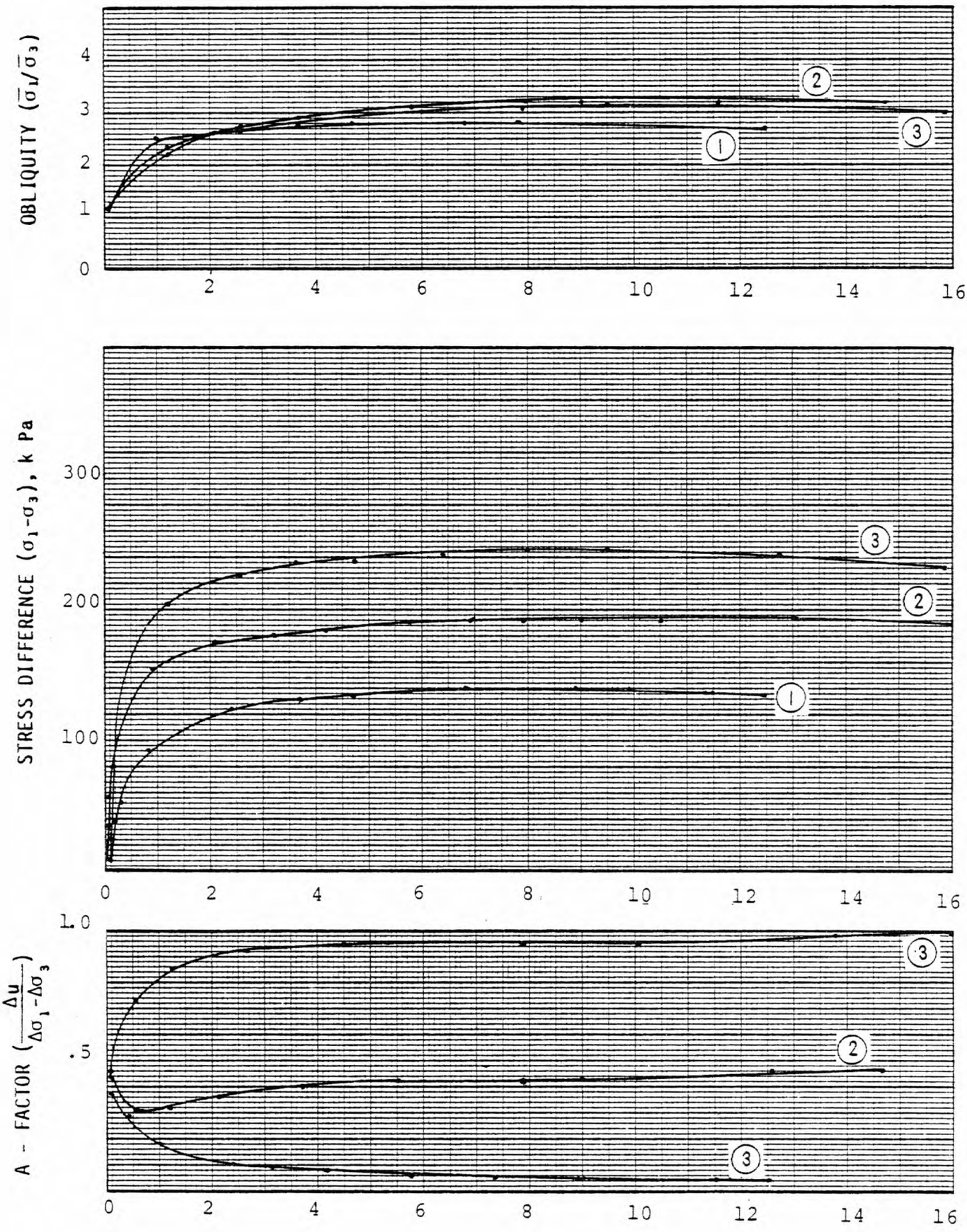
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m^3	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-10 PC-11	1	483-500	42.0	17.85	87	70.5	10	29
	2		39.5	18.26	175	96.7		
	3		40.5	17.86	349	123.2		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

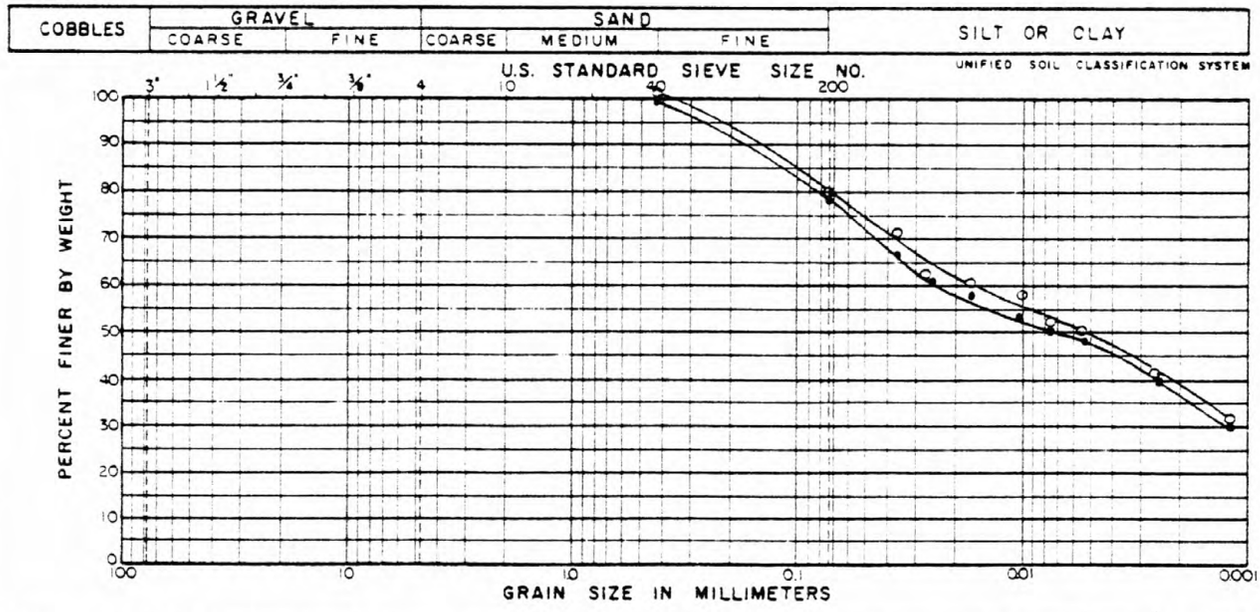
$\bar{c} = \bar{a} / \cos\bar{\phi}$



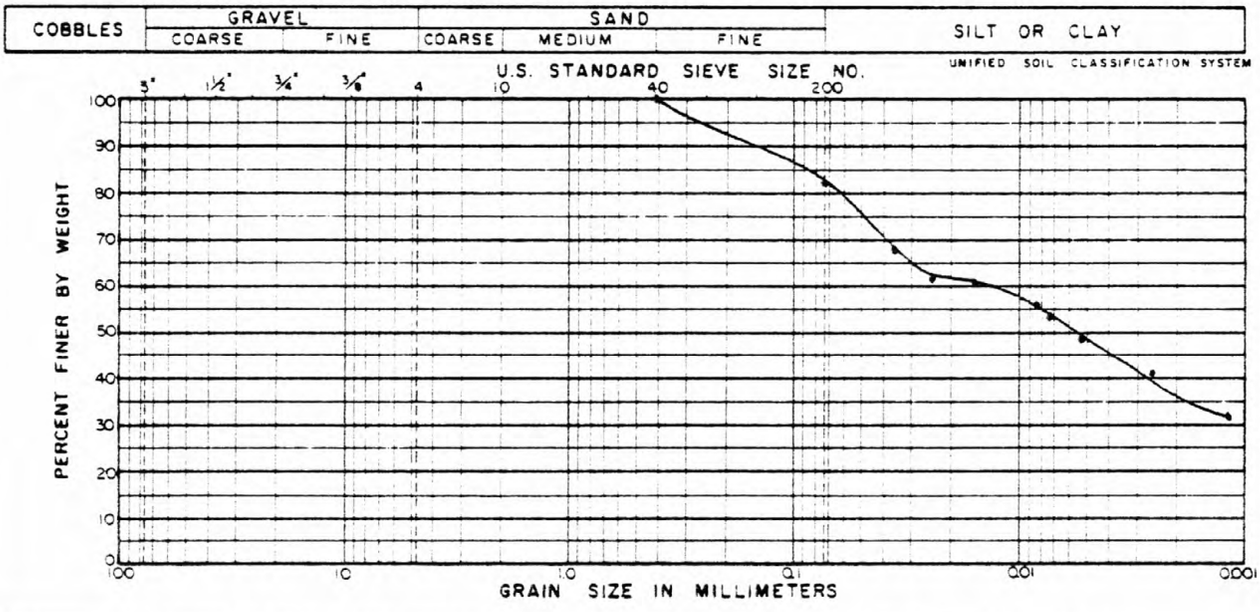
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
0
1
2
3
4
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
100
200
300
0
2
4
6
8
10
12
14
16
1
2
3
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
.5
1.0
0
2
4
6
8
10
12
14
16
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



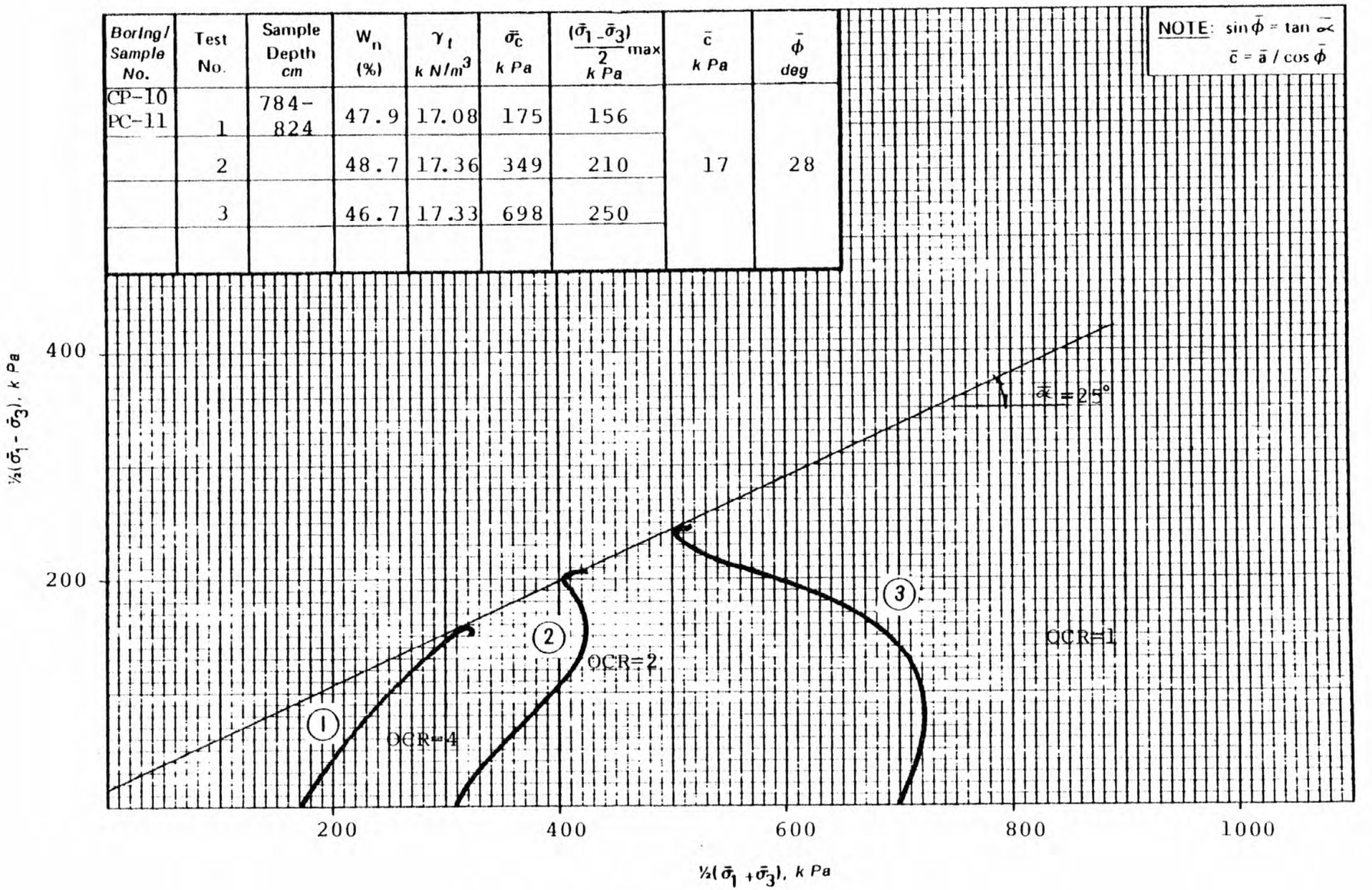
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	1	483-500	•	Gray Fine SAndy Silty Clay	42.0	37	20
CD10	2	483-500	○	Gray Fine Sandy Silty Clay	39.5	33	17



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	3	483-500	•	Gray Fine Sandy Silty Clay	40.5	40	20

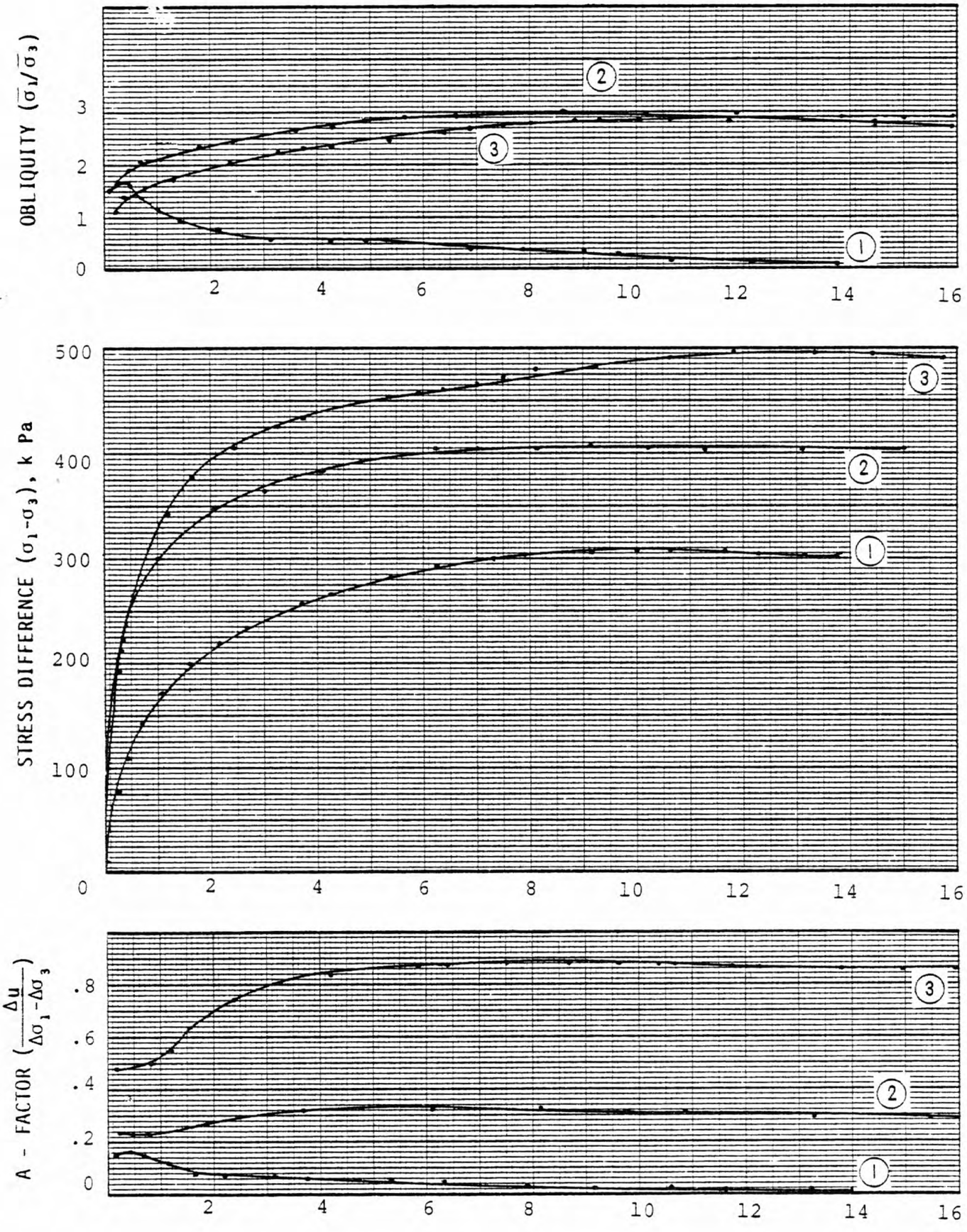
JOB NO. 79 C 01221

W/G RP-G

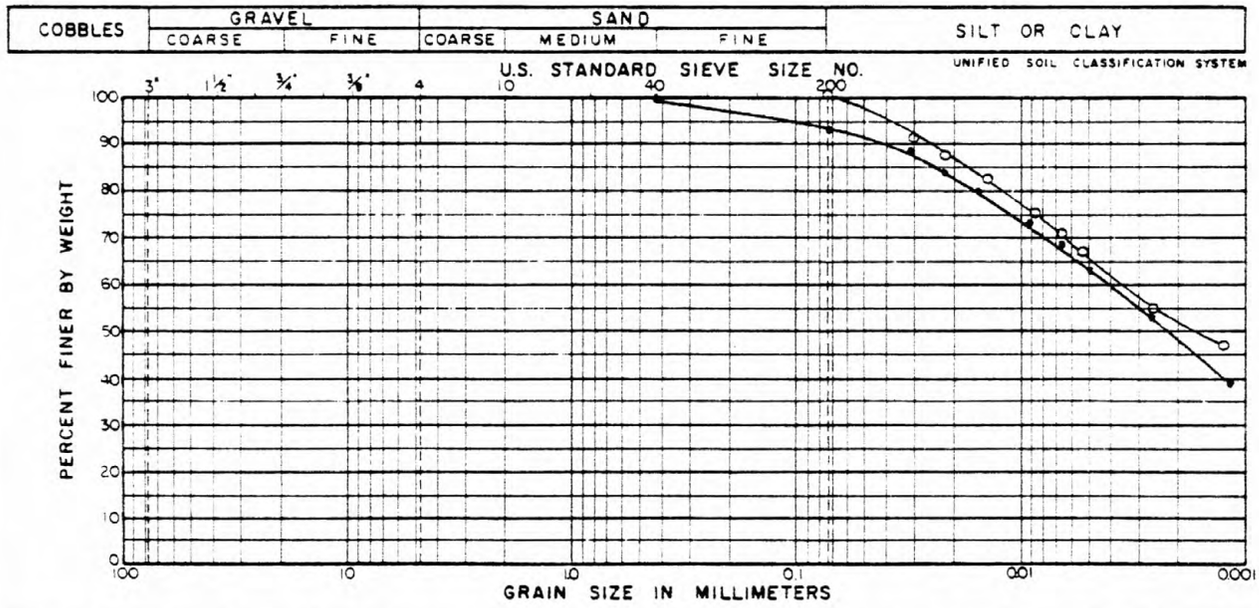


NSP

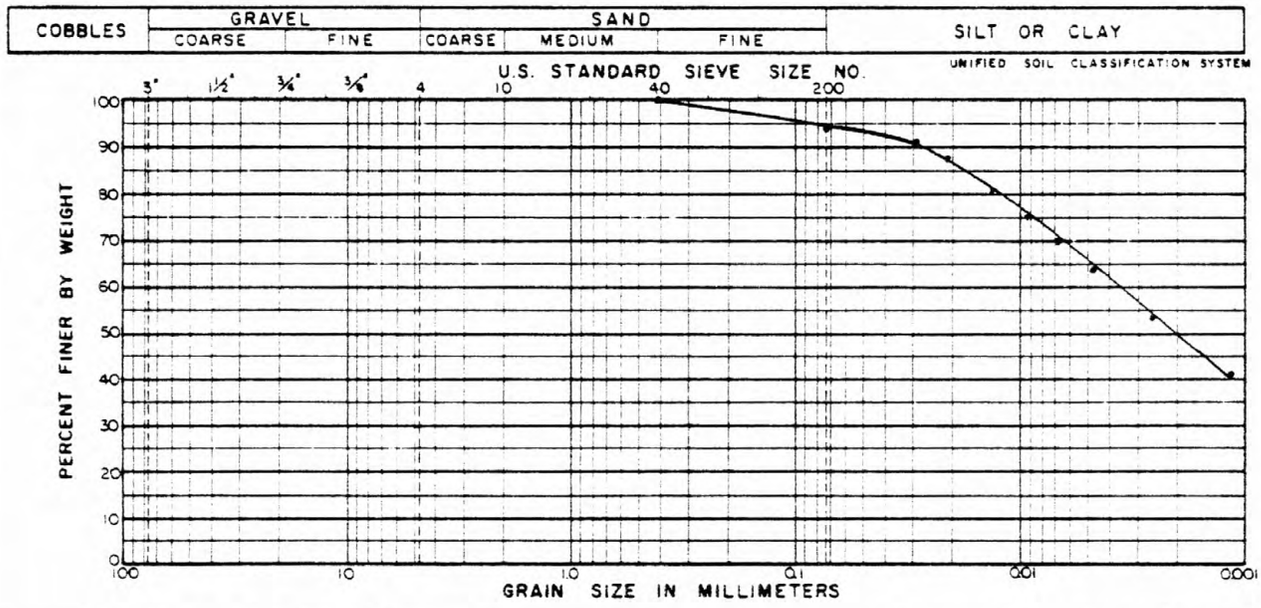
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
0
1
2
3
2
4
6
8
10
12
14
16
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
0
100
200
300
400
500
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
0
.2
.4
.6
.8
AXIAL STRAIN (ϵ),%
1
2
3

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	1	786-824	•	Gray Clayey Silt	47.9	47	24
CD10	2	786-824	○	Gray Clayey Silt	48.7	47	24



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	3	784-824	•	Gray Clayey Silt	46.7	43	24

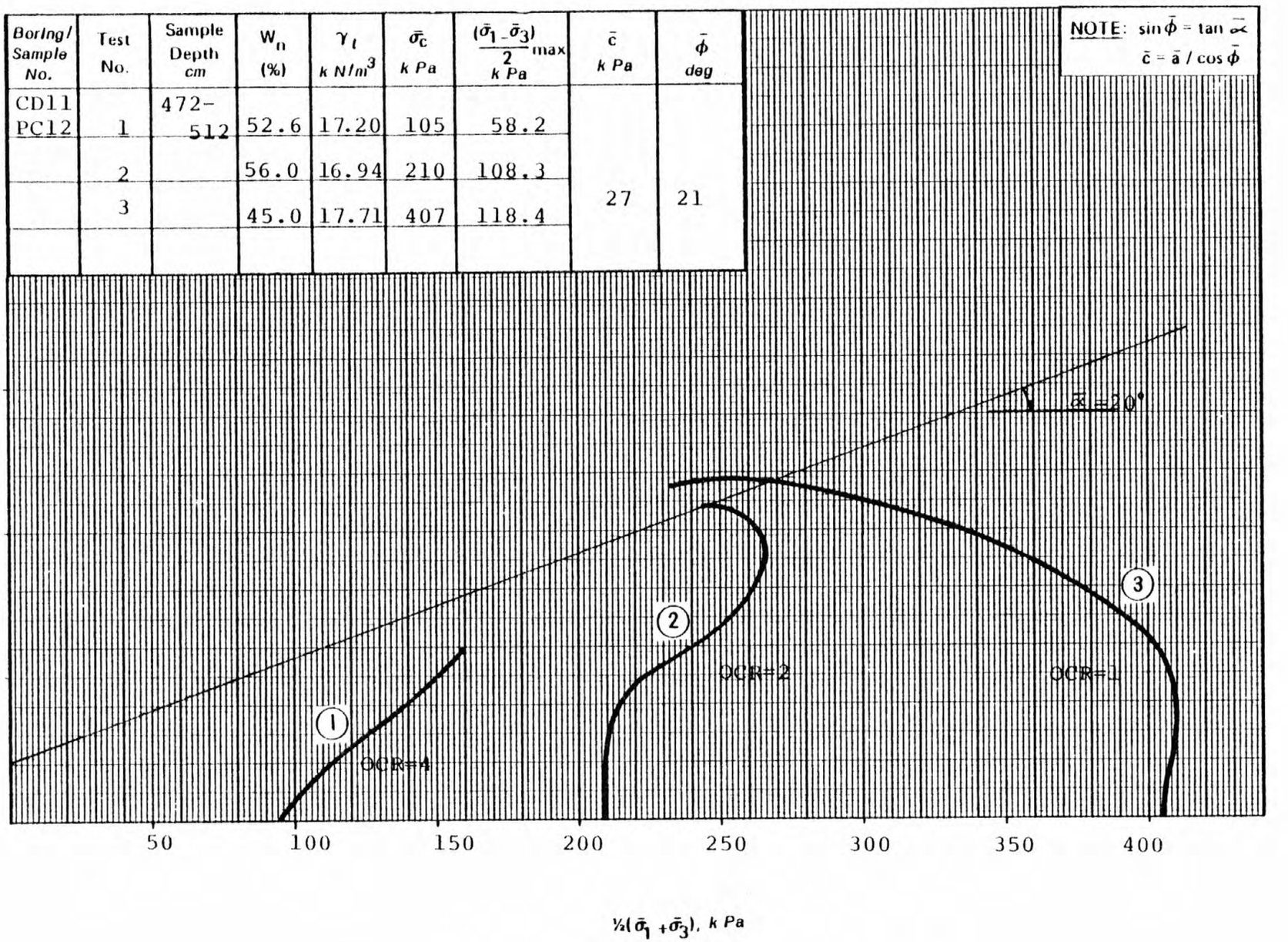
JOB NO.

WG RP-G

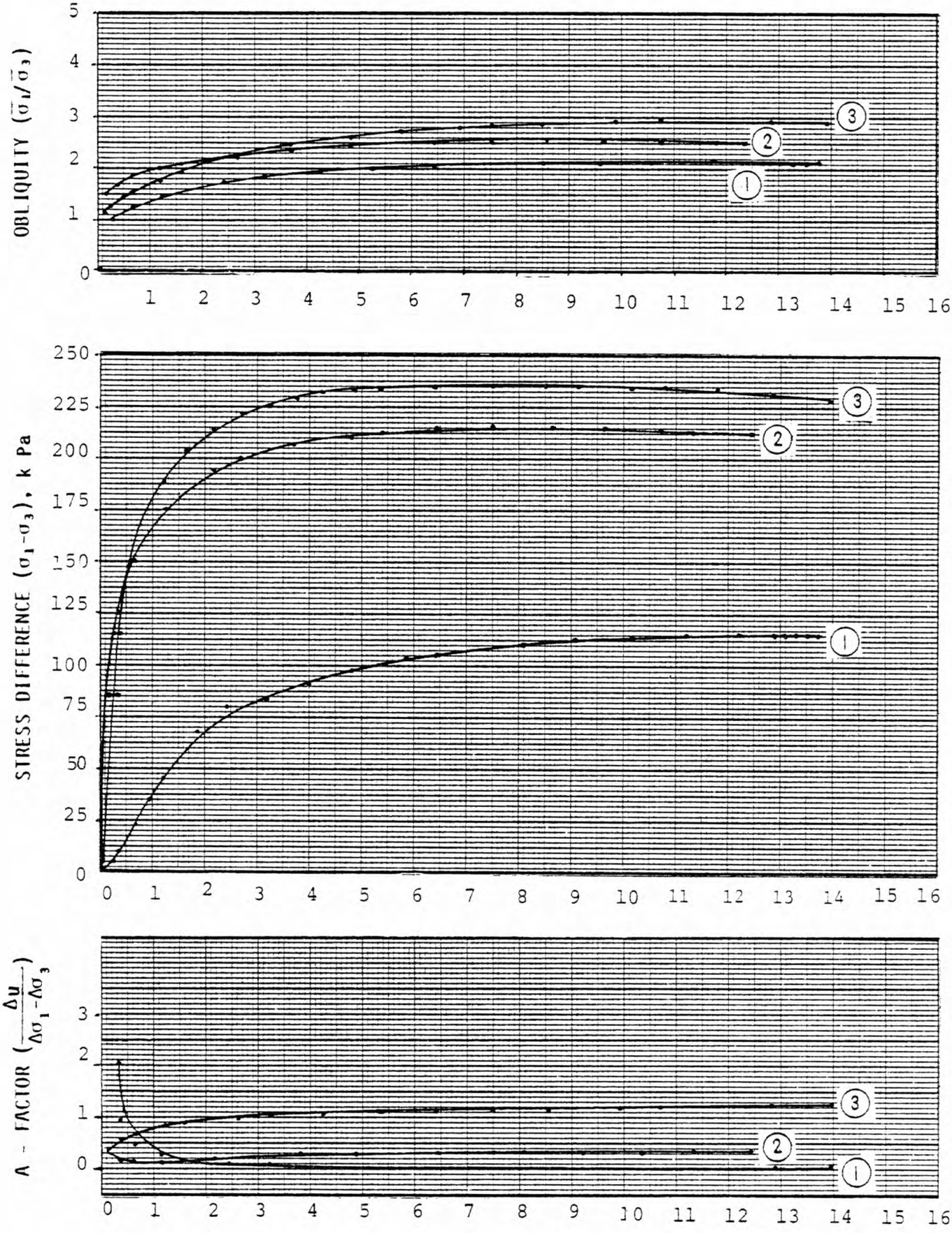
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m^3	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD11 PC12	1	472–512	52.6	17.20	105	58.2	27	21
	2		56.0	16.94	210	108.3		
	3		45.0	17.71	407	118.4		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

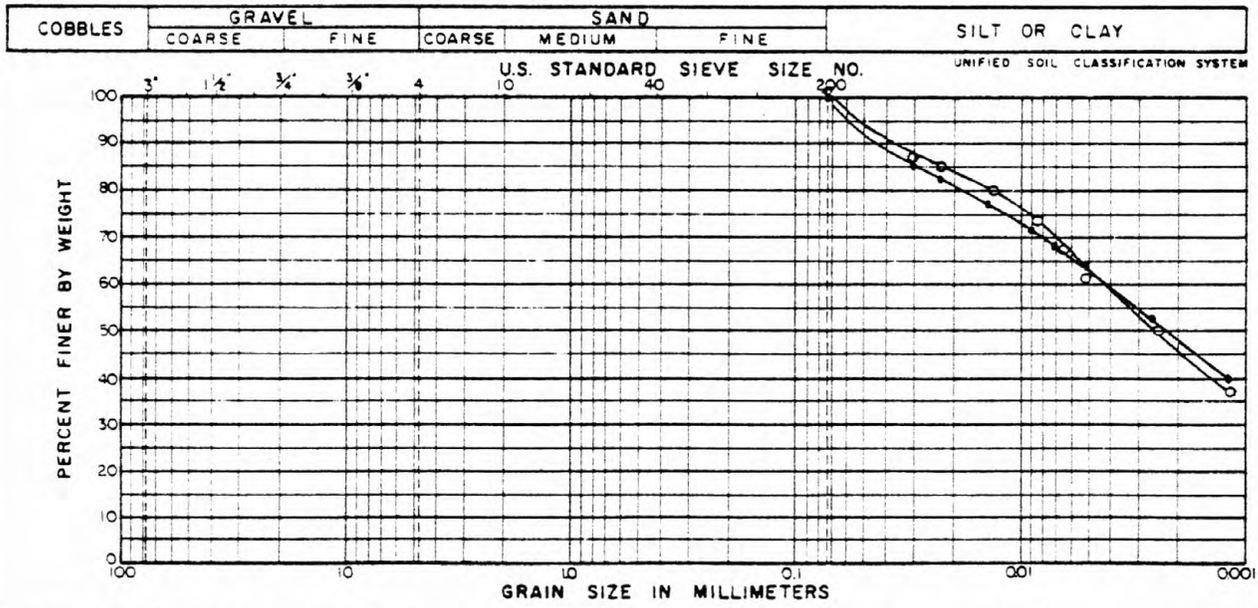
$\bar{c} = \bar{a} / \cos\bar{\phi}$



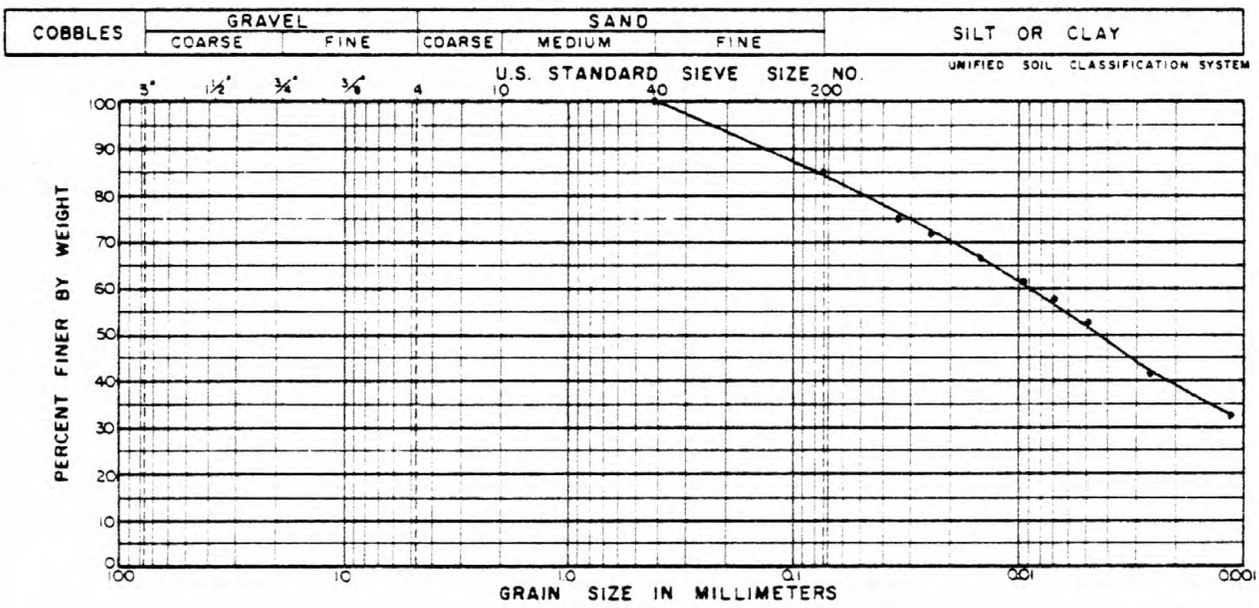
STRESS PATHS FOR $\bar{C}I\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ), %
1
2
3

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	1	472-512	•	Gray Silty Clay	52.6	48	21
CD11	2	472-512	○	Gray Silty Clay	56.0	49	23



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	3	472-512	•	Gray Fine Sandy Silty Clay	45.0	41	21

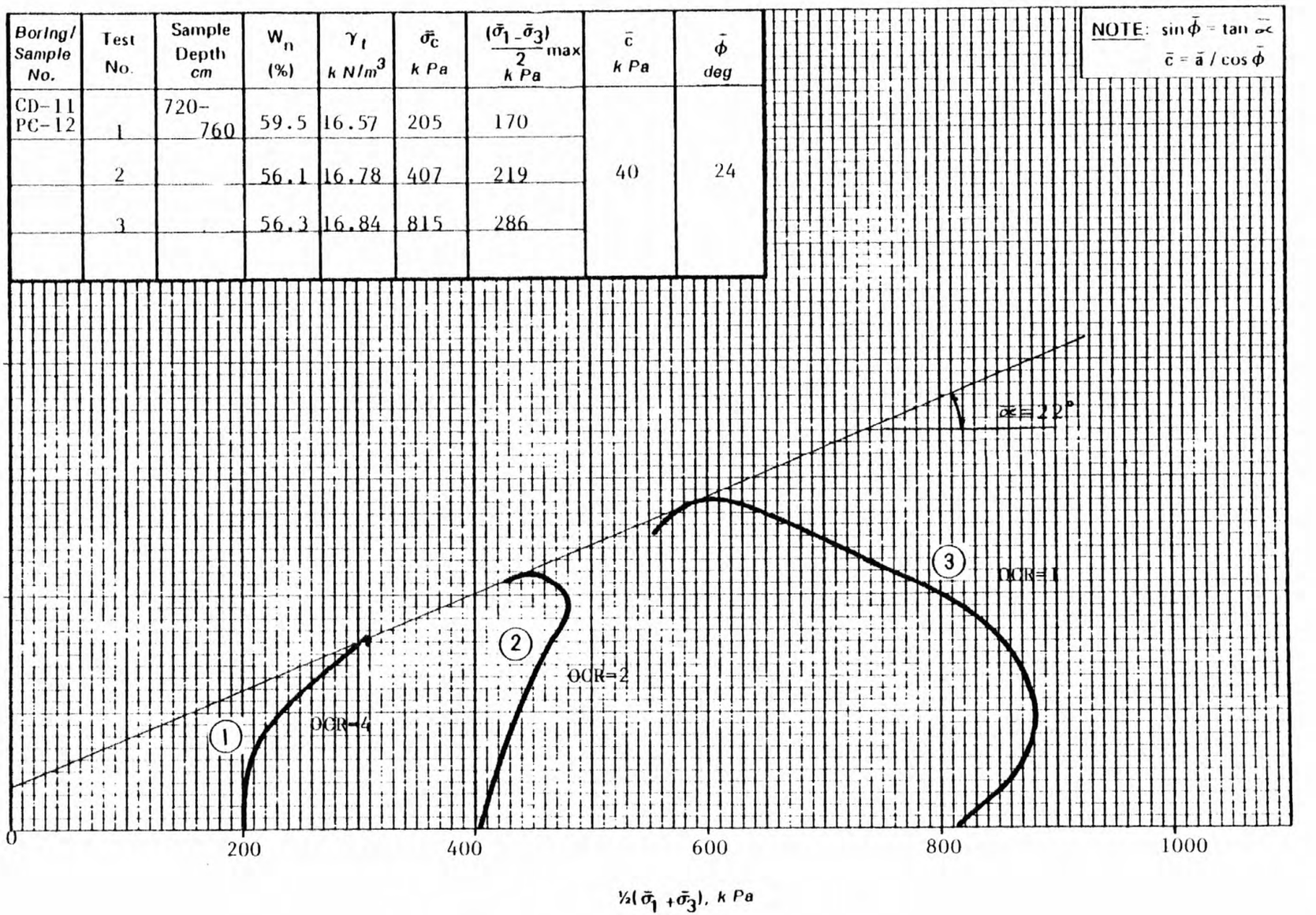
JOB NO. 79 C 01221

WG RP-G

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-11 PC-12	1	720-760	59.5	16.57	205	170	40	24
	2		56.1	16.78	407	219		
	3		56.3	16.84	815	286		

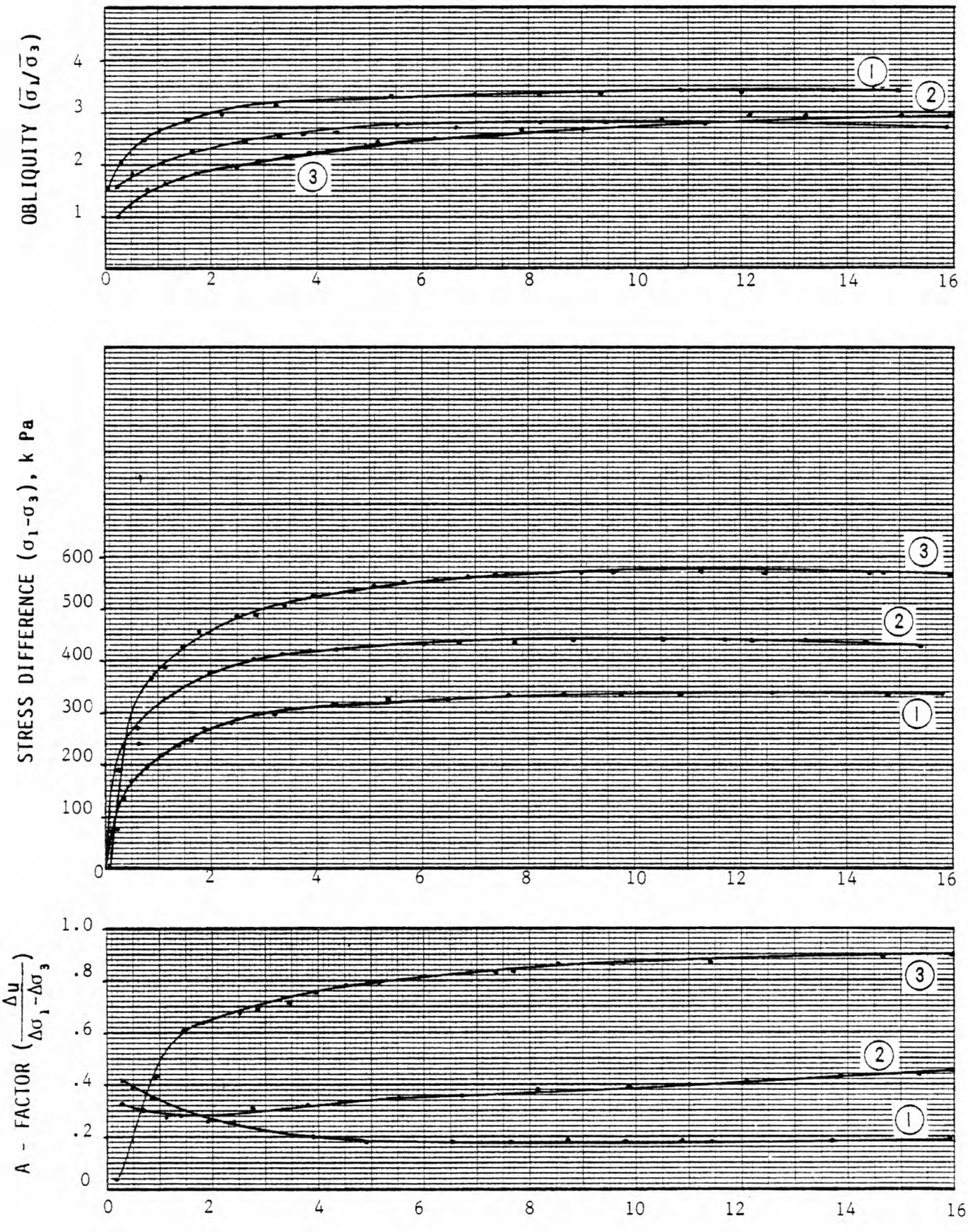
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$

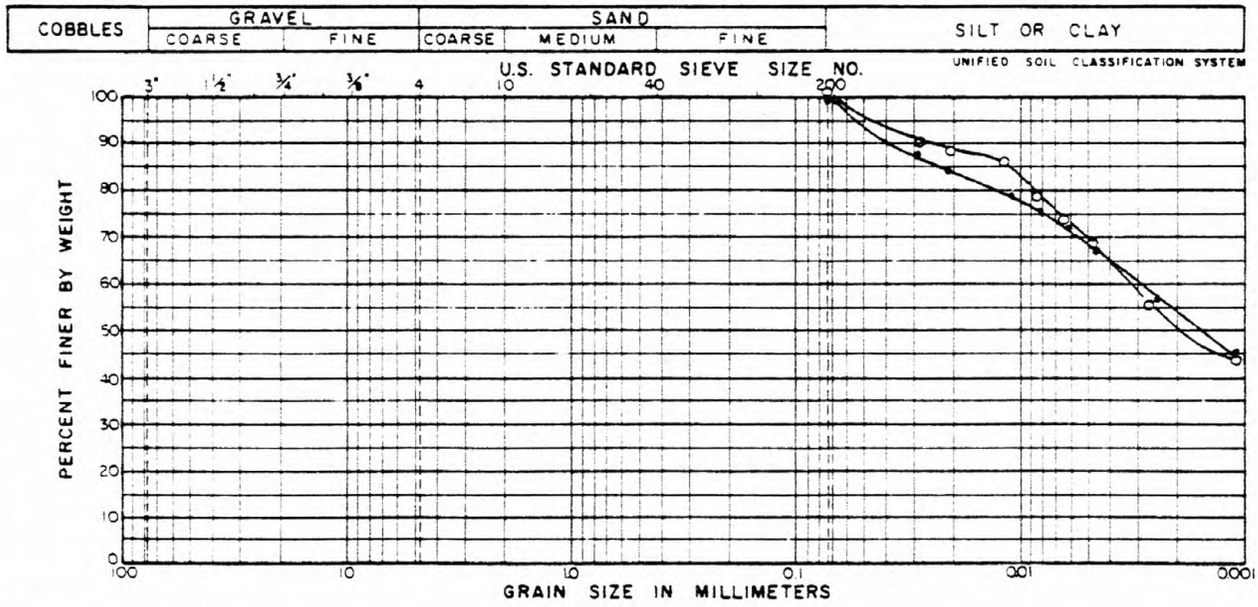


NSP

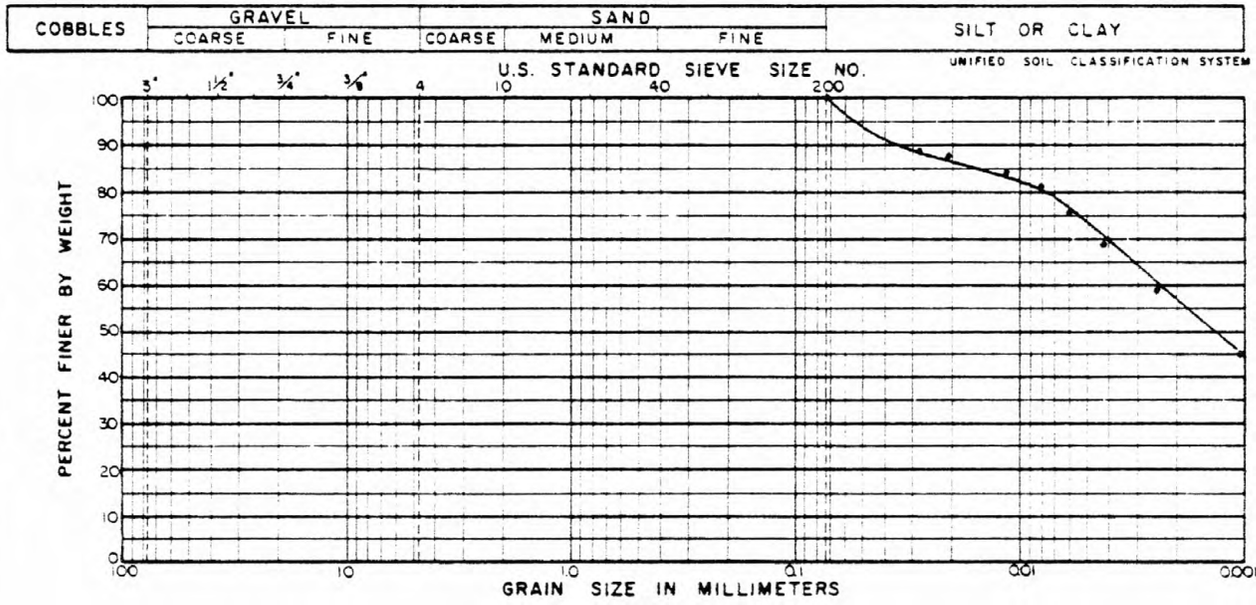
STRESS PATHS FOR C̄IŪ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
4
3
2
1
0
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
600
500
400
300
200
100
0
2
4
6
8
10
12
14
16
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
1.0
.8
.6
.4
.2
0
2
4
6
8
10
12
14
16
3
2
1
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	1	720-760	•	Gray Silty Clay	59.5	54	25
CD11	2	720-760	○	Gray Silty Clay	56.1	52	24



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	3	720-760	•	Gray Silty Clay	56.3	54	27

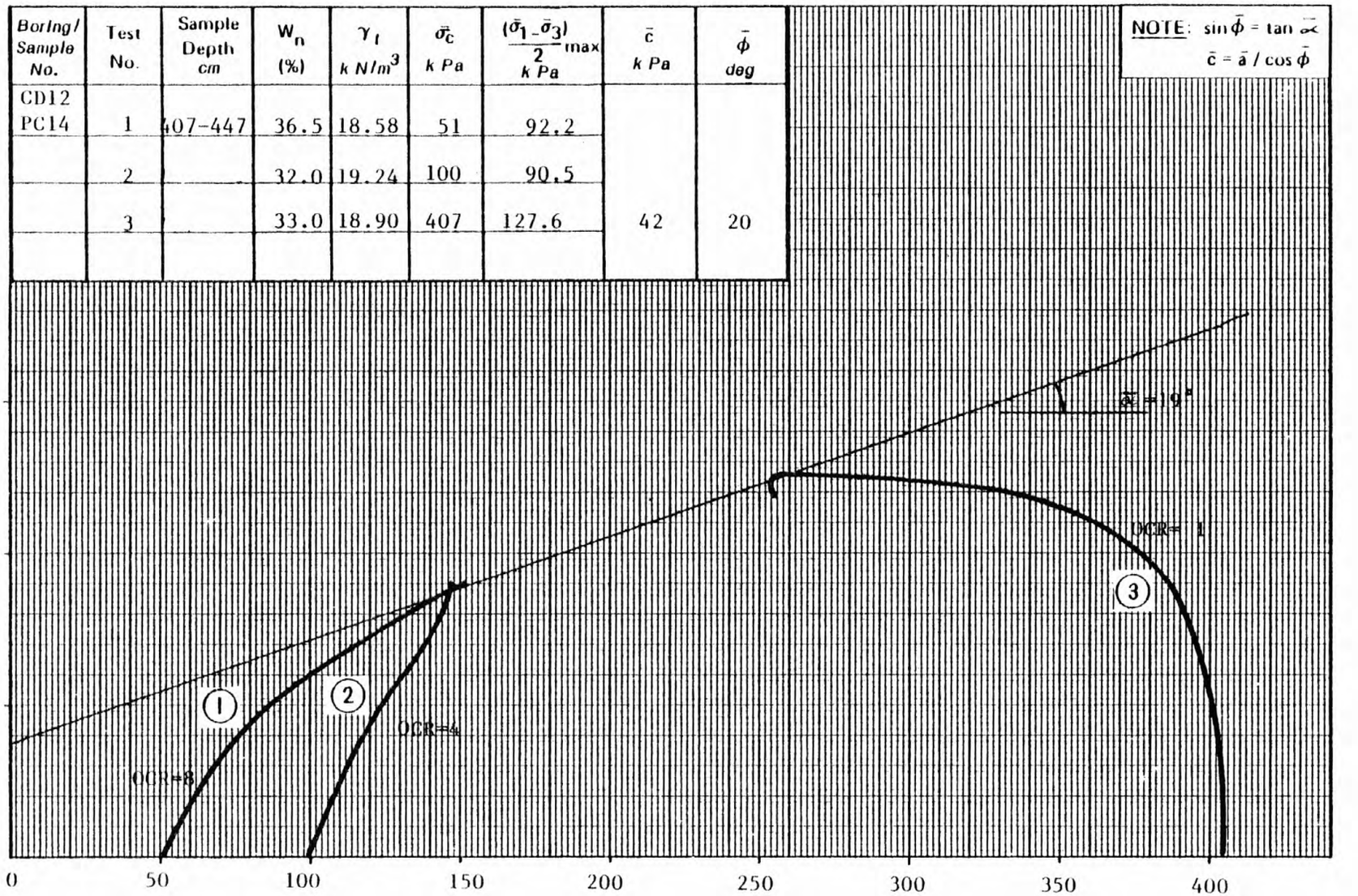
JOB NO. 79 C 01221

WG RP-G

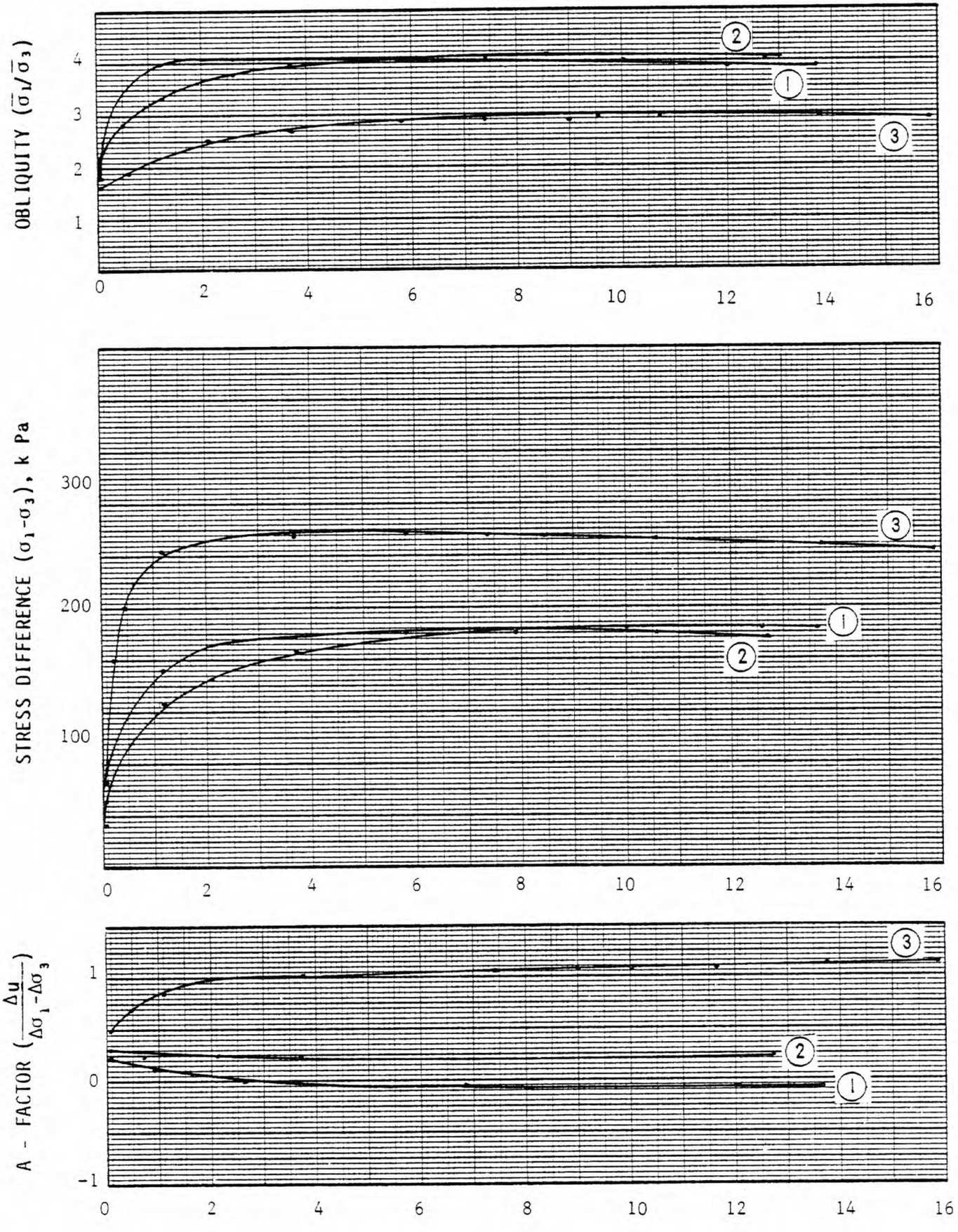
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD12 PC14	1	407-447	36.5	18.58	51	92.2		
	2		32.0	19.24	100	90.5		
	3		33.0	18.90	407	127.6	42	20

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

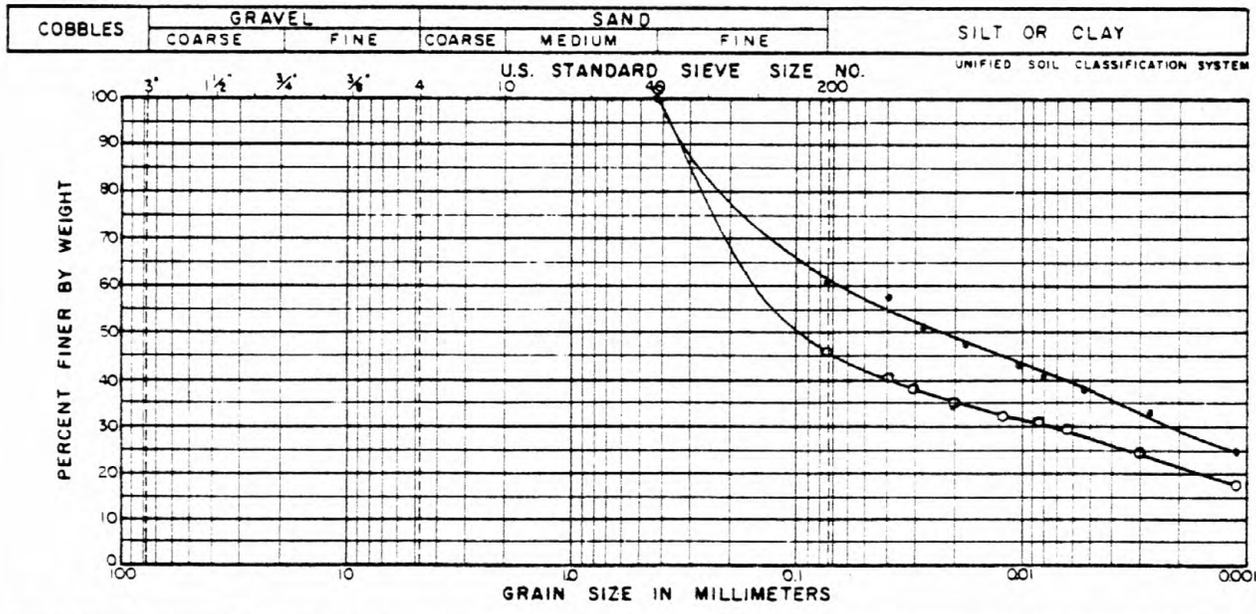
$\bar{c} = \bar{a} / \cos\bar{\phi}$



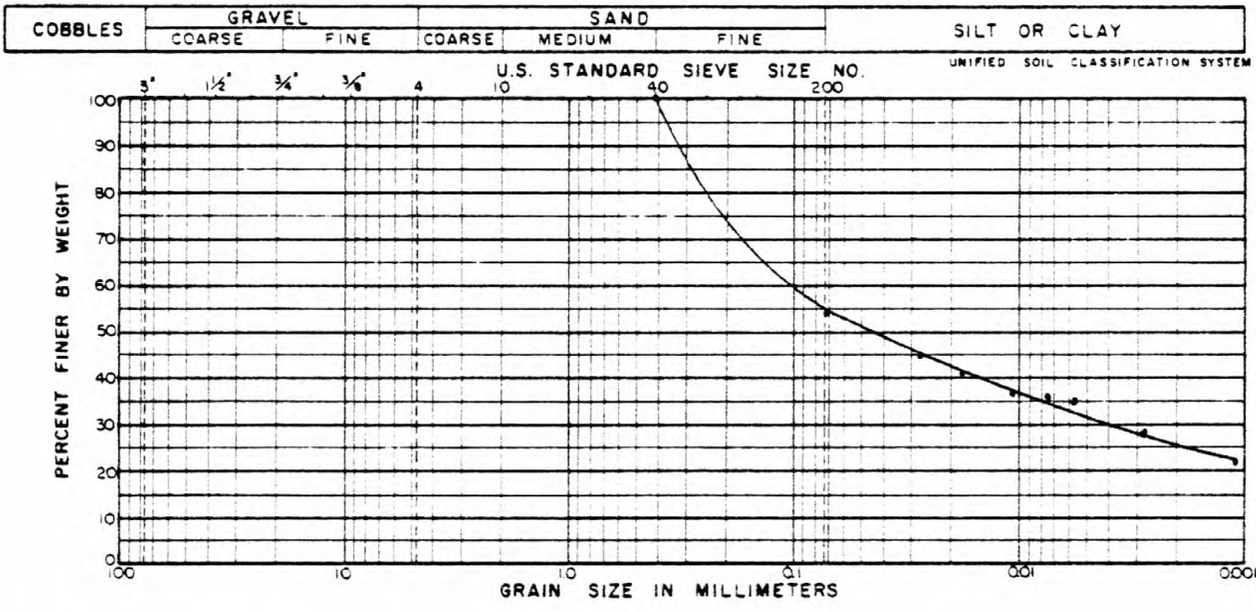
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
4
3
2
1
0
2
4
6
8
10
12
14
16
2
1
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
300
200
100
0
2
4
6
8
10
12
14
16
3
1
2
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
1
0
-1
0
2
4
6
8
10
12
14
16
3
2
1
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD12	1	407-447	•	Gray Fine Sandy Silty Clay	36.5	27	14
CD12	2	407-447	○	Gray Fine Sandy Silty Clay	32.0	27	15



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD12	3	407-447	•	Gray Fine Silty Fine Sand	33.0	25	14

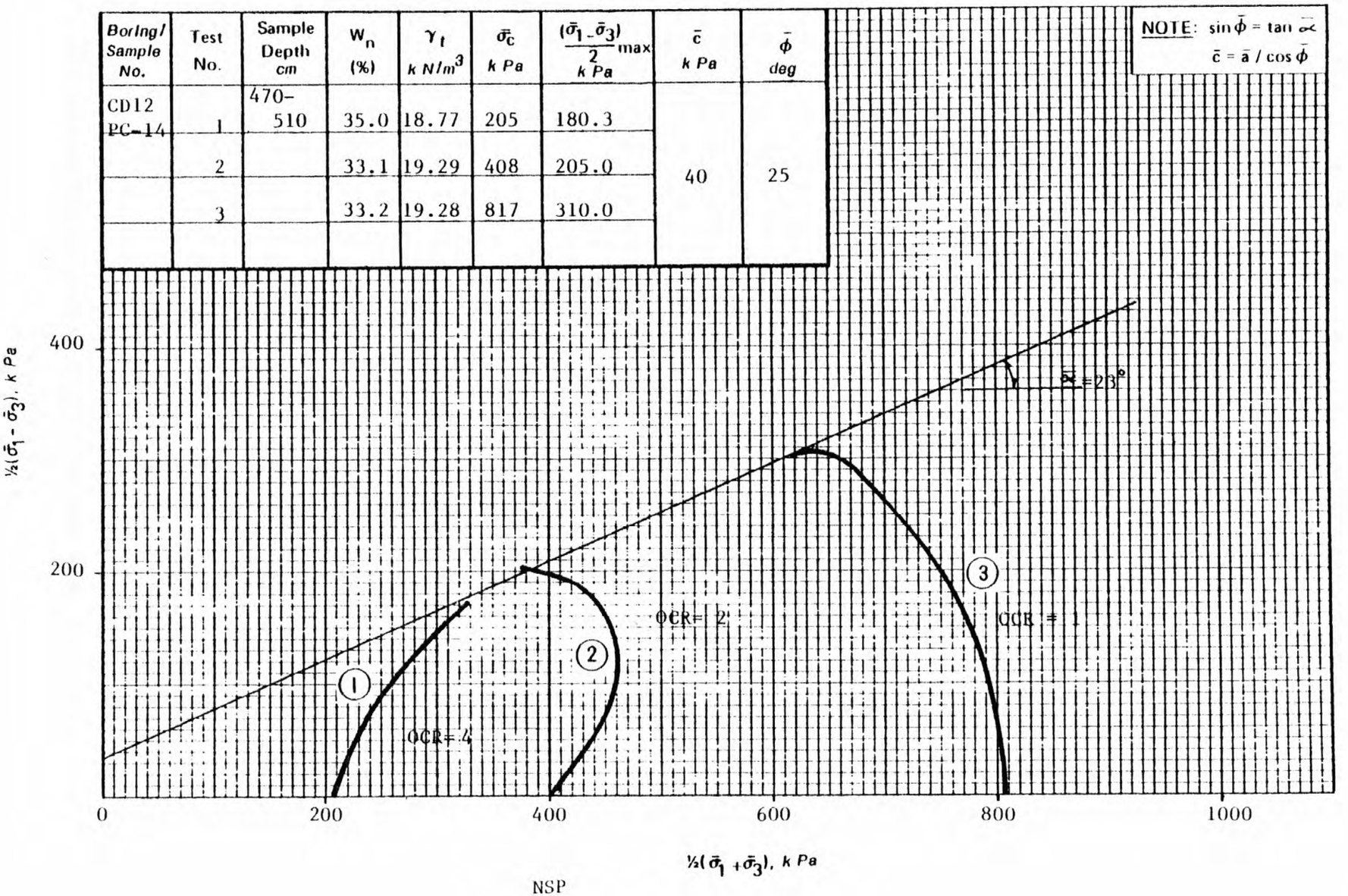
JOB NO.

WG RP-G

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD12 PC-14	1	470-510	35.0	18.77	205	180.3	40	25
	2		33.1	19.29	408	205.0		
	3		33.2	19.28	817	310.0		

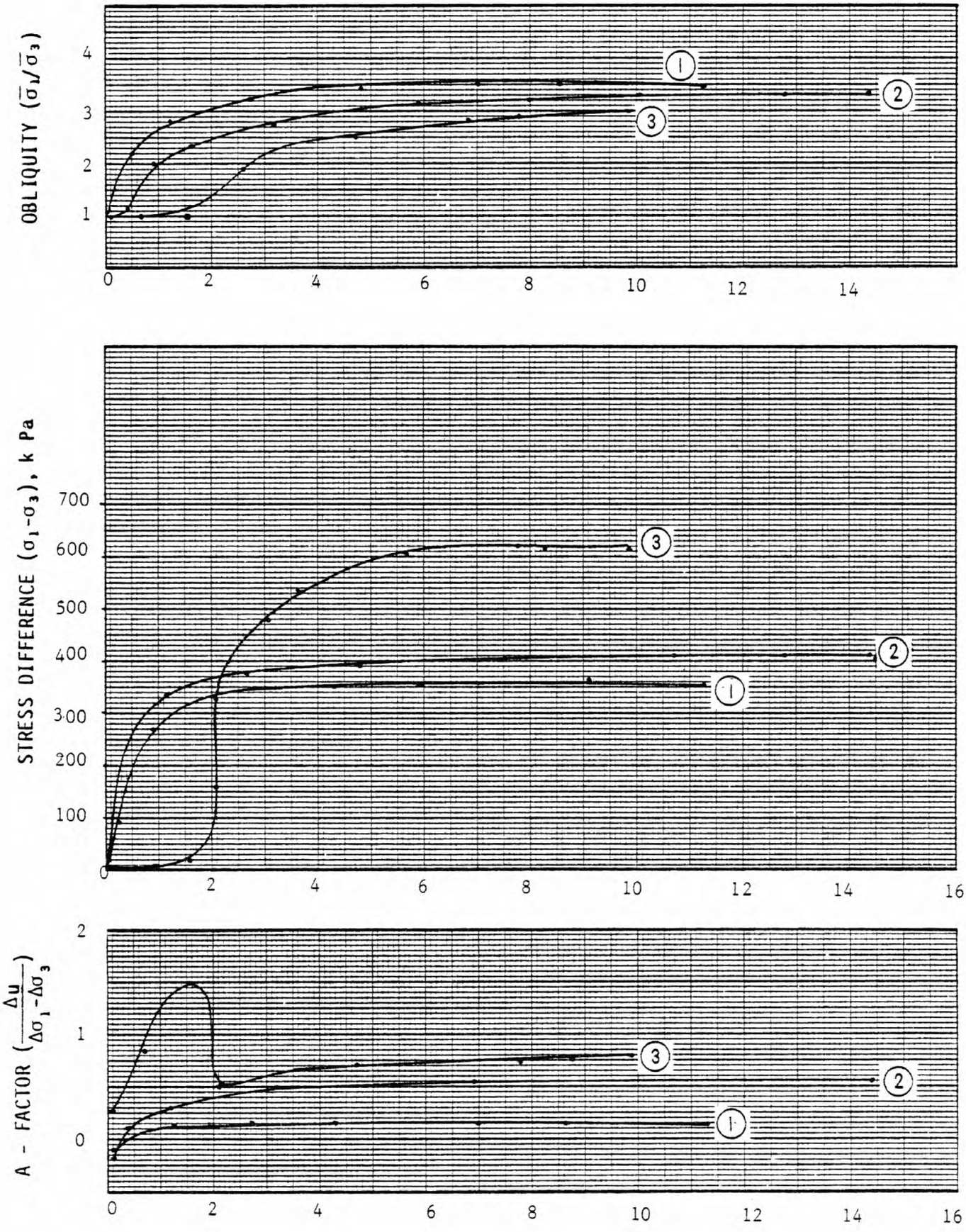
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$

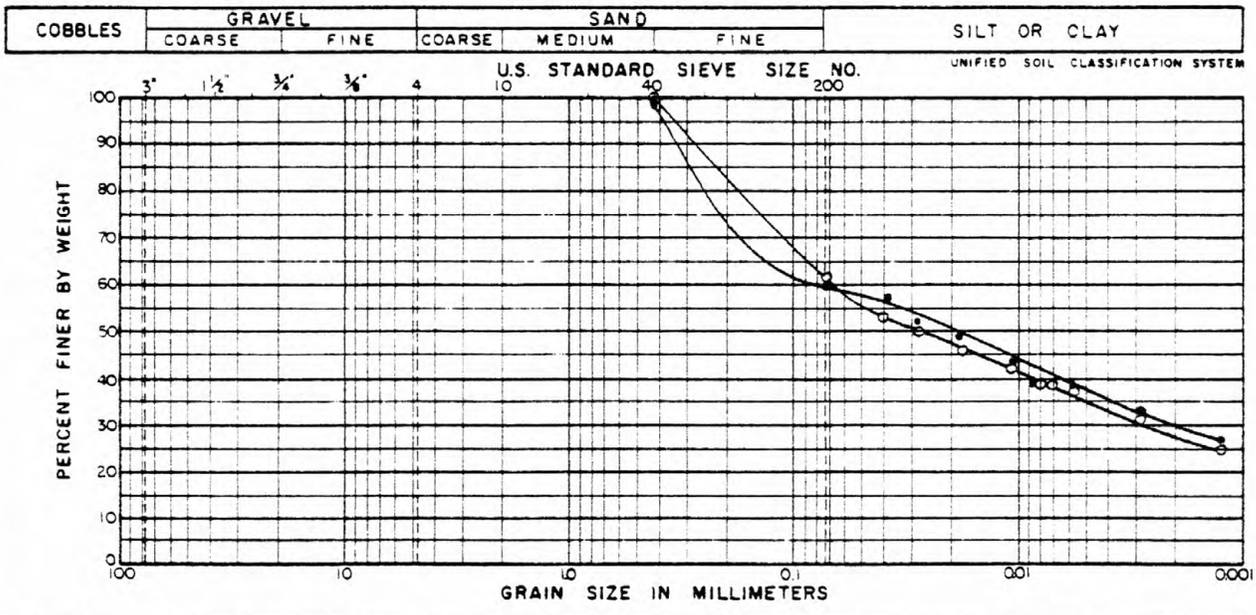


NSP

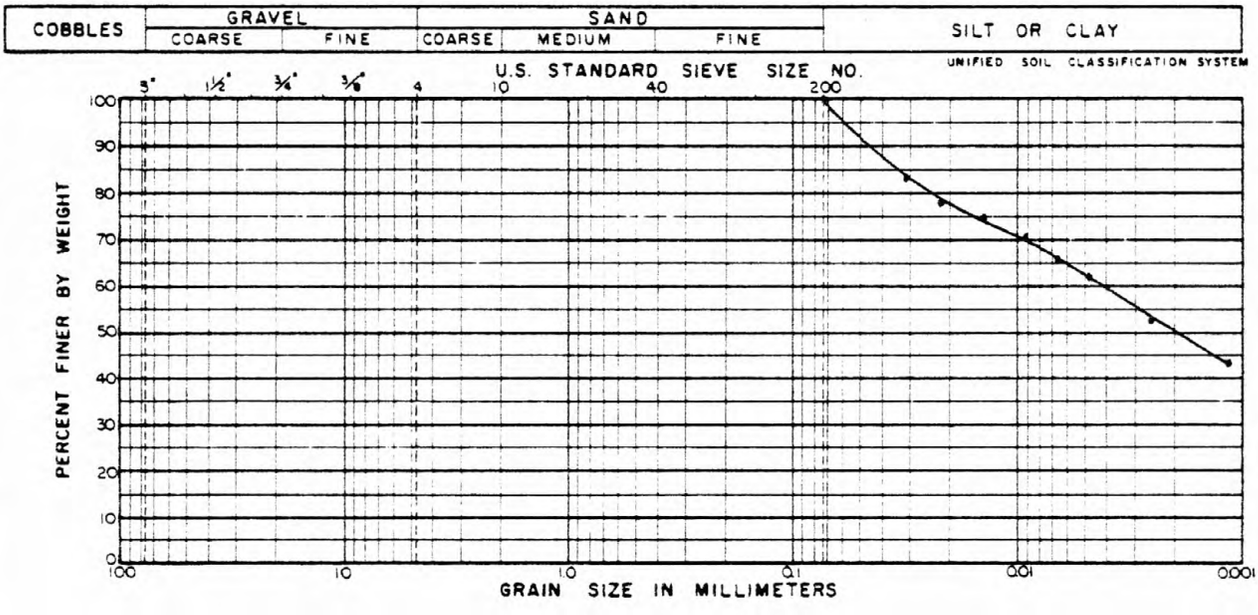
STRESS PATHS FOR $\bar{C}I\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
4
3
2
1
0
2
4
6
8
10
12
14
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
700
600
500
400
300
200
100
0
2
4
6
8
10
12
14
16
3
2
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
2
1
0
0
2
4
6
8
10
12
14
16
3
2
1
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD12	1	470-510	•	Gray Silty Clayey Fine Sand	35.0	27	16
CD12	2	470-510	o	Gray Silty Clayey Fine Sand	33.1	27	18



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD12	3	470-510	•	Gray Silty Clayey Fine Sand	33.2	39	21

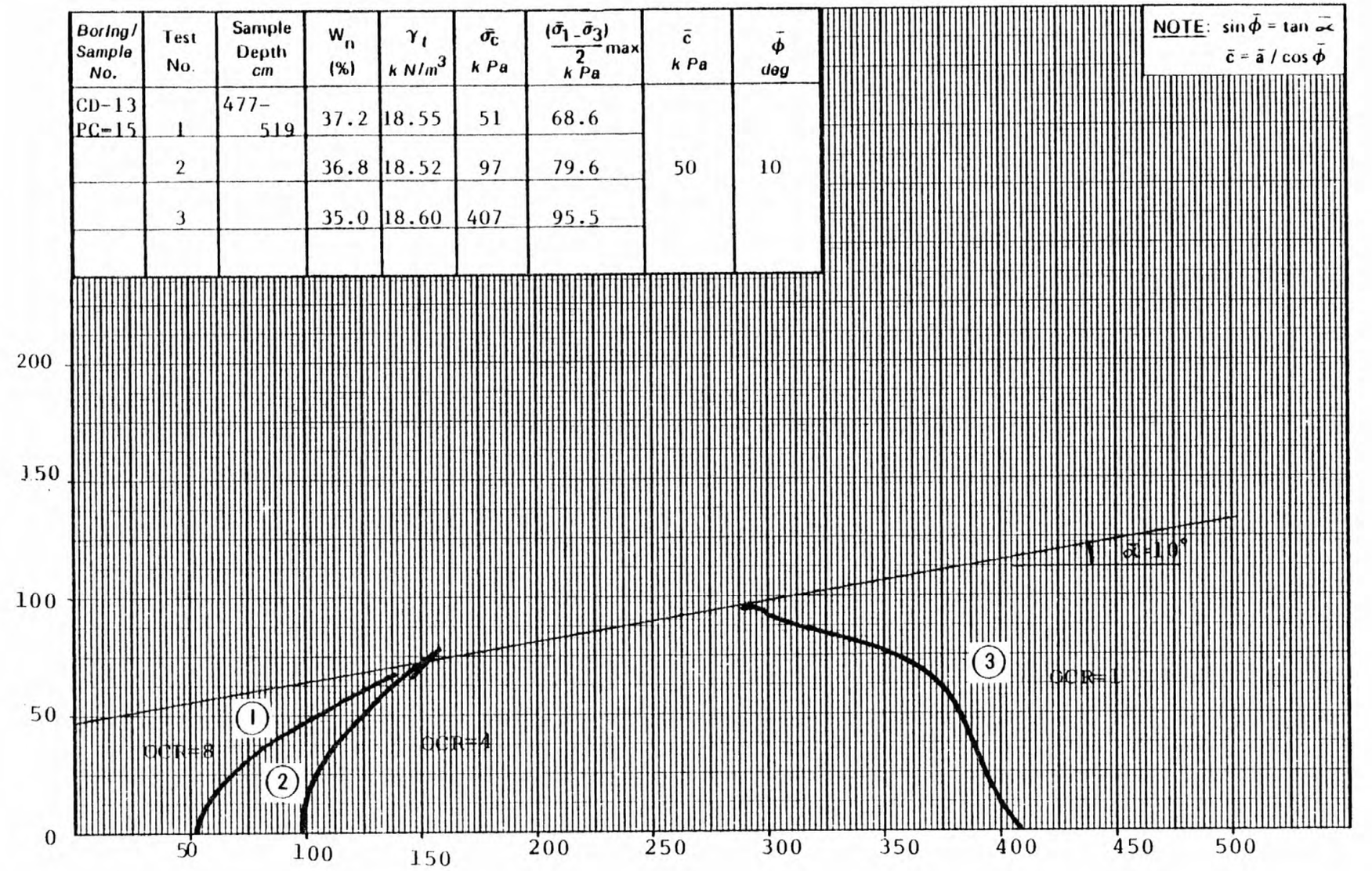
JOB NO. 79 C 01221

WG RP-G

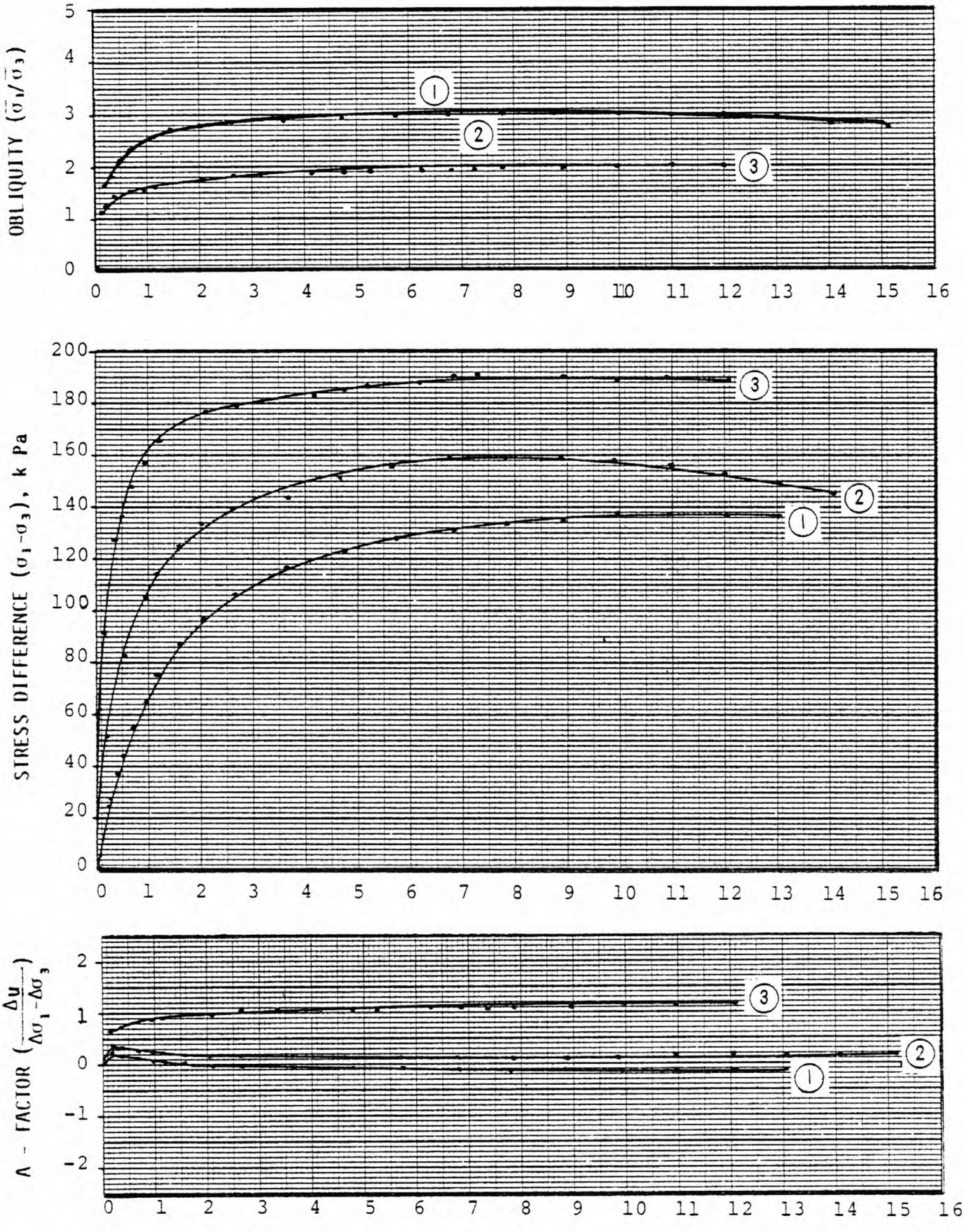
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-13 PC-15	1	477-519	37.2	18.55	51	68.6	50	10
	2		36.8	18.52	97	79.6		
	3		35.0	18.60	407	95.5		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

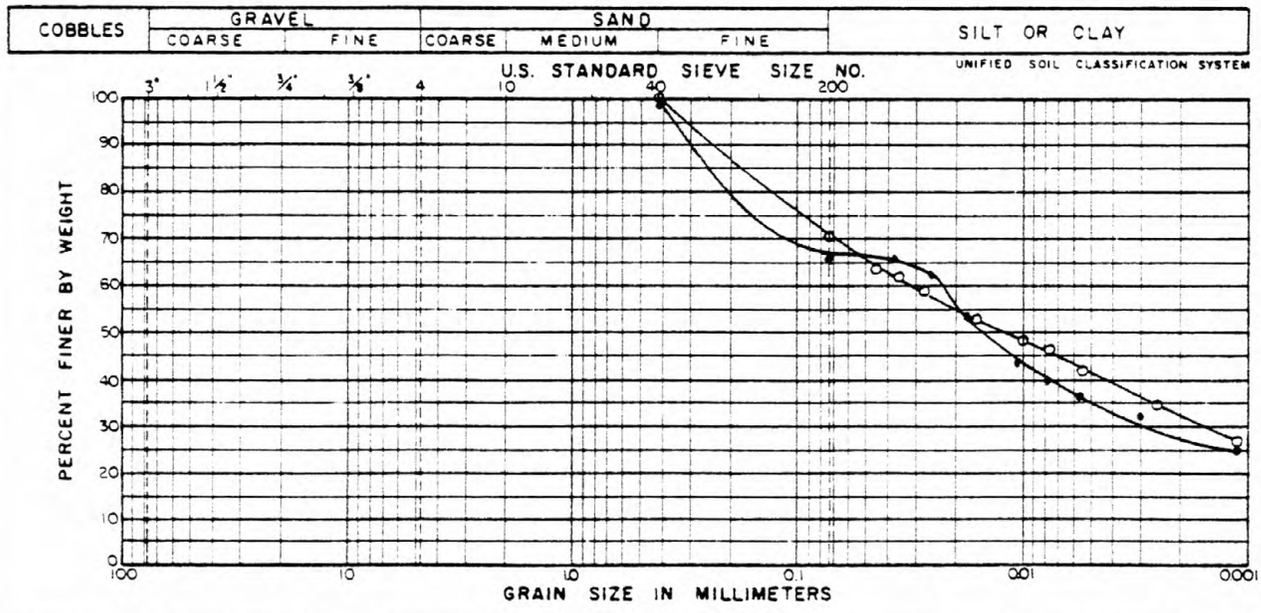
$\bar{c} = \bar{a} / \cos\bar{\phi}$



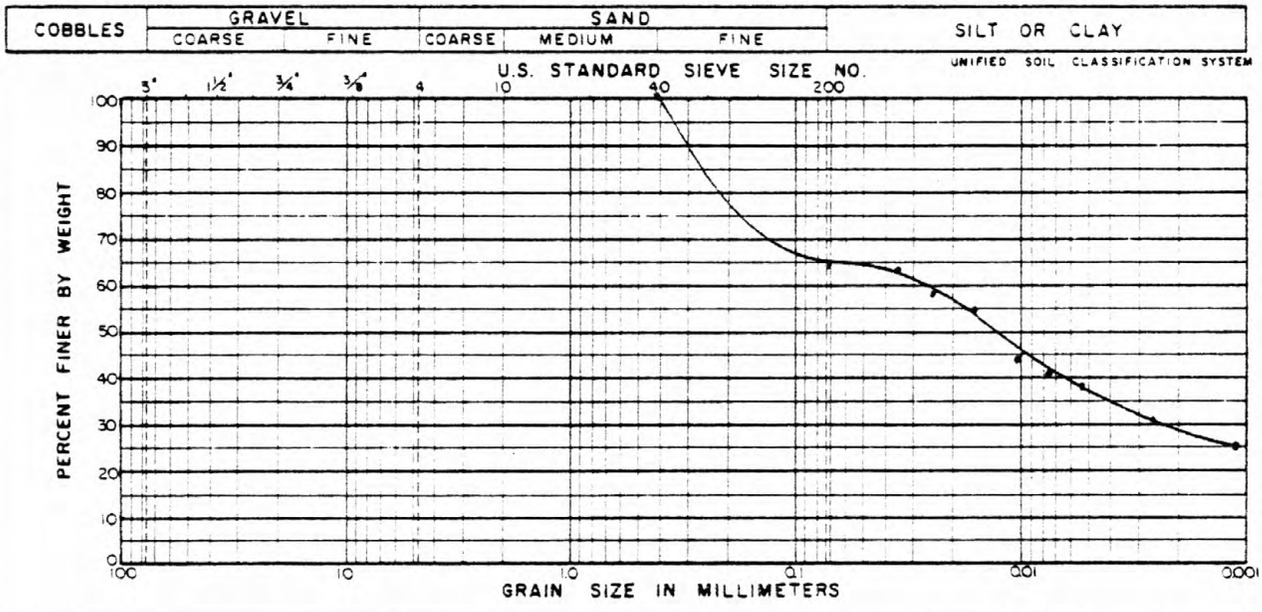
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ), %
1
2
3

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	1	477-519	•	Gray Fine Sandy Silty Clay	37.2	32	16
CD13	2	477-519	o	Gray Fine Sandy Silty Clay	36.8	30	16



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	3	477-519	•	Gray Fine Sandy Silty Clay	35.0	25	15

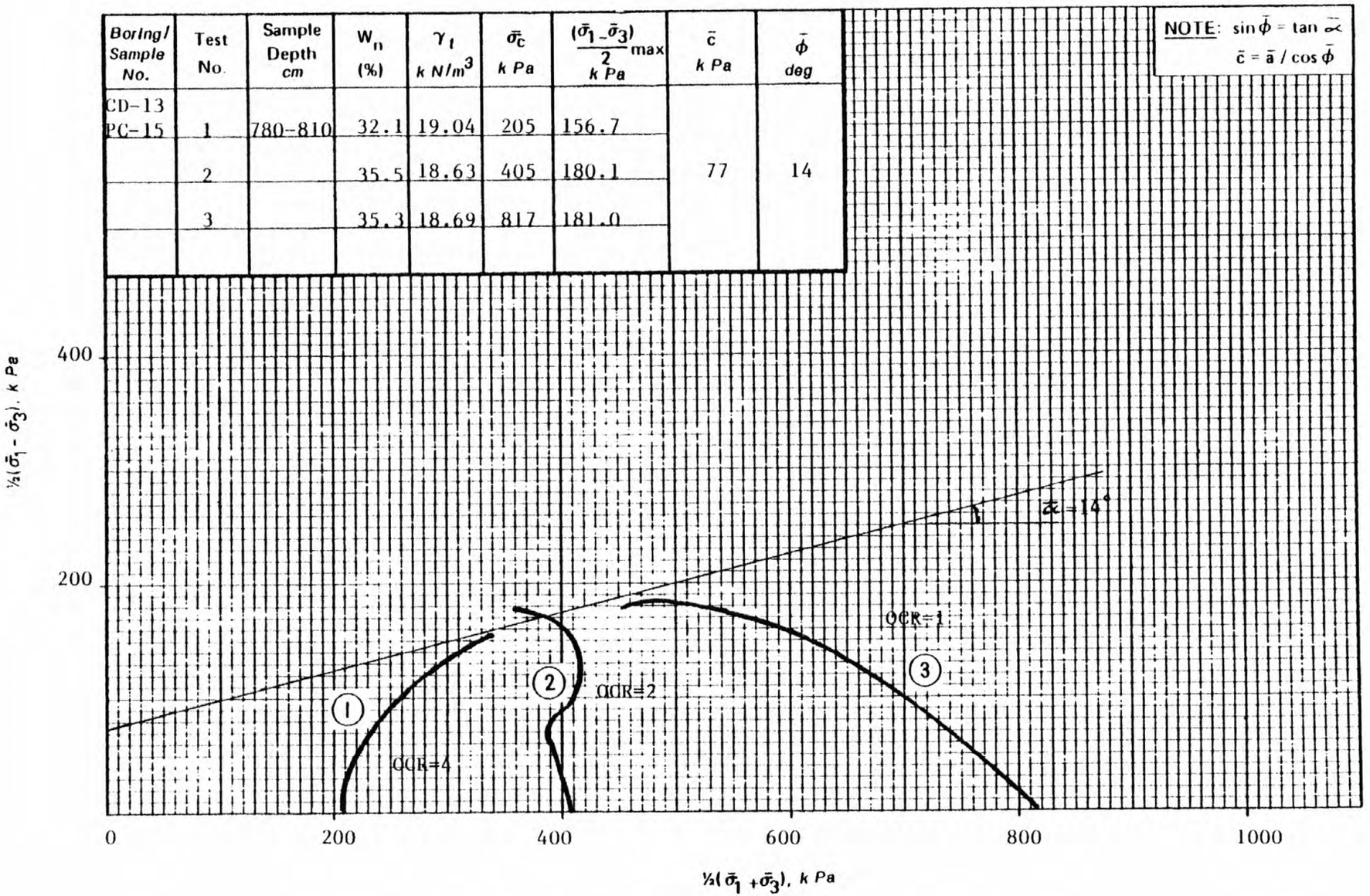
JOB NO.

WG RP-G

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t k N/m^3	$\bar{\sigma}_c$ k Pa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ k Pa	$\bar{c}$ k Pa	$\bar{\phi}$ deg
CD-13 PC-15	1	780-810	32.1	19.04	205	156.7	77	14
	2		35.5	18.63	405	180.1		
	3		35.3	18.69	817	181.0		

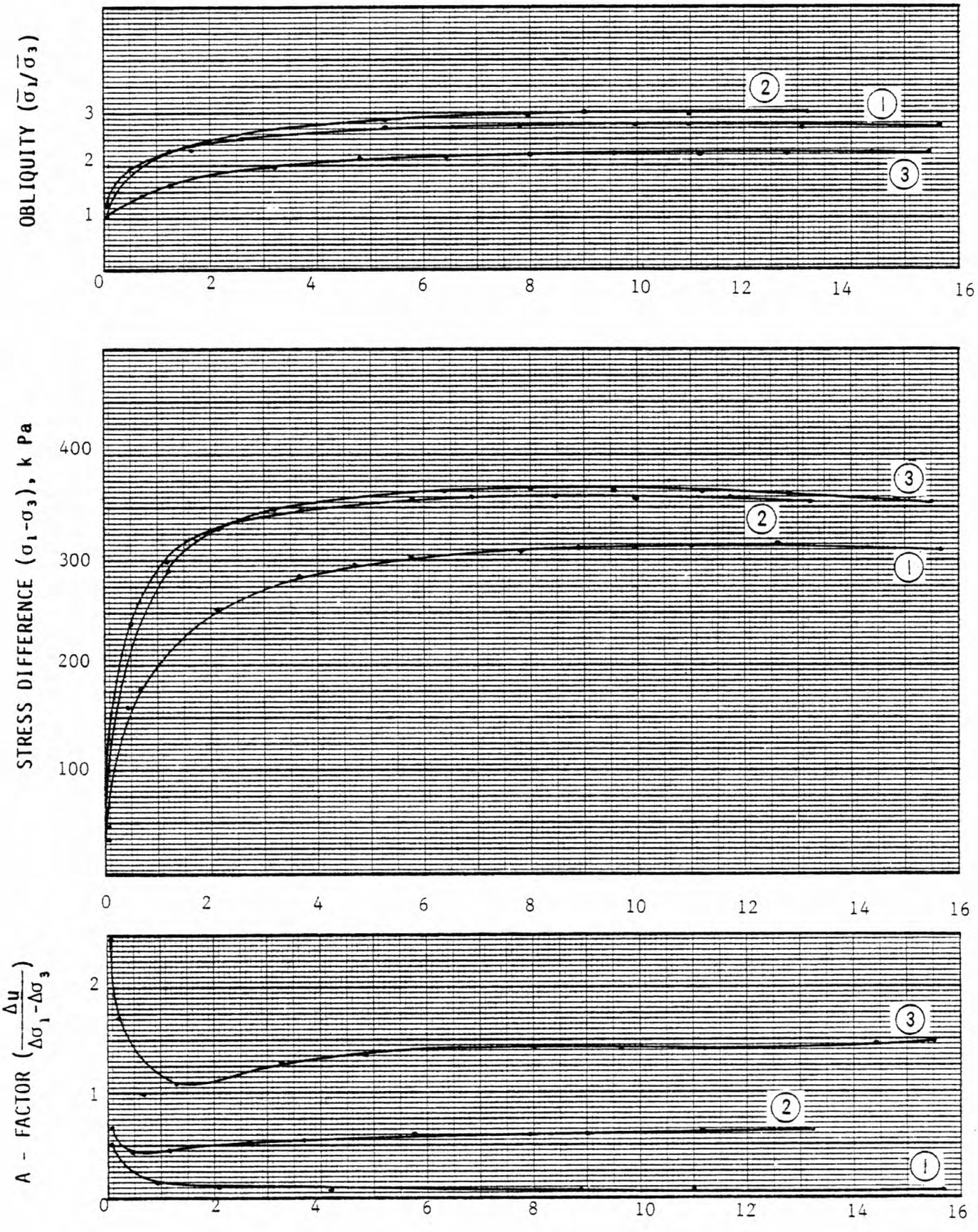
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$

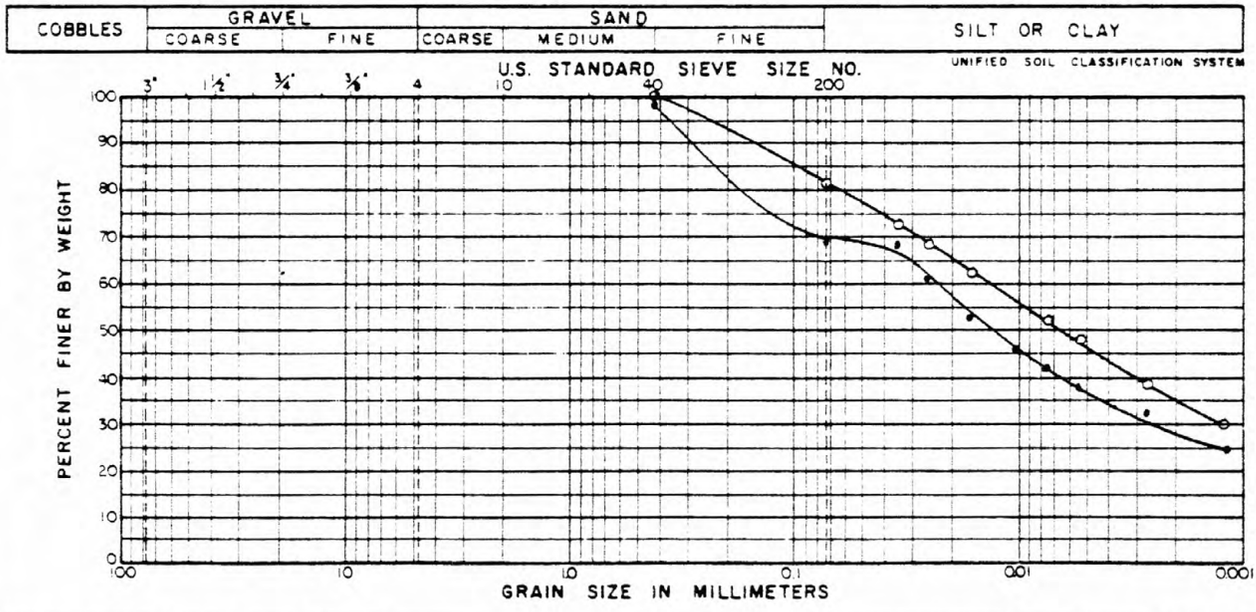


NSP

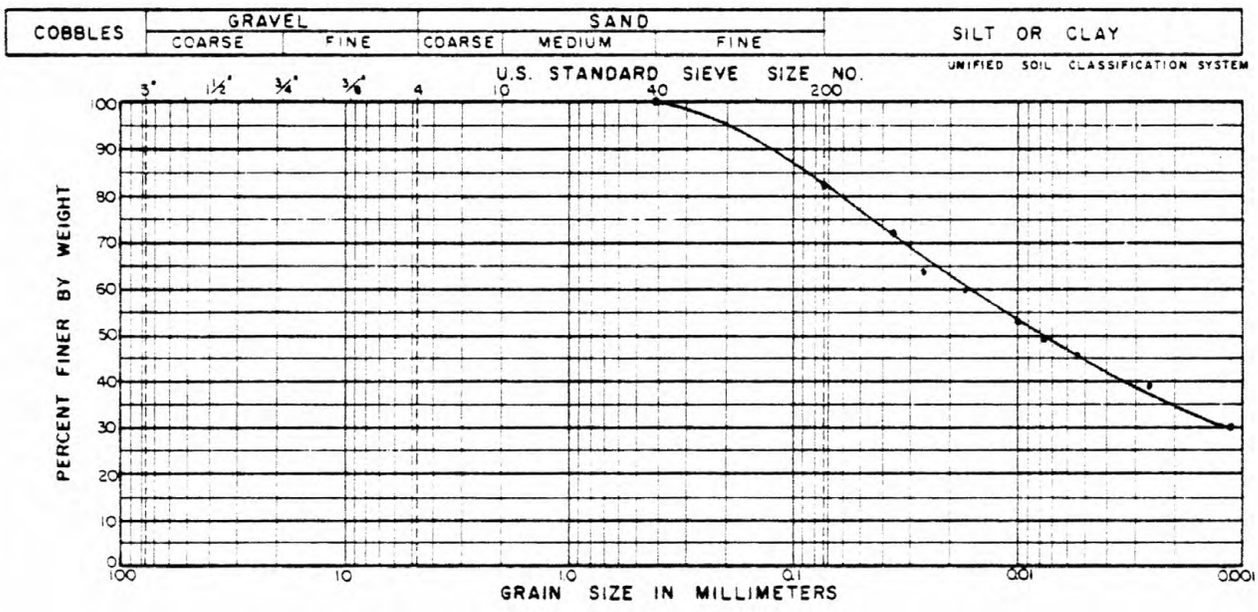
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
3
2
1
0
2
4
6
8
10
12
14
16
1
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
400
300
200
100
0
2
4
6
8
10
12
14
16
1
2
3
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
2
1
0
2
4
6
8
10
12
14
16
1
2
3
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	1	780-810	•	Gray Fine Sandy Silty Clay	32.1	30	16
CD13	2	780-810	o	Gray Fine Sandy Silty Clay	35.5	34	19



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	3	780-810	•	Gray Fine Sandy Silty Clay	35.3	34	18

JOB NO.

WG RP-G

APPENDIX

C

SUMMARY OF LABORATORY TEST RESULTS

BORING and SAMPLE No	DEPTH - feet	CLASSIFICATION	SPECIAL TESTS No.	NATURAL WATER CONTENT (%)	AFTERBERG LIMITS		UNCON. COMPRESS		UNIT DRY WGT kN/m³	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST.	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			U.U.	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-1 PC-5	250-300		1	57.0	48	25			10.53	2.70								.950
			2	56.3	50	23			10.75	2.68								.990
			3	55.0	47	21			10.93	2.69								.950
			4	61.6	52	28			10.48	2.73							$\overline{CAU}$	.963
CD-4 PC-3	492-542		1	59.1	54	28			10.27	2.74								.990
			2	52.8	53	27			9.50	2.73								.998
			3	65.8	58	22			9.75	2.69								.985
			4	58.4	54	22			10.29	2.70							$\overline{CAU}$	.991
CD-5 PC-4	211-261		1	60.4	57	27			10.29	2.73								.996
			2	67.1	52	27			9.72	2.73								.987
			3	63.9	54	26			9.83	2.74								.990
			4	62.7	58	26			10.02	2.72							$\overline{CAU}$	.991

* See Test Curves

SUMMARY OF LABORATORY TEST RESULTS

BORING and SAMPLE No.	DEPTH - feet CM	CLASSIFICATION	SPECIAL TESTS No.	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS		UNCON. COMPRESS		UNIT DRY WGT kN/m³	SPECIFIC GRAVITY	GRAIN SIZE*		OPT. MOIST	CONSOLID.	TRIAXIAL*			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			U.U.	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-6 PC-9	591-641		1	58.9	53	25			10.25	2.75								.992
			2	53.1	56	28			10.82	2.75								.977
			3	57.0	50	25			10.61	2.71								.998
			4	58.7	59	25			10.51	2.74							$\overline{CAU}$	.989
CD -7 PC-10	479-529		1	59.9	57	25			10.30	2.65								.998
			2	61.6	56	29			10.08	2.74								.998
			3	64.7	50	28			9.85	2.72								.960
			4	58.9	52	28			10.47	2.75							$\overline{CAU}$	.985
CD-9 PC-7	237-287		1	87.2	68	27			7.67	2.68								.997
			2	82.7	71	28			8.08	2.69								.998
			3	81.0	69	28			8.35	2.67								1.000
			4	71.8	57	25			9.14	2.68							$\overline{CAU}$	.998

* See Test Curves

Test in Progress

SUMMARY OF LABORATORY TEST RESULTS

BORING and SAMPLE No	DEPTH - feet	CLASSIFICATION	SPECIAL TESTS No.	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS		UNCON. COMPRESS		UNIT DRY WGT kN/m³	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST.	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			UU	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-10 PC-11	227-277		1	31.7	30	15			14.35	2.71								.998
			2	32.0	28	13			14.30	2.74								.980
			3	35.7	21	15			13.84	2.70								.950
			4	26.8	26	14			15.69	2.72							$\overline{CAU}$	.976
CD-4 PC-12	320-370		1	63.5	52	26			9.88	2.75								.998
			2	58.6	49	22			10.52	2.75								.994
			3	53.7	55	30			11.09	2.72								.997
			4	57.8	52	24			11.17	1.74							$\overline{CAU}$	.996
CD-12 PC- 14	214-264		1	62.3	52	24			10.10	2.73								.998
			2	38.5	34	17			13.00	2.73								.998
			3	23.6	NP	NP			16.12	2.72								.963
			4	21.5	19	16			13.50	2.72							$\overline{CAU}$	.986

* See Test Curves

SUMMARY OF LABORATORY TEST RESULTS

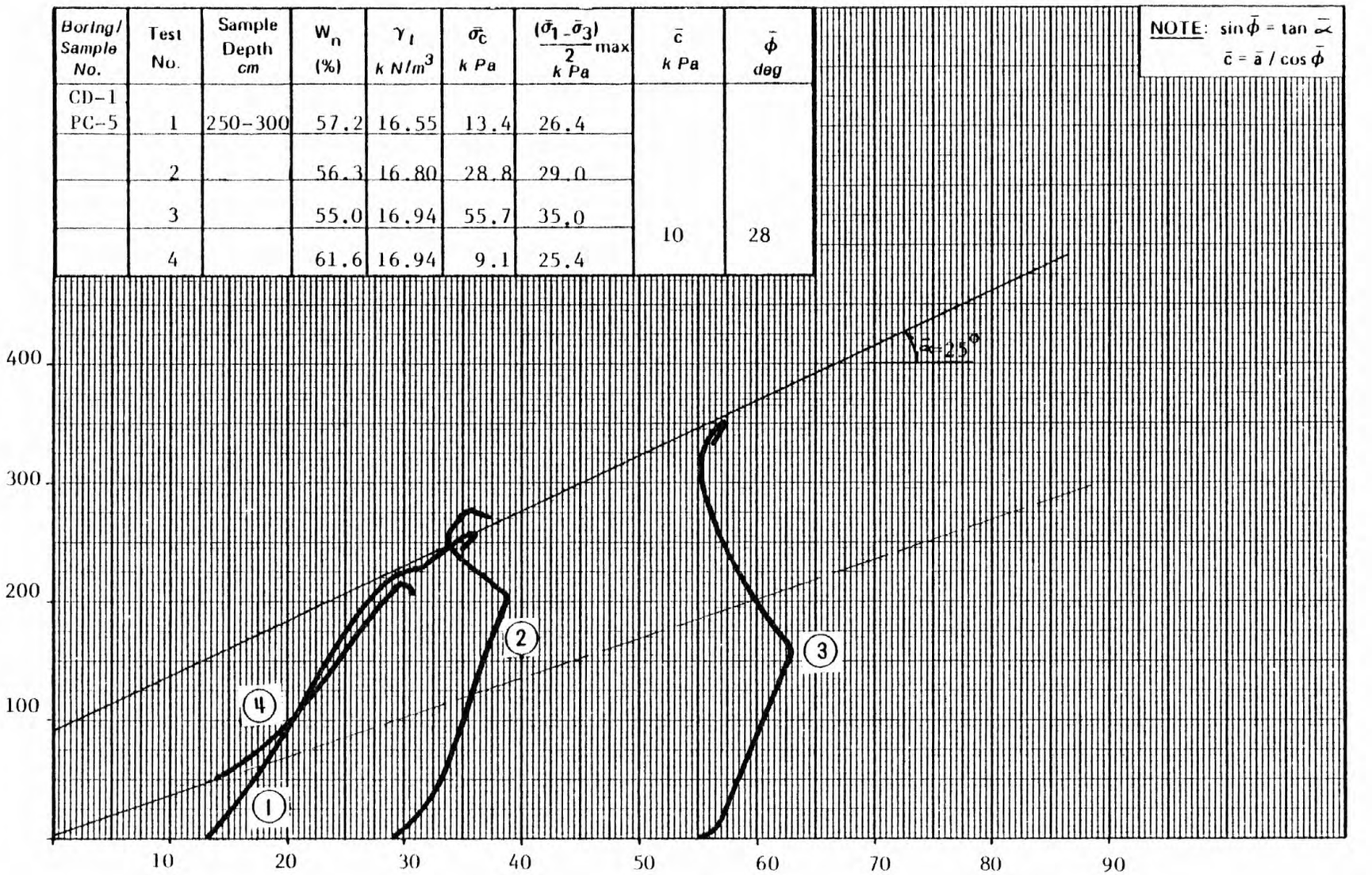
BORING and SAMPLE No	DEPTH - feet	CLASSIFICATION	SPECIAL TESTS No.	NATURAL WATER CONTENT (%)	ATTERBERG LIMITS		UNCON COMPRESS		UNIT DRY WGT kN/m³	SPECIFIC GRAVITY	GRAIN SIZE *		OPT. MOIST	CONSOLID.	TRIAXIAL *			
					LIQUID LIMIT	PLASTIC LIMIT	STRESS	STRAIN (%)			SIEVE	HYDR.			UU	$\overline{CIU}$	CELL PRESSURE (psi)	B
CD-13 PC-15	308-358		1	64.9	50	25			9.92	2.73								.998
			2	64.7	52	29			9.93	2.75								.985
			3	59.9	54	24			10.42	2.75								.995
			4	63.3	56	21			9.91	2.73							$\overline{CAU}$	.993

* See Test Curves

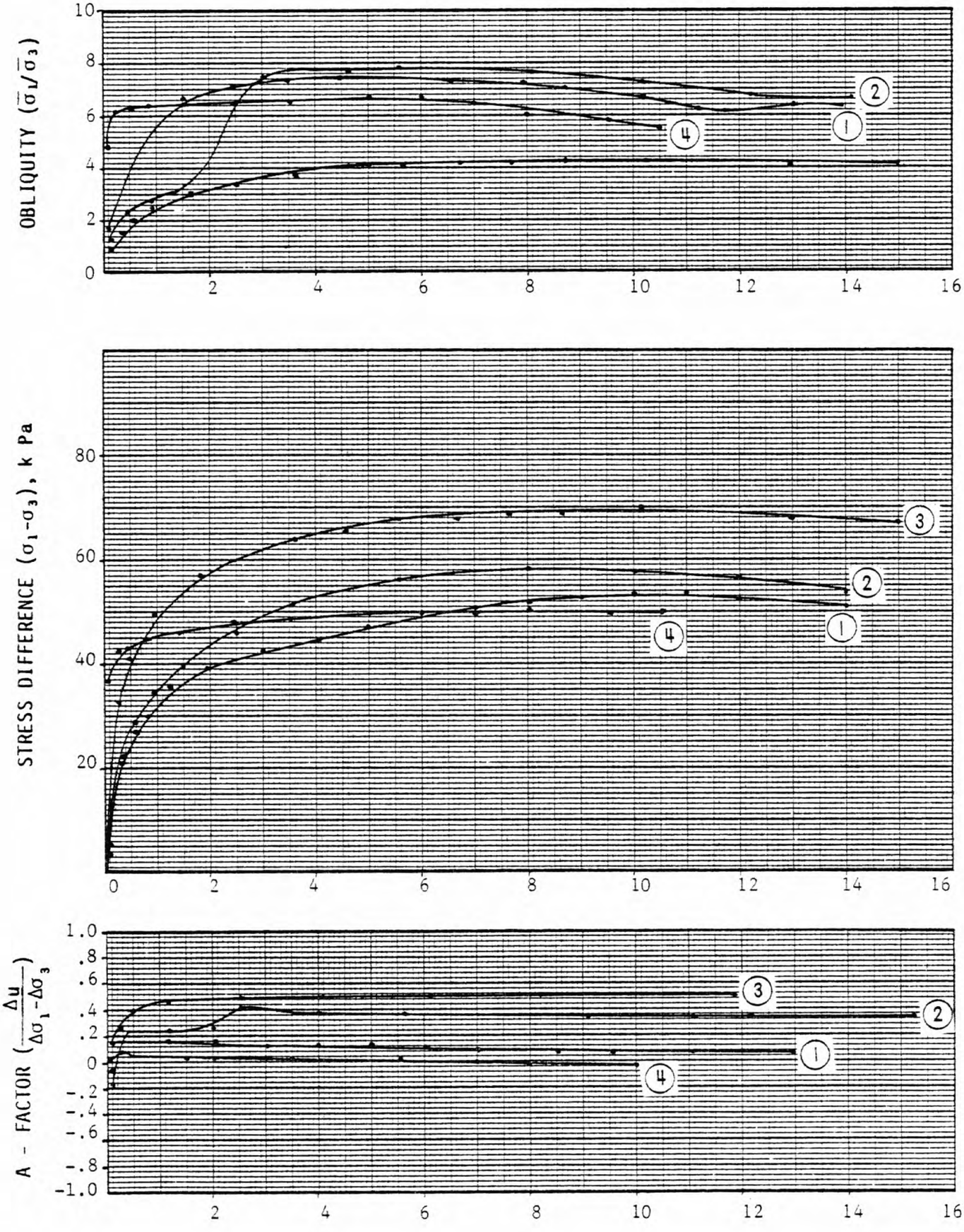
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-1 PC-5	1	250-300	57.2	16.55	13.4	26.4	10	28
	2		56.3	16.80	28.8	29.0		
	3		55.0	16.94	55.7	35.0		
	4		61.6	16.94	9.1	25.4		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

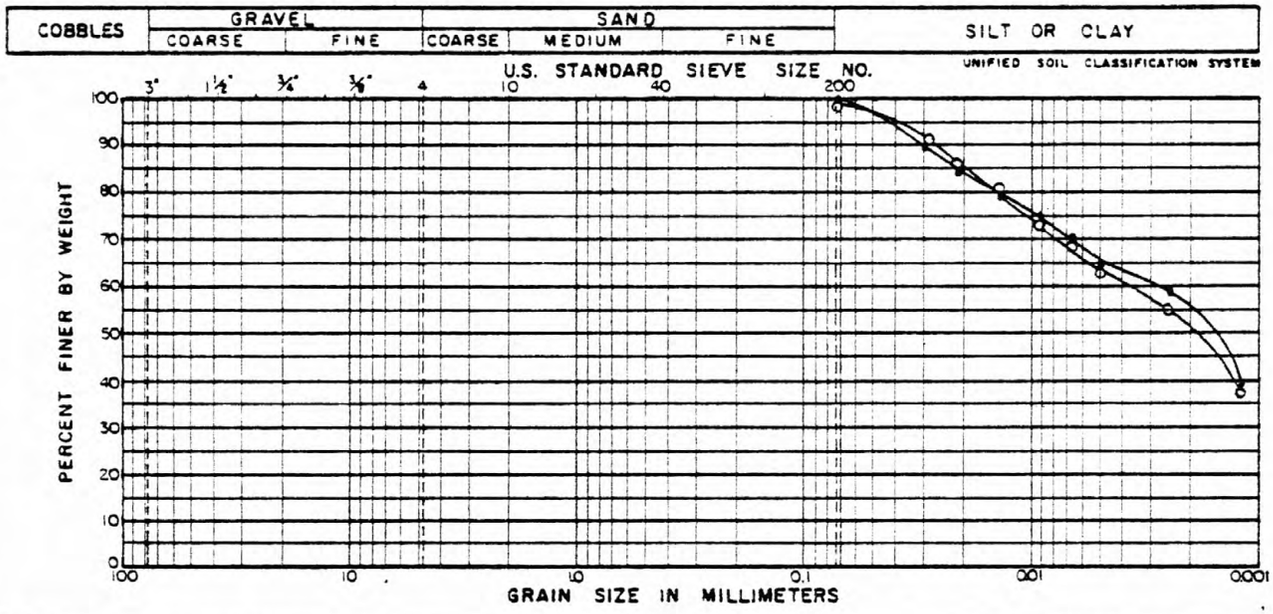
$\bar{c} = \bar{a} / \cos\bar{\phi}$



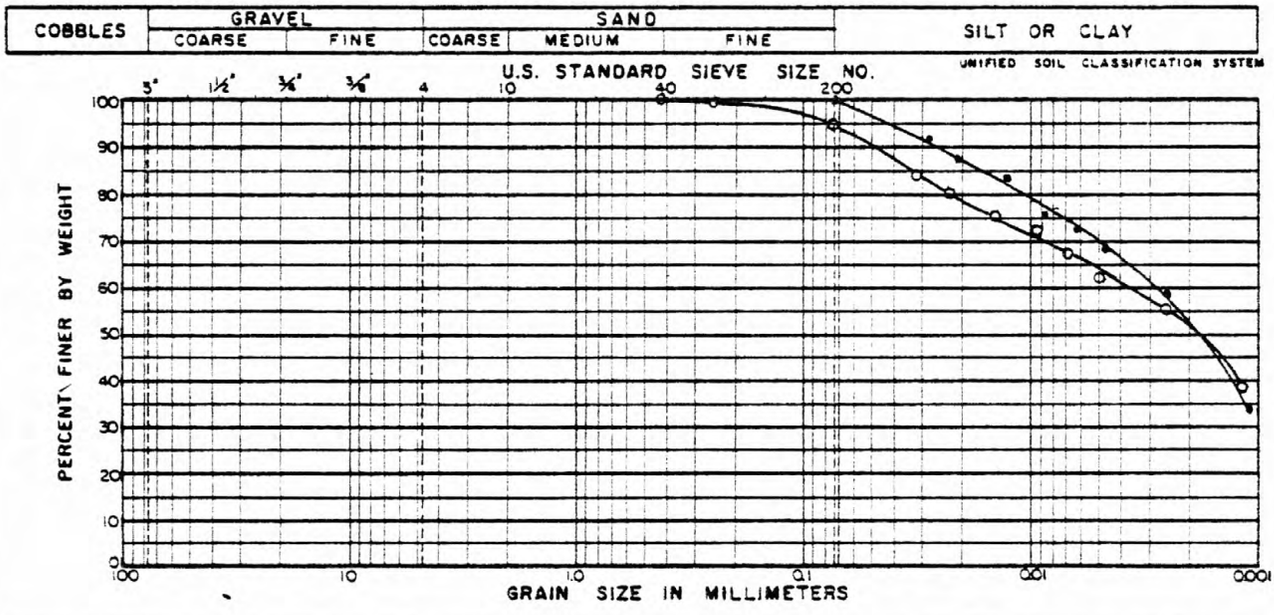
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ),%
1
2
3
4

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-1	1	250-300	•	Dark Gray Silty Clay	57.2	48	25
CD-1	2	250-300	○	Gray Silty Clay	56.3	50	23



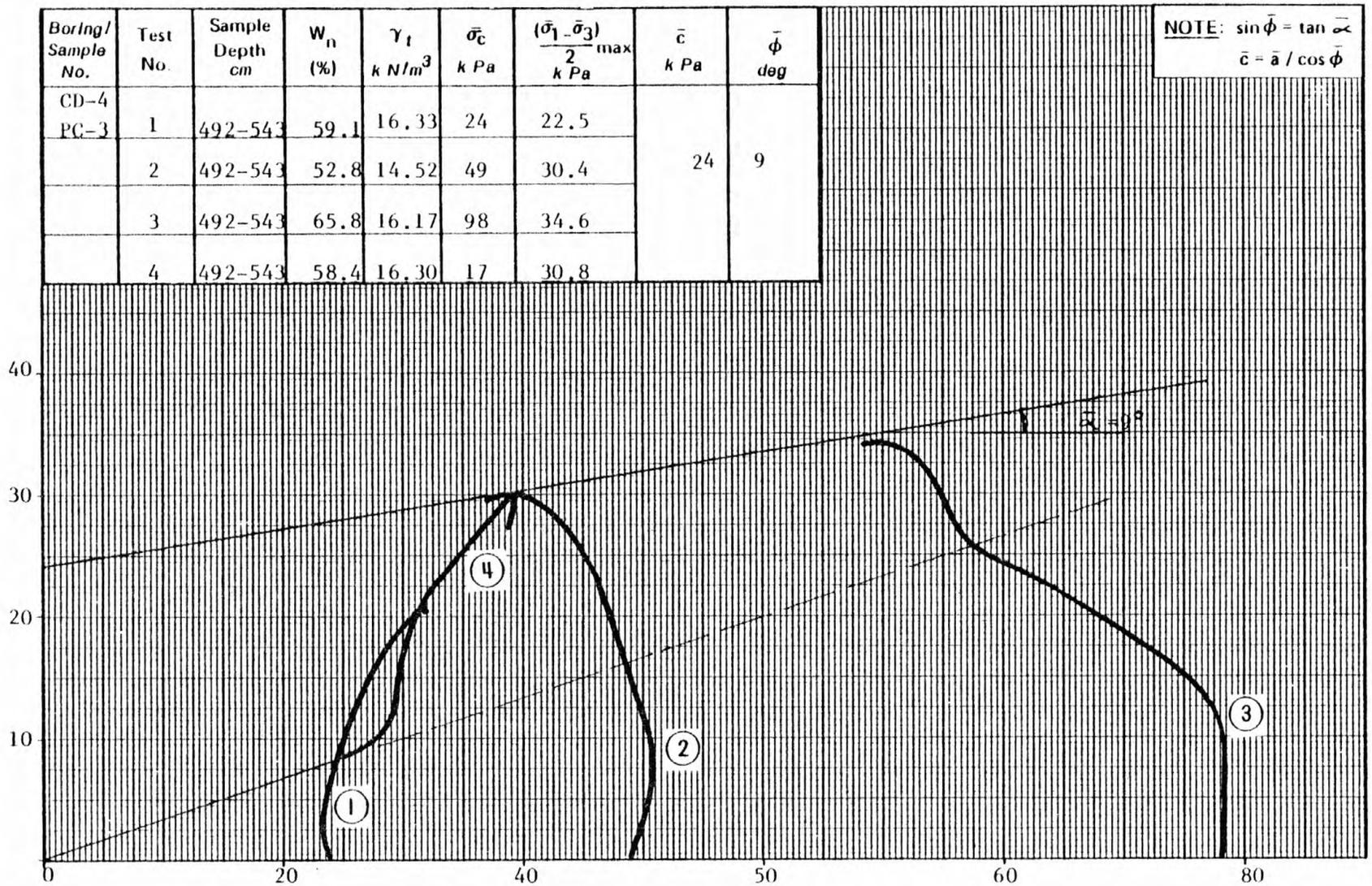
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-1	3	250-300	•	Gray Silty Clay, Trace Fine Sand	55.0	47	21
CD-1	4	250-300	○	Gray Silty Clay	61.6	52	28

JOB NO.

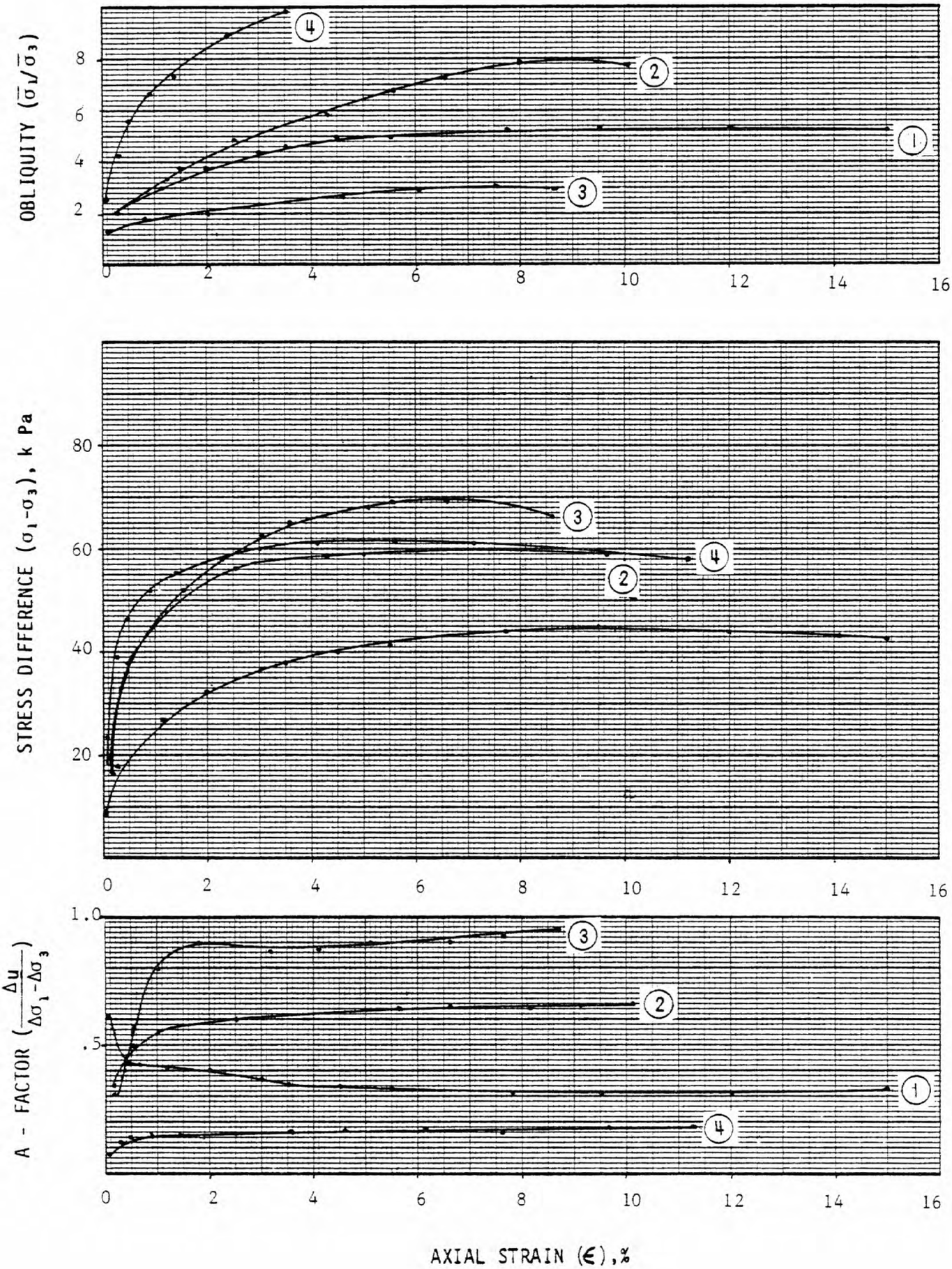
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-4 PC-3	1	492-543	59.1	16.33	24	22.5	24	9
	2	492-543	52.8	14.52	49	30.4		
	3	492-543	65.8	16.17	98	34.6		
	4	492-543	58.4	16.30	17	30.8		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

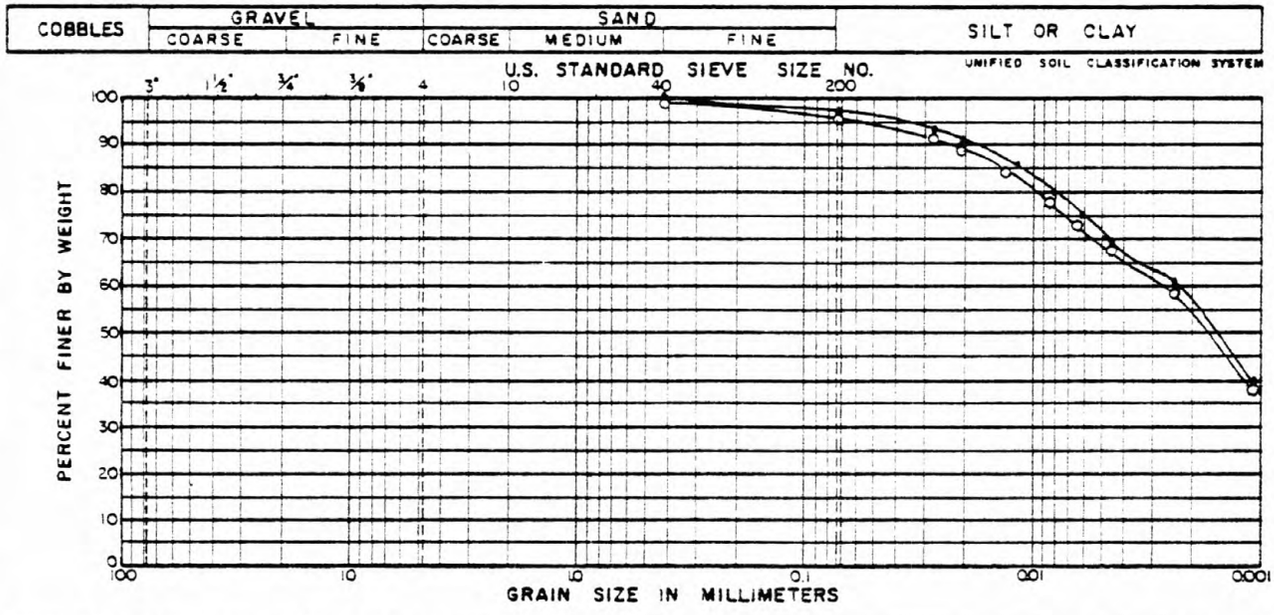
$\bar{c} = \bar{a} / \cos\bar{\phi}$



STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS

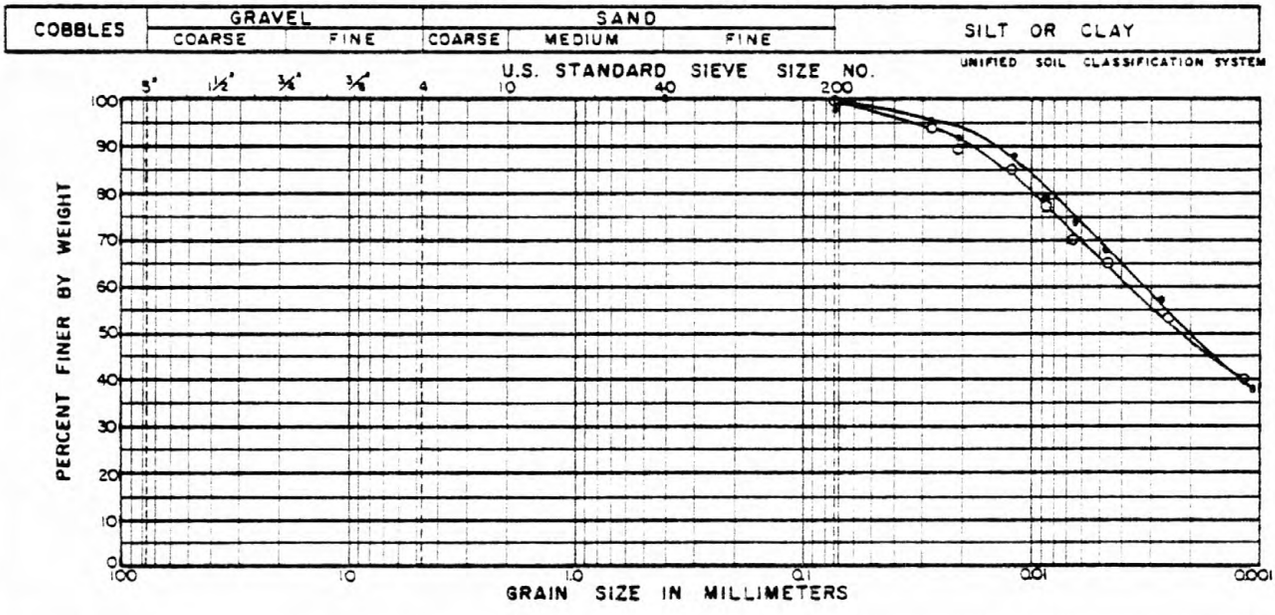

OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ), %
1
2
3
4

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-4	1	492-542	•	Gray Silty Clay Trace of Fine Sand	59.4	54	28
CD-4	2	492-542	o	Gray Silty Clay Trace of Fine Sand	52.8	53	27

JOB NO.

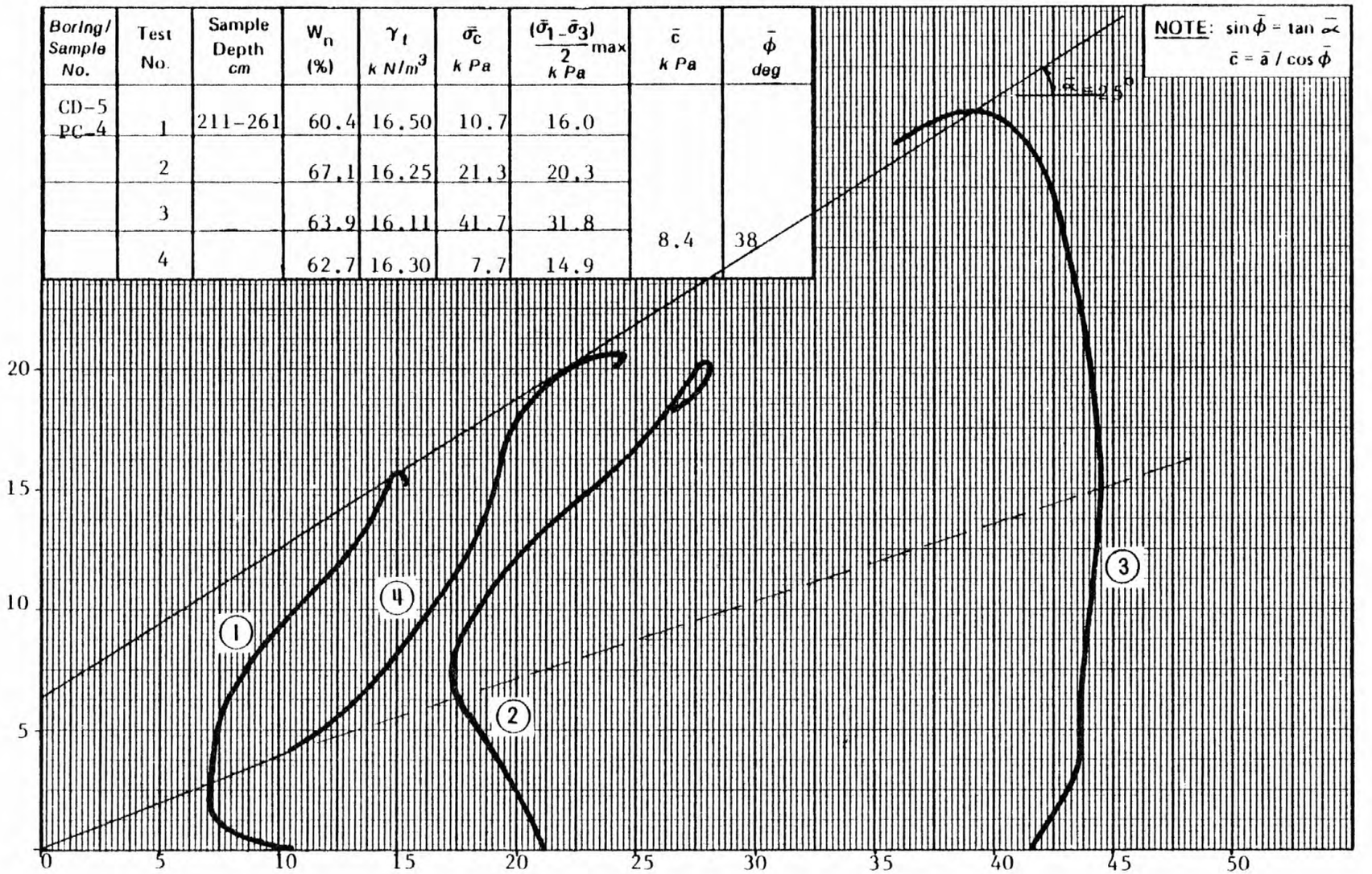


BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-4	3	492-542	•	Gray Silty Clay Trace of Fine Sand	65.8	58	22
CD-4	4	492-542	o	Gray Silty Clay	58.4	54	22

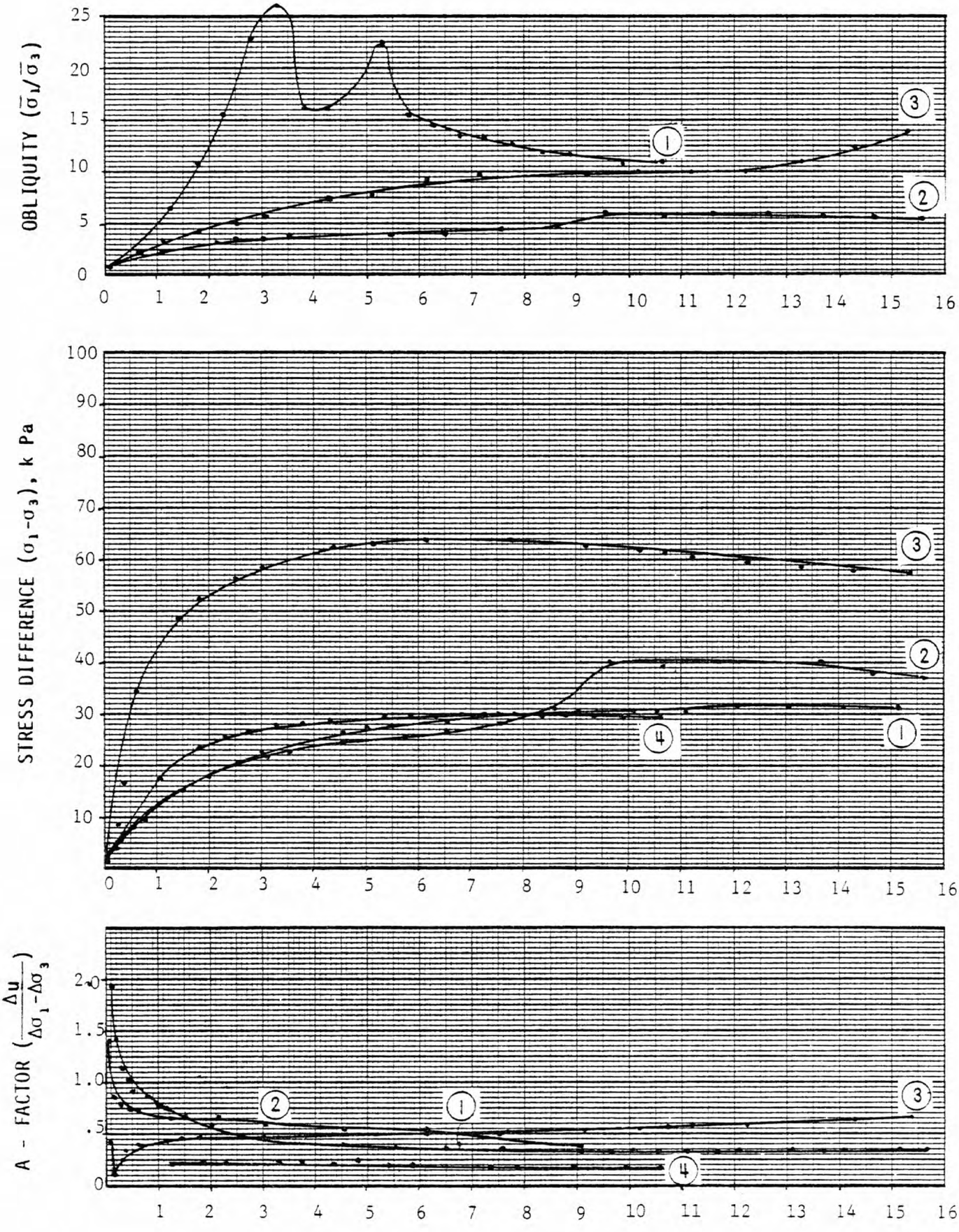
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-5 PC-4	1	211-261	60.4	16.50	10.7	16.0	8.4	38
	2		67.1	16.25	21.3	20.3		
	3		63.9	16.11	41.7	31.8		
	4		62.7	16.30	7.7	14.9		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

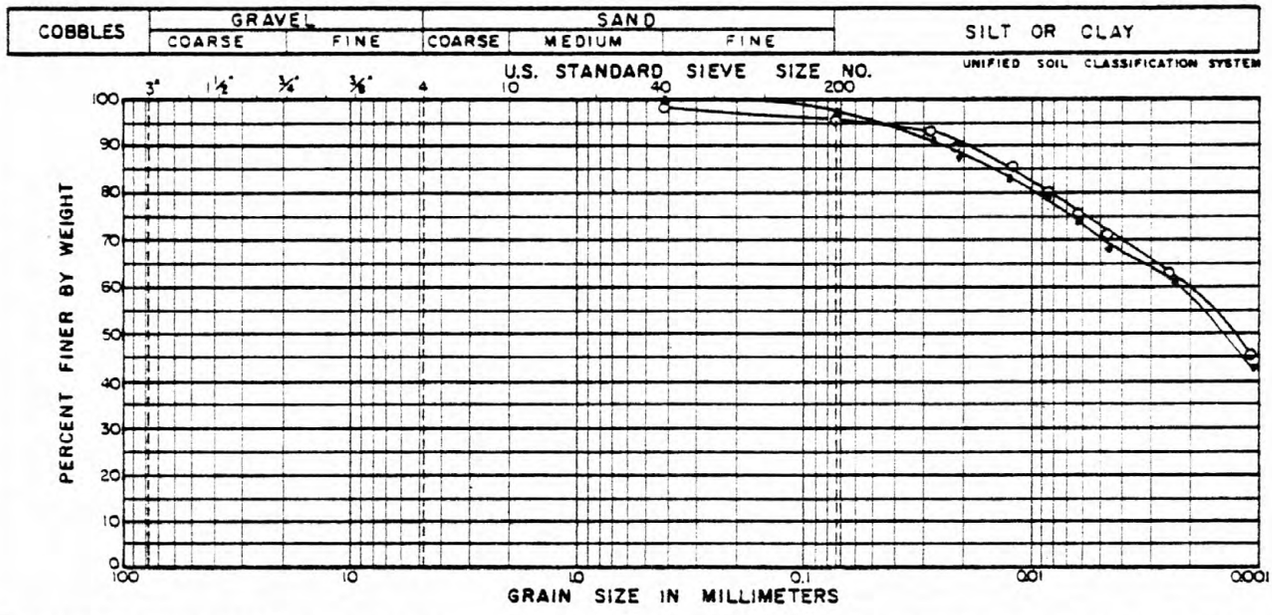
$\bar{c} = \bar{a} / \cos\bar{\phi}$



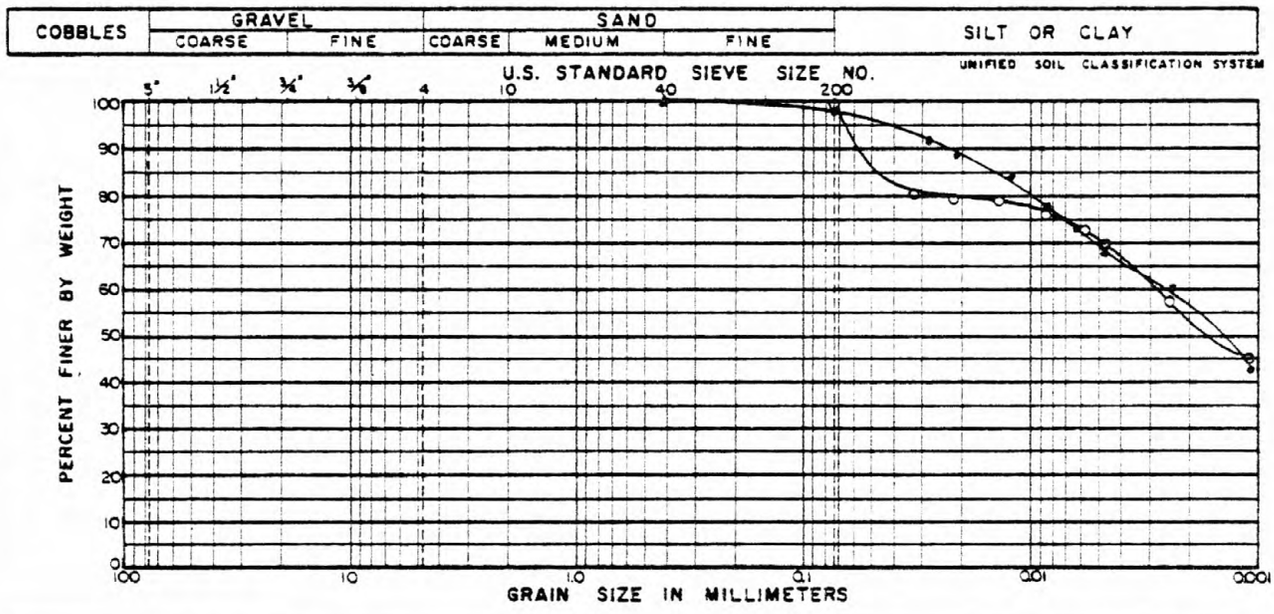
STRESS PATHS FOR $\overline{CIU}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ), %
1
2
3
4

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-5	1	211- 261	•	Gray Silty Clay, Trace Fine Sand	60.4	57	27
CD-5	2	211-261	o	Gray Silty Clay	67.1	52	27



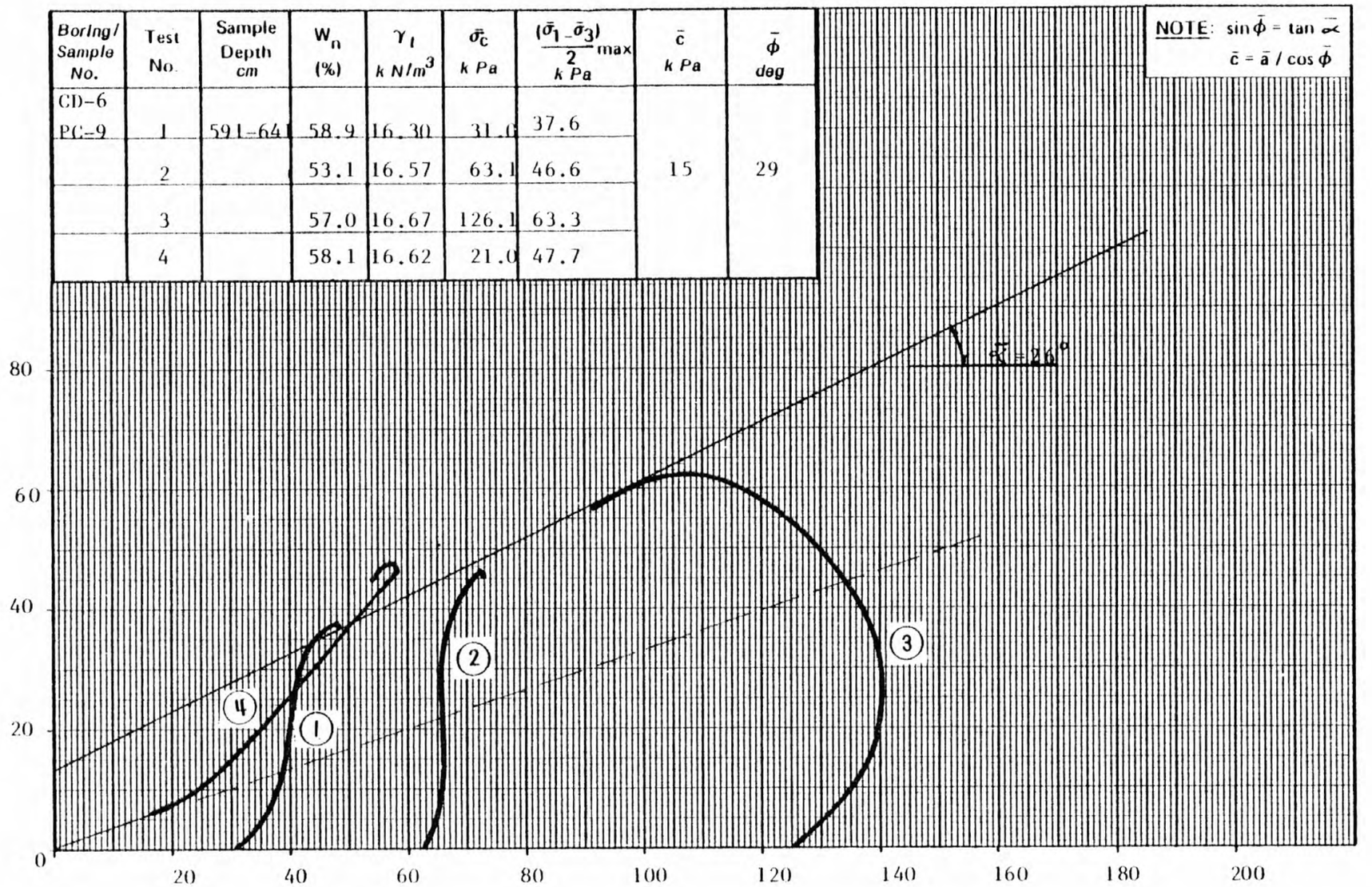
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-5	3	211-261	•	Gray Silty Clay Trace Fine Sand	63.9	54	26
CD-5	4	211-261	o	Gray Silty Clay	62.7	58	26

JOB NO.

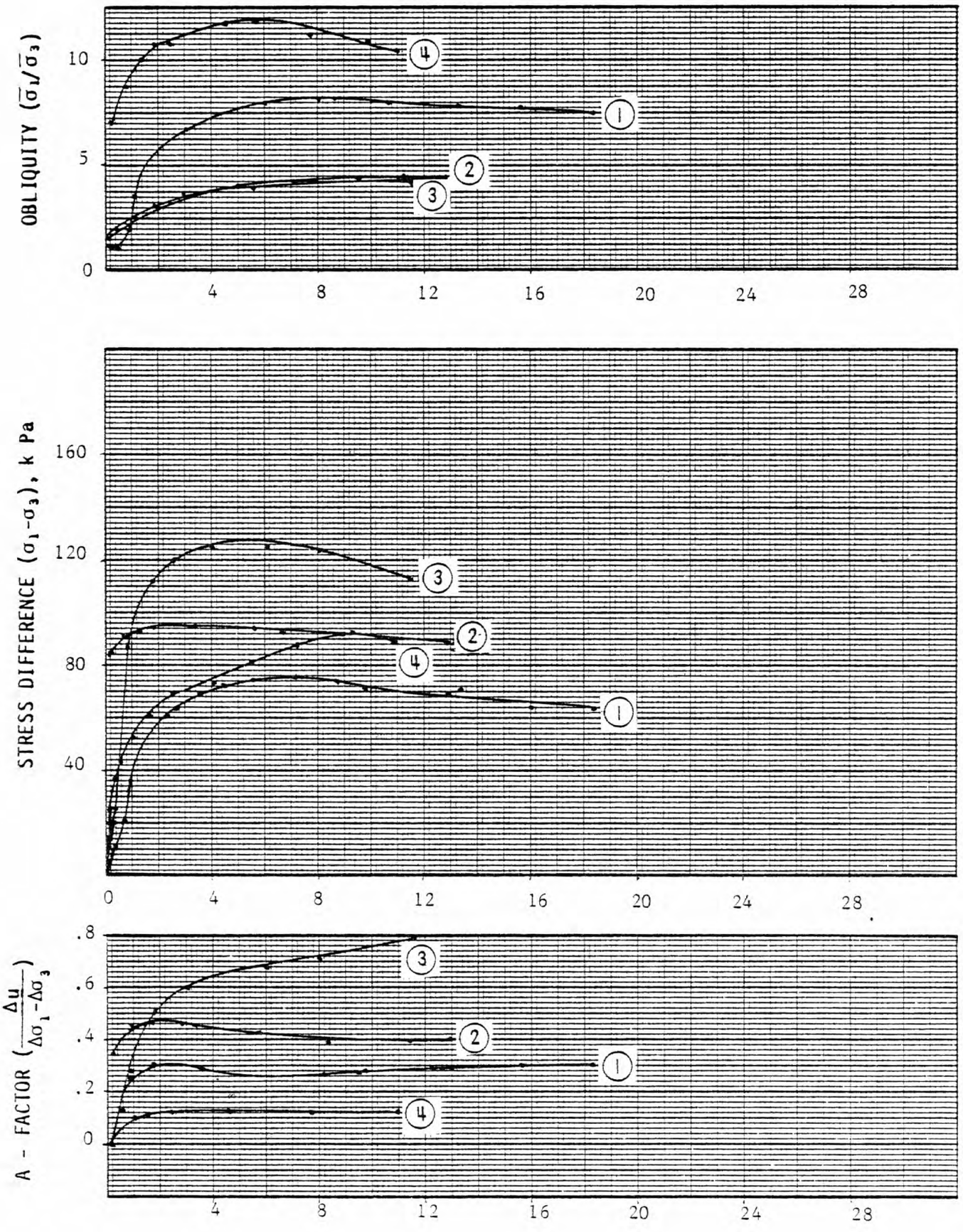
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-6								
PC-9	1	591-641	58.9	16.30	31.0	37.6		
	2		53.1	16.57	63.1	46.6	15	29
	3		57.0	16.67	126.1	63.3		
	4		58.1	16.62	21.0	47.7		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

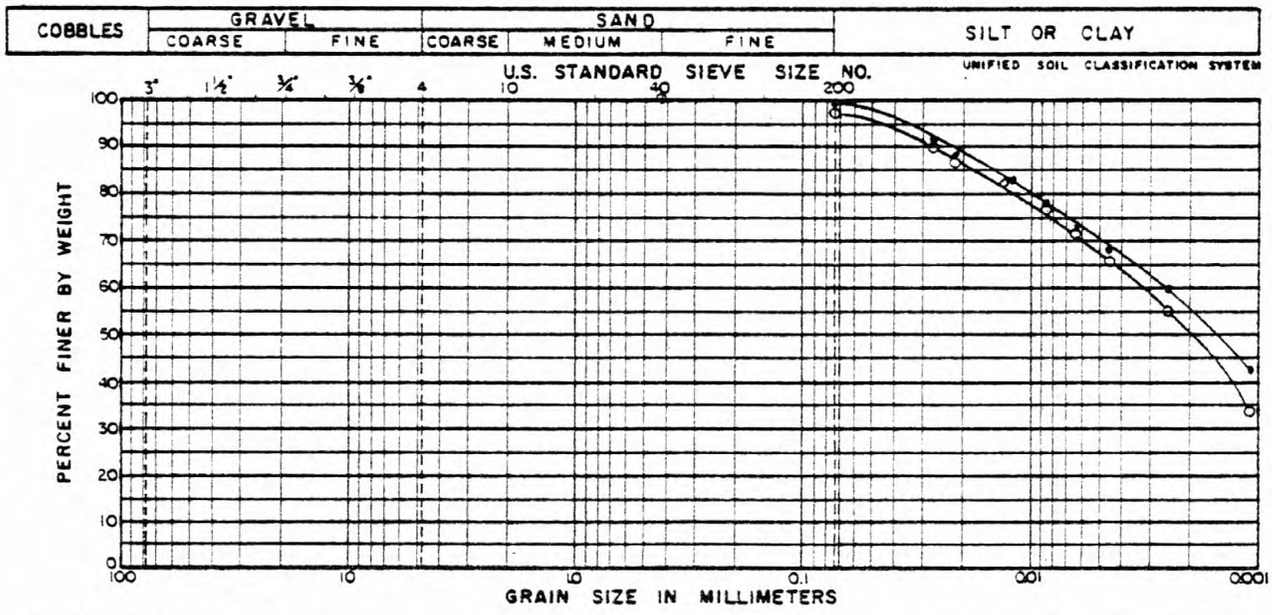
$\bar{c} = \bar{a} / \cos\bar{\phi}$



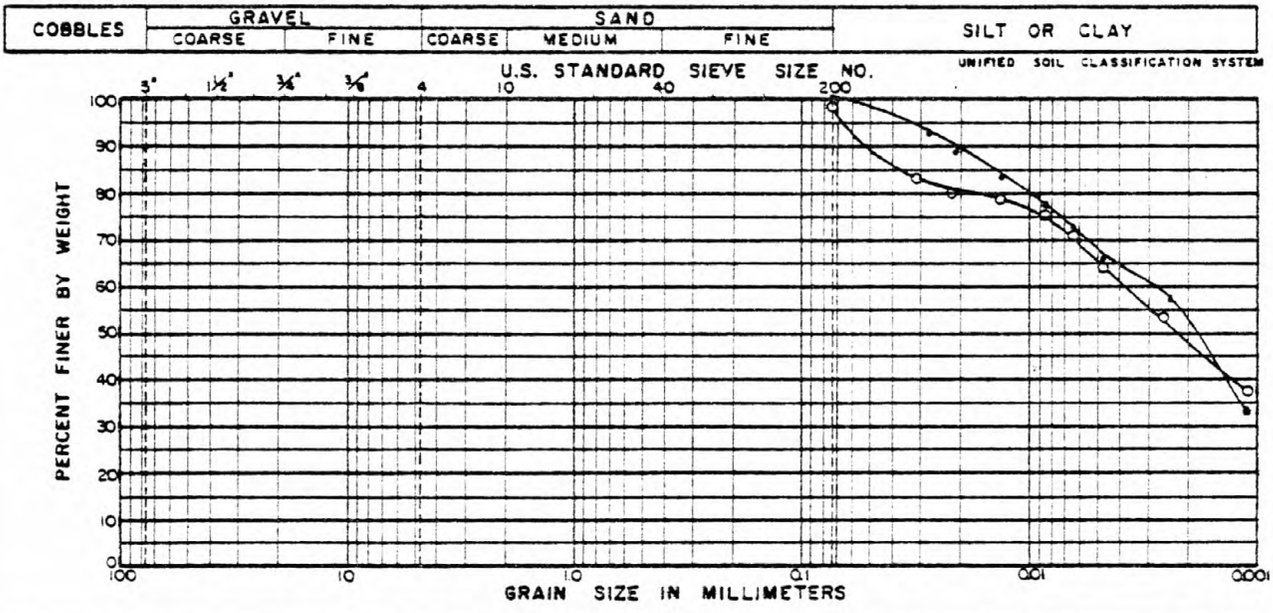
STRESS PATHS FOR $\bar{C}I\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
10
5
0
4
8
12
16
20
24
28
4
3
2
1
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
160
120
80
40
0
4
8
12
16
20
24
28
3
2
4
1
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
.8
.6
.4
.2
0
4
8
12
16
20
24
28
3
2
1
4
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-6	1	591-641	•	Gray Silty Clay	58.9	53	25
CD-6	2	591-641	o	Gray Silty Clay	58.1	56	28



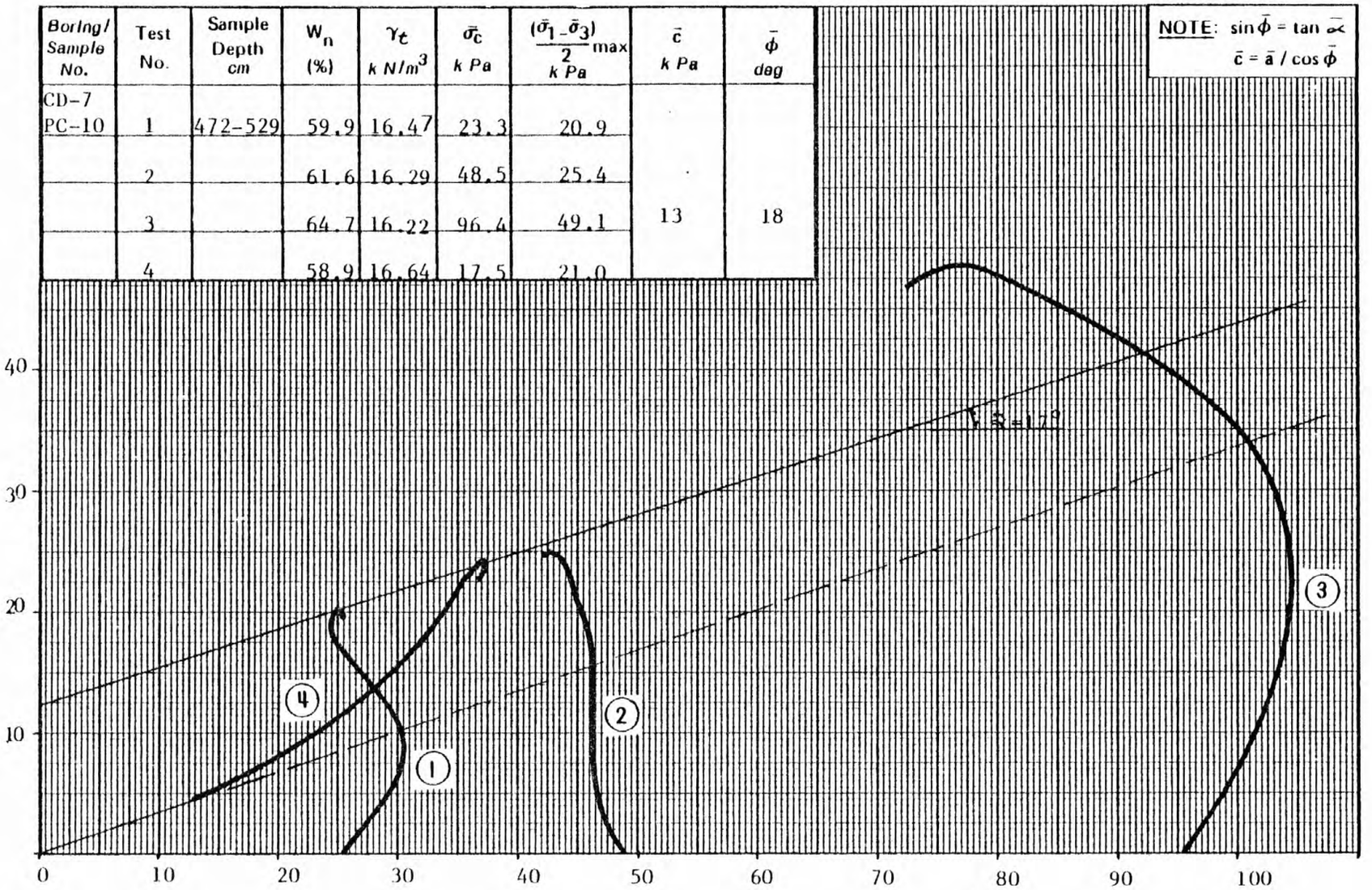
BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-6	3	591-641	•	Gray Silty Clay	57.0	50	25
CD-6	4	591-641	o	Gray Silty Clay	58.1	59	25

JOB NO. 79 C 01221

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t k N/m^3	$\bar{\sigma}_c$ k Pa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ k Pa	$\bar{c}$ k Pa	$\bar{\phi}$ deg
CD-7 PC-10	1	472-529	59.9	16.47	23.3	20.9	13	18
	2		61.6	16.29	48.5	25.4		
	3		64.7	16.22	96.4	49.1		
	4		58.9	16.64	17.5	21.0		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

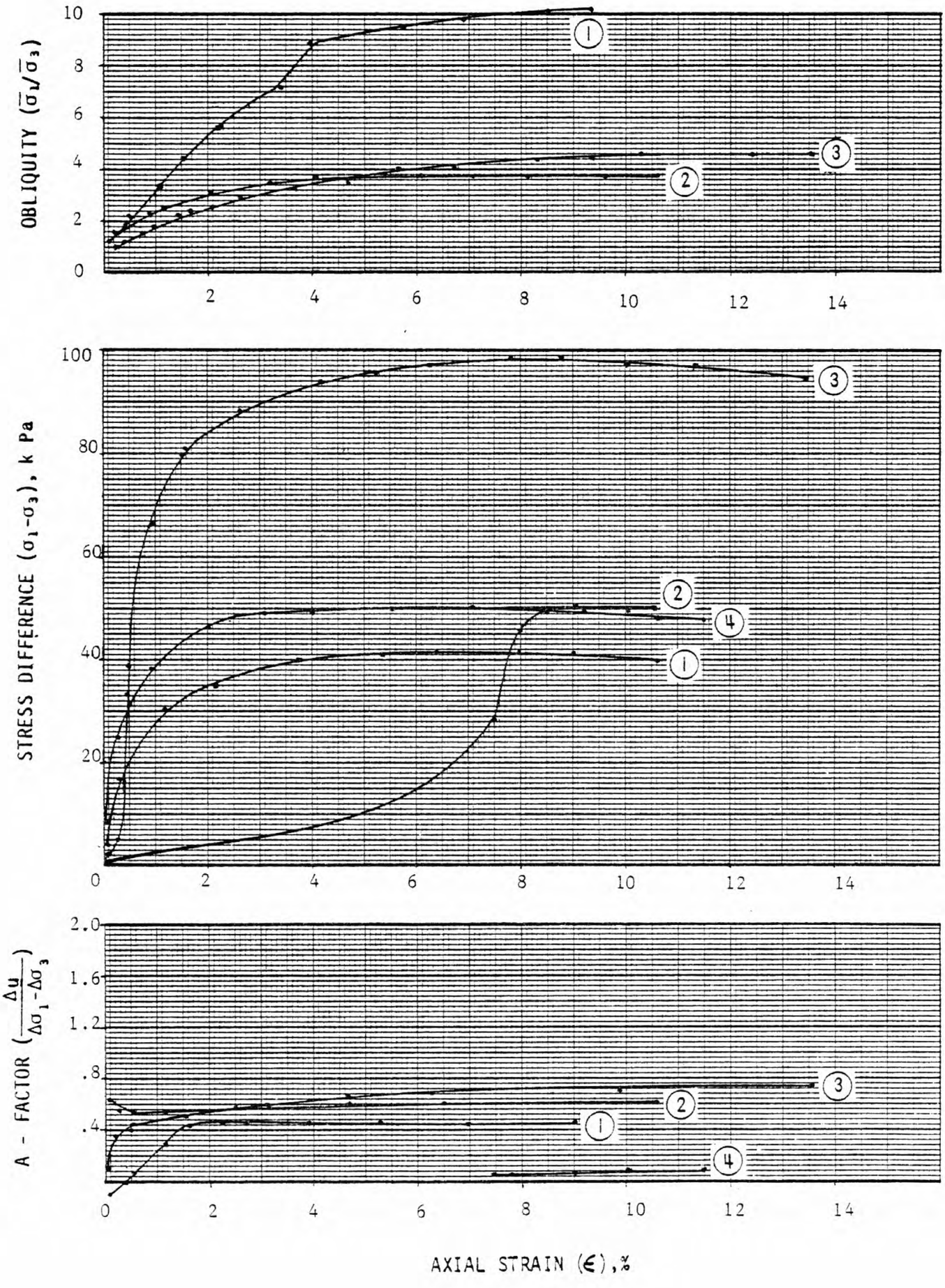
$\bar{c} = \bar{a} / \cos\bar{\phi}$



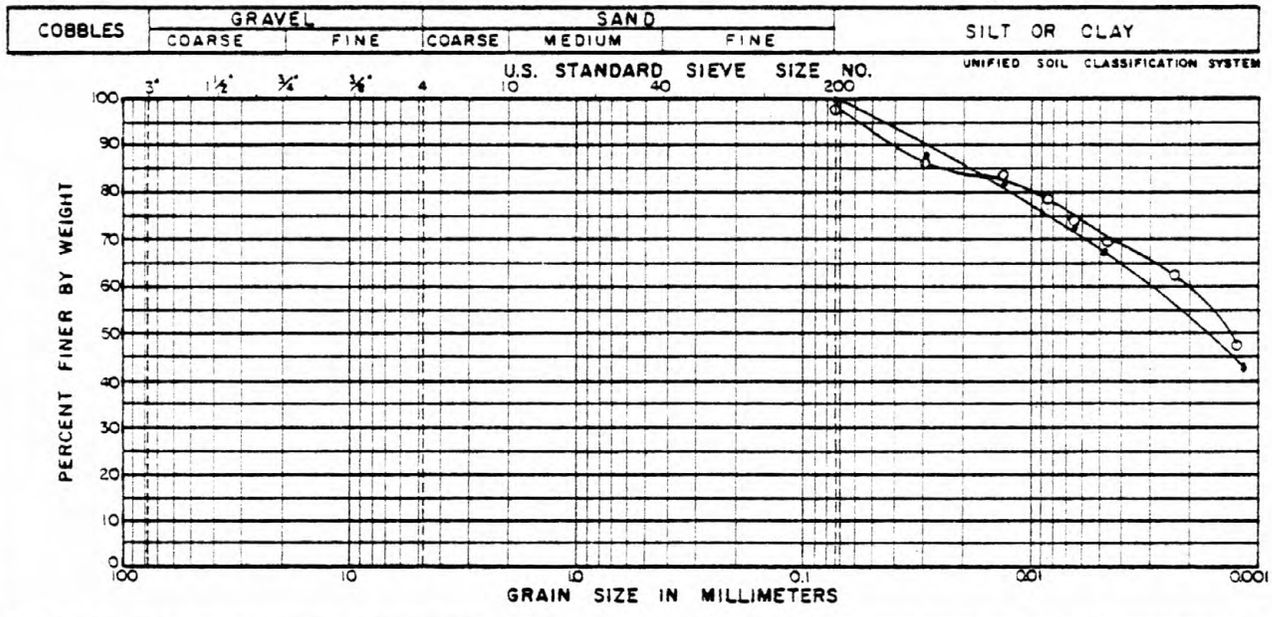
$\frac{1}{2}(\bar{\sigma}_1 - \bar{\sigma}_3)$, k Pa

$\frac{1}{2}(\bar{\sigma}_1 + \bar{\sigma}_3)$, k Pa

STRESS PATHS FOR $\overline{CIU}$ TESTS

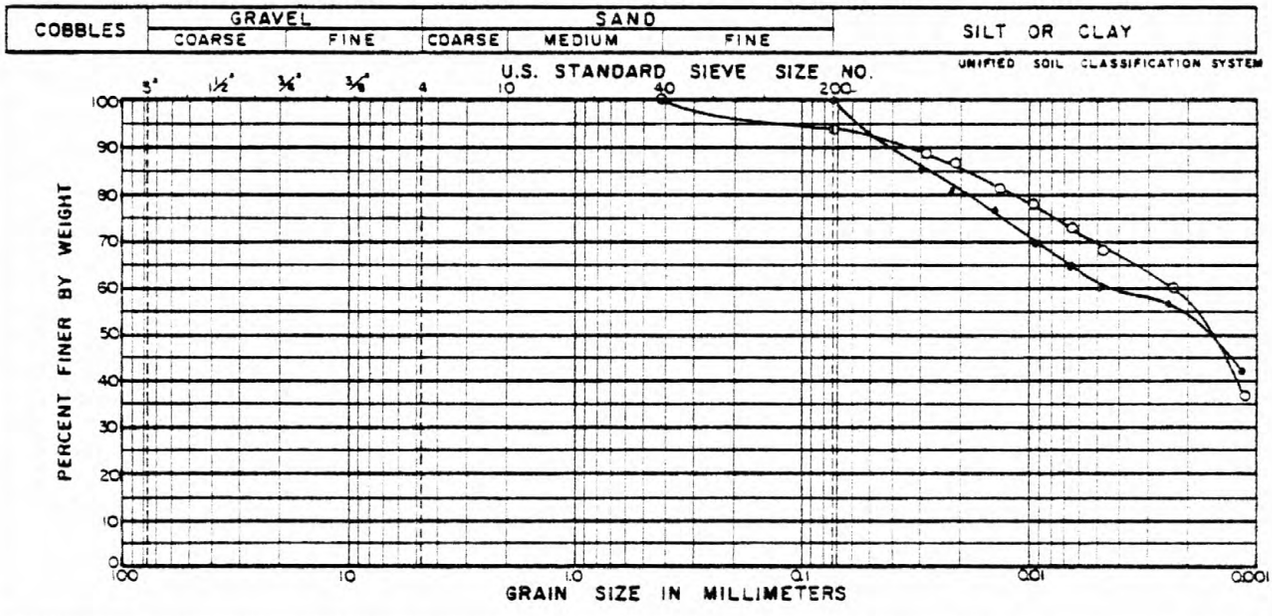

OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ), %
1
2
3
4

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-7	1	479-529	•	Gray Silty Clay	59.9	57	25
CD-7	2	479-529	○	Gray Silty Clay	61.6	56	29

JOB NO.

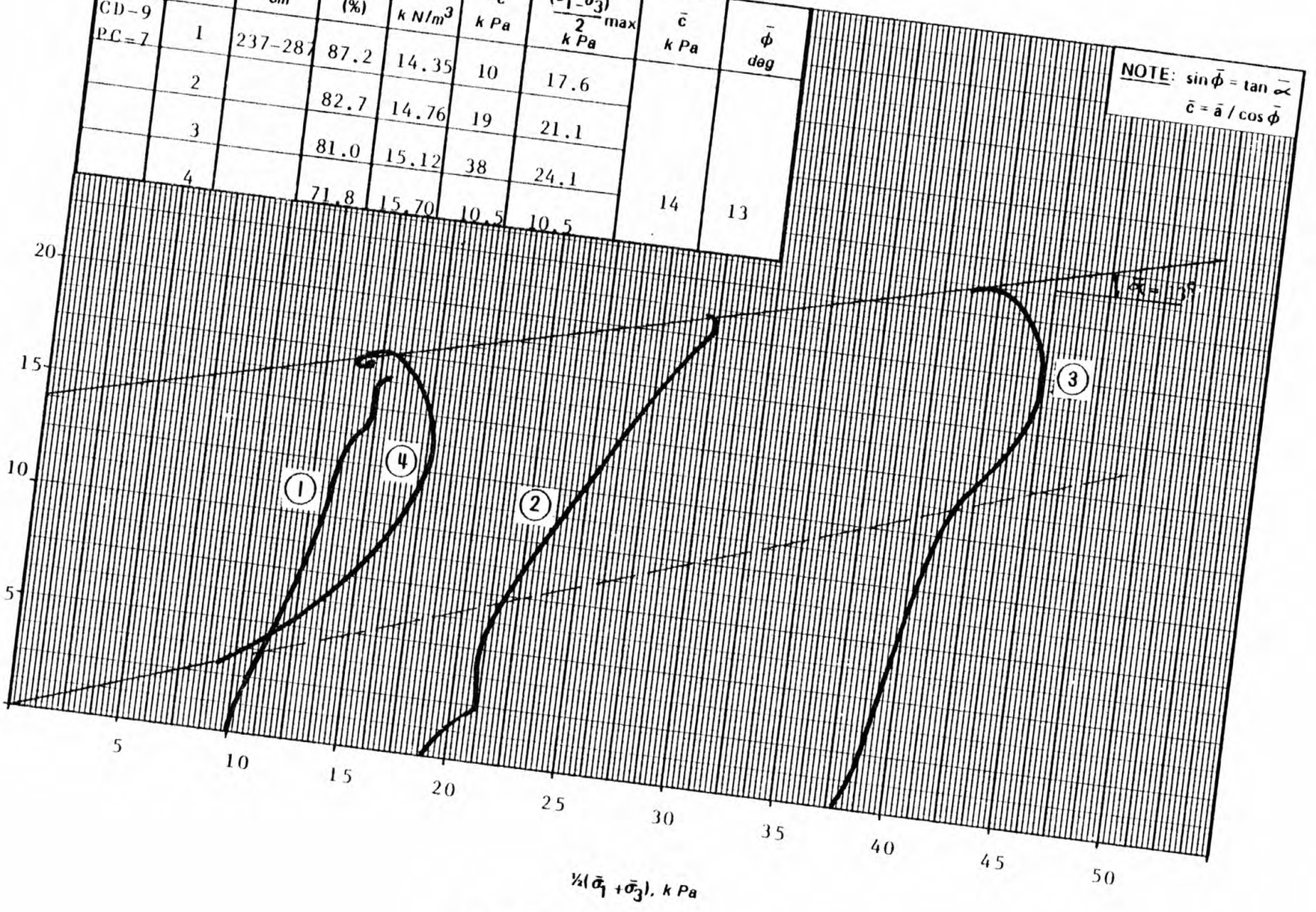


BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-7	3	479-529	•	Gray Silty Clay	64.7	50	28
CD-7	4	479-529	○	Gray Silty Clay, Trace Sand	58.9	52	28

Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-9 P.C=7	1	237-287	87.2	14.35	10	17.6	14	13
	2		82.7	14.76	19	21.1		
	3		81.0	15.12	38	24.1		
	4		71.8	15.70	10.5	10.5		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$



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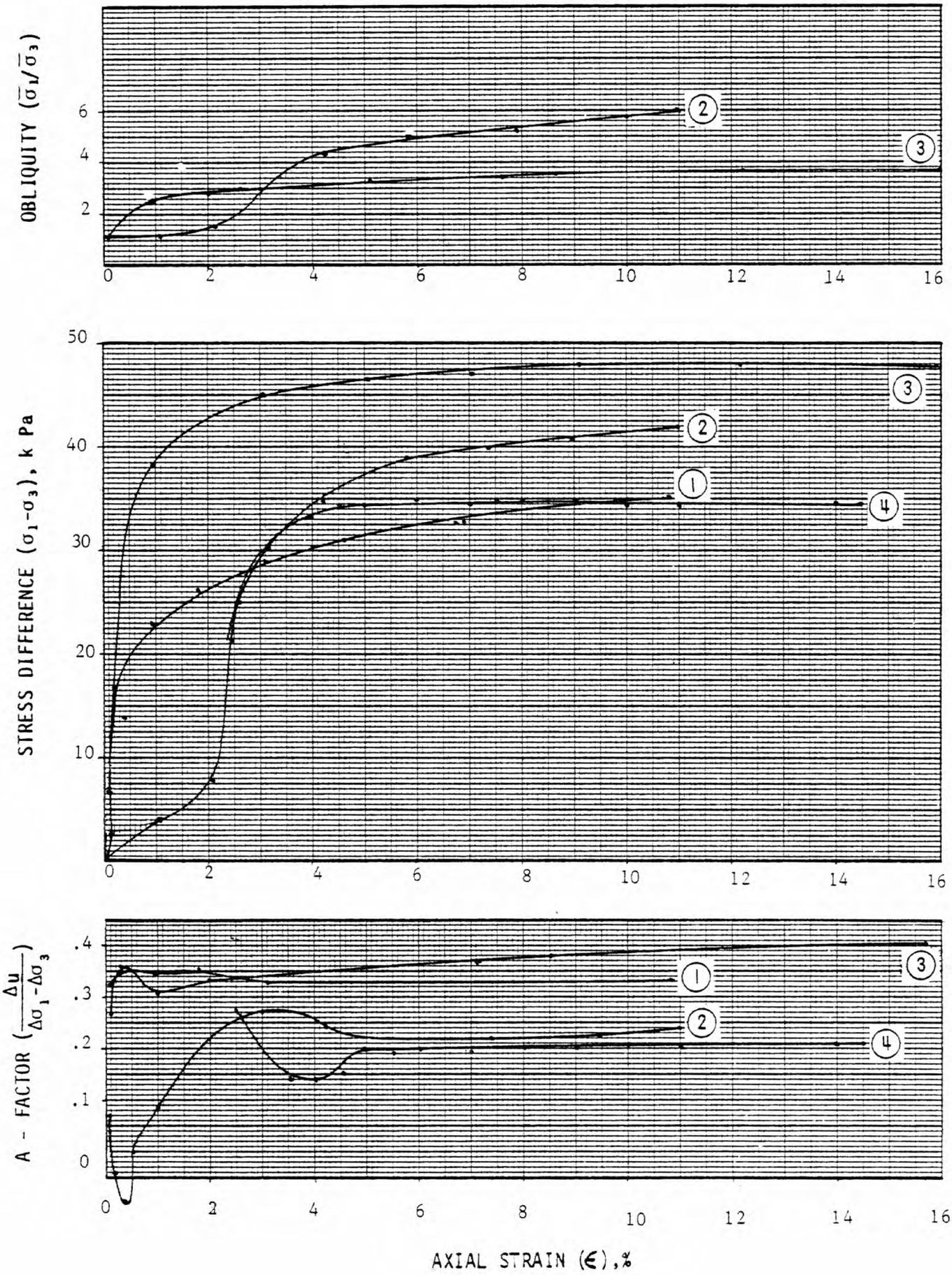
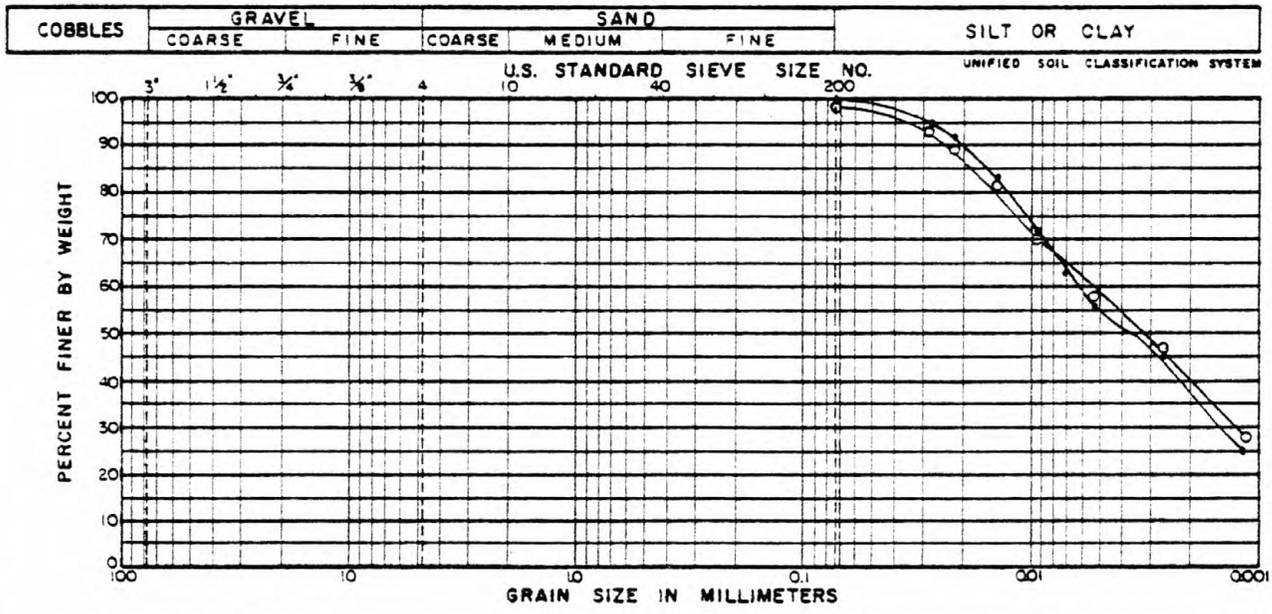
STRESS PATHS FOR $\overline{CIU}$ TESTS

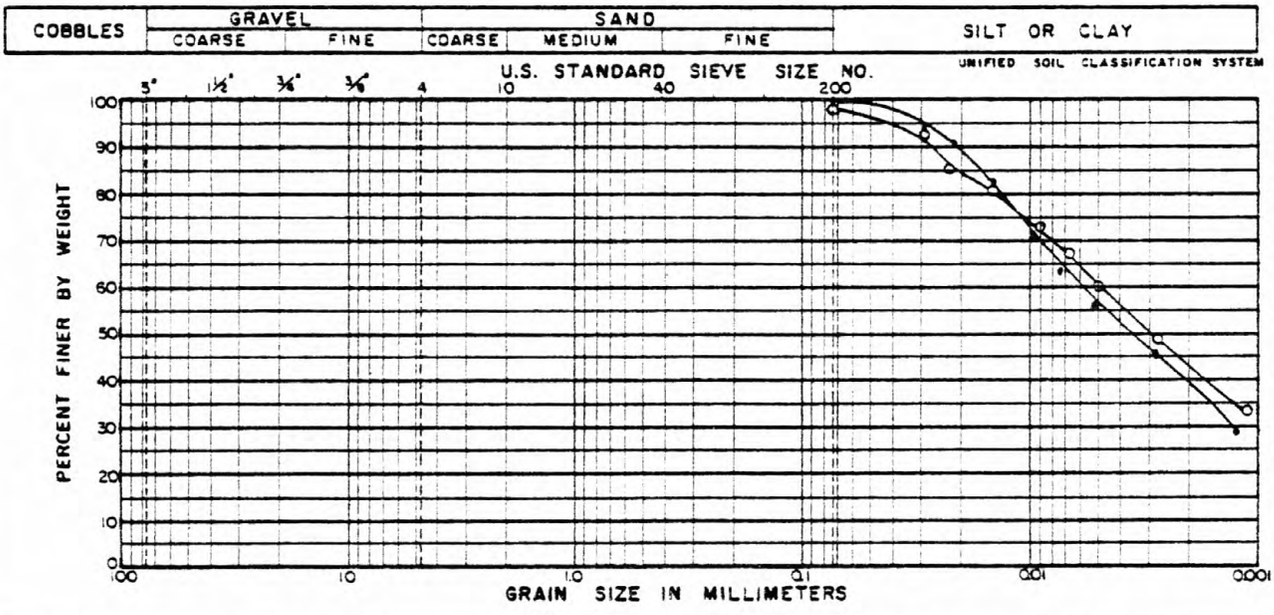

OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
6
4
2
0
2
4
6
8
10
12
14
16
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
50
40
30
20
10
0
2
4
6
8
10
12
14
16
3
2
1
4
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
.4
.3
.2
.1
0
0
2
4
6
8
10
12
14
16
3
1
2
4
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-9	1	237-287	•	Gray Silty Clay	87.2	68	27
CD-9	2	237-287	○	Gray Silty Clay	82.7	71	28

JOB NO.

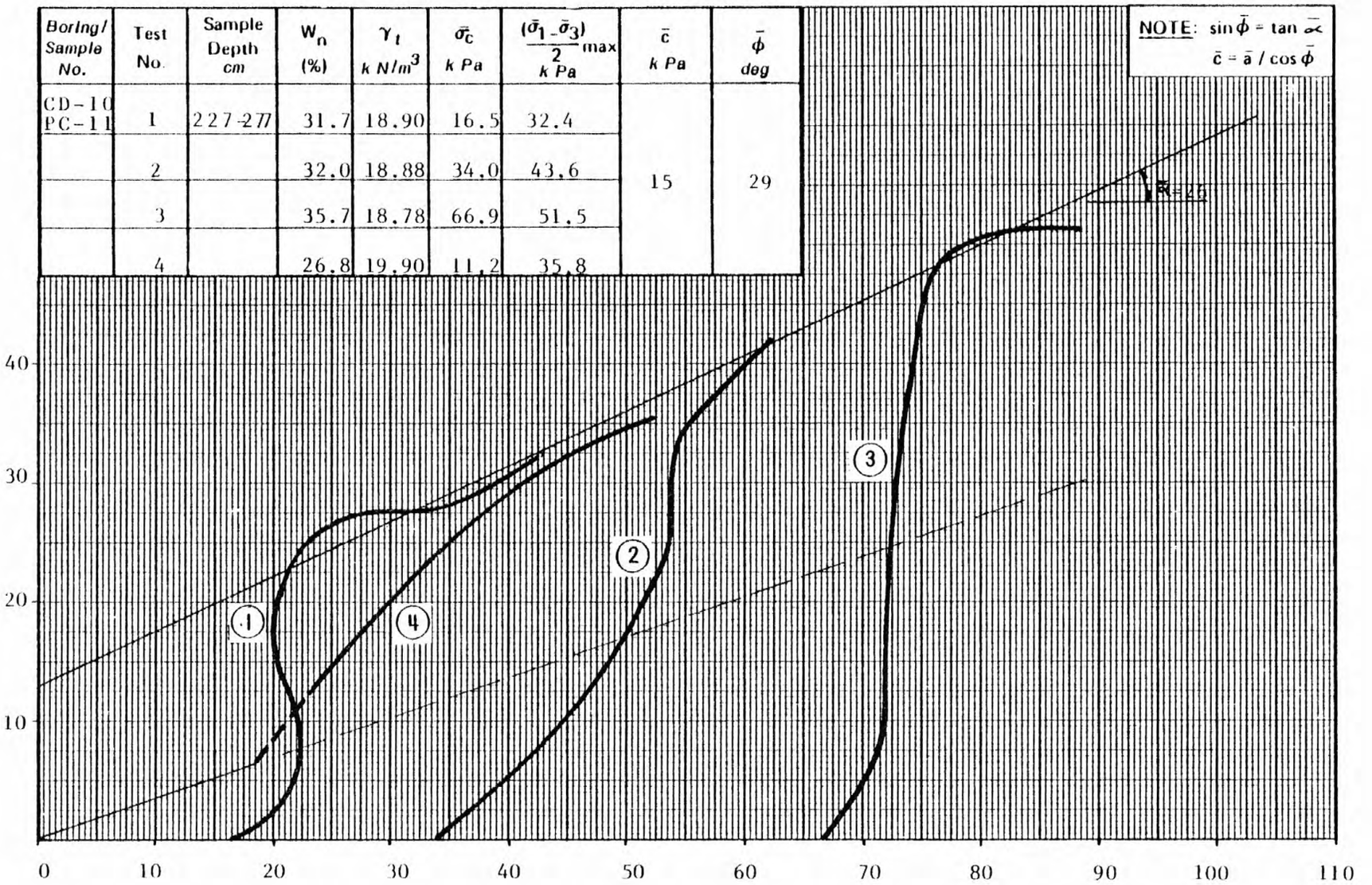


BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-9	3	237-287	•	Gray Silty Clay	81.0	69	28
CD-9	4	237-287	○	Gray Silty Clay	71.8	57	25

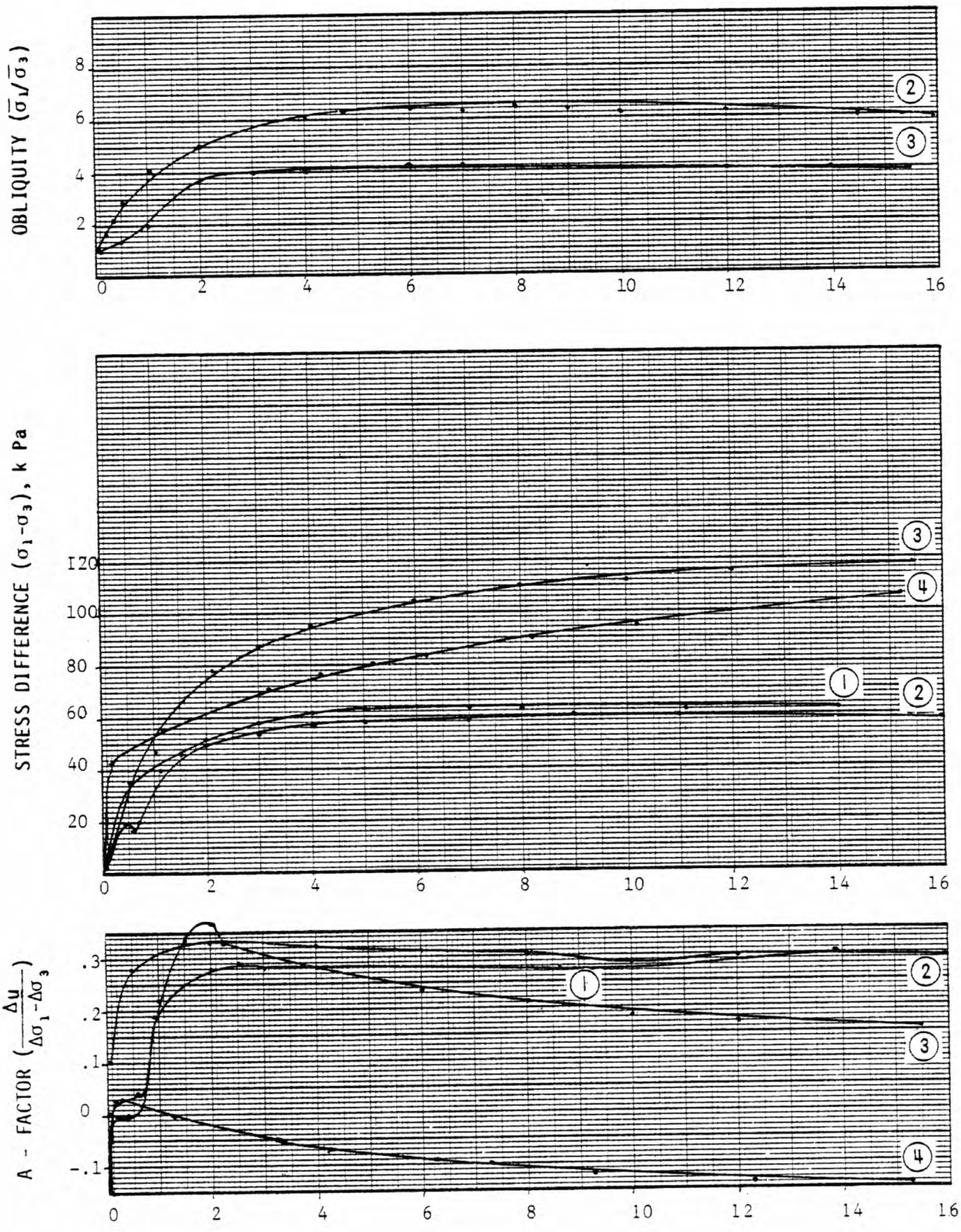
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-10 PC-11	1	227-277	31.7	18.90	16.5	32.4	15	29
	2		32.0	18.88	34.0	43.6		
	3		35.7	18.78	66.9	51.5		
	4		26.8	19.90	11.2	35.8		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

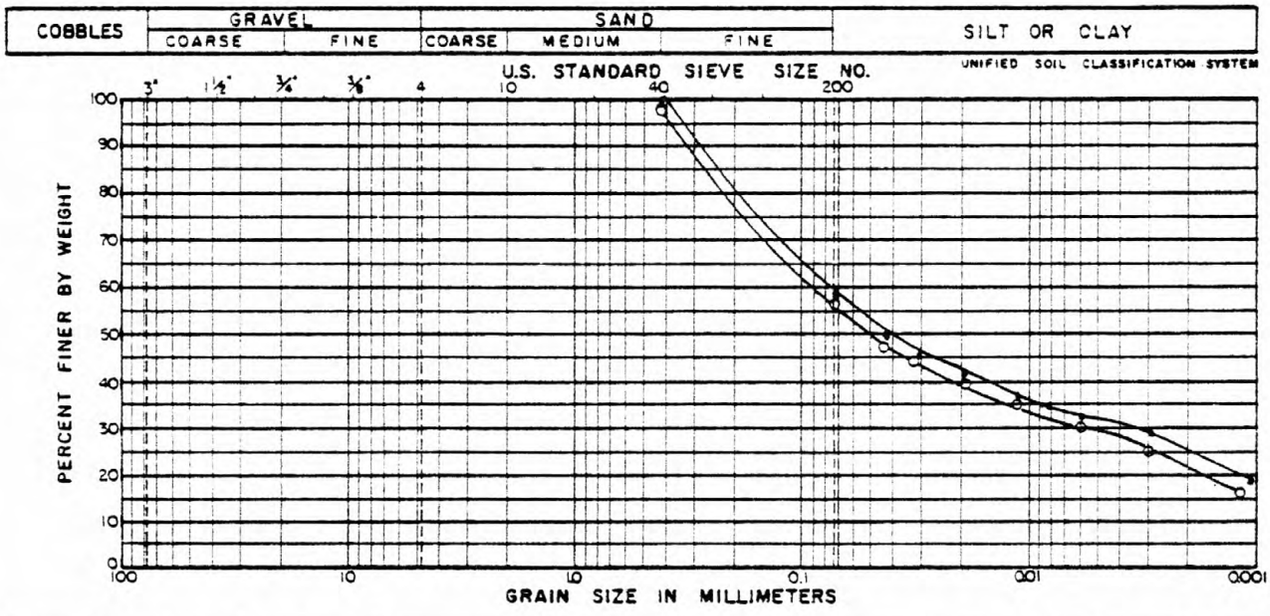
$\bar{c} = \bar{a} / \cos\bar{\phi}$



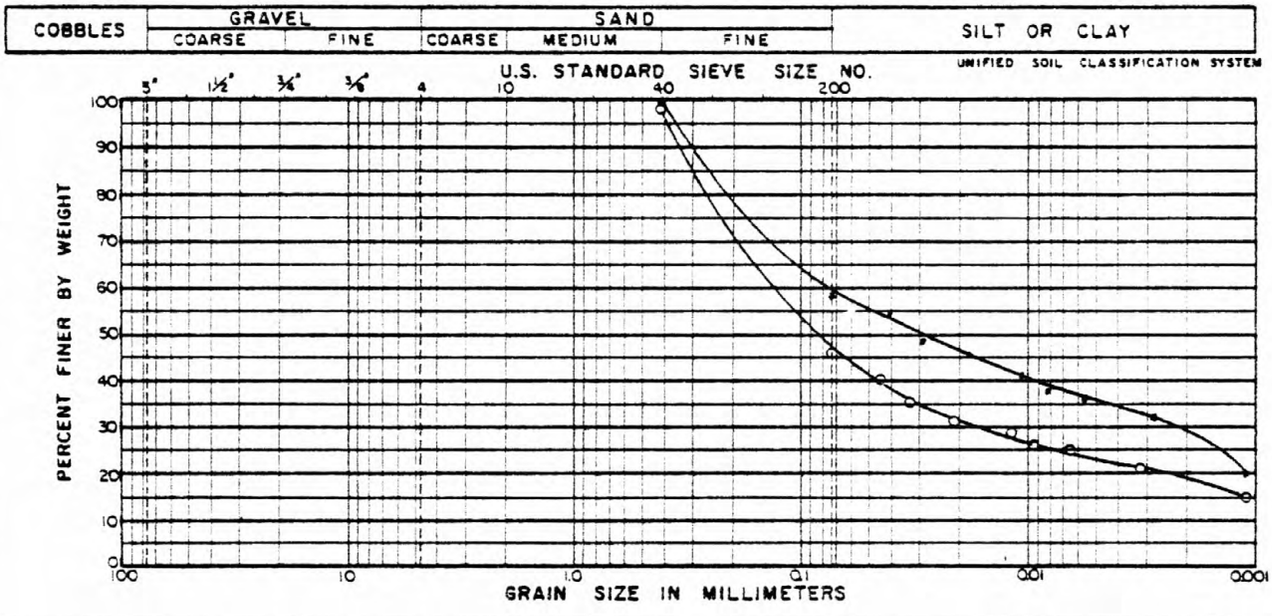
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
8
6
4
2
0
2
4
6
8
10
12
14
16
2
3
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
120
100
80
60
40
20
3
4
1
2
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
.3
.2
.1
0
-.1
1
2
3
4
AXIAL STRAIN (ϵ), %

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	1	227-277	•	Gray Fine Sandy Clayey Silt	34.7	30	15
CD10	2	227-277	○	Gray Fine Sandy Silt	32.0	28	13

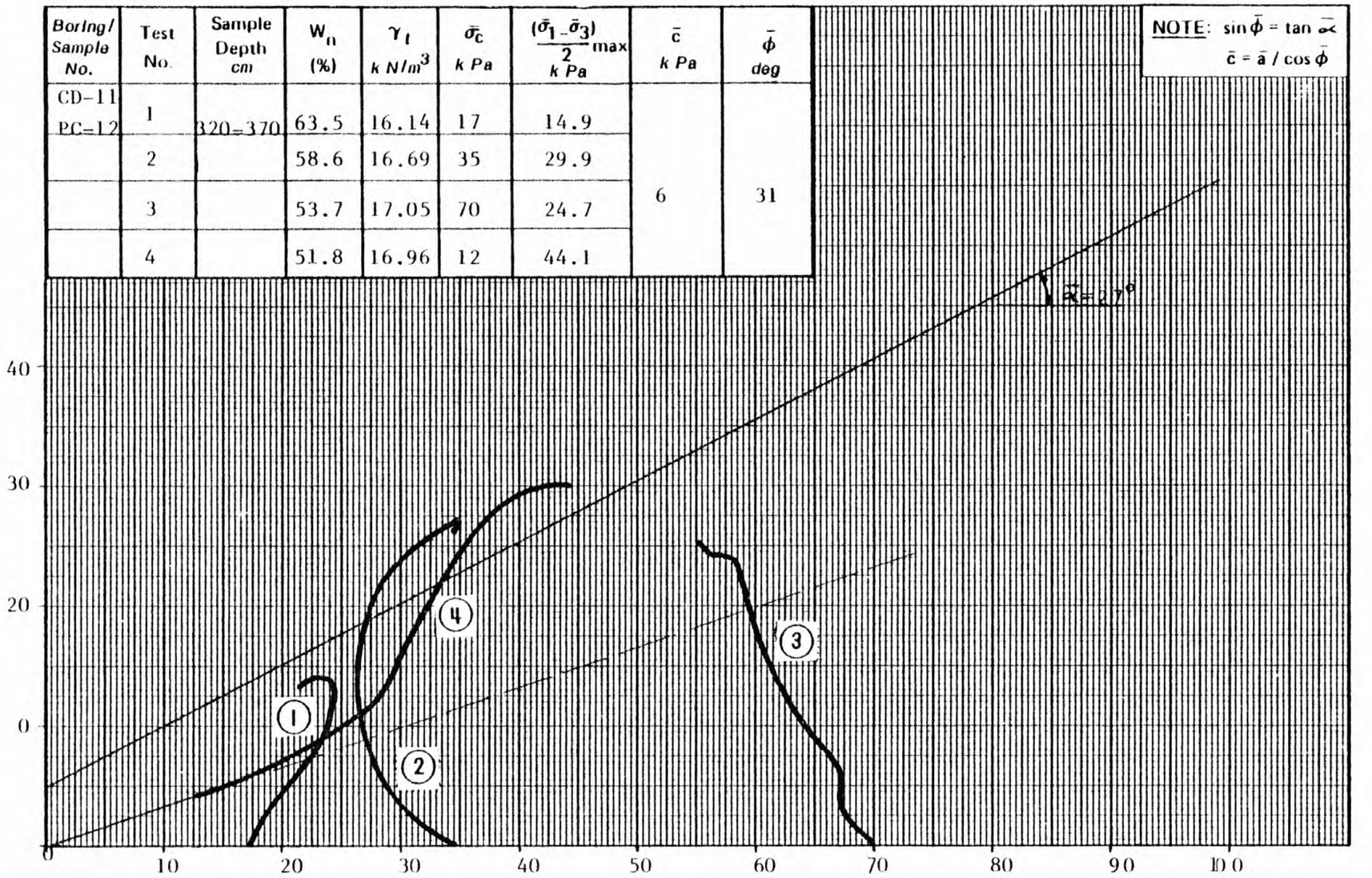


BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD10	3	227-277	•	Gray Fine Sandy Clayey Silt	35.7	21	15
CD10	4	227-277	○	Gray Fine Sandy Clayey Silt	26.8	26	14

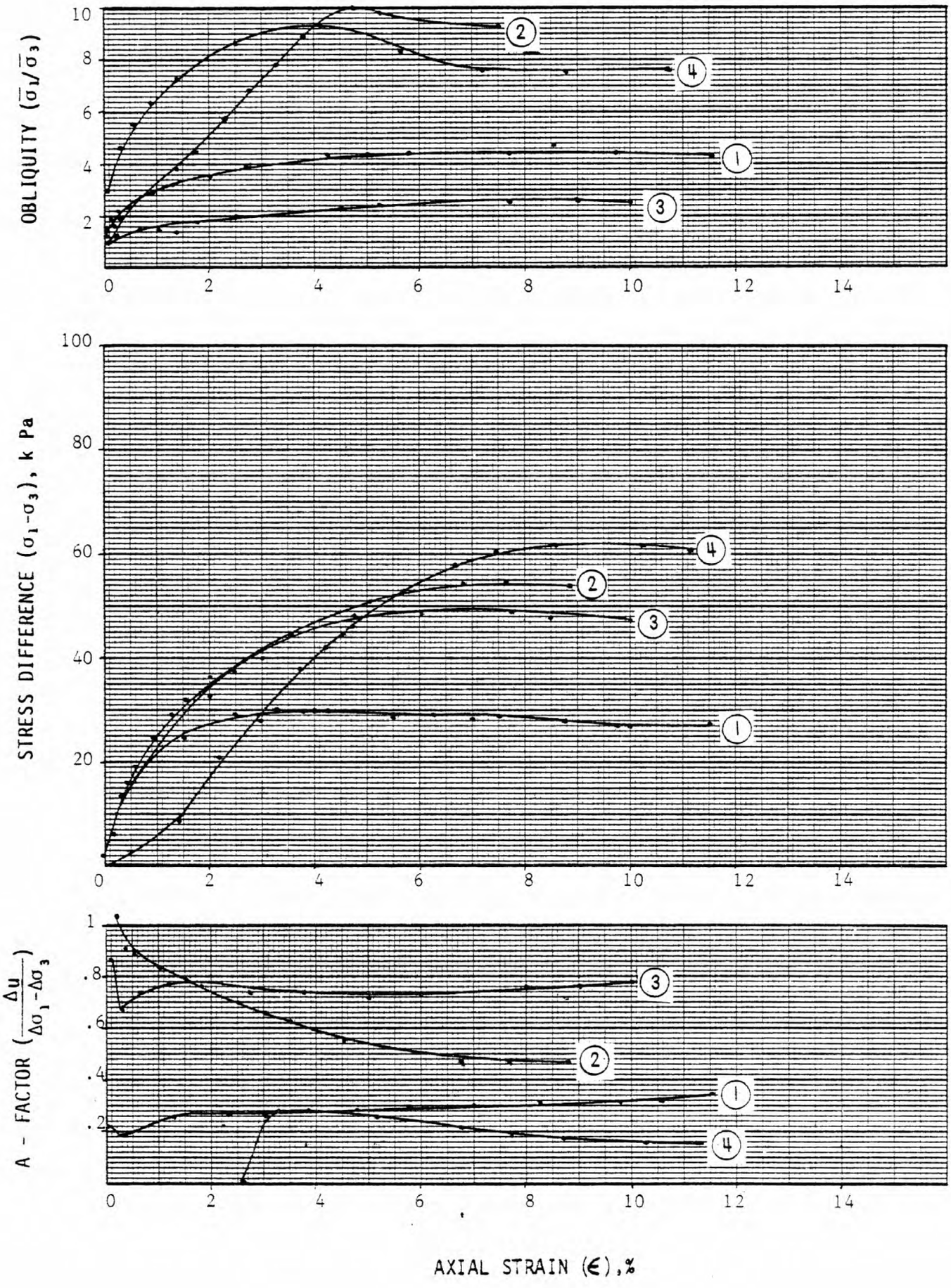
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m³	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-11 PC-12	1	320-370	63.5	16.14	17	14.9	6	31
	2		58.6	16.69	35	29.9		
	3		53.7	17.05	70	24.7		
	4		51.8	16.96	12	44.1		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

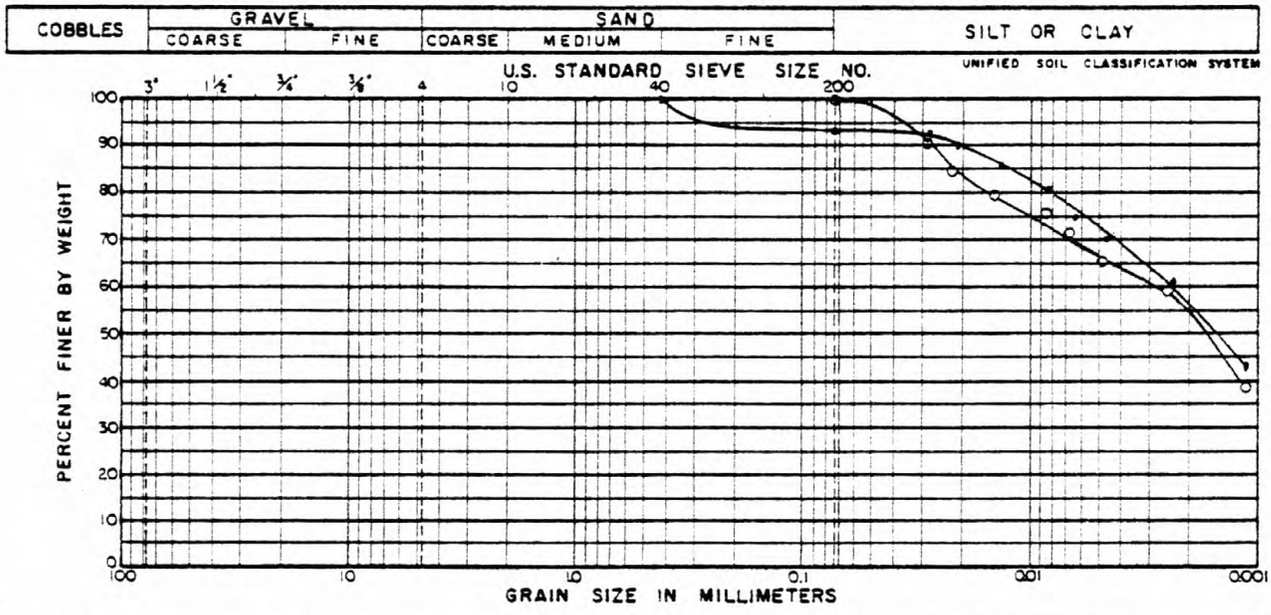
$\bar{c} = \bar{a} / \cos\bar{\phi}$



STRESS PATHS FOR $\bar{C}I\bar{U}$ TESTS

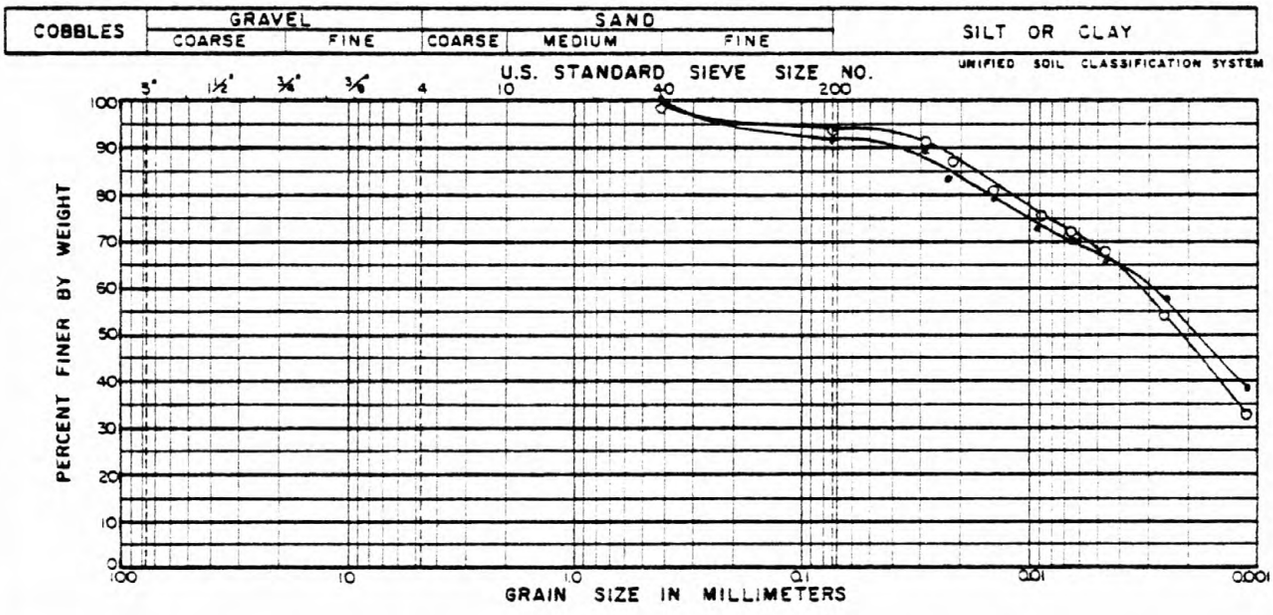

OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
AXIAL STRAIN (ϵ),%
1
2
3
4

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	1	320-370	•	Gray Silty Clay Trace of Fine Sand	63.5	52	26
CD11	2	320-370	○	Gray Silty Clay	58.6	49	22

JOB NO.

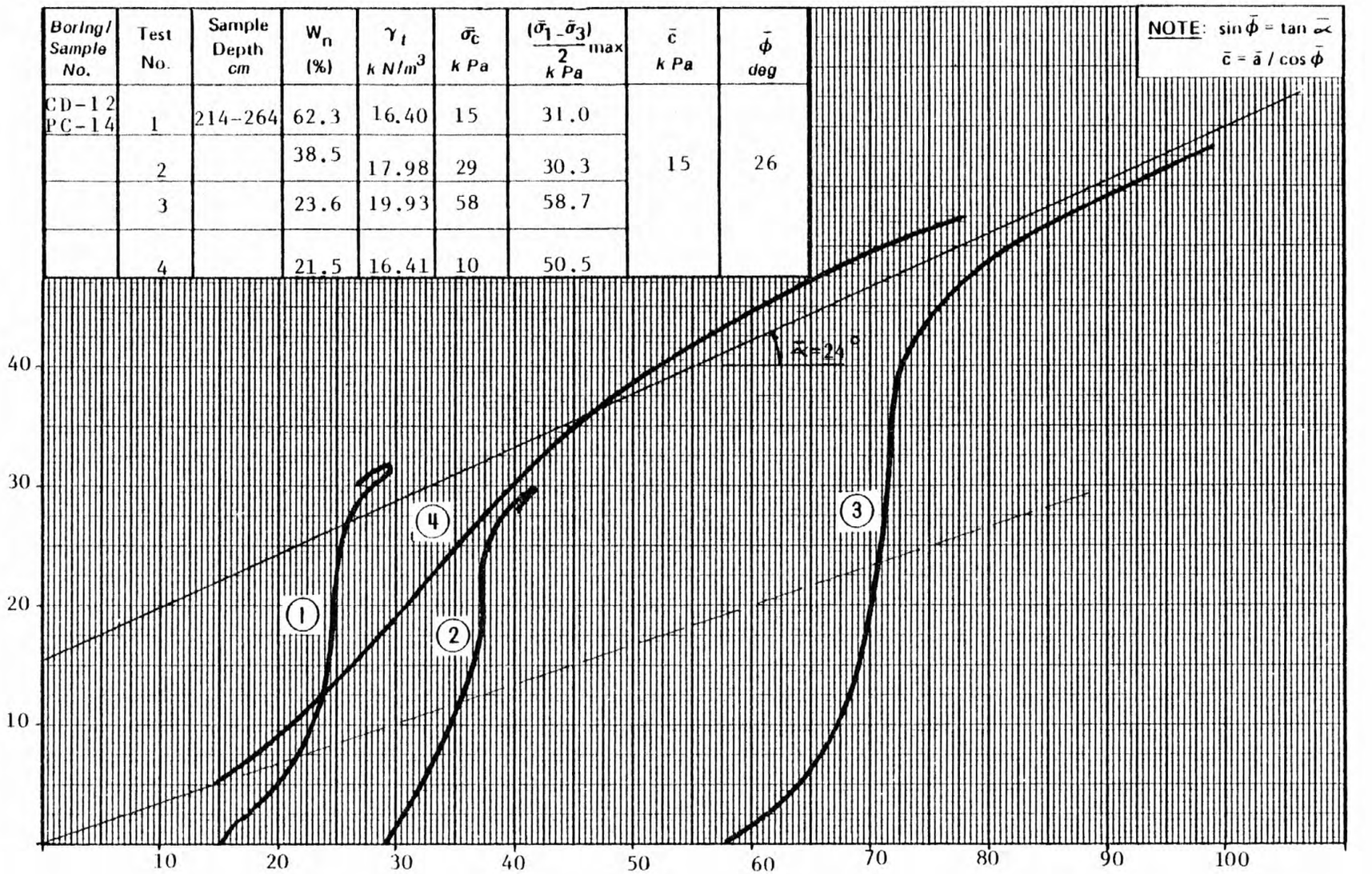


BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD11	3	320-370	•	Gray Silty Clay Trace of Fine Sand	53.7	55	30
CD11	4	320-370	○	Gray Silty Clay, Trace of Fine Sand	51.8	52	24

Boring / Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t kN/m^3	$\bar{\sigma}_c$ kPa	$\frac{(\bar{\sigma}_1 - \bar{\sigma}_3)}{2}_{max}$ kPa	$\bar{c}$ kPa	$\bar{\phi}$ deg
CD-12 PC-14	1	214-264	62.3	16.40	15	31.0	15	26
	2		38.5	17.98	29	30.3		
	3		23.6	19.93	58	58.7		
	4		21.5	16.41	10	50.5		

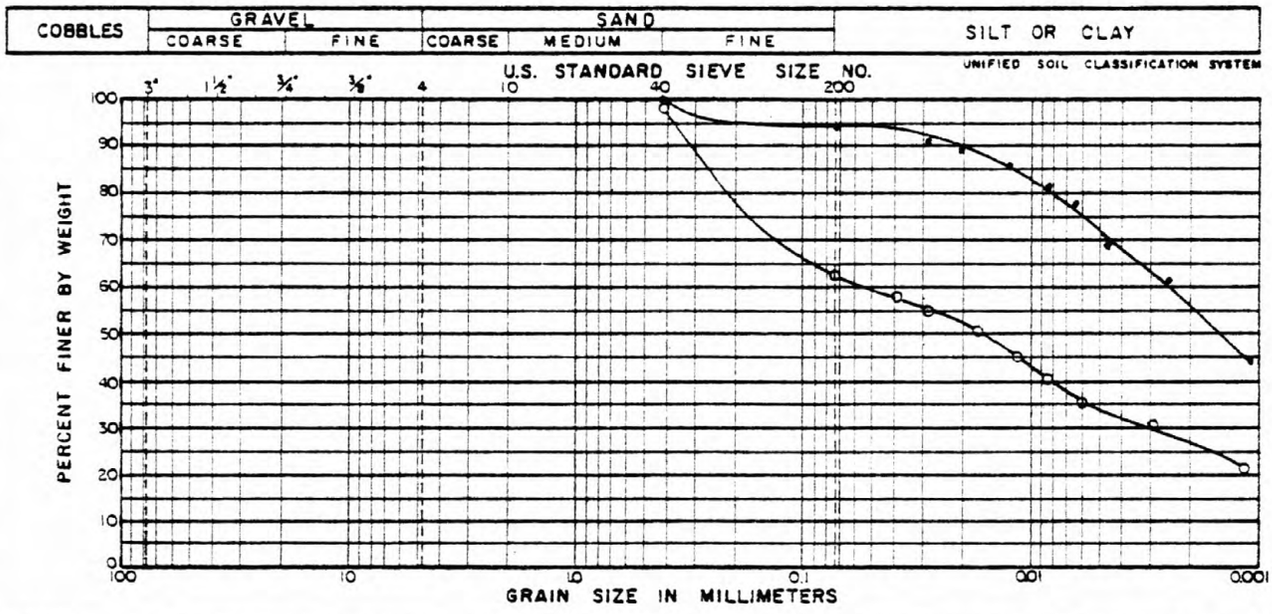
NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

$\bar{c} = \bar{a} / \cos\bar{\phi}$



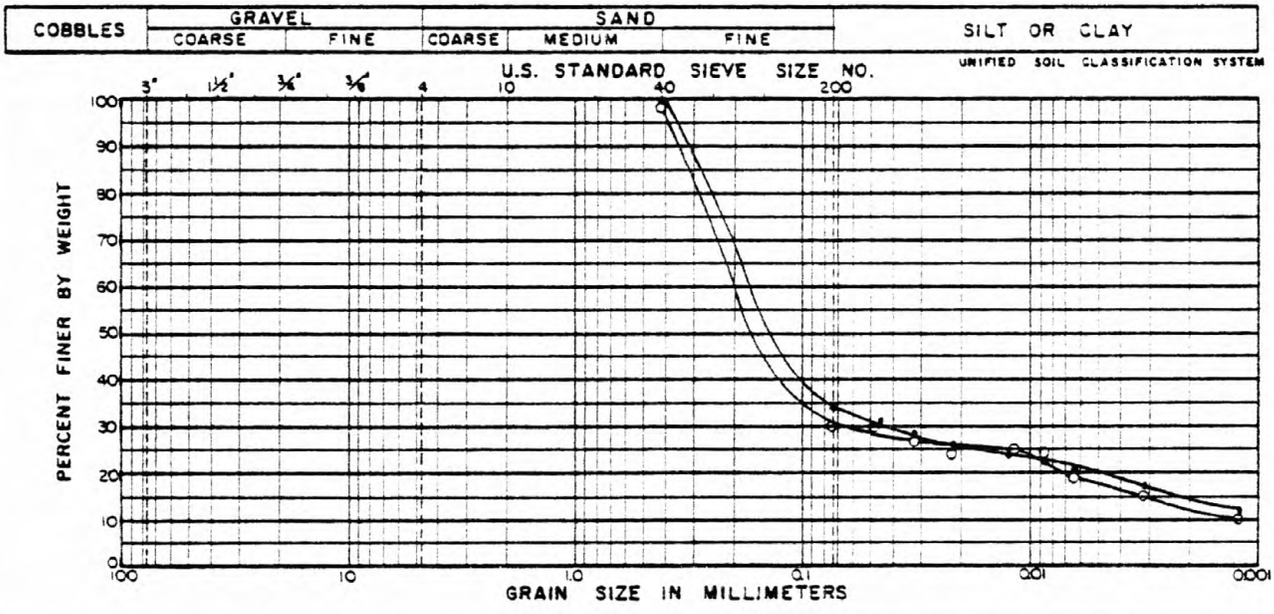
STRESS PATHS FOR $\overline{CIU}$ TESTS

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-12	1	214-264	•	Gray Silty Clay Trace of Fine Sand	62.3	52	24
CD-12	2	214-264	○	Gray Silty Fine Sandy Clay	38.5	34	17

JOB NO.

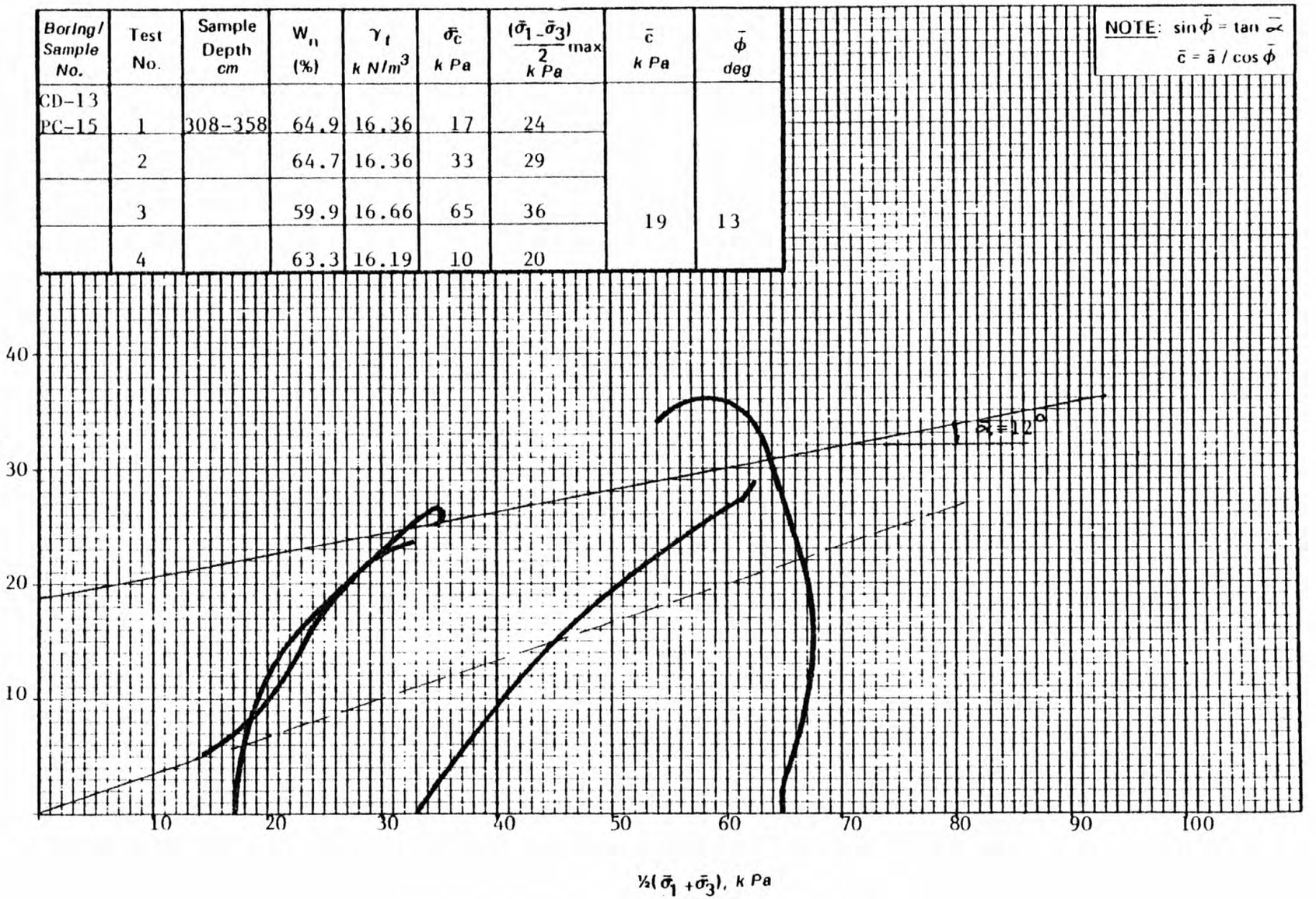


BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-12	3	214-264	•	Gray Silty Clayey Fine Sand	23.6	NP	NP
CD-12	4	214-264	○	Clayey Silty Fine Sand	21.5	19	16

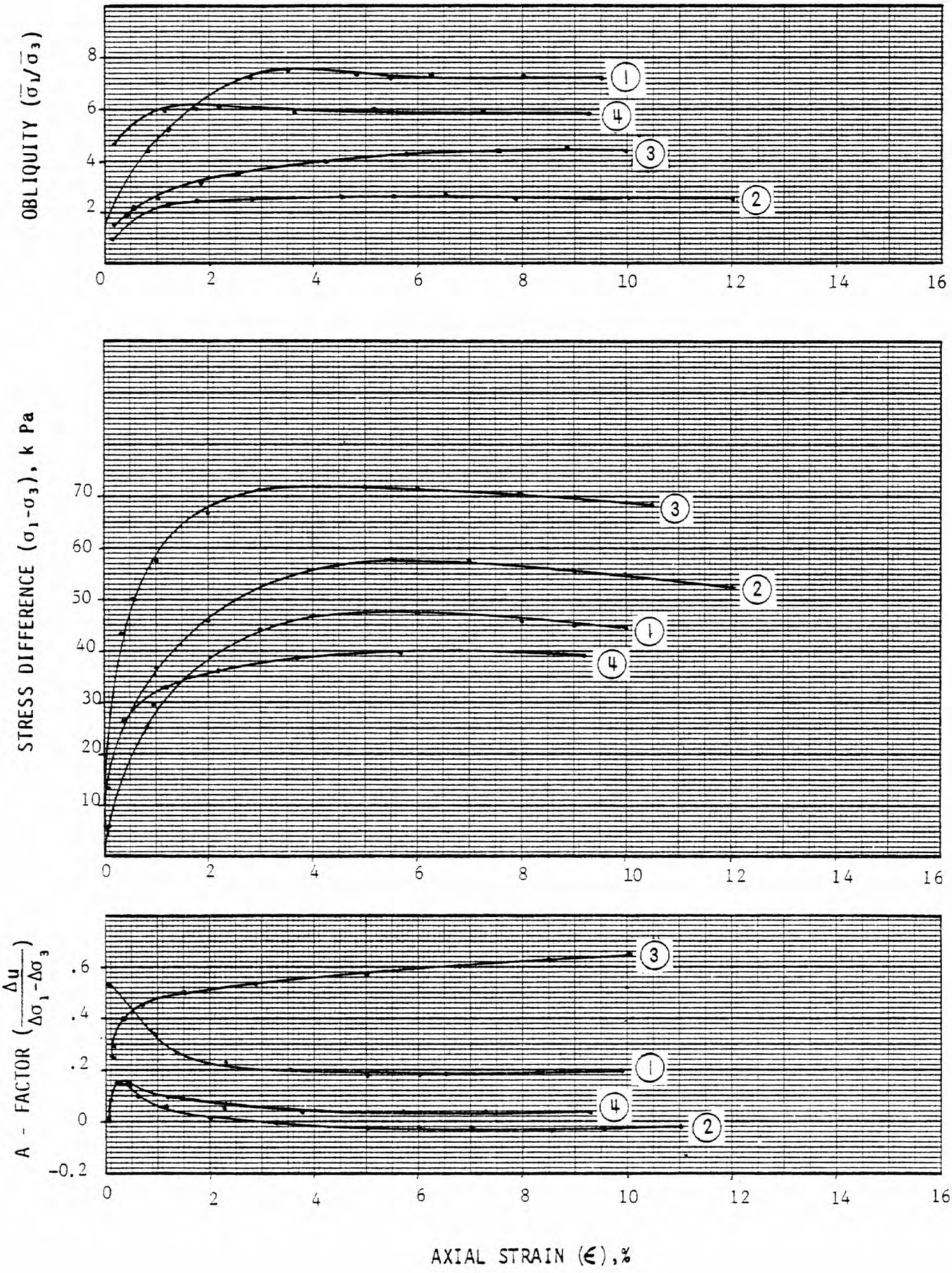
Boring/ Sample No.	Test No.	Sample Depth cm	W_n (%)	γ_t k N/m^3	$\bar{\sigma}_c$ k Pa	$\frac{(\bar{\sigma}_1-\bar{\sigma}_3)}{2}_{max}$ k Pa	$\bar{c}$ k Pa	$\bar{\phi}$ deg
CD-13 PC-15	1	308-358	64.9	16.36	17	24	19	13
	2		64.7	16.36	33	29		
	3		59.9	16.66	65	36		
	4		63.3	16.19	10	20		

NOTE: $\sin\bar{\phi} = \tan\bar{\alpha}$

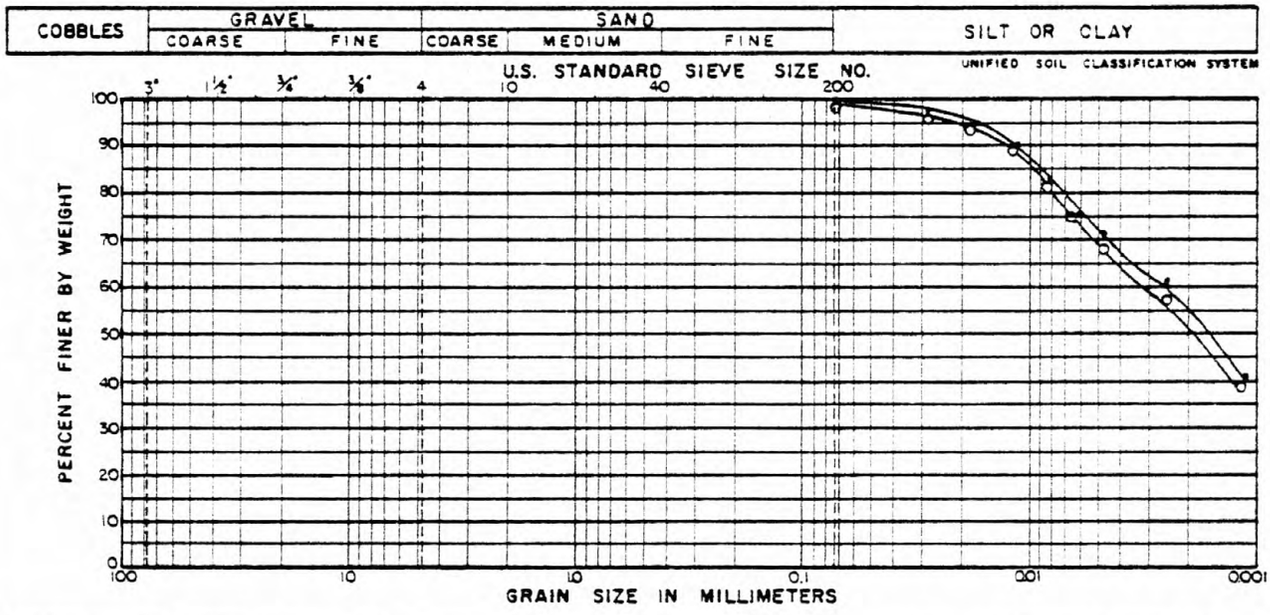
$\bar{c} = \bar{a} / \cos\bar{\phi}$



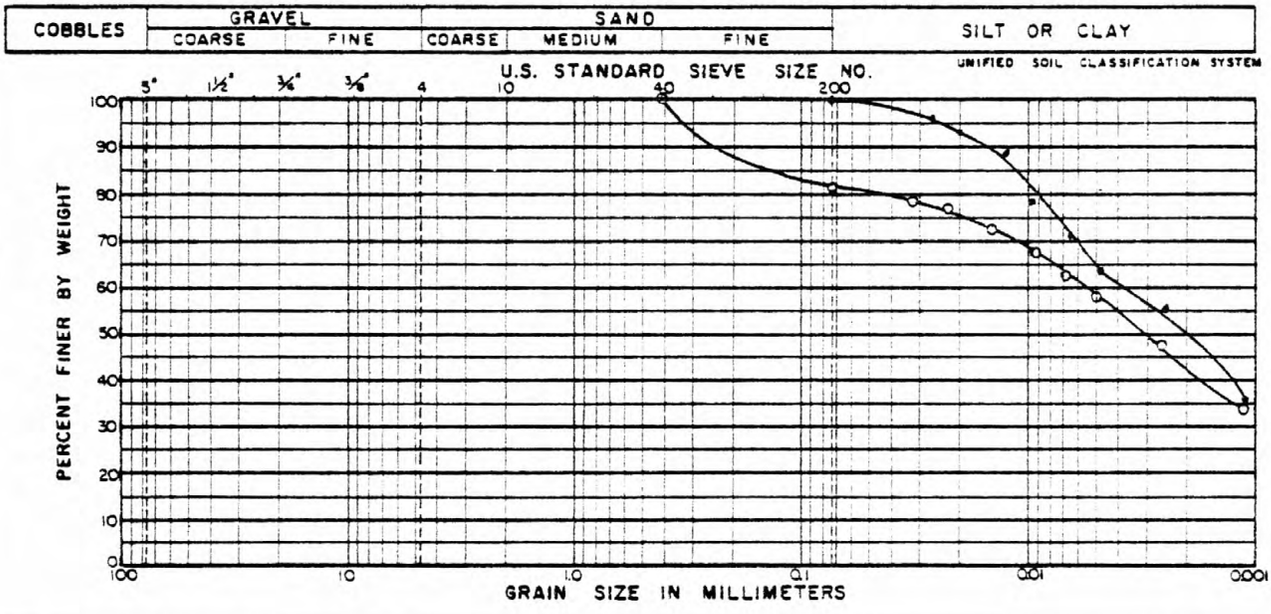
STRESS PATHS FOR $\bar{C}\bar{I}\bar{U}$ TESTS


OBLIQUITY ($\bar{\sigma}_1/\bar{\sigma}_3$)
8
6
4
2
0
2
4
6
8
10
12
14
16
1
4
3
2
STRESS DIFFERENCE ($\sigma_1-\sigma_3$), k Pa
70
60
50
40
30
20
10
3
2
1
4
A - FACTOR ($\frac{\Delta u}{\Delta\sigma_1-\Delta\sigma_3}$)
.6
.4
.2
0
-0.2
3
1
4
2
AXIAL STRAIN (ϵ),%

MECHANICAL ANALYSIS



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD13	1	308-358	•	Gray Silty Clay	64.9	50	25
CD13	2	308-358	o	Gray Silty Clay	64.7	52	29



BORING	SAMPLE	DEPTH	SYMBOL	CLASSIFICATION	MC	LL	PL
CD-13	3	308-358	•	Gray Silty Clay	59.9	54	24
CD-13	4	308-358	o	Gray Fine Sandy Silty Clay	63.3	56	21

JOB NO.

APPENDIX

D

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 **SAMPLE NUMBER:** PC-5
TEST NO.: 1 **DEPTH:** 163 - 203 CMS.
BORING NO.: CD-1 **OVERCONSOLIDATION RATIO** 8
TEST DATE: 5/1/80

SAMPLE DIAMETER = 1.874 IN.
SAMPLE HEIGHT = 3.77 IN.

INITIAL PORE PRESSURE READING = 2325
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.389 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2306.000	20.000	3.200	1.263	0.053	3.165	1.583	43.793	40.627	1.078	-3.285	-1.037	42.210
2310.000	60.000	20.000	7.895	0.159	19.762	9.881	59.698	39.936	1.495	-2.592	-0.131	49.817
2332.000	100.000	33.500	13.224	0.265	33.066	16.533	69.201	36.135	1.915	1.210	0.037	52.668
2344.000	140.000	40.700	16.066	0.371	40.131	20.065	74.192	34.061	2.178	3.283	0.082	54.126
2354.000	180.000	47.000	18.553	0.477	46.293	23.147	78.626	32.333	2.432	5.011	0.108	55.479
2366.000	250.000	53.700	21.197	0.663	52.794	26.397	83.053	30.259	2.745	7.085	0.134	56.656
2377.000	350.000	64.000	25.263	0.928	62.752	31.376	91.111	28.359	3.213	8.986	0.143	59.735
2382.000	450.000	73.000	28.816	1.194	71.385	35.693	98.880	27.495	3.596	9.850	0.138	63.187
2382.000	600.000	83.000	32.658	1.592	80.578	40.289	108.073	27.495	3.931	9.850	0.122	67.784
2374.000	800.000	93.700	36.722	2.122	90.115	45.058	118.992	28.877	4.121	8.467	0.094	73.934
2364.000	1000.000	102.700	40.139	2.653	97.968	48.984	128.573	30.605	4.201	6.739	0.069	79.589
2355.000	1200.000	110.000	42.911	3.183	104.163	52.081	136.323	32.160	4.239	5.184	0.050	84.241
2345.000	1400.000	116.000	45.190	3.714	109.093	54.547	142.981	33.888	4.219	3.456	0.032	88.435
2336.000	1600.000	120.000	46.709	4.244	112.139	56.069	147.582	35.443	4.164	1.901	0.017	91.513
2328.000	1800.000	124.200	48.304	4.775	115.325	57.662	152.150	36.826	4.132	0.518	0.004	94.488
2322.000	2000.000	128.000	49.747	5.305	118.109	59.054	155.971	37.862	4.119	-0.518	-0.004	96.917
2313.000	2200.000	131.200	50.962	5.836	120.316	60.158	159.733	39.418	4.052	-2.074	-0.017	99.576
2308.000	2400.000	134.500	52.215	6.366	122.580	61.290	162.862	40.282	4.043	-2.938	-0.024	101.572
2302.000	2600.000	137.500	53.354	6.897	124.546	62.273	165.864	41.318	4.014	-3.974	-0.032	103.592
2296.000	2800.000	140.000	54.304	7.427	126.039	63.020	168.395	42.355	3.976	-5.011	-0.040	105.375
2292.000	3000.000	142.200	55.139	7.958	127.245	63.623	170.292	43.046	3.956	-5.702	-0.045	106.669
2288.000	3200.000	144.500	56.013	8.488	128.516	64.258	172.254	43.738	3.938	-6.394	-0.050	107.996
2283.000	3400.000	146.000	56.582	9.019	129.069	64.535	173.671	44.602	3.894	-7.258	-0.056	109.137
2280.000	3600.000	147.000	56.962	9.549	129.179	64.589	174.299	45.120	3.863	-7.776	-0.060	109.710
2276.000	3800.000	148.000	57.342	10.080	129.276	64.638	175.088	45.811	3.822	-8.467	-0.065	110.450
2273.000	4000.000	147.000	56.962	10.610	127.663	63.831	173.992	46.330	3.756	-8.986	-0.070	110.161
2269.000	4200.000	149.200	57.797	11.141	128.767	64.383	175.788	47.021	3.739	-9.677	-0.075	111.404
2264.000	4400.000	149.500	57.911	11.671	128.250	64.125	176.135	47.885	3.678	-10.541	-0.082	112.010
2259.000	4800.000	149.500	57.911	12.732	126.709	63.355	175.458	48.749	3.599	-11.405	-0.090	112.104

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-5
TEST NO.:	2	DEPTH:	163 - 203 CMS.
BORING NO.:	CD-1	OVERCONSOLIDATION RATIO	4
TEST DATE;	5/8/80		

SAMPLE DIAMETER = 1.854 IN.
SAMPLE HEIGHT = 3.722 IN.

INITIAL PORE PRESSURE READING = 2621
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.75 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	S3/2 KPS	SIG81 KPS	SIG83 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2722.000	40.000	12.000	7.826	0.107	20.026	10.013	74.573	54.547	1.367	17.453	0.872	64.560
2748.000	100.000	17.200	11.217	0.269	28.657	14.329	78.712	50.055	1.573	21.945	0.766	64.383
2758.000	160.000	23.700	15.457	0.430	39.423	19.712	87.750	48.327	1.816	23.673	0.600	68.038
2762.000	200.000	27.000	17.609	0.537	44.864	22.432	92.499	47.635	1.942	24.365	0.543	70.068
2761.000	300.000	34.000	22.174	0.806	56.343	28.171	104.151	47.808	2.179	24.192	0.429	75.980
2760.000	400.000	39.000	25.435	1.075	64.453	32.227	112.434	47.981	2.343	24.019	0.373	80.208
2756.000	500.000	43.000	28.043	1.343	70.871	35.436	119.543	48.672	2.456	23.328	0.329	84.108
2748.000	600.000	47.000	30.652	1.612	77.253	38.626	127.308	50.055	2.543	21.945	0.284	88.681
2740.000	800.000	53.000	34.565	2.149	86.639	43.320	138.076	51.437	2.684	20.563	0.237	94.756
2730.000	1000.000	57.000	37.174	2.687	92.666	46.333	145.832	53.165	2.743	18.835	0.203	99.498
2722.000	1200.000	58.500	32.935	3.224	81.646	40.823	136.193	54.547	2.497	17.453	0.214	95.370
2720.000	1400.000	53.000	34.565	3.761	85.212	42.606	140.104	54.893	2.552	17.107	0.201	97.499
2720.000	1600.000	65.500	42.717	4.299	104.721	52.360	159.613	54.893	2.908	17.107	0.163	107.253
2716.000	1800.000	68.000	44.348	4.836	108.108	54.054	163.692	55.584	2.945	16.416	0.152	109.638
2714.000	2000.000	70.000	45.652	5.373	110.658	55.329	166.588	55.930	2.979	16.070	0.145	111.259
2713.000	2200.000	72.000	46.957	5.911	113.174	56.587	169.277	56.103	3.017	15.898	0.140	112.690
2710.000	2600.000	75.000	48.913	6.985	116.543	58.272	173.164	56.621	3.058	15.379	0.132	114.893
2708.000	2800.000	76.000	49.565	7.523	117.415	58.707	174.381	56.967	3.061	15.034	0.128	115.674
2705.000	3000.000	77.000	50.217	8.060	118.268	59.134	175.753	57.485	3.057	14.515	0.123	116.619
2704.000	3200.000	78.000	50.870	8.598	119.104	59.552	176.762	57.658	3.066	14.342	0.120	117.210
2703.000	3400.000	79.000	51.522	9.135	119.922	59.961	177.753	57.831	3.074	14.170	0.118	117.792
2700.000	3600.000	80.500	52.500	9.672	121.476	60.738	179.825	58.349	3.082	13.651	0.112	119.087
2697.000	3800.000	81.500	53.152	10.210	122.254	61.127	181.121	58.867	3.077	13.133	0.107	119.994
2699.000	4000.000	82.000	53.478	10.747	122.268	61.134	180.789	58.522	3.089	13.478	0.110	119.655
2696.000	4400.000	83.000	54.130	11.822	122.268	61.134	181.308	59.040	3.071	12.960	0.106	120.175
2690.000	4800.000	85.000	55.435	12.896	123.688	61.844	183.765	60.077	3.059	11.923	0.096	121.921
2683.000	5200.000	87.000	56.739	13.971	125.037	62.519	186.324	61.287	3.040	10.714	0.086	123.805
2676.000	5600.000	89.000	58.043	15.046	126.314	63.157	188.810	62.496	3.021	9.504	0.075	125.653
2668.000	6000.000	90.000	58.696	16.120	126.117	63.059	189.996	63.879	2.974	8.122	0.064	126.937
2663.000	6400.000	90.500	59.022	17.195	125.193	62.596	189.935	64.743	2.934	7.258	0.058	127.339

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-5
TEST NO.:	3	DEPTH:	163 - 203 CMS.
BORING NO.:	CD-1	OVERCONSOLIDATION RATIO	1
TEST DATE:	5/1/80		

SAMPLE DIAMETER = 1.84 IN.
SAMPLE HEIGHT = 3.65 IN.

INITIAL PORE PRESSURE READING = 2490
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.95 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2527.000	20.000	23.700	9.355	0.055	24.317	12.159	301.125	276.808	1.088	6.394	0.263	288.967
2602.000	60.000	58.500	23.092	0.164	59.957	29.979	323.806	263.848	1.227	19.353	0.323	293.827
2696.000	100.000	90.000	35.317	0.274	91.597	45.799	339.203	247.605	1.370	35.597	0.389	293.404
2766.000	140.000	112.000	43.671	0.384	113.140	56.570	348.303	235.164	1.481	48.038	0.425	291.733
2827.000	180.000	128.000	49.747	0.493	128.740	64.370	353.708	224.968	1.572	58.233	0.452	289.338
2900.000	250.000	145.000	56.203	0.685	145.166	72.583	357.519	212.353	1.684	70.847	0.488	284.937
2985.000	350.000	161.000	62.222	0.959	160.271	80.136	357.936	197.665	1.811	85.535	0.534	277.801
3060.000	450.000	171.000	65.926	1.233	169.341	84.671	354.046	184.705	1.917	98.495	0.582	269.376
3130.000	600.000	180.500	69.444	1.644	177.637	88.819	350.248	172.609	2.029	110.591	0.623	261.428
3205.000	800.000	188.000	72.222	2.192	183.713	91.857	343.362	159.649	2.151	123.551	0.673	251.506
3263.000	1000.000	194.000	74.444	2.740	188.306	94.153	337.932	149.627	2.259	133.573	0.709	243.780
3312.000	1200.000	200.000	76.667	3.288	192.833	96.417	333.993	141.159	2.366	142.041	0.737	237.576
3345.000	1400.000	204.200	78.222	3.836	195.631	97.815	331.088	135.457	2.444	147.743	0.755	233.272
3375.000	1600.000	208.000	79.630	4.384	198.017	99.009	328.290	130.273	2.520	152.927	0.772	229.282
3400.000	1800.000	211.700	81.000	4.932	200.270	100.136	326.223	125.953	2.590	157.247	0.785	226.089
3422.000	2000.000	215.500	82.407	5.479	202.575	101.288	324.727	122.151	2.658	161.049	0.795	223.439
3435.000	2200.000	218.000	83.333	6.027	203.665	101.833	323.570	119.905	2.699	163.295	0.802	221.738
3451.000	2400.000	220.700	84.333	6.575	204.906	102.453	322.046	117.140	2.749	166.060	0.810	219.593
3462.000	2600.000	224.200	85.630	7.123	206.835	103.418	322.074	115.239	2.795	167.961	0.812	218.657
3472.000	2800.000	225.500	86.111	7.671	206.772	103.386	320.283	113.511	2.822	169.689	0.821	216.898
3480.000	3000.000	228.000	87.037	8.219	207.755	103.878	319.884	112.129	2.853	171.071	0.823	216.007
3489.000	3200.000	230.000	87.778	8.767	208.272	104.136	318.846	110.574	2.884	172.626	0.829	214.710
3493.000	3400.000	232.000	88.519	9.315	208.767	104.384	318.650	109.883	2.900	173.317	0.830	214.266
3498.000	3600.000	234.000	89.259	9.863	209.243	104.622	318.261	109.019	2.919	174.181	0.832	213.640
3502.000	3800.000	235.000	89.630	10.411	208.834	104.417	317.161	108.327	2.928	174.873	0.837	212.745
3505.000	4000.000	237.000	90.375	10.959	209.283	104.642	317.092	107.809	2.941	175.391	0.838	212.451
3506.000	4000.000	237.000	90.375	10.959	209.283	104.642	316.919	107.636	2.944	175.564	0.839	212.278
3506.000	4200.000	237.800	90.675	11.507	208.686	104.343	316.322	107.636	2.939	175.564	0.841	211.980
3507.000	4400.000	238.200	90.825	12.055	207.735	103.868	315.199	107.463	2.933	175.737	0.846	211.332

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-1
TEST DATE: 4/18/80

SAMPLE NUMBER: PC-5
DEPTH: 626 - 666 CMS.
OVERCONSOLIDATION RATIO 4

SAMPLE DIAMETER = 1.847 IN.
SAMPLE HEIGHT = 3.668 IN.

INITIAL PORE PRESSURE READING = 2257
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.44 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2510.000	20.000	4.000	2.609	0.054	6.730	3.365	101.253	94.523	1.071	43.718	6.496	97.888
2546.000	60.000	25.000	16.304	0.163	42.014	21.007	130.316	88.302	1.476	49.939	1.189	109.309
2571.000	100.000	34.000	22.174	0.271	57.077	28.538	141.059	83.982	1.680	54.259	0.951	112.521
2582.000	140.000	41.000	26.739	0.380	68.753	34.377	150.834	82.081	1.838	56.160	0.817	116.459
2590.000	200.000	50.000	32.609	0.542	83.708	41.854	164.407	80.699	2.037	57.542	0.687	122.554
2596.000	300.000	62.000	40.435	0.813	103.515	51.757	183.178	79.662	2.299	58.579	0.566	131.420
2590.000	400.000	71.500	46.630	1.085	119.050	59.525	199.749	80.699	2.475	57.542	0.483	140.224
2585.000	500.000	78.000	50.870	1.356	129.516	64.758	211.080	81.563	2.588	56.678	0.438	146.322
2578.000	600.000	84.000	54.783	1.627	139.096	69.548	221.869	82.773	2.680	55.468	0.399	152.321
2568.000	800.000	93.500	60.989	2.169	154.001	77.001	238.502	84.501	2.822	53.740	0.349	161.502
2557.000	1000.000	100.000	65.275	2.712	163.908	81.954	250.310	86.402	2.897	51.840	0.316	168.356
2551.000	1200.000	105.500	68.901	3.254	172.050	86.025	259.489	87.438	2.968	50.803	0.295	173.464
2542.000	1600.000	115.000	75.165	4.338	185.587	92.794	274.581	88.994	3.085	49.248	0.265	181.788
2541.000	1800.000	118.000	77.143	4.881	189.392	94.696	278.558	89.166	3.124	49.075	0.259	183.863
2538.000	2000.000	121.500	79.451	5.423	193.945	96.973	283.630	89.685	3.163	48.556	0.250	186.658
2539.000	2200.000	124.000	81.099	5.965	196.834	98.417	286.346	89.512	3.199	48.729	0.248	187.930
2534.000	2400.000	127.000	83.077	6.508	200.472	100.236	290.848	90.376	3.218	47.865	0.239	190.613
2532.000	2600.000	131.000	85.714	7.050	205.636	102.818	296.358	90.722	3.267	47.520	0.231	193.540
2529.000	2800.000	133.500	87.363	7.592	208.367	104.184	299.607	91.240	3.284	47.001	0.226	195.424
2528.000	3000.000	136.000	89.011	8.134	211.053	105.527	302.466	91.413	3.309	46.828	0.222	196.940
2524.000	3200.000	138.000	90.330	8.677	212.916	106.458	305.020	92.104	3.312	46.137	0.217	198.563
2524.000	3400.000	140.000	91.648	9.219	214.741	107.371	306.846	92.104	3.332	46.137	0.215	199.476
2521.000	3600.000	142.500	93.297	9.761	217.298	108.649	309.921	92.622	3.346	45.619	0.210	201.272
2521.000	3800.000	143.500	93.956	10.304	217.518	108.759	310.140	92.622	3.348	45.619	0.210	201.382
2518.000	4000.000	145.500	95.275	10.846	219.237	109.619	312.378	93.141	3.354	45.100	0.206	202.760
2514.000	4200.000	146.500	95.934	11.388	219.412	109.706	313.244	93.832	3.338	44.409	0.202	203.538
2514.000	4400.000	148.000	96.923	11.931	220.317	110.159	314.149	93.832	3.348	44.409	0.202	203.991
2509.000	4600.000	149.500	97.912	12.473	221.195	110.598	315.891	94.696	3.336	43.545	0.197	205.294
2503.000	4800.000	150.000	98.242	13.015	220.564	110.282	316.297	95.733	3.304	42.508	0.193	206.015
2509.000	5000.000	151.500	99.231	13.558	221.396	110.699	316.092	94.696	3.338	43.545	0.197	205.395
2509.000	5200.000	152.000	99.560	14.100	220.739	110.369	315.435	94.696	3.331	43.545	0.197	205.066
2507.000	5400.000	153.000	100.220	14.642	220.797	110.399	315.839	95.042	3.323	43.290	0.196	205.441

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-5
TEST NO.:	2	DEPTH:	626 - 666 CMS.
BORING NO.:	CB-1	OVERCONSOLIDATION RATIO	2
TEST DATE:	4/18/80		

SAMPLE DIAMETER = 1.841 IN.
SAMPLE HEIGHT = 3.713 IN.

INITIAL PORE PRESSURE READING = 2258
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 2.88 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG IS KPS
2367.000	40.000	63.000	24.868	0.108	64.536	32.268	322.183	257.647	1.250	18.835	0.292	289.915
2467.000	80.000	122.000	47.468	0.215	123.053	61.526	359.964	236.911	1.519	39.571	0.322	298.437
2512.000	100.000	141.000	54.684	0.269	141.680	70.840	374.270	232.591	1.609	43.891	0.310	303.431
2548.000	140.000	169.000	65.185	0.377	168.706	84.353	395.076	226.370	1.745	50.112	0.297	310.723
2569.000	180.000	189.000	72.593	0.485	187.674	93.837	410.415	222.741	1.843	53.740	0.286	316.578
2578.000	200.000	197.500	75.741	0.539	195.707	97.854	416.892	221.186	1.885	55.296	0.283	319.040
2605.000	300.000	231.000	88.148	0.808	227.150	113.576	443.671	216.520	2.049	59.961	0.264	330.096
2628.000	400.000	255.000	97.125	1.077	249.604	124.802	462.150	212.546	2.174	63.936	0.256	337.348
2651.000	500.000	271.000	103.125	1.347	264.300	132.151	472.871	208.571	2.267	67.910	0.257	340.721
2678.000	600.000	286.000	108.750	1.616	277.956	138.978	481.860	203.905	2.363	72.575	0.261	342.883
2714.000	800.000	302.000	114.750	2.155	291.685	145.843	489.370	197.684	2.476	78.796	0.270	343.527
2752.000	1000.000	315.500	119.813	2.693	302.879	151.440	493.997	191.118	2.585	85.363	0.282	342.558
2781.000	1200.000	326.500	123.962	3.232	311.632	155.817	497.739	186.107	2.674	90.374	0.290	341.923
2808.000	1400.000	337.500	128.113	3.771	320.274	160.138	501.715	181.441	2.765	95.039	0.297	341.579
2828.000	1600.000	346.000	131.321	4.309	326.458	163.229	504.443	177.985	2.834	98.495	0.302	341.214
2849.000	1800.000	353.000	133.962	4.848	331.148	165.574	505.504	174.356	2.899	102.124	0.308	339.930
2867.000	2000.000	360.000	136.604	5.386	335.768	167.884	507.013	171.246	2.961	105.234	0.313	339.130
2879.000	2200.000	365.000	138.491	5.925	338.467	169.234	507.639	169.172	3.001	107.308	0.317	338.406
2897.000	2400.000	366.000	138.868	6.464	337.446	168.723	503.508	166.062	3.032	110.418	0.327	334.785
2899.000	2600.000	367.500	139.434	7.002	336.870	168.435	502.586	165.716	3.033	110.764	0.329	334.151
2905.000	2800.000	370.500	140.566	7.541	337.638	168.819	502.317	164.679	3.050	111.801	0.331	333.498
2912.000	3000.000	374.000	141.887	8.080	338.825	169.413	502.295	163.470	3.073	113.010	0.334	332.883
2915.000	3200.000	378.000	143.396	8.618	340.422	170.211	503.373	162.951	3.089	113.529	0.333	333.162
2920.000	3400.000	382.000	144.906	9.157	341.979	170.989	504.066	162.087	3.110	114.393	0.335	333.077
2922.000	3600.000	384.000	145.660	9.696	341.721	170.861	503.462	161.742	3.113	114.738	0.336	332.603
2924.000	3800.000	389.000	147.547	10.234	344.082	172.042	505.478	161.396	3.132	115.084	0.334	333.438
2927.000	4000.000	395.000	149.811	10.773	347.266	173.633	508.143	160.878	3.159	115.602	0.333	334.511
2927.000	4200.000	401.000	152.000	11.312	350.213	175.107	511.091	160.878	3.177	115.602	0.330	335.985
2927.000	4400.000	405.000	153.455	11.850	351.419	175.710	512.296	160.878	3.184	115.602	0.329	336.588
2928.000	4600.000	407.000	154.182	12.389	350.925	175.463	511.630	160.705	3.184	115.775	0.330	336.168
2926.000	4800.000	407.000	154.182	12.928	348.767	174.384	509.818	161.051	3.166	115.429	0.331	335.435
2929.000	5000.000	407.000	154.182	13.466	346.610	173.305	507.142	160.532	3.159	115.948	0.335	333.837
2925.000	5200.000	408.000	154.545	14.005	345.264	172.632	506.487	161.223	3.142	115.257	0.334	333.855
2928.000	5400.000	410.000	155.273	14.544	344.717	172.358	505.422	160.705	3.145	115.775	0.336	333.063

TRIAXIAL TEST RESULTS

PROJECT NO.:	7901221	SAMPLE NUMBER:	PC-5
TEST NO.:	3	DEPTH:	626 - 666 CMS.
BORING NO.:	CD-1	OVERCONSOLIDATION RATIO	1
TEST DATE:	4/18/80		

SAMPLE DIAMETER = 1.833 IN.
SAMPLE HEIGHT = 3.703 IN.

INITIAL PORE PRESSURE READING = 1880
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 5.7 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2165.000	40.000	52.500	34.239	0.108	89.631	44.816	587.585	497.954	1.180	49.248	0.549	542.770
2339.000	80.000	90.500	52.500	0.216	137.286	68.643	605.172	467.886	1.293	79.315	0.578	536.530
2398.000	100.000	90.000	58.696	0.270	153.404	76.702	611.095	457.691	1.335	89.510	0.583	534.394
2539.000	140.000	106.000	69.231	0.378	180.742	90.371	614.068	433.326	1.417	113.874	0.630	523.699
2701.000	200.000	124.000	81.099	0.540	211.382	105.691	616.715	405.332	1.522	141.868	0.671	511.022
2919.000	300.000	144.500	94.615	0.810	245.943	122.972	613.605	367.662	1.669	179.538	0.730	490.632
3132.000	400.000	158.000	103.516	1.080	268.347	134.173	599.203	330.856	1.811	216.344	0.806	465.030
3209.000	500.000	169.000	110.769	1.350	286.365	143.183	603.916	317.551	1.902	229.649	0.802	460.734
3318.000	600.000	18.000	11.739	1.620	30.265	15.133	328.980	298.716	1.101	248.484	8.210	313.848
3486.000	800.000	185.000	121.319	2.160	311.064	155.532	580.749	269.685	2.153	277.515	0.892	425.218
3605.000	1000.000	192.000	125.934	2.701	321.114	160.557	570.236	249.122	2.289	298.078	0.928	409.679
3701.000	1200.000	197.500	129.560	3.241	328.526	164.264	561.060	232.534	2.413	314.666	0.958	396.798
3776.000	1400.000	201.500	132.198	3.781	333.344	166.672	552.918	219.574	2.518	327.626	0.983	386.246
3835.000	1600.000	204.000	133.846	4.321	335.604	167.802	544.983	209.379	2.603	337.821	1.007	377.181
3885.000	1800.000	207.500	136.154	4.861	339.465	169.733	540.204	200.739	2.691	346.461	1.021	370.472
3925.000	2000.000	210.000	137.802	5.401	341.623	170.812	535.450	193.827	2.763	353.373	1.034	364.639
3960.000	2200.000	213.000	139.780	5.941	344.548	172.274	532.327	187.779	2.835	359.421	1.043	360.053
3983.000	2400.000	213.000	139.780	6.481	342.570	171.285	526.375	183.804	2.864	363.396	1.061	355.090
4009.000	2600.000	215.000	141.099	7.021	343.806	171.903	523.117	179.312	2.917	367.888	1.070	351.215
4027.000	2800.000	217.000	142.418	7.561	345.004	172.502	521.205	176.201	2.958	370.999	1.075	348.704
4043.000	3000.000	219.000	143.736	8.102	346.162	173.081	519.598	173.436	2.996	373.764	1.080	346.518
4058.000	3200.000	218.000	143.077	8.642	342.550	171.276	513.395	170.844	3.005	376.356	1.099	342.120
4071.000	3400.000	221.000	145.055	9.182	345.233	172.617	513.831	168.598	3.048	378.602	1.097	341.215
4077.000	3600.000	222.500	146.044	9.722	345.519	172.760	513.081	167.561	3.062	379.639	1.099	340.321
4087.000	3800.000	225.000	147.692	10.262	347.328	173.664	513.161	165.833	3.094	381.367	1.098	339.497
4090.000	4000.000	225.000	147.692	10.802	345.237	172.619	510.552	165.315	3.088	381.885	1.106	337.933
4088.000	4200.000	225.000	147.692	11.342	343.147	171.574	508.808	165.660	3.071	381.540	1.112	337.235
4094.000	4400.000	225.000	147.692	11.882	341.056	170.529	505.680	164.624	3.072	382.576	1.122	335.152
4095.000	4600.000	224.800	147.560	12.422	338.662	169.332	503.113	164.451	3.059	382.749	1.130	333.782

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-3
TEST NO.:	1	DEPTH:	390 - 430 CMS.
BORING NO.:	CD-4	OVERCONSOLIDATION RATIO	8
TEST DATE;	5/2/800		

SAMPLE DIAMETER = 1.857 IN.
SAMPLE HEIGHT = 3.82 IN.

INITIAL PORE PRESSURE READING = 2276
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.45 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2287.000	20.000	7.000	2.763	0.052	7.052	3.526	48.351	41.299	1.171	1.901	0.270	44.825
2305.000	60.000	15.000	5.921	0.157	15.095	7.547	53.284	38.189	1.395	5.011	0.332	45.736
2334.000	100.000	25.500	10.066	0.262	25.634	12.817	58.812	33.178	1.773	10.022	0.391	45.995
2353.000	140.000	34.000	13.421	0.366	34.143	17.071	64.037	29.895	2.142	13.306	0.390	46.966
2365.000	180.000	40.500	15.987	0.471	40.627	20.314	68.448	27.821	2.460	15.379	0.379	48.134
2373.000	250.000	50.000	19.737	0.654	50.065	25.032	76.503	26.439	2.894	16.762	0.335	51.471
2382.000	350.000	58.500	23.092	0.916	58.422	29.211	83.305	24.883	3.348	18.317	0.314	54.094
2386.000	450.000	66.700	26.329	1.178	66.434	33.217	90.627	24.192	3.746	19.008	0.286	57.409
2387.000	600.000	77.200	30.456	1.571	76.542	38.271	100.562	24.019	4.187	19.181	0.251	62.291
2383.000	800.000	88.200	34.633	2.094	86.578	43.289	111.288	24.711	4.504	18.489	0.214	67.999
2374.000	1000.000	97.200	38.051	2.618	94.613	47.306	120.878	26.266	4.602	16.934	0.179	73.572
2368.000	1200.000	105.000	41.013	3.141	101.430	50.715	128.732	27.303	4.715	15.898	0.157	78.017
2359.000	1400.000	111.000	43.291	3.665	106.485	53.243	135.343	28.858	4.690	14.342	0.135	82.100
2348.000	1600.000	116.000	45.190	4.188	110.552	55.276	141.310	30.759	4.594	12.442	0.113	86.034
2340.000	1800.000	121.000	47.089	4.712	114.567	57.284	146.708	32.141	4.565	11.059	0.097	89.425
2335.000	2000.000	125.000	48.608	5.236	117.612	58.806	150.617	33.005	4.563	10.195	0.087	91.811
2327.000	2200.000	129.000	50.127	5.759	120.618	60.309	155.005	34.387	4.508	8.813	0.073	94.696
2321.000	2400.000	131.000	50.886	6.283	121.765	60.883	157.189	35.424	4.437	7.776	0.064	96.307
2316.000	2600.000	134.200	52.101	6.806	123.977	61.989	160.265	36.288	4.416	6.912	0.056	98.277
2315.000	2800.000	137.000	53.165	7.330	125.796	62.898	162.257	36.461	4.450	6.739	0.054	99.359
2314.000	3000.000	138.200	53.620	7.853	126.158	63.079	162.792	36.634	4.444	6.566	0.052	99.713
2310.000	3200.000	140.200	54.380	8.377	127.218	63.609	164.543	37.325	4.408	5.875	0.046	100.934
2308.000	3400.000	142.000	55.063	8.901	128.081	64.041	165.752	37.671	4.400	5.530	0.043	101.711
2306.000	3600.000	144.000	55.823	9.424	129.102	64.551	167.118	38.016	4.396	5.184	0.040	102.567
2302.000	4000.000	148.200	57.418	10.471	131.255	65.628	169.962	38.707	4.391	4.493	0.034	104.335
2300.000	4400.000	151.200	58.557	11.518	132.294	66.147	171.347	39.053	4.388	4.147	0.031	105.200
2297.000	4800.000	153.500	59.430	12.565	132.678	66.339	172.249	39.571	4.353	3.629	0.027	105.910
2296.000	5200.000	155.500	60.185	13.613	132.755	66.377	172.499	39.744	4.340	3.456	0.026	106.121
2296.000	5600.000	156.500	60.556	14.660	131.952	65.976	171.696	39.744	4.320	3.456	0.026	105.720

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-3
TEST NO.: 2 DEPTH: 390 - 430 CMS.
BORING NO.: CD-4 OVERCONSOLIDATION RATIO 4
TEST DATE; 5/2/800

SAMPLE DIAMETER = 1.798 IN.
SAMPLE HEIGHT = 3.608 IN.

INITIAL PORE PRESSURE READING = 2250
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.9 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2286.000	20.000	2.500	1.630	0.055	4.438	2.219	84.618	80.179	1.055	6.221	1.402	82.399
2362.000	60.000	17.500	11.413	0.166	31.033	15.517	98.080	67.047	1.463	19.353	0.624	82.563
2392.000	100.000	26.000	16.957	0.277	46.056	23.028	107.918	61.863	1.744	24.537	0.533	84.890
2410.000	140.000	32.700	21.326	0.388	57.859	28.930	116.611	58.752	1.985	27.648	0.478	87.682
2420.000	180.000	37.500	24.457	0.499	66.279	33.139	123.303	57.024	2.162	29.376	0.443	90.164
2424.000	250.000	44.000	28.696	0.693	77.615	38.808	133.948	56.333	2.378	30.067	0.387	95.140
2427.000	350.000	50.500	32.935	0.970	88.832	44.416	144.647	55.815	2.592	30.585	0.344	100.231
2423.000	450.000	56.200	36.652	1.247	98.582	49.291	155.088	56.506	2.745	29.894	0.303	105.797
2422.000	600.000	61.200	39.913	1.663	106.901	53.450	163.579	56.679	2.886	29.721	0.278	110.129
2417.000	800.000	67.000	43.696	2.217	116.372	58.186	173.915	57.543	3.022	28.857	0.248	115.729
2415.000	1000.000	71.000	46.304	2.772	122.622	61.311	180.510	57.888	3.118	28.512	0.233	119.199
2411.000	1200.000	74.000	48.261	3.326	127.073	63.537	185.652	58.579	3.169	27.821	0.219	122.116
2417.000	1400.000	77.000	50.217	3.880	131.467	65.734	189.010	57.543	3.285	28.857	0.220	123.276
2418.000	1600.000	79.000	51.522	4.435	134.104	67.052	191.474	57.370	3.338	29.030	0.216	124.422
2417.000	1800.000	80.500	52.500	4.989	135.858	67.929	193.401	57.543	3.361	28.857	0.212	125.472
2419.000	2000.000	82.000	53.478	5.543	137.581	68.791	194.778	57.197	3.405	29.203	0.212	125.988
2421.000	2200.000	83.500	54.457	6.098	139.277	69.638	196.128	56.851	3.450	29.549	0.212	126.490
2423.000	2400.000	84.700	55.239	6.652	140.444	70.222	196.950	56.506	3.485	29.894	0.213	126.728
2424.000	2600.000	85.700	55.891	7.206	141.258	70.629	197.591	56.333	3.508	30.067	0.213	126.962
2429.000	2800.000	86.500	56.413	7.761	141.725	70.862	197.194	55.469	3.555	30.931	0.218	126.331
2429.000	3000.000	87.000	56.739	8.315	141.688	70.844	197.157	55.469	3.554	30.931	0.218	126.313
2428.000	3200.000	87.500	57.065	8.869	141.641	70.821	197.283	55.642	3.546	30.758	0.217	126.463
2428.000	3400.000	88.000	57.391	9.424	141.584	70.792	197.225	55.642	3.545	30.758	0.217	126.434
2428.000	3600.000	88.200	57.522	9.978	141.036	70.518	196.678	55.642	3.535	30.758	0.218	126.160
2430.000	3800.000	88.500	57.717	10.532	140.645	70.322	195.941	55.296	3.543	31.104	0.221	125.619
2430.000	4000.000	89.000	58.043	11.087	140.563	70.282	195.859	55.296	3.542	31.104	0.221	125.578
2430.000	4400.000	89.000	58.043	12.195	138.811	69.406	194.107	55.296	3.510	31.104	0.224	124.702

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-3
TEST NO.: 3 DEPTH: 390 - 430 CMS.
BORING NO.: CD-4 OVERCONSOLIDATION RATIO 1
TEST DATE; 5/2/800

SAMPLE DIAMETER = 1.782 IN.
SAMPLE HEIGHT = 3.736 IN.

INITIAL PORE PRESSURE READING = 2668
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2622.000	20.000	1.500	0.978	0.054	2.711	1.356	356.260	353.549	1.008	-7.949	-2.932	354.904
2688.000	60.000	20.500	13.370	0.161	37.011	18.506	379.157	342.146	1.108	3.456	0.093	360.652
2707.000	100.000	27.000	17.609	0.268	48.694	24.347	387.557	338.863	1.144	6.739	0.138	363.210
2792.000	140.000	38.000	24.783	0.375	68.459	34.230	392.633	324.175	1.211	21.427	0.313	358.404
2854.000	180.000	44.000	28.696	0.482	79.183	39.592	392.645	313.461	1.253	32.141	0.406	353.053
2942.000	250.000	51.200	33.391	0.669	91.967	45.983	390.222	298.255	1.308	47.347	0.515	344.239
3039.000	350.000	58.000	37.826	0.937	103.901	51.950	385.394	281.493	1.369	64.108	0.617	333.444
3115.000	450.000	64.000	41.739	1.205	114.340	57.170	382.699	268.359	1.426	77.241	0.676	325.529
3212.000	600.000	69.000	45.000	1.606	122.771	61.385	374.368	251.598	1.488	94.002	0.766	312.983
3315.000	800.000	79.000	51.522	2.141	139.799	69.900	373.598	233.799	1.598	111.801	0.800	303.699
3378.000	1000.000	86.000	56.087	2.677	151.354	75.677	374.267	222.913	1.679	122.687	0.811	298.590
3450.000	1200.000	94.000	61.319	3.212	164.561	82.281	375.033	210.471	1.782	135.129	0.821	292.752
3530.000	1600.000	102.000	66.593	4.283	176.741	88.370	373.388	196.647	1.899	148.953	0.843	285.018
3564.000	1800.000	106.000	69.231	4.818	182.713	91.357	373.485	190.772	1.958	154.828	0.847	282.129
3594.000	2000.000	110.000	71.868	5.353	188.607	94.304	374.196	185.588	2.016	160.012	0.848	279.892
3614.000	2200.000	112.000	73.187	5.889	190.980	95.490	373.113	182.132	2.049	163.468	0.856	277.622
3644.000	2400.000	114.000	74.505	6.424	193.315	96.658	370.263	176.948	2.093	168.652	0.872	273.606
3666.000	2600.000	116.200	75.956	6.959	195.951	97.976	369.098	173.147	2.132	172.453	0.880	271.122
3677.000	2800.000	118.000	77.143	7.495	197.868	98.935	369.114	171.246	2.155	174.354	0.881	270.180
3684.000	3000.000	120.000	78.462	8.030	200.086	100.044	370.122	170.036	2.177	175.564	0.877	270.080
3700.000	3200.000	122.000	79.780	8.565	202.265	101.133	369.537	167.271	2.209	178.329	0.882	268.404
3712.000	3400.000	124.000	81.099	9.101	204.405	102.203	369.604	165.199	2.237	180.401	0.883	267.401
3721.000	3600.000	126.000	82.418	9.636	206.505	103.253	370.148	163.644	2.262	181.956	0.881	266.896
3730.000	3800.000	128.000	83.736	10.171	208.566	104.283	370.654	162.088	2.287	183.512	0.880	266.371
3736.000	4000.000	130.000	85.055	10.707	210.588	105.295	371.640	161.052	2.308	184.548	0.876	266.346
3740.000	4400.000	131.500	86.044	11.777	210.482	105.241	370.842	160.360	2.313	185.240	0.880	265.601
3745.000	4800.000	132.000	86.374	12.848	208.724	104.363	368.220	159.496	2.309	186.104	0.892	263.859
3750.000	5200.000	133.000	87.033	13.919	207.734	103.867	366.367	158.632	2.310	186.968	0.900	262.500

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-3
TEST NO.:	1	DEPTH:	654 - 694 CMS.
BORING NO.:	CD4	OVERCONSOLIDATION RATIO	4
TEST DATE:	10-04-80		

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 1800
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.8 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
1864.000	20.000	35.000	13.816	0.050	30.397	15.198	192.139	161.743	1.188	11.059	0.364	176.941
1895.000	40.000	51.000	20.132	0.100	44.270	22.135	200.656	156.386	1.283	16.416	0.371	178.522
1914.000	60.000	67.000	26.447	0.150	58.130	29.065	211.233	153.103	1.380	19.699	0.339	182.168
1930.000	80.000	80.000	31.519	0.200	69.243	34.621	219.581	150.338	1.461	22.464	0.324	184.959
1934.000	100.000	87.000	34.177	0.250	75.044	37.522	224.691	149.647	1.501	23.155	0.309	187.169
1942.000	120.000	99.000	38.734	0.300	85.008	42.504	233.272	148.264	1.573	24.537	0.289	190.768
1987.000	140.000	124.000	48.228	0.400	105.737	52.869	246.226	140.488	1.753	32.313	0.306	193.357
1968.000	180.000	126.000	48.987	0.450	107.349	53.675	251.121	143.772	1.747	29.030	0.270	197.446
1968.000	200.000	132.000	51.266	0.500	112.284	56.142	256.056	143.772	1.781	29.030	0.259	199.914
1964.000	300.000	150.000	58.101	0.750	126.937	63.469	271.400	144.463	1.879	28.339	0.223	207.931
1942.000	500.000	165.000	63.704	1.250	138.475	69.238	286.740	148.264	1.934	24.537	0.177	217.502
1942.000	550.000	174.000	67.037	1.375	145.537	72.769	293.801	148.264	1.982	24.537	0.169	221.033
1942.000	600.000	194.000	74.444	1.500	161.413	80.707	309.678	148.264	2.089	24.537	0.152	228.972
1944.000	700.000	203.000	77.778	1.750	168.212	84.106	316.131	147.919	2.137	24.883	0.148	232.025
1946.000	800.000	211.000	80.741	2.000	174.177	87.088	321.750	147.573	2.180	25.229	0.145	234.661
1948.000	900.000	218.000	83.333	2.250	179.311	89.655	326.538	147.228	2.218	25.574	0.143	236.883
1952.000	1000.000	224.000	85.556	2.500	183.621	91.811	330.157	146.536	2.253	26.265	0.143	238.347
1955.000	1100.000	231.000	88.148	2.750	188.700	94.350	334.718	146.018	2.292	26.784	0.142	240.369
1957.000	1200.000	237.000	90.375	3.000	192.971	96.486	338.643	145.672	2.325	27.129	0.141	242.158
1962.000	1300.000	241.000	91.875	3.250	195.667	97.834	340.476	144.808	2.351	27.993	0.143	242.642
1968.000	1400.000	245.000	93.375	3.500	198.348	99.174	342.119	143.772	2.380	29.030	0.146	242.945
1970.000	1500.000	250.000	95.250	3.750	201.806	100.904	345.232	143.426	2.407	29.376	0.146	244.330
1977.000	1600.000	255.000	97.125	4.000	205.245	102.623	347.461	142.216	2.443	30.585	0.149	244.839
1978.000	1700.000	256.000	97.500	4.250	205.501	102.751	347.545	142.044	2.447	30.758	0.150	244.794
1986.000	1800.000	260.000	99.000	4.500	208.118	104.059	348.780	140.661	2.480	32.141	0.154	244.720
1990.000	1900.000	263.000	100.125	4.750	209.931	104.965	349.901	139.970	2.500	32.832	0.156	244.935
1992.000	2000.000	266.000	101.250	5.000	211.733	105.867	351.357	139.624	2.516	33.177	0.157	245.491
2000.000	2200.000	272.000	103.500	5.500	215.299	107.650	353.541	138.242	2.557	34.560	0.161	245.892
2002.000	2300.000	273.000	103.875	5.750	215.508	107.754	353.404	137.896	2.563	34.905	0.162	245.651
2006.000	2400.000	275.000	104.625	6.000	216.488	108.244	353.693	137.205	2.578	35.597	0.164	245.449
2010.000	2500.000	278.000	105.750	6.250	218.234	109.117	354.748	136.514	2.599	36.288	0.166	245.631
2014.000	2600.000	283.000	107.625	6.500	221.510	110.755	357.333	135.823	2.631	36.979	0.167	246.578
2015.000	2800.000	284.000	108.000	7.000	221.094	110.547	356.744	135.650	2.630	37.152	0.168	246.197
2022.000	3000.000	288.000	109.500	7.500	222.960	111.480	357.400	134.440	2.658	38.361	0.172	245.920
2025.000	3200.000	290.000	110.250	8.000	223.273	111.636	357.195	133.922	2.667	38.880	0.174	245.558
2032.000	3400.000	293.000	111.375	8.500	224.326	112.164	357.038	132.712	2.690	40.089	0.179	244.876
2032.000	3600.000	296.000	112.500	9.000	225.353	112.677	358.066	132.712	2.698	40.089	0.178	245.389
2034.000	3800.000	299.000	113.625	9.500	226.356	113.178	358.723	132.367	2.710	40.435	0.179	245.545
2035.000	4000.000	302.000	114.750	10.000	227.335	113.668	359.529	132.194	2.720	40.608	0.179	245.862
2038.000	4200.000	304.000	115.500	10.500	227.549	113.774	359.224	131.676	2.728	41.126	0.181	245.450
2038.000	4400.000	306.000	116.250	11.000	227.748	113.874	359.423	131.676	2.730	41.126	0.181	245.550
2040.000	4600.000	308.000	117.000	11.500	227.929	113.964	359.259	131.330	2.736	41.472	0.182	245.394
2042.000	5000.000	308.000	117.000	12.500	225.353	112.677	356.338	130.984	2.720	41.817	0.186	243.661

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-3
TEST NO.: 2 DEPTH: 654 - 694 CMS.
BORING NO.: CD4 OVERCONSOLIDATION RATIO 2
TEST DATE: 10-04-80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 1972
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2174.000	20.000	37.500	24.457	0.050	53.808	26.904	364.504	310.696	1.173	34.905	0.649	337.600
2272.000	40.000	59.000	38.478	0.100	84.616	42.308	378.378	293.762	1.288	51.840	0.613	336.070
2319.000	60.000	72.000	46.957	0.150	103.209	51.604	388.849	285.640	1.361	59.961	0.581	337.245
2351.000	80.000	81.000	52.826	0.200	116.051	58.025	396.161	280.111	1.414	65.491	0.564	338.136
2372.000	100.000	88.500	57.717	0.250	126.733	63.367	403.214	276.481	1.458	69.119	0.545	339.848
2385.000	120.000	94.500	61.648	0.300	135.297	67.648	409.531	274.235	1.493	71.366	0.527	341.883
2396.000	140.000	99.500	64.945	0.350	142.461	71.231	414.795	272.334	1.523	73.267	0.514	343.565
2408.000	160.000	103.500	67.582	0.400	148.171	74.086	418.431	270.260	1.548	75.340	0.508	344.346
2419.000	180.000	108.000	70.550	0.450	154.598	77.299	422.958	268.359	1.576	77.241	0.500	345.659
2422.000	200.000	111.300	72.725	0.500	159.286	79.643	427.127	267.841	1.595	77.759	0.488	347.484
2440.000	250.000	119.000	77.802	0.625	170.192	85.096	434.922	264.731	1.643	80.870	0.475	349.827
2460.000	300.000	126.000	82.418	0.750	180.061	90.031	441.336	261.275	1.689	84.326	0.468	351.305
2472.000	350.000	132.000	86.374	0.875	188.466	94.233	447.667	259.201	1.727	86.399	0.458	353.435
2487.000	400.000	137.500	90.000	1.000	196.132	98.066	452.741	256.609	1.764	88.991	0.454	354.675
2503.000	450.000	143.000	93.626	1.125	203.776	101.889	457.620	253.844	1.803	91.756	0.450	355.733
2514.000	500.000	145.000	94.945	1.250	206.386	103.193	458.329	251.943	1.819	93.657	0.454	355.137
2526.000	550.000	148.500	97.253	1.375	211.135	105.567	461.004	249.870	1.845	95.730	0.453	355.437
2539.000	600.000	151.500	99.231	1.500	215.156	107.579	462.780	247.623	1.869	97.977	0.455	355.202
2565.000	700.000	157.000	102.857	1.750	222.452	111.227	465.583	243.131	1.915	102.469	0.461	354.357
2591.000	800.000	161.000	105.495	2.000	227.578	113.789	466.215	238.638	1.954	106.962	0.470	352.427
2611.000	900.000	164.000	107.473	2.250	231.252	115.626	466.434	235.182	1.983	110.418	0.477	350.808
2638.000	1000.000	167.000	109.451	2.500	234.906	117.453	465.422	230.516	2.019	115.084	0.490	347.969
2659.000	1100.000	169.500	111.099	2.750	237.831	118.916	464.719	226.887	2.048	118.713	0.499	345.804
2679.000	1200.000	172.000	112.747	3.000	240.739	120.370	464.171	223.431	2.077	122.169	0.507	343.801
2696.000	1300.000	174.000	114.066	3.250	242.928	121.464	463.422	220.494	2.102	125.106	0.515	341.958
2714.000	1400.000	175.800	115.253	3.500	244.821	122.411	462.204	217.383	2.126	128.217	0.524	339.794
2728.000	1500.000	177.000	116.044	3.750	245.863	122.932	460.827	214.964	2.144	130.636	0.531	337.896
2746.000	1600.000	178.500	117.033	4.000	247.315	123.658	459.169	211.854	2.167	133.746	0.541	335.511
2761.000	1700.000	180.000	118.022	4.250	248.755	124.378	458.017	209.262	2.189	136.338	0.548	333.639
2776.000	1800.000	181.500	119.011	4.500	250.184	125.092	456.853	206.670	2.211	138.930	0.555	331.762
2790.000	1900.000	183.000	120.000	4.750	251.604	125.802	455.854	204.251	2.232	141.349	0.562	330.053
2799.000	2000.000	184.000	120.659	5.000	252.522	126.161	455.017	202.695	2.245	142.905	0.566	328.857
2810.000	2100.000	185.000	121.319	5.250	253.034	126.517	453.828	200.795	2.260	144.805	0.572	327.312
2819.000	2200.000	185.900	121.912	5.500	253.599	126.800	452.839	199.239	2.273	146.361	0.577	326.039
2830.000	2300.000	187.000	122.637	5.750	254.433	127.216	451.771	197.339	2.289	148.261	0.583	324.555
2838.000	2400.000	188.000	123.297	6.000	255.123	127.562	451.079	195.956	2.302	149.644	0.587	323.518
2846.000	2500.000	189.000	123.956	6.250	255.804	127.903	450.378	194.574	2.315	151.026	0.590	322.476
2851.000	2600.000	190.000	124.615	6.500	256.478	128.240	450.188	193.710	2.324	151.890	0.592	321.949
2860.000	2700.000	190.500	124.945	6.750	256.471	128.236	448.625	192.155	2.335	153.445	0.598	320.390
2871.000	2800.000	191.000	125.275	7.000	256.459	128.230	446.713	190.254	2.348	155.346	0.606	318.484
2876.000	2900.000	192.000	125.934	7.250	257.115	128.557	446.505	189.390	2.358	156.210	0.608	317.947
2884.000	3000.000	193.000	126.593	7.500	257.764	128.882	445.771	188.007	2.371	157.593	0.611	316.889
2889.000	3100.000	194.000	127.253	7.750	258.407	129.204	445.550	187.143	2.381	158.457	0.613	316.347
2885.000	3200.000	194.500	127.582	8.000	258.373	129.187	446.208	187.835	2.376	157.765	0.611	317.022
2905.000	3300.000	195.500	128.242	8.250	259.004	129.502	443.383	184.379	2.405	161.221	0.622	313.881
2907.000	3400.000	196.000	128.571	8.500	258.961	129.481	442.994	184.033	2.407	161.567	0.624	313.514
2911.000	3500.000	196.500	128.901	8.750	258.916	129.458	442.258	183.342	2.412	162.258	0.627	312.800
2917.000	3600.000	197.500	129.560	9.000	259.523	129.764	441.832	182.305	2.424	163.295	0.629	312.069
2919.000	3700.000	197.800	129.758	9.250	259.209	129.605	441.168	181.959	2.425	163.641	0.631	311.564
2923.000	3800.000	198.000	129.890	9.500	258.758	129.379	440.027	181.268	2.427	164.332	0.635	310.647
2926.000	3900.000	199.200	130.681	9.750	259.616	129.808	440.365	180.750	2.436	164.850	0.635	310.558
2935.000	4200.000	200.000	131.209	10.500	256.497	129.249	437.692	179.195	2.443	166.405	0.644	308.443
2944.000	4400.000	201.000	131.868	11.000	258.345	129.173	435.984	177.639	2.454	167.961	0.650	306.812
2945.000	4600.000	202.000	132.527	11.500	258.177	129.088	435.643	177.467	2.455	168.133	0.651	306.555
2951.000	4800.000	203.000	133.187	12.000	257.997	128.999	434.427	176.430	2.462	169.170	0.656	305.429
2955.000	5000.000	203.500	133.516	12.500	257.165	128.582	432.903	175.739	2.463	169.861	0.661	304.321

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-3
TEST NO.:	3	DEPTH:	654 - 694 CMS.
BORING NO.:	CD4	OVERCONSOLIDATION RATIO	1
TEST DATE:	10-04-80		

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 1930
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 7.2 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
1925.000	20.000	6.000	2.368	0.050	5.211	2.605	697.275	692.064	1.008	-0.864	-0.166	694.670
1925.000	40.000	7.000	2.763	0.100	6.076	3.038	698.141	692.064	1.009	-0.864	-0.142	695.102
1921.000	60.000	7.500	2.961	0.150	6.507	3.254	699.262	692.755	1.009	-1.555	-0.239	696.010
1924.000	80.000	8.000	3.158	0.200	6.937	3.469	699.175	692.237	1.010	-1.037	-0.149	695.707
1925.000	100.000	8.500	3.355	0.250	7.367	3.684	699.431	692.064	1.011	-0.864	-0.117	695.746
1925.000	120.000	8.700	3.434	0.300	7.537	3.768	699.601	692.064	1.011	-0.864	-0.115	695.832
1924.000	140.000	9.100	3.592	0.350	7.879	3.940	700.116	692.237	1.011	-1.037	-0.132	696.178
1924.000	160.000	9.500	3.750	0.400	8.222	4.111	700.458	692.237	1.012	-1.037	-0.126	696.346
1925.000	180.000	10.000	3.947	0.450	8.650	4.325	700.715	692.064	1.013	-0.864	-0.100	696.389
1925.000	200.000	10.500	4.145	0.500	9.078	4.539	701.142	692.064	1.013	-0.864	-0.095	696.605
1924.000	250.000	12.000	4.737	0.625	10.362	5.181	702.599	692.237	1.015	-1.037	-0.100	697.416
1924.000	300.000	12.500	4.934	0.750	10.780	5.390	703.017	692.237	1.016	-1.037	-0.096	697.627
1924.000	350.000	14.000	5.526	0.875	12.058	6.029	704.295	692.237	1.017	-1.037	-0.086	698.266
1929.000	400.000	18.500	7.303	1.000	15.914	7.957	707.287	691.373	1.023	-0.173	-0.011	699.331
1934.000	450.000	23.500	9.276	1.125	20.190	10.095	710.700	690.511	1.029	0.691	0.034	700.608
1937.000	500.000	26.000	10.263	1.250	22.309	11.155	712.302	689.992	1.032	1.210	0.054	701.146
1944.000	550.000	30.000	11.842	1.375	25.709	12.855	714.492	688.783	1.037	2.419	0.094	701.635
1952.000	600.000	35.000	13.816	1.500	29.956	14.978	717.356	687.400	1.044	3.802	0.127	702.379
1980.000	700.000	53.000	20.921	1.750	45.247	22.623	727.809	682.562	1.066	8.640	0.191	705.187
2028.000	800.000	83.000	32.658	2.000	70.451	35.226	744.719	674.268	1.104	16.934	0.240	709.493
2093.000	900.000	112.500	43.861	2.250	94.376	47.188	757.412	663.036	1.142	26.166	0.298	710.222
2221.000	1000.000	179.000	68.889	2.500	147.852	73.926	788.769	640.917	1.231	50.284	0.340	714.845
2405.000	1100.000	256.000	97.500	2.750	208.720	104.361	817.841	609.121	1.343	82.079	0.393	713.482
2593.000	1200.000	314.500	119.438	3.000	255.026	127.513	831.660	576.635	1.442	114.565	0.449	704.146
2728.000	1300.000	348.000	132.076	3.250	281.284	140.642	834.590	553.307	1.508	137.893	0.490	693.950
2763.000	1400.000	377.500	143.208	3.500	304.204	152.102	851.462	547.259	1.556	143.941	0.473	699.360
2807.000	1500.000	401.500	152.182	3.750	322.429	161.215	862.085	539.655	1.597	151.545	0.470	700.872
2841.000	1600.000	420.000	158.909	4.000	335.807	167.904	869.587	533.780	1.629	157.420	0.469	701.683
2879.000	1700.000	436.000	164.727	4.250	347.196	173.598	874.409	527.214	1.659	163.986	0.472	700.810
2889.000	1800.000	451.000	170.182	4.500	357.756	178.879	883.242	525.486	1.681	165.714	0.463	704.366
2897.000	1900.000	464.000	174.909	4.750	366.731	183.366	890.834	524.103	1.700	167.097	0.456	707.467
2915.000	2000.000	477.000	179.636	5.000	375.654	187.827	896.647	520.993	1.721	170.207	0.453	708.821
2956.000	2100.000	490.000	184.444	5.250	384.693	192.347	898.601	513.908	1.749	177.292	0.461	706.253
2967.000	2200.000	499.000	187.778	5.500	390.613	195.307	902.621	512.007	1.763	179.193	0.459	707.314
2977.000	2300.000	509.000	191.482	5.750	397.264	198.633	907.545	510.280	1.779	180.920	0.455	708.912
2981.000	2400.000	518.000	194.815	6.000	403.107	201.554	912.696	509.589	1.791	181.611	0.451	711.144
3015.000	2500.000	527.500	198.333	6.250	409.296	204.648	913.010	503.714	1.813	187.486	0.458	708.360
3049.000	2600.000	537.000	201.852	6.500	415.446	207.723	913.284	497.839	1.835	193.361	0.465	705.562
3081.000	2700.000	546.500	205.370	6.750	421.557	210.779	913.866	492.309	1.856	198.891	0.472	703.090
3177.000	2900.000	564.000	211.818	7.250	432.462	216.231	908.182	475.720	1.909	215.480	0.498	691.954
3237.000	3000.000	572.500	214.909	7.500	437.590	218.796	902.942	465.352	1.940	225.848	0.516	684.149
3278.000	3100.000	581.000	218.000	7.750	442.684	221.342	900.951	458.268	1.966	232.932	0.526	679.608
3294.000	3200.000	588.500	220.727	8.000	447.007	223.503	902.509	455.503	1.981	235.697	0.527	679.006
3330.000	3300.000	595.000	223.091	8.250	450.566	225.283	899.848	449.282	2.003	241.918	0.537	674.563
3393.000	3400.000	601.500	225.455	8.500	454.100	227.051	892.496	438.396	2.036	252.804	0.557	665.448
3459.000	3500.000	608.000	227.818	8.750	457.604	228.803	884.595	426.991	2.072	264.209	0.577	655.795
3486.000	3600.000	613.500	229.818	9.000	460.357	230.179	882.683	422.325	2.090	268.875	0.584	652.502
3523.000	3700.000	619.000	231.818	9.250	463.088	231.544	879.019	415.932	2.113	275.268	0.594	647.477
3557.000	3800.000	624.500	233.818	9.500	465.798	232.899	875.354	410.056	2.136	281.144	0.604	642.955
3634.000	3900.000	630.500	236.000	9.750	468.846	234.423	865.596	396.751	2.182	294.449	0.628	631.176
3699.000	4000.000	633.000	236.909	10.000	469.347	234.674	854.867	385.520	2.217	305.680	0.651	620.194
3823.000	4200.000	640.000	239.455	10.500	471.756	235.878	835.848	364.092	2.296	327.108	0.693	599.971

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221-2	SAMPLE NUMBER:	PC-4
TEST NO.:	1	DEPTH:	332 - 372 CMS.
BORING NO.:	CD-5	OVERCONSOLIDATION RATIO	8
TEST DATE;	5/6/80		

SAMPLE DIAMETER = 1.803 IN.
SAMPLE HEIGHT = 3.815 IN.

INITIAL PORE PRESSURE READING = 2064
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.45 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2097.000	20.000	36.000	14.211	0.052	38.470	19.235	75.968	37.498	2.026	5.702	0.148	56.733
2113.000	60.000	45.000	17.763	0.157	48.037	24.018	82.770	34.733	2.383	8.467	0.176	58.751
2128.000	100.000	50.000	19.737	0.262	53.318	26.659	85.459	32.141	2.659	11.059	0.207	58.800
2132.000	140.000	55.000	21.711	0.367	58.588	29.294	90.038	31.450	2.863	11.750	0.201	60.744
2135.000	200.000	60.500	23.882	0.524	64.345	32.173	95.277	30.931	3.080	12.269	0.191	63.104
2136.000	300.000	71.000	28.026	0.786	75.314	37.657	106.072	30.759	3.449	12.442	0.165	68.415
2136.000	400.000	79.000	31.139	1.048	83.458	41.729	114.217	30.759	3.713	12.442	0.149	72.488
2136.000	500.000	87.000	34.177	1.311	91.358	45.679	122.117	30.759	3.970	12.442	0.136	76.438
2133.000	600.000	92.000	36.076	1.573	96.177	48.088	127.453	31.277	4.075	11.923	0.124	79.365
2125.000	800.000	103.000	40.253	2.097	106.741	53.371	139.401	32.659	4.268	10.541	0.099	86.030
2110.000	1000.000	112.000	43.671	2.621	115.185	57.592	150.436	35.251	4.268	7.949	0.069	92.844
2102.000	1200.000	118.000	45.949	3.145	120.541	60.271	157.175	36.634	4.290	6.566	0.054	96.904
2088.000	1400.000	126.000	48.987	3.670	127.816	63.908	166.869	39.053	4.273	4.147	0.032	102.961
2082.000	1600.000	130.000	50.506	4.194	131.062	65.531	171.152	40.090	4.269	3.110	0.024	105.621
2072.000	1800.000	136.000	52.785	4.718	136.225	68.113	178.043	41.818	4.258	1.382	0.010	109.931
2068.000	2000.000	140.000	54.304	5.242	139.374	69.687	181.883	42.509	4.279	0.691	0.005	112.196
2062.000	2200.000	144.000	55.823	5.767	142.479	71.240	186.025	43.546	4.272	-0.346	-0.002	114.785
2054.000	2400.000	146.800	56.886	6.291	144.386	72.193	189.314	44.928	4.214	-1.728	-0.012	117.121
2046.000	2600.000	149.000	57.722	6.815	145.687	72.843	191.997	46.310	4.146	-3.110	-0.021	119.154
2040.000	2800.000	151.000	58.481	7.339	146.773	73.387	194.121	47.347	4.100	-4.147	-0.028	120.734
2036.000	3000.000	151.800	58.785	7.864	146.701	73.351	194.740	48.038	4.054	-4.838	-0.033	121.389
2020.000	3200.000	153.000	59.241	8.388	146.998	73.499	197.801	50.803	3.893	-7.603	-0.052	124.303
2032.000	3400.000	153.800	59.544	8.912	146.906	73.453	195.636	48.730	4.015	-5.530	-0.038	122.183
2020.000	3700.000	155.600	60.222	9.699	147.296	73.648	198.099	50.803	3.899	-7.603	-0.052	124.452
2018.000	3900.000	156.900	60.704	10.223	147.612	73.806	198.760	51.149	3.886	-7.949	-0.054	124.955
2017.000	4000.000	157.200	60.815	10.485	147.449	73.725	198.771	51.322	3.873	-8.122	-0.055	125.047

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221-2	SAMPLE NUMBER:	PC-4
TEST NO.:	2	DEPTH:	332 - 372 CMS.
BORING NO.:	CD-5	OVERCONSOLIDATION RATIO	4
TEST DATE;	5/6/80		

SAMPLE DIAMETER = 1.796 IN.
SAMPLE HEIGHT = 3.598 IN.

INITIAL PORE PRESSURE READING = 2180
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.9 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2252.000	20.000	12.000	7.826	0.056	21.351	10.676	95.310	73.959	1.289	12.442	0.583	84.634
2300.000	60.000	25.000	16.304	0.167	44.432	22.216	110.096	65.664	1.677	20.736	0.467	87.880
2314.000	100.000	29.000	18.913	0.278	51.484	25.742	114.729	63.245	1.814	23.155	0.450	88.987
2324.000	140.000	34.000	22.174	0.389	60.293	30.147	121.810	61.517	1.980	24.883	0.413	91.663
2327.000	180.000	37.000	24.130	0.500	65.540	32.770	126.539	60.999	2.074	25.401	0.388	93.769
2328.000	250.000	42.000	27.391	0.695	74.251	37.126	135.077	60.826	2.221	25.574	0.344	97.952
2324.000	350.000	47.000	30.652	0.973	82.858	41.429	144.374	61.517	2.347	24.883	0.300	102.946
2324.000	450.000	53.000	34.565	1.251	93.173	46.587	154.690	61.517	2.515	24.883	0.267	108.104
2318.000	600.000	59.000	38.478	1.668	103.284	51.642	165.837	62.554	2.651	23.846	0.231	114.196
2310.000	800.000	63.000	41.087	2.223	109.662	54.831	173.598	63.936	2.715	22.464	0.205	118.767
2310.000	1000.000	68.000	44.348	2.779	117.692	58.846	181.628	63.936	2.841	22.464	0.191	122.782
2304.000	1200.000	71.500	46.630	3.335	123.043	61.522	188.016	64.973	2.894	21.427	0.174	126.494
2300.000	1400.000	75.000	48.913	3.891	128.324	64.162	193.988	65.664	2.954	20.736	0.162	129.827
2304.000	1600.000	77.000	50.217	4.447	130.983	65.492	195.956	64.973	3.016	21.427	0.164	130.465
2298.000	1800.000	79.000	51.522	5.003	133.604	66.802	199.614	66.010	3.024	20.390	0.153	132.812
2300.000	2000.000	80.200	52.304	5.559	134.840	67.420	200.504	65.664	3.053	20.736	0.154	133.084
2300.000	2200.000	82.000	53.478	6.115	137.054	68.527	202.718	65.664	3.087	20.736	0.151	134.192
2302.000	2400.000	84.000	54.783	6.670	139.566	69.783	204.884	65.319	3.137	21.081	0.151	135.102
2300.000	2600.000	85.200	55.565	7.226	140.717	70.358	206.381	65.664	3.143	20.736	0.147	136.022
2300.000	2800.000	86.200	56.217	7.782	141.516	70.758	207.180	65.664	3.155	20.736	0.147	136.422
2300.000	3000.000	87.200	56.870	8.338	142.294	71.147	207.958	65.664	3.167	20.736	0.146	136.812
2300.000	3200.000	88.500	57.717	8.894	143.539	71.770	209.203	65.664	3.186	20.736	0.144	137.434
2300.000	3400.000	89.000	58.043	9.450	143.470	71.735	209.134	65.664	3.185	20.736	0.145	137.399
2302.000	3500.000	89.200	58.174	9.728	143.351	71.676	208.669	65.319	3.195	21.081	0.147	136.994

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221-2 SAMPLE NUMBER: PC-4
TEST NO.: 3 DEPTH: 332 - 372 CMS.
BORING NO.: CD-5 OVERCONSOLIDATION RATIO 1
TEST DATE; 5/5/80

SAMPLE DIAMETER = 1.783 IN.
SAMPLE HEIGHT = 3.618 IN.

INITIAL PORE PRESSURE READING = 2742
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2855.000	20.000	18.000	11.739	0.055	32.495	16.248	358.571	326.076	1.100	19.526	0.601	342.324
2966.000	60.000	39.300	25.630	0.166	70.870	35.435	377.765	306.895	1.231	38.707	0.546	342.330
3051.000	100.000	51.000	33.261	0.276	91.867	45.933	384.073	292.207	1.314	53.395	0.581	338.140
3115.000	140.000	60.000	39.130	0.387	107.959	53.979	389.106	281.148	1.384	64.454	0.597	335.127
3160.000	180.000	65.100	42.457	0.498	117.006	58.503	390.376	273.371	1.428	72.230	0.617	331.874
3232.000	250.000	73.000	47.609	0.691	130.950	65.475	391.879	260.929	1.502	84.671	0.647	326.404
3313.000	350.000	85.200	55.565	0.967	152.409	76.204	399.341	246.932	1.617	98.668	0.647	323.137
3378.000	450.000	90.300	58.891	1.244	161.080	80.540	396.780	235.700	1.683	109.900	0.682	316.240
3461.000	600.000	98.300	64.154	1.658	174.739	87.370	396.097	221.358	1.789	124.242	0.711	308.727
3541.000	800.000	103.900	67.846	2.211	183.756	91.878	391.290	207.534	1.885	138.066	0.751	299.412
3612.000	1000.000	106.200	69.363	2.764	186.802	93.401	382.067	195.265	1.957	150.335	0.805	288.666
3662.000	1200.000	108.800	71.077	3.317	190.331	95.165	376.956	186.625	2.020	158.975	0.835	281.791
3713.000	1400.000	113.000	73.846	3.870	196.616	98.308	374.428	177.812	2.106	167.788	0.853	276.120
3744.000	1600.000	115.000	75.165	4.422	198.975	99.488	371.431	172.455	2.154	173.145	0.870	271.943
3774.000	1800.000	116.000	75.824	4.975	199.560	99.781	366.831	167.271	2.193	178.329	0.894	267.052
3801.000	200.000	116.200	75.956	0.553	209.211	104.605	371.818	162.607	2.287	182.993	0.875	267.212
3825.000	2200.000	139.800	91.516	6.081	238.059	119.029	396.518	158.460	2.502	187.140	0.786	277.489
3842.000	2400.000	122.000	79.780	6.634	206.307	103.154	361.829	155.522	2.327	190.078	0.921	258.676
3858.000	2600.000	122.900	80.374	7.186	206.611	103.306	359.368	152.757	2.353	192.843	0.933	256.063
3872.000	2800.000	122.900	80.374	7.739	205.380	102.690	355.718	150.338	2.366	195.262	0.951	253.028
3885.000	3000.000	123.900	81.033	8.292	205.825	102.913	353.916	148.092	2.390	197.508	0.960	251.004
3895.000	3200.000	125.800	82.286	8.845	207.748	103.874	354.111	146.364	2.419	199.236	0.959	250.237
3903.000	3400.000	127.200	83.209	9.397	208.803	104.402	353.784	144.981	2.440	200.619	0.961	249.383
3913.000	3600.000	127.200	83.209	9.950	207.530	103.765	350.783	143.253	2.449	202.347	0.975	247.019
3924.000	3800.000	128.900	84.330	10.503	209.034	104.517	350.387	141.352	2.479	204.248	0.977	245.869
3928.000	4000.000	129.900	84.989	11.056	209.367	104.684	350.028	140.661	2.488	204.939	0.979	245.345
3944.000	4400.000	130.800	85.582	12.161	208.209	104.104	346.105	137.896	2.510	207.704	0.998	242.001
3949.000	5000.000	132.300	86.571	13.820	206.638	103.319	343.670	137.032	2.508	208.568	1.009	240.351

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-4
TEST NO.: 1 DEPTH: 585 - 625 CMS.
BORING NO.: CD5 OVERCONSOLIDATION RATIO 4
TEST DATE: 15-04-80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2010
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.8 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2046.000	20.000	25.000	9.868	0.050	21.712	10.856	188.293	166.581	1.130	6.221	0.287	177.438
2085.000	40.000	44.000	17.368	0.100	38.194	19.097	198.036	159.842	1.239	12.960	0.339	178.939
2118.000	60.000	68.000	26.842	0.150	58.998	29.499	213.137	154.140	1.383	18.662	0.316	183.638
2135.000	80.000	72.000	28.421	0.200	62.437	31.218	213.638	151.202	1.413	21.600	0.346	182.420
2180.000	100.000	89.000	34.937	0.250	76.712	38.356	220.139	143.426	1.535	29.376	0.383	181.783
2192.000	120.000	96.000	37.595	0.300	82.508	41.254	223.860	141.352	1.584	31.449	0.381	182.606
2225.000	140.000	110.000	42.911	0.350	94.128	47.064	229.778	135.650	1.694	37.152	0.395	182.714
2216.000	160.000	115.000	44.810	0.400	98.245	49.122	235.450	137.205	1.716	35.597	0.362	186.327
2228.000	180.000	120.000	46.709	0.450	102.355	51.178	237.487	135.132	1.757	37.670	0.368	186.309
2236.000	200.000	128.000	49.747	0.500	108.958	54.479	242.707	133.749	1.815	39.053	0.358	188.228
2260.000	250.000	143.000	55.443	0.625	121.282	60.641	250.884	129.602	1.936	43.200	0.356	190.243
2277.000	300.000	160.000	61.852	0.750	135.131	67.565	261.795	126.664	2.067	46.137	0.341	194.230
2282.000	350.000	171.100	65.963	0.875	143.931	71.965	269.731	125.800	2.144	47.001	0.327	197.766
2282.000	400.000	180.800	69.556	1.000	151.578	75.789	277.379	125.800	2.205	47.001	0.310	201.589
2284.000	450.000	191.000	73.333	1.125	159.610	79.805	285.064	125.455	2.272	47.347	0.297	205.260
2283.000	500.000	199.200	76.370	1.250	166.009	83.005	291.636	125.628	2.321	47.174	0.284	208.632
2277.000	600.000	213.500	81.667	1.500	177.072	88.536	303.736	126.664	2.398	46.137	0.261	215.200
2273.000	700.000	225.100	85.963	1.750	185.915	92.957	313.270	127.356	2.460	45.446	0.244	220.313
2268.000	800.000	239.500	91.313	2.000	196.982	98.491	325.202	128.220	2.536	44.582	0.226	226.711
2259.000	900.000	247.100	94.163	2.250	202.612	101.306	332.387	129.775	2.561	43.027	0.212	231.081
2258.000	1000.000	255.500	97.313	2.500	208.855	104.428	338.802	129.948	2.607	42.854	0.205	234.375
2253.000	1100.000	261.700	99.638	2.750	213.297	106.648	344.108	130.812	2.631	41.990	0.197	237.460
2251.000	1200.000	268.200	102.075	3.000	217.953	108.976	349.110	131.157	2.662	41.645	0.191	240.133
2244.000	1300.000	274.000	104.250	3.250	222.022	111.012	354.389	132.367	2.677	40.435	0.182	243.378
2239.000	1500.000	282.900	107.588	3.750	227.947	113.974	361.178	133.231	2.711	39.571	0.174	247.205
2239.000	1600.000	287.800	109.425	4.000	231.238	115.620	364.469	133.231	2.736	39.571	0.171	248.850
2237.000	1700.000	290.000	110.250	4.250	232.374	116.187	365.950	133.576	2.740	39.225	0.169	249.763
2236.000	1800.000	294.300	111.863	4.500	235.158	117.579	368.907	133.749	2.758	39.053	0.166	251.328
2237.000	1900.000	297.300	112.988	4.750	236.901	118.451	370.477	133.576	2.774	39.225	0.166	252.027
2233.000	2000.000	301.200	114.450	5.000	239.338	119.669	373.605	134.268	2.783	38.534	0.161	253.936
2236.000	2200.000	307.300	116.738	5.500	242.837	121.419	376.586	133.749	2.816	39.053	0.161	255.168
2232.000	2300.000	310.000	117.750	5.750	244.294	122.148	378.734	134.440	2.817	38.361	0.157	256.588
2233.000	2500.000	314.800	119.550	6.250	246.713	123.357	380.981	134.268	2.837	38.534	0.156	257.625
2234.000	2600.000	318.000	120.755	6.500	248.534	124.267	382.629	134.095	2.853	38.707	0.156	258.362
2233.000	2800.000	321.500	122.075	7.000	249.908	124.955	384.176	134.268	2.861	38.534	0.154	259.222
2232.000	2900.000	324.000	123.019	7.250	251.164	125.582	385.604	134.440	2.868	38.361	0.153	260.023
2234.000	3000.000	326.200	123.849	7.500	252.177	126.088	386.271	134.095	2.881	38.707	0.153	260.183
2234.000	3100.000	328.800	124.830	7.750	253.487	126.744	387.582	134.095	2.890	38.707	0.153	260.839
2232.000	3200.000	329.500	125.094	8.000	253.334	126.667	387.775	134.440	2.884	38.361	0.151	261.108
2231.000	3300.000	330.500	125.472	8.250	253.410	126.706	388.023	134.613	2.883	38.189	0.151	261.319
2232.000	3400.000	332.900	126.377	8.500	254.542	127.271	388.982	134.440	2.893	38.361	0.151	261.711
2233.000	3500.000	334.500	126.981	8.750	255.060	127.530	389.327	134.268	2.900	38.534	0.151	261.798
2233.000	3600.000	336.000	127.547	9.000	255.494	127.747	389.762	134.268	2.903	38.534	0.151	262.015
2230.000	3700.000	337.300	128.038	9.250	255.773	127.886	390.539	134.786	2.898	38.016	0.149	262.677
2230.000	3900.000	340.000	129.057	9.750	256.389	128.195	391.175	134.786	2.902	38.016	0.148	262.980
2230.000	4000.000	341.400	129.585	10.000	256.724	128.363	391.510	134.786	2.905	38.016	0.148	263.148
2232.000	4200.000	344.300	130.679	10.500	257.454	128.727	391.894	134.440	2.915	38.361	0.149	263.168
2231.000	4400.000	346.100	131.359	11.000	257.347	128.674	391.960	134.613	2.912	38.189	0.148	263.287
2231.000	4600.000	348.000	132.076	11.500	257.298	128.650	391.911	134.613	2.911	38.189	0.148	263.263
2227.000	4800.000	347.900	132.038	12.000	255.771	127.885	391.075	135.304	2.890	37.497	0.147	263.190

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-4
TEST NO.: 2 DEPTH: 585 - 625 CMS.
BORING NO.: CD5 OVERCONSOLIDATION RATIO 2
TEST DATE: 15-04-80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 1926
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
1964.000	20.000	12.000	7.826	0.050	17.219	8.609	356.254	339.036	1.051	6.566	0.381	347.645
2000.000	40.000	23.000	15.000	0.100	32.986	16.493	365.800	332.815	1.099	12.787	0.388	349.308
2021.000	60.000	35.000	22.826	0.150	50.171	25.085	379.356	329.186	1.152	16.416	0.327	354.272
2081.000	80.000	54.000	35.217	0.200	77.368	38.684	396.185	318.818	1.243	26.784	0.346	357.502
2100.000	100.000	63.000	41.087	0.250	90.217	45.108	405.752	315.535	1.286	30.067	0.333	360.643
2162.000	140.000	86.000	56.087	0.350	123.029	61.514	427.850	304.821	1.404	40.781	0.331	366.336
2178.000	160.000	92.000	60.000	0.400	131.547	65.773	433.603	302.056	1.436	43.545	0.331	367.830
2208.000	180.000	99.000	64.615	0.450	141.595	70.798	438.468	296.872	1.477	48.729	0.344	367.670
2208.000	200.000	107.000	69.890	0.500	153.077	76.538	449.949	296.872	1.516	48.729	0.318	373.411
2228.000	250.000	120.000	78.462	0.625	171.635	85.817	465.051	293.416	1.585	52.185	0.304	379.234
2252.000	300.000	130.000	85.055	0.750	185.823	92.912	475.092	289.269	1.642	56.332	0.303	382.181
2270.000	350.000	140.000	91.648	0.875	199.976	99.988	486.134	286.159	1.699	59.443	0.297	386.147
2278.000	400.000	148.900	97.516	1.000	212.512	106.257	497.289	284.776	1.746	60.825	0.286	391.033
2305.000	450.000	155.100	101.604	1.125	221.140	110.570	501.251	280.111	1.789	65.491	0.296	390.681
2318.000	500.000	161.600	105.890	1.250	230.176	115.089	508.040	277.863	1.828	67.737	0.294	392.952
2343.000	600.000	171.000	112.088	1.500	243.033	121.517	516.576	273.543	1.888	72.057	0.296	395.060
2405.000	800.000	184.200	120.791	2.000	260.574	130.287	523.404	262.830	1.991	82.771	0.318	393.117
2427.000	900.000	189.100	124.022	2.250	266.861	133.430	525.889	259.028	2.030	86.572	0.324	392.459
2451.000	1000.000	193.500	126.923	2.500	272.405	136.203	527.286	254.881	2.069	90.719	0.333	391.084
2474.000	1100.000	197.900	129.824	2.750	277.917	138.959	528.824	250.907	2.108	94.694	0.341	389.866
2499.000	1200.000	201.200	132.000	3.000	281.849	140.925	528.436	246.587	2.143	99.013	0.351	387.512
2510.000	1300.000	204.200	133.978	3.250	285.335	142.668	530.021	244.686	2.166	100.914	0.354	387.353
2542.000	1400.000	207.800	136.352	3.500	289.641	144.821	528.797	239.156	2.211	106.444	0.368	383.977
2558.000	1500.000	210.100	137.868	3.750	292.101	146.051	528.492	236.391	2.236	109.209	0.374	382.442
2578.000	1600.000	213.100	139.846	4.000	295.524	147.762	528.459	232.935	2.269	112.665	0.381	380.698
2593.000	1700.000	215.200	141.231	4.250	297.673	148.836	528.016	230.343	2.292	115.257	0.387	379.180
2609.000	1800.000	217.700	142.879	4.500	300.360	150.180	527.939	227.579	2.320	118.021	0.393	377.759
2633.000	2000.000	221.700	145.516	5.000	304.302	152.151	527.733	223.431	2.362	122.169	0.401	375.583
2644.000	2100.000	223.400	146.637	5.250	305.840	152.920	527.370	221.531	2.381	124.069	0.406	374.451
2674.000	2400.000	229.000	150.330	6.000	311.059	155.530	527.406	216.347	2.438	129.253	0.416	371.876
2684.000	2500.000	232.000	152.308	6.250	314.315	157.158	528.933	214.619	2.465	130.981	0.417	371.776
2700.000	2700.000	233.100	153.033	6.750	314.126	157.064	525.980	211.854	2.483	133.746	0.426	368.917
2707.000	2800.000	234.100	153.692	7.000	314.633	157.317	525.277	210.644	2.494	134.956	0.429	367.961
2709.000	2900.000	235.100	154.352	7.250	315.135	157.568	525.434	210.299	2.499	135.301	0.429	367.866
2718.000	3000.000	238.700	156.725	7.500	319.117	159.559	527.861	208.743	2.529	136.857	0.429	368.302
2719.000	3100.000	239.100	156.989	7.750	318.791	159.396	527.362	208.571	2.528	137.029	0.430	367.966
2724.000	3200.000	239.800	157.451	8.000	318.862	159.431	526.569	207.707	2.535	137.893	0.432	367.138
2728.000	3300.000	241.900	158.835	8.250	320.792	160.396	527.807	207.015	2.550	138.585	0.432	367.411
2732.000	3400.000	241.900	158.835	8.500	319.917	159.959	526.241	206.324	2.551	139.276	0.435	366.283
2741.000	3600.000	244.000	160.220	9.000	320.943	160.472	525.712	204.769	2.567	140.831	0.439	365.241
2741.000	3700.000	244.800	160.747	9.250	321.113	160.557	525.882	204.769	2.568	140.831	0.439	365.326
2742.000	3800.000	245.200	161.011	9.500	320.756	160.379	525.352	204.596	2.568	141.004	0.440	364.975
2745.000	3900.000	246.200	161.670	9.750	321.180	160.590	525.257	204.078	2.574	141.522	0.441	364.668
2746.000	4000.000	247.000	162.198	10.000	321.335	160.668	525.240	203.905	2.576	141.695	0.441	364.572
2748.000	4200.000	248.900	163.451	10.500	322.019	161.009	525.578	203.559	2.582	142.041	0.441	364.569
2752.000	4400.000	250.300	164.374	11.000	322.027	161.014	524.895	202.868	2.587	142.732	0.443	363.882
2751.000	4600.000	251.700	165.297	11.500	322.018	161.009	525.059	203.041	2.586	142.559	0.443	364.050
2754.000	4800.000	253.000	166.154	12.000	321.857	160.929	524.380	202.523	2.589	143.077	0.445	363.451
2755.000	5000.000	254.500	167.143	12.500	321.933	160.967	524.283	202.350	2.591	143.250	0.445	363.317
2754.000	5200.000	255.700	167.934	13.000	321.609	160.805	524.131	202.523	2.588	143.077	0.445	363.327

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-4
TEST NO.: 3 DEPTH: 585 - 625 CMS.
BORING NO.: CD5 OVERCONSOLIDATION RATIO 1
TEST DATE: 15-04-80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 1902
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 7.2 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
1932.000	20.000	9.500	3.750	0.050	8.251	4.125	694.268	686.018	1.012	5.184	0.628	690.144
1942.000	40.000	17.000	6.711	0.100	14.757	7.378	699.047	684.290	1.022	6.912	0.468	691.670
1941.000	60.000	21.500	8.487	0.150	18.654	9.327	703.116	684.463	1.027	6.739	0.361	693.792
1973.000	80.000	30.500	12.040	0.200	26.449	13.225	705.382	678.933	1.039	12.269	0.464	692.160
1995.000	100.000	40.000	15.789	0.250	34.670	17.335	709.801	675.132	1.051	16.070	0.464	692.467
2030.000	120.000	56.000	22.105	0.300	48.513	24.257	717.597	669.084	1.073	22.118	0.456	693.341
2073.000	140.000	66.000	26.053	0.350	57.148	28.574	718.801	661.653	1.086	29.549	0.517	690.226
2129.000	160.000	76.000	30.000	0.400	65.774	32.887	717.750	651.976	1.101	39.225	0.596	684.864
2245.000	180.000	122.500	47.658	0.450	104.436	52.218	736.368	631.932	1.165	59.270	0.568	684.149
2337.000	200.000	156.000	60.370	0.500	132.227	66.113	748.260	616.033	1.215	75.167	0.568	682.147
2568.000	250.000	217.500	83.148	0.625	181.886	90.943	758.003	576.116	1.316	115.084	0.633	667.061
2763.000	300.000	265.000	100.875	0.750	220.386	110.194	762.806	542.420	1.406	148.780	0.675	652.613
2875.000	350.000	291.500	110.813	0.875	241.793	120.897	764.860	523.067	1.462	168.133	0.695	643.963
3018.000	400.000	314.000	119.250	1.000	259.874	129.937	758.231	498.357	1.521	192.843	0.742	628.296
3111.000	450.000	331.000	125.660	1.125	273.497	136.749	755.784	482.287	1.567	208.913	0.764	619.037
3221.000	500.000	345.000	130.943	1.250	284.635	142.318	747.914	463.279	1.614	227.921	0.801	605.597
3294.000	550.000	357.000	135.472	1.375	294.108	147.054	744.772	450.664	1.653	240.536	0.818	597.720
3402.000	600.000	369.000	140.000	1.500	303.553	151.777	735.555	432.002	1.703	259.198	0.854	583.781
3518.000	700.000	382.000	144.906	1.750	313.392	156.696	725.349	411.957	1.761	279.243	0.891	568.651
3630.000	800.000	394.000	149.434	2.000	322.363	161.182	714.967	392.604	1.821	298.596	0.926	553.786
3725.000	900.000	403.500	152.909	2.250	329.018	164.509	705.206	376.188	1.875	315.012	0.957	540.696
3800.000	1000.000	412.000	156.000	2.500	334.812	167.406	698.040	363.228	1.922	327.972	0.980	530.635
3816.000	1100.000	417.500	158.000	2.750	338.234	169.117	698.698	360.464	1.938	330.736	0.978	529.579
3926.000	1200.000	423.500	160.182	3.000	342.024	171.012	683.480	341.456	2.002	349.744	1.023	512.467
3995.000	1300.000	428.500	162.000	3.250	345.013	172.507	674.546	329.532	2.047	361.668	1.048	502.042
4052.000	1400.000	433.000	163.636	3.500	347.597	173.798	667.280	319.683	2.087	371.517	1.069	493.483
4098.000	1500.000	437.500	165.273	3.750	350.165	175.083	661.899	311.734	2.123	379.466	1.084	486.816
4119.000	1600.000	440.500	166.364	4.000	351.562	175.781	659.667	308.105	2.141	383.095	1.090	483.888
4165.000	1700.000	444.000	167.636	4.250	353.327	176.664	653.484	300.156	2.177	391.044	1.107	476.820
4203.000	1800.000	447.000	168.727	4.500	354.698	177.349	648.288	293.590	2.208	397.610	1.121	470.940
4240.000	1900.000	449.000	169.455	4.750	355.295	177.648	642.492	287.196	2.237	404.004	1.137	464.844
4265.000	2000.000	451.000	170.182	5.000	355.884	177.942	638.760	282.876	2.258	408.324	1.147	460.818
4286.000	2100.000	453.000	170.909	5.250	356.463	178.232	635.711	279.248	2.277	411.952	1.156	457.479
4302.000	2200.000	455.000	171.636	5.500	357.036	178.518	633.518	276.483	2.291	414.717	1.162	455.001
4336.000	2300.000	457.000	172.364	5.750	357.601	178.801	628.210	270.609	2.321	420.591	1.176	449.410
4361.000	2400.000	458.500	172.909	6.000	357.779	178.889	624.067	266.289	2.344	424.911	1.188	445.178
4383.000	2500.000	460.000	173.455	6.250	357.955	178.978	620.442	262.487	2.364	428.713	1.198	441.465
4399.000	2600.000	461.000	173.818	6.500	357.747	178.874	617.469	259.722	2.377	431.478	1.206	438.596
4430.000	2800.000	463.000	174.545	7.000	357.324	178.662	611.689	254.365	2.405	436.835	1.223	433.027
4433.000	2900.000	464.500	175.091	7.250	357.477	178.739	611.324	253.847	2.408	437.353	1.223	432.586
4453.000	3000.000	465.000	175.273	7.500	356.885	178.443	607.276	250.391	2.425	440.809	1.235	428.834
4467.000	3100.000	465.000	175.273	7.750	355.920	177.960	603.892	247.972	2.435	443.228	1.245	425.932
4430.000	3200.000	467.000	176.000	8.000	356.428	178.214	610.793	254.365	2.401	436.835	1.226	432.580
4487.000	3300.000	467.500	176.182	8.250	355.826	177.913	600.342	244.516	2.455	446.684	1.255	422.429
4480.000	3400.000	468.000	176.364	8.500	355.223	177.612	600.948	245.725	2.446	445.475	1.254	423.337
4497.000	3500.000	468.000	176.364	8.750	354.252	177.127	597.040	242.788	2.459	448.412	1.266	419.915
4512.000	3600.000	468.000	176.364	9.000	353.282	176.641	593.478	240.196	2.471	451.004	1.277	416.837
4520.000	3700.000	468.000	176.364	9.250	352.310	176.155	591.124	238.813	2.475	452.387	1.284	414.969
4524.000	3800.000	467.500	176.182	9.500	350.979	175.490	589.101	238.122	2.474	453.078	1.291	413.612
4534.000	3900.000	467.500	176.182	9.750	350.009	175.005	586.404	236.394	2.481	454.806	1.299	411.399
4538.000	4000.000	467.000	176.000	10.000	348.679	174.340	584.382	235.703	2.479	455.497	1.306	410.043

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-9
TEST NO.: 1 DEPTH: 312 - 353 CMS.
BORING NO.: CD-6 OVERCONSOLIDATION RATIO 8
TEST DATE; 5/5/80

SAMPLE DIAMETER = 1.86 IN.
SAMPLE HEIGHT = 3.8 IN.

INITIAL PORE PRESSURE READING = 2346
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.49 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2354.000	20.000	10.000	3.947	0.053	10.041	5.021	55.699	45.658	1.220	1.382	0.138	50.678
2382.000	60.000	24.000	9.474	0.158	24.073	12.037	64.893	40.819	1.590	6.221	0.258	52.856
2393.000	100.000	27.200	10.737	0.263	27.254	13.627	66.173	38.919	1.700	8.122	0.298	52.546
2404.000	140.000	34.800	13.737	0.368	34.833	17.416	71.850	37.018	1.941	10.022	0.288	54.434
2409.000	180.000	39.800	15.711	0.474	39.795	19.898	75.949	36.154	2.101	10.886	0.274	56.052
2416.000	250.000	47.900	18.908	0.658	47.805	23.903	82.750	34.944	2.368	12.096	0.253	58.847
2420.000	350.000	57.000	22.500	0.921	56.737	28.369	90.990	34.253	2.656	12.787	0.225	62.621
2421.000	450.000	64.200	25.342	1.184	63.734	31.867	97.814	34.080	2.870	12.960	0.203	65.947
2419.000	600.000	75.000	29.605	1.579	74.158	37.079	108.584	34.426	3.154	12.614	0.170	71.505
2410.000	800.000	85.000	33.418	2.105	83.261	41.630	119.242	35.981	3.314	11.059	0.133	77.611
2403.000	1000.000	94.400	36.987	2.632	91.659	45.829	128.849	37.191	3.465	9.850	0.107	83.020
2394.000	1200.000	102.000	39.873	3.158	98.277	49.139	137.023	38.746	3.536	8.294	0.084	87.884
2383.000	1400.000	108.000	42.152	3.684	103.328	51.664	143.974	40.647	3.542	6.394	0.062	92.310
2374.000	1600.000	113.000	44.051	4.211	107.392	53.696	149.594	42.202	3.545	4.838	0.045	95.898
2364.000	1800.000	117.100	45.608	4.737	110.578	55.289	154.507	43.930	3.517	3.110	0.028	99.219
2356.000	2000.000	120.800	47.013	5.263	113.354	56.677	158.666	45.312	3.502	1.728	0.015	101.989
2348.000	2200.000	124.000	48.228	5.789	115.638	57.819	162.332	46.695	3.476	0.346	0.003	104.513
2343.000	2400.000	126.600	49.215	6.316	117.347	58.673	164.905	47.558	3.467	-0.518	-0.004	106.232
2337.000	2600.000	129.800	50.430	6.842	119.568	59.784	168.163	48.595	3.460	-1.555	-0.013	108.379
2334.000	2800.000	129.800	50.430	7.368	118.892	59.446	168.006	49.114	3.421	-2.074	-0.017	108.560
2332.000	3000.000	131.500	51.076	7.895	119.731	59.866	169.190	49.459	3.421	-2.419	-0.020	109.325
2327.000	3200.000	132.000	51.266	8.421	119.489	59.745	169.812	50.323	3.374	-3.283	-0.027	110.068
2322.000	3400.000	132.500	51.456	8.947	119.243	59.621	170.430	51.187	3.330	-4.147	-0.035	110.809
2318.000	3600.000	131.800	51.190	9.474	117.941	58.970	169.819	51.878	3.273	-4.838	-0.041	110.849
2312.000	3800.000	131.000	50.886	10.000	116.559	58.280	169.475	52.915	3.203	-5.875	-0.050	111.195
2308.000	4200.000	126.100	49.025	11.053	110.984	55.492	164.590	53.606	3.070	-6.566	-0.059	109.098
2306.000	4400.000	123.000	47.848	11.579	107.677	53.839	161.629	53.952	2.996	-6.912	-0.064	107.791

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-9
TEST NO.:	2	DEPTH:	312 - 353 CMS.
BORING NO.:	CD-6	OVERCONSOLIDATION RATIO	4
TEST DATE;	5/8/80		

SAMPLE DIAMETER = 1.828 IN.
SAMPLE HEIGHT = 3.7 IN.

INITIAL PORE PRESSURE READING = 2530
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.972 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2520.000	40.000	15.000	9.783	0.108	25.749	12.875	120.789	95.040	1.271	-1.728	-0.067	107.915
2520.000	80.000	27.000	17.609	0.216	46.298	23.149	141.338	95.040	1.487	-1.728	-0.037	118.189
2519.000	100.000	35.000	22.826	0.270	59.984	29.992	155.196	95.213	1.630	-1.901	-0.032	125.205
2518.000	140.000	47.000	30.652	0.378	80.463	40.231	175.848	95.386	1.844	-2.074	-0.026	135.617
2519.000	200.000	66.000	43.043	0.541	112.806	56.403	208.019	95.213	2.185	-1.901	-0.017	151.616
2518.000	300.000	78.000	50.870	0.811	132.954	66.477	228.340	95.386	2.394	-2.074	-0.016	161.863
2515.000	400.000	89.000	58.043	1.081	151.290	75.645	247.194	95.904	2.578	-2.592	-0.017	171.549
2515.000	500.000	97.000	63.297	1.351	164.532	82.266	260.436	95.904	2.716	-2.592	-0.016	178.170
2516.000	600.000	99.200	64.747	1.622	167.842	83.921	263.573	95.731	2.753	-2.419	-0.014	179.652
2514.000	800.000	104.000	67.912	2.162	175.078	87.539	271.155	96.077	2.822	-2.765	-0.016	183.616
2514.000	1000.000	107.500	70.220	2.703	180.028	90.014	276.105	96.077	2.874	-2.765	-0.015	186.091
2515.000	1200.000	108.500	70.879	3.243	180.708	90.354	276.612	95.904	2.884	-2.592	-0.014	186.258
2515.000	1400.000	109.500	71.538	3.784	181.370	90.685	277.274	95.904	2.891	-2.592	-0.014	186.589
2517.000	1600.000	110.500	72.198	4.324	182.014	91.007	277.572	95.558	2.905	-2.246	-0.012	186.565
2518.000	1800.000	111.500	72.857	4.865	182.638	91.319	278.024	95.386	2.915	-2.074	-0.011	186.705
2518.000	2000.000	112.000	73.187	5.405	182.423	91.212	277.809	95.386	2.912	-2.074	-0.011	186.597
2519.000	2400.000	113.000	73.846	6.486	181.962	90.981	277.175	95.213	2.911	-1.901	-0.010	186.194
2520.000	2600.000	113.500	74.176	7.027	181.717	90.859	276.757	95.040	2.912	-1.728	-0.010	185.899
2520.000	2800.000	113.800	74.374	7.568	181.143	90.572	276.183	95.040	2.906	-1.728	-0.010	185.612
2523.000	3000.000	114.200	74.637	8.108	180.723	90.361	275.244	94.522	2.912	-1.210	-0.007	184.884
2527.000	3200.000	114.000	74.505	8.649	179.342	89.671	273.173	93.830	2.911	-0.518	-0.003	183.502

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221:	SAMPLE NUMBER:	PC-9
TEST NO.:	3	DEPTH:	312 - 353 CMS.
BORING NO.:	CD-6	OVERCONSOLIDATION RATIO	1
TEST DATE;	5/5/80		

SAMPLE DIAMETER = 1.81 IN.
SAMPLE HEIGHT = 3.64 IN.

INITIAL PORE PRESSURE READING = 2712
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.89 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2714.000	20.000	3.000	1.184	0.055	3.181	1.591	376.278	373.096	1.009	0.346	0.109	374.687
2720.000	60.000	4.500	1.776	0.165	4.766	2.383	376.826	372.060	1.013	1.382	0.290	374.443
2746.000	100.000	11.000	4.342	0.275	11.638	5.819	379.205	367.567	1.032	5.875	0.505	373.386
2795.000	140.000	28.900	11.408	0.385	30.543	15.271	389.642	359.100	1.085	14.342	0.470	374.371
2994.000	180.000	93.400	36.608	0.495	97.902	48.951	422.614	324.712	1.302	48.729	0.498	373.664
3191.000	250.000	144.600	56.051	0.687	149.609	74.805	440.279	290.670	1.515	82.771	0.553	365.475
3345.000	350.000	173.000	66.667	0.962	177.454	88.727	441.513	264.059	1.672	109.381	0.616	352.786
3442.000	450.000	188.000	72.222	1.236	191.708	95.854	439.005	247.297	1.775	126.143	0.658	343.151
3564.000	600.000	202.900	77.741	1.648	205.497	102.749	431.712	226.215	1.908	147.225	0.716	328.964
3694.000	800.000	215.100	82.259	2.198	216.226	108.113	419.977	203.751	2.061	169.689	0.785	311.865
3774.000	1000.000	224.800	85.852	2.747	224.400	112.200	414.328	189.928	2.182	183.512	0.818	302.128
3846.000	1200.000	231.300	88.259	3.297	229.390	114.695	406.877	177.487	2.292	195.953	0.854	292.182
3892.000	1400.000	236.000	90.000	3.846	232.586	116.293	402.124	169.538	2.372	203.902	0.877	285.831
3946.000	1600.000	240.000	91.500	4.396	235.111	117.556	395.317	160.207	2.468	213.233	0.907	277.763
3977.000	1800.000	242.900	92.588	4.945	236.538	118.269	391.388	154.850	2.528	218.590	0.924	273.119
4008.000	2000.000	245.200	93.450	5.495	237.361	118.681	386.854	149.493	2.588	223.947	0.943	268.174
4032.000	2200.000	247.900	94.463	6.044	238.538	119.269	383.884	145.346	2.641	228.094	0.956	264.615
4052.000	2400.000	249.700	95.138	6.593	238.838	119.419	380.728	141.890	2.683	231.550	0.969	261.309
4081.000	2600.000	251.500	95.813	7.143	239.117	119.558	375.996	136.879	2.747	236.561	0.989	256.437
4091.000	2800.000	253.300	96.488	7.692	239.377	119.689	374.528	135.151	2.771	238.289	0.995	254.840
4098.000	3000.000	254.900	97.088	8.242	239.432	119.716	373.373	133.941	2.788	239.499	1.000	253.657
4119.000	3200.000	256.000	97.500	8.791	239.009	119.505	369.322	130.312	2.834	243.128	1.017	249.817
4122.000	3400.000	258.700	98.513	9.341	240.036	120.018	369.829	129.794	2.849	243.646	1.015	249.812
4127.000	3600.000	258.600	98.475	9.890	238.491	119.245	367.421	128.930	2.850	244.510	1.025	248.175
4139.000	3800.000	259.900	98.963	10.440	238.211	119.105	365.067	126.856	2.878	246.584	1.035	245.962
4150.000	4000.000	260.800	99.300	10.989	237.556	118.778	362.511	124.956	2.901	248.484	1.046	243.733
4160.000	4400.000	263.000	100.125	12.088	236.573	118.286	359.800	123.228	2.920	250.212	1.058	241.514
4166.000	4800.000	264.100	100.538	13.187	234.579	117.290	356.770	122.191	2.920	251.249	1.071	239.481
4181.000	5200.000	266.200	101.325	14.286	233.423	116.712	353.022	119.599	2.952	253.841	1.087	236.311
4178.000	5600.000	267.000	101.625	15.385	231.112	115.556	351.229	120.117	2.924	253.323	1.096	235.673

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-9
TEST NO.: 1 DEPTH: 753 - 793 CMS.
BORING NO.: CD-6 OVERCONSOLIDATION RATIO 4
TEST DATE: 4/18/80

SAMPLE DIAMETER = 1.817 IN.
SAMPLE HEIGHT = 3.648 IN.

INITIAL PORE PRESSURE READING = 2778
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.94 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2900.000	60.000	25.000	16.304	0.164	43.412	21.706	208.572	165.160	1.263	21.081	0.486	186.867
2928.000	100.000	37.000	24.130	0.274	64.179	32.090	224.501	160.322	1.400	25.920	0.404	192.412
2948.000	140.000	46.000	30.000	0.384	79.702	39.851	236.568	156.866	1.508	29.376	0.369	196.717
2962.000	200.000	58.000	37.826	0.548	100.329	50.164	254.775	154.447	1.650	31.795	0.317	204.612
2976.000	300.000	71.000	46.304	0.822	122.478	61.239	274.505	152.028	1.806	34.214	0.279	213.267
2978.000	400.000	82.000	53.478	1.096	141.061	70.531	292.743	151.682	1.930	34.560	0.245	222.213
2970.000	500.000	91.000	59.348	1.371	156.109	78.055	309.174	153.064	2.020	33.177	0.213	231.119
2960.000	600.000	100.000	65.275	1.645	171.224	85.612	326.016	154.792	2.106	31.449	0.184	240.404
2946.000	800.000	111.200	72.659	2.193	189.532	94.766	346.743	157.212	2.206	29.030	0.153	251.978
2930.000	1000.000	120.800	78.989	2.741	204.887	102.444	364.863	159.976	2.281	26.265	0.128	262.420
2913.000	1200.000	127.400	83.341	3.289	214.956	107.479	377.870	162.914	2.319	23.328	0.109	270.393
2908.000	1400.000	134.000	87.692	3.838	224.899	112.450	388.677	163.778	2.373	22.464	0.100	276.228
2896.000	1600.000	140.000	91.648	4.386	233.704	116.852	399.556	165.852	2.409	20.390	0.087	282.704
2890.000	1800.000	144.500	94.615	4.934	239.887	119.943	406.775	166.888	2.437	19.353	0.081	286.832
2890.000	2000.000	148.500	97.253	5.482	245.151	122.576	412.040	166.888	2.469	19.353	0.079	289.464
2886.000	2200.000	152.200	99.692	6.031	249.843	124.922	417.422	167.580	2.491	18.662	0.075	292.501
2880.000	2400.000	155.200	101.670	6.579	253.313	126.657	421.930	168.616	2.502	17.626	0.070	295.273
2877.000	2600.000	158.000	103.516	7.127	256.399	128.199	425.533	169.135	2.516	17.107	0.067	297.334
2873.000	2800.000	161.000	105.495	7.675	259.758	129.879	429.584	169.826	2.530	16.416	0.063	299.705
2874.000	3000.000	163.200	106.945	8.224	261.764	130.883	431.417	169.653	2.543	16.589	0.063	300.536
2870.000	3200.000	165.000	108.132	8.772	263.089	131.545	433.433	170.344	2.544	15.898	0.060	301.889
2876.000	3400.000	167.900	110.044	9.320	266.133	133.067	435.441	169.308	2.572	16.934	0.064	302.374
2872.000	3600.000	169.400	111.033	9.868	266.900	133.451	436.899	169.999	2.570	16.243	0.061	303.449
2870.000	3800.000	171.300	112.286	10.417	268.270	134.135	438.614	170.344	2.575	15.898	0.059	304.479
2872.000	4000.000	173.000	113.407	10.965	269.291	134.646	439.289	169.999	2.584	16.243	0.060	304.644
2870.000	4200.000	175.000	114.725	11.513	270.742	135.372	441.086	170.344	2.589	15.898	0.059	305.716
2868.000	4400.000	176.000	115.385	12.061	270.613	135.307	441.303	170.690	2.585	15.552	0.057	305.997
2868.000	4600.000	177.000	116.044	12.610	270.463	135.231	441.153	170.690	2.585	15.552	0.058	305.921
2866.000	5000.000	179.000	117.363	13.706	270.104	135.052	441.139	171.036	2.579	15.206	0.056	306.087
2871.000	5200.000	182.000	119.341	14.254	272.912	136.456	443.083	170.172	2.604	16.070	0.059	306.628
2863.000	5600.000	183.000	120.000	15.351	270.909	135.455	442.463	171.554	2.579	14.688	0.054	307.009
2864.000	5800.000	183.000	120.000	15.899	269.154	134.578	440.535	171.381	2.571	14.861	0.055	305.959
2866.000	6000.000	183.000	120.000	16.447	267.400	133.700	438.436	171.036	2.563	15.206	0.057	304.736
2866.000	6400.000	183.000	120.000	17.544	263.891	131.945	434.926	171.036	2.543	15.206	0.058	302.981

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-9
TEST NO.: 2 DEPTH: 753 - 793 CMS.
BORING NO.: CD-6 OVERCONSOLIDATION RATIO 2
TEST DATE: 4/18/80

SAMPLE DIAMETER = 1.796 IN.
SAMPLE HEIGHT = 3.634 IN.

INITIAL PORE PRESSURE READING = 2600
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.9 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2736.000	60.000	65.000	25.658	0.165	69.767	34.884	420.668	350.901	1.199	23.501	0.337	385.785
2762.000	100.000	91.000	35.696	0.275	96.956	48.478	443.364	346.408	1.280	27.993	0.289	394.886
2770.000	140.000	102.000	39.673	0.385	108.183	54.092	453.209	345.026	1.314	29.376	0.272	399.118
2802.000	200.000	126.000	49.747	0.550	134.748	67.374	474.244	339.496	1.397	34.905	0.259	406.870
2835.000	300.000	156.000	60.370	0.826	163.070	81.535	496.864	333.794	1.489	40.608	0.249	415.330
2859.000	400.000	175.000	67.407	1.101	181.573	90.787	511.220	329.647	1.551	44.755	0.246	420.434
2886.000	500.000	189.000	72.593	1.376	194.996	97.499	519.977	324.981	1.600	49.420	0.253	422.480
2911.000	600.000	201.000	77.037	1.651	206.358	103.179	527.019	320.661	1.644	53.740	0.260	423.840
2958.000	800.000	218.000	83.333	2.201	221.974	110.988	534.514	312.540	1.710	61.862	0.279	423.527
3002.000	1000.000	229.000	87.407	2.752	231.516	115.759	536.452	304.935	1.759	69.465	0.300	420.694
3042.000	1200.000	240.100	91.538	3.302	241.084	120.542	539.107	298.023	1.809	76.377	0.317	418.566
3077.000	1400.000	249.800	95.175	3.853	249.237	124.619	541.212	291.975	1.854	82.425	0.331	416.594
3111.000	1600.000	257.000	97.875	4.403	254.840	127.420	540.940	286.100	1.891	88.300	0.346	413.520
3134.000	1800.000	265.000	100.875	4.953	261.139	130.570	543.265	282.126	1.926	92.274	0.353	412.695
3164.000	2000.000	271.000	103.125	5.504	265.418	132.709	542.360	276.942	1.958	97.458	0.367	409.651
3181.000	2200.000	275.000	104.625	6.054	267.710	133.856	541.715	274.004	1.977	100.396	0.375	407.860
3198.000	2400.000	280.000	106.500	6.604	270.912	135.456	541.979	271.067	1.999	103.333	0.381	406.523
3216.000	2600.000	285.000	108.375	7.155	274.057	137.028	542.013	267.956	2.023	106.444	0.388	404.985
3231.000	2800.000	290.000	110.250	7.705	277.144	138.572	542.508	265.364	2.044	109.036	0.393	403.936
3240.000	3000.000	294.000	111.750	8.255	279.241	139.620	543.050	263.809	2.059	110.591	0.396	403.429
3254.000	3200.000	298.000	113.250	8.806	281.292	140.646	542.681	261.390	2.076	113.010	0.402	402.036
3262.000	3400.000	300.000	114.000	9.356	281.445	140.723	541.452	260.007	2.082	114.393	0.406	400.730
3270.000	3600.000	303.000	115.125	9.906	282.497	141.249	541.122	258.625	2.092	115.775	0.410	399.874
3278.000	3800.000	306.000	116.250	10.457	283.515	141.757	540.757	257.243	2.102	117.157	0.413	399.000
3283.000	4000.000	309.000	117.375	11.007	284.499	142.250	540.877	256.379	2.110	118.021	0.415	398.628
3288.000	4200.000	311.000	118.125	11.558	284.547	142.274	540.061	255.515	2.114	118.885	0.418	397.788
3296.000	4400.000	314.000	119.250	12.108	285.468	142.735	539.601	254.132	2.123	120.268	0.421	396.867
3300.000	4600.000	316.000	120.000	12.658	285.467	142.734	538.908	253.441	2.126	120.959	0.424	396.175
3302.000	4800.000	318.000	120.755	13.209	285.452	142.726	538.548	253.095	2.128	121.305	0.425	395.821
3307.000	5000.000	320.000	121.509	13.759	285.413	142.707	537.644	252.231	2.132	122.169	0.428	394.938
3316.000	5200.000	322.000	122.264	14.309	285.354	142.677	536.030	250.676	2.138	123.724	0.434	393.353
3308.000	5400.000	322.000	122.264	14.860	283.521	141.760	535.579	252.059	2.125	122.341	0.432	393.819
3313.000	5600.000	324.000	123.019	15.410	283.428	141.714	534.622	251.195	2.128	123.205	0.435	392.909
3316.000	6000.000	326.000	123.774	16.511	281.457	140.728	532.133	250.676	2.123	123.724	0.440	391.404
3320.000	6400.000	328.000	124.528	17.611	279.438	139.719	529.423	249.985	2.118	124.415	0.445	389.704
3328.000	7000.000	329.000	124.906	19.263	274.668	137.335	523.271	248.603	2.105	125.797	0.458	385.937

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-9
TEST NO.:	3	DEPTH:	753 - 793 CMS.
BORING NO.:	CD-6	OVERCONSOLIDATION RATIO	1
TEST DATE:	4/18/80		

SAMPLE DIAMETER = 1.784 IN.
SAMPLE HEIGHT = 3.65 IN.

INITIAL PORE PRESSURE READING = 2569
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 7.78 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2693.000	40.000	13.000	8.478	0.110	23.430	11.715	748.884	725.455	1.032	21.427	0.915	737.170
2895.000	100.000	53.000	34.565	0.274	95.365	47.683	785.915	690.549	1.138	56.332	0.591	738.230
3063.000	140.000	79.000	51.522	0.384	141.992	70.996	803.509	661.518	1.215	85.363	0.601	732.514
3192.000	180.000	100.000	65.275	0.493	179.697	89.848	818.923	639.227	1.281	107.653	0.599	729.077
3263.000	200.000	119.500	78.132	0.548	214.973	107.486	841.931	626.958	1.343	119.922	0.558	734.443
3571.000	300.000	148.000	96.923	0.822	265.941	132.971	839.676	573.735	1.464	173.145	0.651	706.704
3796.000	400.000	173.000	113.407	1.096	310.310	155.155	845.167	534.856	1.580	212.024	0.683	690.010
3990.000	500.000	190.000	124.615	1.370	340.033	170.017	841.366	501.333	1.678	245.547	0.722	671.352
4131.000	600.000	201.000	131.868	1.644	358.824	179.412	835.792	476.968	1.752	269.912	0.752	656.381
4375.000	800.000	217.000	142.418	2.192	385.373	192.686	820.179	434.806	1.886	312.074	0.810	627.494
4566.000	1000.000	228.000	149.670	2.740	402.728	201.364	804.529	401.801	2.002	345.079	0.857	603.165
4705.000	1200.000	237.000	155.604	3.288	416.336	208.168	794.118	377.782	2.102	369.098	0.887	585.950
4827.000	1400.000	244.000	160.220	3.836	426.258	213.130	782.959	356.700	2.195	390.180	0.915	569.832
5007.000	1800.000	254.000	166.813	4.932	438.740	219.371	764.338	325.597	2.347	421.283	0.960	544.968
5080.000	2000.000	257.000	168.791	5.479	441.385	220.692	754.368	312.983	2.410	433.897	0.983	533.674
5139.000	2200.000	261.000	171.429	6.027	445.684	222.842	748.472	302.788	2.472	444.092	0.996	525.629
5190.000	2400.000	264.000	173.407	6.575	448.197	224.099	742.172	293.975	2.525	452.905	1.011	518.074
5233.000	2600.000	267.000	175.385	7.123	450.651	225.325	737.196	286.545	2.573	460.335	1.021	511.872
5269.000	2800.000	267.000	175.385	7.671	447.993	223.997	728.316	280.324	2.598	466.556	1.041	504.322
5304.000	3000.000	27.000	17.609	8.219	44.711	22.356	318.787	274.276	1.163	472.604	10.570	296.631
5330.000	3200.000	274.000	180.000	8.767	454.324	227.162	724.107	269.783	2.684	477.097	1.050	496.944
5354.000	3400.000	276.000	181.297	9.315	454.849	227.425	720.485	265.636	2.712	481.244	1.058	493.061
5375.000	3600.000	277.500	182.270	9.863	454.526	227.264	716.533	262.007	2.735	484.873	1.067	489.269
5395.000	3800.000	278.800	183.114	10.411	453.856	226.929	712.407	258.551	2.755	488.329	1.076	485.482
5405.000	3900.000	280.000	183.892	10.685	454.391	227.196	711.214	256.823	2.769	490.057	1.078	484.018
5421.000	4200.000	282.000	185.189	11.507	453.383	226.692	707.441	254.058	2.785	492.822	1.087	480.749
5438.000	4400.000	283.000	185.838	12.055	452.155	226.078	703.276	251.121	2.801	495.759	1.096	477.199
5450.000	4600.000	284.000	186.486	12.603	450.905	225.453	699.952	249.047	2.811	497.833	1.104	474.500
5460.000	4800.000	286.000	187.784	13.151	451.198	225.599	698.517	247.319	2.824	499.561	1.107	472.918
5469.000	5000.000	286.000	187.784	13.699	448.350	224.175	694.114	245.764	2.824	501.116	1.118	469.939
5488.000	5400.000	288.000	189.081	14.795	445.715	222.857	688.195	242.481	2.838	504.399	1.132	465.338
5494.000	5600.000	290.000	190.378	15.343	445.886	222.944	687.330	241.444	2.847	505.436	1.134	464.388
5506.000	6000.000	291.000	191.027	16.438	441.613	220.807	680.984	239.370	2.845	507.510	1.149	460.177
5526.000	6400.000	291.500	191.351	17.534	436.561	218.281	672.475	235.914	2.851	510.966	1.170	454.195
5525.000	6600.000	291.300	191.222	18.082	433.369	216.684	669.456	236.087	2.836	510.793	1.179	452.772

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-10
TEST NO.:	1	DEPTH:	329 - 369 CMS.
BORING NO.:	CD-7	OVERCONSOLIDATION RATIO	8
TEST DATE;	5/8/80		

SAMPLE DIAMETER = 1.805 IN.
SAMPLE HEIGHT = 3.66 IN.

INITIAL PORE PRESSURE READING = 2450
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.56 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-f	AVG ES KPS
2506.000	100.000	4.200	2.739	0.273	7.382	3.691	51.466	44.083	1.167	9.677	1.311	47.775
2510.000	140.000	7.000	4.565	0.383	12.291	6.145	55.683	43.392	1.283	10.368	0.844	49.537
2518.000	180.000	10.000	6.522	0.492	17.539	8.769	59.548	42.010	1.417	11.750	0.670	50.779
2518.000	200.000	10.500	6.848	0.546	18.406	9.203	60.415	42.010	1.438	11.750	0.638	51.213
2527.000	300.000	15.200	9.913	0.820	26.571	13.286	67.026	40.455	1.657	13.306	0.501	53.740
2527.000	400.000	21.000	13.696	1.093	36.609	18.304	77.063	40.455	1.905	13.306	0.363	58.759
2526.000	500.000	23.500	15.326	1.366	40.854	20.427	81.481	40.627	2.006	13.133	0.321	61.054
2524.000	600.000	27.200	17.739	1.639	47.155	23.578	88.128	40.973	2.151	12.787	0.271	64.550
2496.000	800.000	34.000	22.174	2.186	58.617	29.308	104.428	45.811	2.280	7.949	0.136	75.120
2475.000	1000.000	37.000	24.130	2.732	63.432	31.716	112.872	49.440	2.283	4.320	0.068	81.156
2470.000	1200.000	43.000	28.043	3.279	73.304	36.652	123.609	50.304	2.457	3.456	0.047	86.956
2454.000	1400.000	47.000	30.652	3.825	79.671	39.835	132.739	53.069	2.501	0.691	0.009	92.904
2440.000	1600.000	50.200	32.739	4.372	84.611	42.306	140.100	55.488	2.525	-1.728	-0.020	97.794
2436.000	1800.000	53.000	34.565	4.918	88.821	44.410	144.999	56.179	2.581	-2.419	-0.027	100.590
2422.000	2000.000	56.000	36.522	5.464	93.308	46.654	151.907	58.598	2.592	-4.838	-0.052	105.252
2410.000	2200.000	58.500	38.152	6.011	96.911	48.456	157.583	60.672	2.597	-6.912	-0.071	109.128
2410.000	2400.000	60.200	39.261	6.557	99.147	49.573	159.819	60.672	2.634	-6.912	-0.070	110.245
2398.000	2600.000	64.300	41.935	7.104	105.280	52.640	168.026	62.746	2.678	-8.986	-0.085	115.386
2386.000	2800.000	66.000	43.043	7.650	107.428	53.714	172.247	64.819	2.657	-11.059	-0.103	118.533
2388.000	3000.000	67.500	44.022	8.197	109.220	54.610	173.694	64.474	2.694	-10.714	-0.098	119.084
2384.000	3400.000	68.800	44.870	9.290	109.998	54.999	175.163	65.165	2.688	-11.405	-0.104	120.164
2370.000	3800.000	71.000	46.304	10.383	112.148	56.074	179.732	67.584	2.659	-13.824	-0.123	123.659
2375.000	4000.000	73.000	47.609	10.929	114.604	57.302	181.324	66.720	2.718	-12.960	-0.113	124.022
2370.000	4400.000	74.800	48.783	12.022	115.989	57.995	183.573	67.584	2.716	-13.824	-0.119	125.579
2367.000	4800.000	75.500	49.239	13.115	115.620	57.810	183.722	68.102	2.698	-14.342	-0.124	125.913
2376.000	5000.000	76.000	49.565	13.661	115.653	57.827	182.200	66.547	2.738	-12.787	-0.111	124.374
2366.000	5400.000	77.200	50.348	14.754	115.993	57.997	184.268	68.275	2.699	-14.515	-0.125	126.272
2360.000	5600.000	77.600	50.609	15.301	115.846	57.923	185.158	69.312	2.671	-15.552	-0.134	127.236
2365.000	6000.000	78.000	50.870	16.393	114.941	57.470	183.389	68.448	2.679	-14.688	-0.128	125.918
2364.000	6400.000	78.000	50.870	17.486	113.438	56.719	182.059	68.621	2.653	-14.861	-0.131	125.340
2364.000	6600.000	78.000	50.870	18.033	112.687	56.343	181.308	68.621	2.642	-14.861	-0.132	124.964

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-10
TEST NO.:	3	DEPTH:	329 - 369 CMS.
BORING NO.:	CD-7	OVERCONSOLIDATION RATIO	4
TEST DATE;	5/8/80		

SAMPLE DIAMETER = 1.79 IN.
SAMPLE HEIGHT = 3.64 IN.

INITIAL PORE PRESSURE READING = 2358
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.13 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2385.000	40.000	17.000	11.087	0.110	30.434	15.217	134.250	103.816	1.293	4.666	0.153	119.033
2397.000	60.000	24.000	15.652	0.165	42.942	21.471	144.684	101.743	1.422	6.739	0.157	123.214
2413.000	100.000	31.000	20.217	0.275	55.405	27.703	154.383	98.978	1.560	9.504	0.172	126.681
2422.000	180.000	42.000	27.391	0.495	74.901	37.450	172.324	97.423	1.769	11.059	0.148	134.873
2430.000	250.000	47.000	30.652	0.687	83.655	41.828	179.696	96.040	1.871	12.442	0.149	137.868
2432.000	300.000	52.000	33.913	0.824	92.427	46.213	188.122	95.695	1.966	12.787	0.138	141.908
2438.000	400.000	58.800	38.348	1.099	104.223	52.112	198.881	94.658	2.101	13.824	0.133	146.770
2431.000	500.000	64.000	41.739	1.374	113.125	56.563	208.993	95.867	2.180	12.614	0.112	152.431
2424.000	600.000	69.000	45.000	1.648	121.624	60.812	218.701	97.077	2.253	11.405	0.094	157.889
2422.000	800.000	76.000	49.565	2.198	133.213	66.607	230.636	97.423	2.367	11.059	0.083	164.029
2417.000	1000.000	83.000	54.130	2.747	144.666	72.333	242.953	98.287	2.472	10.195	0.070	170.620
2418.000	1200.000	87.000	56.739	3.297	150.781	75.391	248.895	98.114	2.537	10.368	0.069	173.505
2416.000	1400.000	89.800	58.565	3.846	154.750	77.375	253.210	98.460	2.572	10.022	0.065	175.835
2413.000	1600.000	92.500	60.330	4.396	158.502	79.251	257.480	98.978	2.601	9.504	0.060	178.229
2413.000	1800.000	100.900	65.868	4.945	172.058	86.029	271.036	98.978	2.738	9.504	0.055	185.007
2415.000	2000.000	105.100	68.637	5.495	178.256	89.128	276.888	98.632	2.807	9.850	0.055	187.761
2410.000	2200.000	107.200	70.022	6.044	180.794	90.397	280.290	99.496	2.817	8.986	0.050	189.894
2408.000	2400.000	109.000	71.209	6.593	182.782	91.391	282.624	99.842	2.831	8.640	0.047	191.233
2405.000	2800.000	112.000	73.187	7.692	185.650	92.825	286.010	100.360	2.850	8.122	0.044	193.186
2408.000	3000.000	112.900	73.780	8.242	186.041	93.021	285.883	99.842	2.863	8.640	0.046	192.863
2404.000	3200.000	114.600	74.901	8.791	187.737	93.868	288.270	100.533	2.867	7.949	0.042	194.402
2398.000	3400.000	115.800	75.692	9.341	188.578	94.289	290.148	101.570	2.857	6.912	0.037	195.859
2395.000	3600.000	116.000	75.824	9.890	187.761	93.880	289.849	102.088	2.839	6.394	0.034	195.969
2395.000	3800.000	117.000	76.484	10.440	188.238	94.119	290.326	102.088	2.844	6.394	0.034	196.208
2392.000	4000.000	118.000	77.143	10.989	188.696	94.348	291.302	102.607	2.839	5.875	0.031	196.955
2390.000	4200.000	118.000	77.143	11.539	187.531	93.766	290.484	102.952	2.822	5.530	0.029	196.718
2389.000	4400.000	118.200	77.275	12.088	186.685	93.343	289.811	103.125	2.810	5.357	0.029	196.468

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-10
TEST NO.:	3	DEPTH:	329 - 369 CMS.
BORING NO.:	CD-7	OVERCONSOLIDATION RATIO	1
TEST DATE;	5/8/80		

SAMPLE DIAMETER = 1.883 IN.
SAMPLE HEIGHT = 3.66 IN.

INITIAL PORE PRESSURE READING = 2348
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.5 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2408.000	20.000	23.000	9.079	0.055	22.533	11.267	444.167	421.634	1.053	10.368	0.460	432.900
2495.000	60.000	52.000	20.526	0.164	50.889	25.445	457.490	406.600	1.125	25.401	0.499	432.045
2700.000	100.000	120.000	46.709	0.273	115.675	57.838	486.852	371.176	1.312	60.825	0.526	429.014
2800.000	140.000	147.000	56.962	0.383	140.913	70.456	494.808	353.895	1.398	78.105	0.554	424.352
2900.000	180.000	170.000	65.556	0.492	161.993	80.997	498.609	336.615	1.481	95.385	0.589	417.612
2956.000	200.000	183.000	70.370	0.546	173.796	86.898	500.735	326.939	1.532	105.061	0.605	413.837
3134.000	300.000	212.000	81.111	0.820	199.772	99.886	495.952	296.180	1.675	135.820	0.680	396.066
3268.000	400.000	230.000	87.778	1.093	215.596	107.798	488.621	273.025	1.790	158.975	0.737	380.823
3362.000	500.000	244.000	96.000	1.366	227.792	113.896	484.573	256.782	1.887	175.218	0.769	370.678
3445.000	600.000	253.000	96.375	1.639	235.404	117.703	477.845	242.440	1.971	189.560	0.805	360.143
3588.000	800.000	268.000	102.000	2.186	247.760	123.880	465.490	217.730	2.138	214.270	0.865	341.610
3667.000	1000.000	277.000	105.375	2.732	254.529	127.264	458.607	204.079	2.247	227.921	0.895	331.343
3739.000	1200.000	283.900	107.963	3.279	259.314	129.658	450.951	191.637	2.353	240.363	0.927	321.295
3798.000	1400.000	288.600	109.725	3.825	262.057	131.028	443.499	181.442	2.444	250.558	0.956	312.470
3848.000	1600.000	292.000	111.000	4.372	263.596	131.798	436.398	172.802	2.525	259.198	0.983	304.600
3888.000	1800.000	296.000	112.500	4.918	265.631	132.816	431.521	165.890	2.601	266.110	1.002	298.706
3921.000	2000.000	299.000	113.625	5.464	266.746	133.373	426.933	160.188	2.665	271.812	1.019	293.560
3957.000	2200.000	301.400	114.525	6.011	267.304	133.652	421.271	153.967	2.736	278.033	1.040	287.619
3974.000	2400.000	303.500	115.313	6.557	267.579	133.789	418.608	151.029	2.772	280.971	1.050	284.819
3992.000	2600.000	305.000	115.875	7.104	267.310	133.655	415.229	147.919	2.807	284.081	1.063	281.574
4006.000	2800.000	307.500	116.813	7.650	267.890	133.945	413.389	145.500	2.841	286.500	1.069	279.444
4015.000	2900.000	308.000	117.000	7.924	267.524	133.763	411.468	143.944	2.859	288.056	1.077	277.707
4020.000	3000.000	309.000	117.375	8.197	267.585	133.792	410.665	143.080	2.870	288.920	1.080	276.873
4034.000	3200.000	310.500	117.938	8.743	267.268	133.634	407.929	140.661	2.900	291.339	1.090	274.295
4038.000	3400.000	311.000	118.125	9.290	266.090	133.045	406.060	139.970	2.901	292.030	1.097	273.015
4052.000	3600.000	312.500	118.688	9.836	265.747	132.874	403.298	137.551	2.932	294.449	1.108	270.424
4056.000	3800.000	313.000	118.875	10.383	264.553	132.276	401.412	136.860	2.933	295.140	1.116	269.136
4066.000	4000.000	313.000	118.875	10.929	262.939	131.470	398.071	135.132	2.946	296.868	1.129	266.602
4068.000	4200.000	313.000	118.875	11.475	261.326	130.664	396.112	134.786	2.939	297.214	1.137	265.450
4070.000	4400.000	313.000	118.875	12.022	259.713	129.856	394.153	134.440	2.932	297.560	1.146	264.297

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-10
TEST NO.: 1 DEPTH: 742 - 782 CMS.
BORING NO.: CD-7 OVERCONSOLIDATION RATIO 4
TEST DATE; 4/21/80

SAMPLE DIAMETER = 1.846 IN.
SAMPLE HEIGHT = 3.76 IN.

INITIAL PORE PRESSURE READING = 2344
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 2.2 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2354.000	40.000	24.000	9.474	0.106	24.452	12.226	233.926	209.474	1.117	1.728	0.071	221.700
2353.000	80.000	39.000	15.395	0.213	39.693	19.847	249.340	209.647	1.189	1.555	0.039	229.494
2350.000	100.000	44.000	17.368	0.266	44.758	22.379	254.923	210.165	1.213	1.037	0.023	232.545
2350.000	140.000	44.000	17.368	0.372	44.710	22.355	254.875	210.165	1.213	1.037	0.023	232.521
2344.000	300.000	44.000	17.368	0.798	44.519	22.260	255.719	211.200	1.211	0.000	0.000	233.460
2408.000	400.000	61.000	24.079	1.064	61.554	30.777	261.697	200.143	1.308	11.059	0.180	230.920
2583.000	500.000	129.000	50.127	1.330	127.797	63.899	297.700	169.903	1.752	41.299	0.323	233.801
2667.000	600.000	175.000	67.407	1.596	171.392	85.696	326.779	155.388	2.103	55.814	0.326	241.084
2723.000	800.000	239.000	91.125	2.128	230.443	115.222	376.154	145.711	2.582	65.491	0.284	260.933
2731.000	900.000	263.000	100.125	2.394	252.515	126.257	396.842	144.327	2.750	66.873	0.265	270.585
2731.000	1000.000	284.000	108.000	2.660	271.633	135.817	415.960	144.327	2.882	66.873	0.246	280.144
2726.000	1100.000	301.500	114.563	2.926	287.353	143.676	432.544	145.191	2.979	66.009	0.230	288.868
2713.000	1300.000	331.000	125.660	3.457	313.460	156.731	460.899	147.439	3.126	63.763	0.203	304.169
2709.000	1400.000	344.000	130.566	3.723	324.801	162.400	472.931	148.130	3.193	63.072	0.194	310.530
2692.000	1600.000	363.000	137.736	4.255	340.744	170.372	491.812	151.068	3.256	60.134	0.176	321.440
2684.000	1800.000	382.000	144.906	4.787	356.490	178.245	508.940	152.450	3.338	58.752	0.165	330.695
2674.000	2000.000	396.000	150.182	5.319	367.406	183.704	521.584	154.178	3.383	57.024	0.155	337.882
2664.000	2200.000	408.000	154.545	5.851	375.955	187.978	531.861	155.906	3.411	55.296	0.147	343.884
2650.000	2400.000	419.000	158.545	6.383	383.508	191.754	541.833	158.325	3.422	52.876	0.138	350.079
2646.000	2600.000	439.000	165.818	6.915	398.821	199.411	557.838	159.016	3.508	52.185	0.131	358.428
2644.000	2800.000	437.000	165.091	7.447	394.804	197.402	554.166	159.362	3.477	51.840	0.131	356.764
2640.000	3000.000	445.000	168.000	7.979	399.451	199.726	559.504	160.053	3.496	51.148	0.128	359.779
2631.000	3200.000	452.000	170.545	8.511	403.160	201.580	564.768	161.608	3.495	49.593	0.123	363.188
2628.000	3400.000	458.000	172.727	9.043	405.944	202.972	568.070	162.127	3.504	49.075	0.121	365.099
2624.000	3600.000	465.000	175.273	9.574	409.518	204.759	572.336	162.818	3.515	48.384	0.118	367.577
2611.000	3800.000	471.000	177.455	10.106	412.177	206.089	577.241	165.064	3.497	46.137	0.112	371.153
2608.000	4000.000	477.000	179.636	10.638	414.774	207.387	580.356	165.583	3.505	45.619	0.110	372.970
2607.000	4400.000	483.000	181.852	11.702	414.891	207.445	580.646	165.756	3.503	45.446	0.110	373.201
2609.000	4600.000	484.000	182.222	12.234	413.231	206.616	578.641	165.410	3.498	45.792	0.111	372.026
2610.000	4800.000	485.000	182.593	12.766	411.564	205.782	576.801	165.237	3.491	45.964	0.112	371.019
2613.000	5200.000	487.000	183.333	13.830	408.192	204.096	572.911	164.719	3.478	46.483	0.114	368.815

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-10
TEST NO.:	2	DEPTH:	742 - 782 CMS.
BORING NO.:	CD-7	OVERCONSOLIDATION RATIO	2
TEST DATE;	4/21/80		

SAMPLE DIAMETER = 1.837 IN.
SAMPLE HEIGHT = 3.66 IN.

INITIAL PORE PRESSURE READING = 2354
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.5 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2399.000	60.000	10.000	6.522	0.164	16.989	8.494	441.215	424.226	1.040	7.776	0.458	432.721
2429.000	100.000	17.400	11.348	0.273	29.528	14.764	448.570	419.042	1.070	12.960	0.439	433.806
2435.000	120.000	25.000	16.304	0.328	42.402	21.201	460.407	418.005	1.101	13.997	0.330	439.207
2485.000	160.000	42.000	27.391	0.437	71.158	35.579	480.523	409.365	1.174	22.637	0.318	444.945
2593.000	200.000	75.000	48.913	0.546	126.927	63.464	517.630	390.703	1.325	41.299	0.325	454.166
2593.000	200.000	74.500	48.587	0.546	126.082	63.041	516.784	390.703	1.323	41.299	0.328	453.744
2777.000	300.000	126.000	82.418	0.820	213.283	106.642	572.190	358.907	1.594	73.094	0.343	465.548
2871.000	400.000	160.000	104.635	1.093	270.549	135.275	613.212	342.663	1.790	89.337	0.330	477.938
2931.000	500.000	182.000	119.341	1.366	307.134	153.567	639.429	332.295	1.924	99.705	0.325	485.861
2974.000	600.000	196.000	128.571	1.639	329.970	164.986	654.835	324.865	2.016	107.135	0.325	489.850
3054.000	800.000	215.000	141.099	2.186	360.111	180.056	671.152	311.041	2.158	120.959	0.336	491.098
3124.000	1000.000	230.000	150.989	2.732	383.200	191.601	682.145	298.945	2.282	133.055	0.347	490.546
3176.000	1200.000	240.000	157.582	3.279	397.686	198.843	687.645	289.959	2.372	142.041	0.357	488.803
3228.000	1400.000	249.000	163.516	3.825	410.330	205.165	691.304	280.974	2.460	151.026	0.368	486.139
3273.000	1600.000	256.000	168.132	4.372	419.516	209.758	692.714	273.198	2.536	158.802	0.379	482.957
3303.000	1800.000	261.000	171.429	4.918	425.298	212.650	693.312	268.014	2.587	163.986	0.386	480.662
3336.000	2000.000	266.000	174.725	5.464	430.984	215.492	693.296	262.311	2.643	169.689	0.394	477.804
3360.000	2200.000	271.000	178.022	6.011	436.578	218.290	694.742	258.164	2.691	173.836	0.398	476.454
3382.000	2400.000	275.000	180.649	6.557	440.445	220.223	694.808	254.363	2.732	177.637	0.403	474.586
3402.000	2600.000	279.000	183.243	7.104	444.157	222.079	695.065	250.908	2.770	181.092	0.408	472.986
3420.000	2800.000	282.000	185.189	7.650	446.233	223.116	694.030	247.797	2.801	184.203	0.413	470.914
3434.000	3000.000	285.000	187.135	8.197	448.255	224.127	693.633	245.378	2.827	186.622	0.416	469.505
3444.000	3200.000	287.000	188.432	8.743	448.674	224.338	692.324	243.650	2.841	188.350	0.420	467.988
3454.000	3400.000	289.000	189.730	9.290	449.059	224.530	690.981	241.922	2.856	190.078	0.423	466.452
3458.000	3600.000	291.000	191.027	9.836	449.406	224.703	690.636	241.231	2.863	190.769	0.424	465.934
3465.000	3800.000	293.000	192.324	10.383	449.715	224.858	689.736	240.021	2.874	191.979	0.427	464.879
3468.000	4000.000	294.000	192.973	10.929	448.481	224.241	687.984	239.503	2.873	192.497	0.429	463.743
3472.000	4200.000	294.000	192.973	11.475	445.731	222.866	684.542	238.812	2.866	193.188	0.433	461.677
3472.000	4400.000	294.000	192.973	12.022	442.979	221.489	681.790	238.812	2.855	193.188	0.436	460.301
3472.000	4600.000	294.500	193.297	12.568	440.966	220.483	679.778	238.812	2.847	193.188	0.438	459.295

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-10
TEST NO.:	3	DEPTH:	742 - 782 CMS.
BORING NO.:	CD-7	OVERCONSOLIDATION RATIO	1
TEST DATE:	4/21/80		

SAMPLE DIAMETER = 1.8 IN.
SAMPLE HEIGHT = 3.667 IN.

INITIAL PORE PRESSURE READING = 2830
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 9 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2954.000	40.000	40.000	26.087	0.109	70.816	35.408	913.391	842.575	1.084	21.427	0.303	877.982
3144.000	80.000	79.000	51.522	0.218	139.710	69.855	949.452	809.743	1.173	54.259	0.388	879.600
3246.000	100.000	97.000	63.297	0.273	171.546	85.773	963.667	792.116	1.217	71.884	0.419	877.891
3442.000	140.000	126.000	82.418	0.382	223.122	111.562	981.370	758.247	1.294	105.753	0.474	869.808
3596.000	180.000	150.000	98.242	0.491	265.671	132.836	997.306	731.636	1.363	132.364	0.498	864.470
3663.000	200.000	160.000	104.835	0.545	283.346	141.673	1003.400	720.059	1.393	143.941	0.508	861.730
3998.000	300.000	198.000	129.890	0.818	350.101	175.051	1012.270	662.172	1.529	201.828	0.576	837.221
4254.000	400.000	221.000	145.055	1.091	389.901	194.951	1007.840	617.935	1.631	246.065	0.631	812.885
4447.000	500.000	238.000	156.264	1.364	418.872	209.436	1003.460	584.584	1.717	279.416	0.667	794.021
4628.000	600.000	252.000	165.495	1.636	442.389	221.195	995.702	553.308	1.800	310.692	0.702	774.504
4955.000	900.000	276.000	181.297	2.454	480.601	240.300	977.405	496.803	1.967	367.197	0.764	737.102
5031.000	1000.000	282.000	185.189	2.727	489.545	244.773	973.219	483.670	2.012	380.330	0.777	728.443
5172.000	1200.000	292.000	191.676	3.272	503.852	251.926	963.158	459.305	2.097	404.695	0.803	711.230
5225.000	1300.000	296.000	194.270	3.545	509.231	254.616	959.378	450.147	2.131	413.853	0.813	704.765
5280.000	1400.000	300.000	196.865	3.818	514.574	257.288	955.218	440.644	2.168	423.356	0.823	697.930
5116.000	1600.000	295.000	193.622	4.363	503.227	251.614	972.211	468.982	2.073	395.018	0.785	720.595
5433.000	1800.000	313.000	205.297	4.909	530.529	265.264	944.734	414.205	2.281	449.795	0.848	679.469
5491.000	2000.000	318.000	208.541	5.454	535.821	267.911	940.004	404.183	2.326	459.817	0.858	672.096
5534.000	2200.000	323.000	211.784	5.999	541.015	270.508	937.767	396.753	2.364	467.247	0.864	667.262
5569.000	2400.000	327.000	214.378	6.545	544.464	272.232	935.169	390.705	2.394	473.295	0.869	662.938
5613.000	2600.000	331.000	216.973	7.090	547.837	273.919	930.939	383.101	2.430	480.899	0.878	657.019
5624.000	2800.000	335.000	219.568	7.636	551.136	275.568	932.337	381.201	2.446	482.799	0.876	656.770
5655.000	3000.000	337.000	220.865	8.181	551.117	275.558	926.961	375.844	2.466	488.156	0.886	651.403
5668.000	3200.000	341.000	223.459	8.726	554.278	277.140	927.876	373.597	2.484	490.403	0.885	650.736
5683.000	3400.000	345.000	226.054	9.272	557.364	278.682	928.370	371.005	2.502	492.995	0.885	649.690
5695.000	3600.000	348.000	228.000	9.817	558.784	279.393	927.716	368.932	2.515	495.068	0.886	648.326
5705.000	3800.000	352.000	230.595	10.363	561.726	280.863	928.930	367.204	2.530	496.796	0.884	648.067
5707.000	4000.000	354.000	231.892	10.908	561.449	280.725	928.308	366.858	2.530	497.142	0.885	647.582
5716.000	4400.000	357.000	233.838	11.999	559.228	279.614	924.531	365.303	2.531	498.697	0.892	644.918
5721.000	4600.000	359.000	235.135	12.544	558.843	279.421	923.282	364.439	2.533	499.561	0.894	643.862
5128.000	5000.000	363.000	237.730	13.635	557.964	278.982	1024.880	466.908	2.195	397.092	0.712	745.891
5729.000	5200.000	365.000	239.027	14.181	557.466	278.733	920.523	363.057	2.535	500.943	0.899	641.789
5732.000	5600.000	368.000	240.973	15.271	554.861	277.430	917.399	362.538	2.530	501.462	0.904	639.970
5735.000	5800.000	370.000	242.270	15.817	554.257	277.129	916.277	362.020	2.531	501.980	0.906	639.149
5737.000	6000.000	371.000	242.919	16.362	552.140	276.070	913.814	361.674	2.527	502.326	0.910	637.742
5739.000	6200.000	373.000	244.216	16.908	551.469	275.735	912.798	361.329	2.526	502.671	0.912	637.066

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-7
TEST NO.:	1	DEPTH:	393 - 433 CMS.
BORING NO.:	CD-9	OVERCONSOLIDATION RATIO	4
TEST DATE:	4/25/80		

SAMPLE DIAMETER = 1.946 IN.
SAMPLE HEIGHT = 3.785 IN.

INITIAL PORE PRESSURE READING = 1712
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 1500 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
1829.000	20.000	39.700	38.669	0.053	89.862	44.931	415.247	325.384	1.276	20.217	0.225	370.316
1958.000	60.000	75.000	73.052	0.159	169.585	84.793	472.678	303.093	1.560	42.508	0.251	387.886
2042.000	100.000	100.500	97.890	0.264	227.004	113.502	515.581	288.578	1.787	57.024	0.251	402.080
2100.000	140.000	123.500	120.292	0.370	278.658	139.330	557.213	278.555	2.000	67.046	0.241	417.884
2138.000	180.000	139.200	135.584	0.476	313.750	156.876	585.738	271.988	2.154	73.612	0.235	428.864
2183.000	250.000	168.000	163.592	0.661	377.857	188.929	642.069	264.212	2.430	81.388	0.215	453.141
2206.000	350.000	202.000	196.602	0.925	452.894	226.448	713.132	260.238	2.740	85.363	0.186	486.686
2194.000	450.000	231.500	225.243	1.189	517.489	258.745	779.800	262.311	2.973	83.289	0.161	521.054
2173.000	600.000	265.000	257.767	1.585	589.837	294.919	855.778	265.940	3.218	79.660	0.135	560.861
2120.000	800.000	305.000	296.602	2.114	675.058	337.529	950.156	275.099	3.454	70.502	0.104	612.629
2066.000	1000.000	342.000	333.168	2.642	754.190	377.096	1038.620	284.431	3.652	61.171	0.081	661.526
2022.000	1200.000	363.000	353.960	3.170	796.906	398.453	1088.940	292.034	3.729	53.568	0.067	690.485
1977.000	1400.000	377.000	367.822	3.699	823.593	411.797	1123.400	299.810	3.747	45.792	0.056	711.665
1940.000	1600.000	384.200	374.950	4.227	834.949	417.475	1141.150	306.204	3.727	39.398	0.047	723.677
1910.000	1800.000	388.500	379.208	4.756	839.773	419.887	1151.160	311.388	3.697	34.214	0.041	731.275
1855.000	2200.000	394.000	384.653	5.812	842.380	421.190	1163.270	320.892	3.625	24.710	0.029	742.080
1845.000	2400.000	397.700	388.317	6.341	845.628	422.815	1168.250	322.620	3.621	22.982	0.027	745.435
1840.000	2600.000	400.000	390.594	6.869	845.794	422.897	1169.280	323.484	3.615	22.118	0.026	746.381
1842.000	2800.000	401.000	391.584	7.398	843.126	421.563	1166.270	323.138	3.609	22.464	0.027	744.701
1848.000	3000.000	402.000	392.574	7.926	840.437	420.219	1162.540	322.101	3.609	23.501	0.028	742.320
1854.000	3200.000	402.200	392.772	8.454	836.034	418.018	1157.100	321.064	3.604	24.537	0.029	739.080
1861.000	3400.000	402.000	392.574	8.983	830.788	415.394	1150.650	319.855	3.597	25.747	0.031	735.250
1866.000	3600.000	349.000	340.099	9.511	715.559	357.780	1034.550	318.991	3.243	26.611	0.037	676.771
1906.000	3800.000	353.000	344.059	10.040	719.665	359.833	1031.740	312.079	3.306	33.523	0.047	671.909
1918.000	4000.000	350.000	341.089	10.568	709.262	354.632	1019.270	310.005	3.288	35.597	0.050	664.637
1921.000	4200.000	347.000	338.119	11.096	698.929	349.465	1008.410	309.487	3.258	36.115	0.052	658.949
1926.000	4400.000	345.000	336.139	11.625	690.708	345.354	999.331	308.623	3.238	36.979	0.054	653.776
1938.000	4600.000	343.000	334.158	12.153	682.532	341.267	989.078	306.549	3.226	39.053	0.057	647.813
1951.000	4800.000	342.000	333.168	12.682	676.416	338.208	980.717	304.303	3.223	41.299	0.061	642.509
1962.000	5000.000	343.000	334.158	13.210	674.319	337.160	976.723	302.402	3.230	43.200	0.064	639.562
1979.000	5200.000	439.500	429.703	13.738	861.851	430.926	1161.310	299.464	3.878	46.137	0.054	730.387
1990.000	5400.000	438.500	428.713	14.267	854.593	427.297	1152.150	297.564	3.872	48.038	0.056	724.858
2005.000	5600.000	436.000	428.218	14.795	848.351	424.176	1143.320	294.972	3.876	50.630	0.060	719.146
2010.000	5800.000	337.000	328.218	15.324	646.205	323.102	940.312	294.108	3.197	51.494	0.080	617.208

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-7
TEST NO.: 2 DEPTH: 393 - 433 CMS.
BORING NO.: CD-9 OVERCONSOLIDATION RATIO 2
TEST DATE: 4/25/80

SAMPLE DIAMETER = 1.92 IN.
SAMPLE HEIGHT = 3.854 IN.

INITIAL PORE PRESSURE READING = 2114
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 7.2 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2192.000	20.000	85.000	55.435	0.052	132.338	66.169	810.061	677.724	1.195	13.478	0.102	743.894
2290.000	60.000	137.200	89.802	0.156	214.161	107.080	874.950	660.789	1.324	30.413	0.142	767.870
2360.000	100.000	180.500	118.352	0.259	281.952	140.976	930.645	648.693	1.435	42.508	0.151	789.667
2422.000	140.000	214.000	140.440	0.363	334.225	167.113	972.202	637.980	1.524	53.222	0.159	805.090
2471.000	180.000	243.500	159.890	0.467	380.116	190.058	1009.630	629.512	1.604	61.689	0.162	819.571
2554.000	250.000	286.500	188.108	0.649	446.386	223.193	1061.560	615.169	1.726	76.031	0.170	838.363
2642.000	350.000	331.500	217.297	0.908	514.305	257.152	1114.270	599.963	1.857	91.238	0.177	857.117
2713.000	450.000	366.000	239.676	1.168	565.786	282.893	1153.480	587.694	1.963	103.506	0.183	870.586
2796.000	600.000	408.000	266.919	1.557	627.616	313.809	1200.970	573.351	2.095	117.849	0.188	887.160
2889.000	800.000	441.700	288.778	2.076	675.435	337.717	1232.720	557.281	2.212	133.919	0.198	894.998
2960.000	1000.000	463.000	302.609	2.595	704.030	352.016	1249.050	545.012	2.292	146.188	0.208	897.629
3024.000	1200.000	480.000	313.696	3.114	725.940	362.970	1259.890	533.953	2.360	157.247	0.217	896.923
3062.000	1400.000	490.000	320.217	3.633	737.062	368.532	1264.440	527.387	2.398	163.813	0.222	895.915
3090.000	1600.000	494.000	322.826	4.152	739.067	369.534	1261.610	522.548	2.414	168.652	0.228	892.080
3130.000	1800.000	494.200	322.957	4.670	735.362	367.681	1251.000	515.636	2.426	175.564	0.239	883.315
3159.000	2000.000	494.000	322.826	5.189	731.063	365.532	1241.690	510.626	2.432	180.574	0.247	876.158
3183.000	2200.000	496.000	324.130	5.708	729.998	365.000	1236.480	506.479	2.441	184.721	0.253	871.478
3206.000	2400.000	494.200	322.957	6.227	723.356	361.678	1225.860	502.504	2.440	188.696	0.261	864.182
3263.000	2800.000	486.200	317.739	7.265	703.788	351.895	1196.450	492.655	2.429	198.545	0.282	844.550
3295.000	3000.000	486.700	318.065	7.784	700.567	350.284	1187.690	487.125	2.438	204.075	0.291	837.408
3328.000	3200.000	485.000	316.957	8.303	694.201	347.100	1175.630	481.423	2.442	209.777	0.302	828.523
3355.000	3400.000	485.000	316.957	8.822	690.271	345.135	1167.020	476.757	2.448	214.443	0.311	821.890

TRIAXIAL TEST RESULTS

PROJECT NO.: 7900122
TEST NO.: 3
BORING NO.: CD-9
TEST DATE: 4/25/80

SAMPLE NUMBER: PC-7
DEPTH: 393 - 433 CMS.
OVERCONSOLIDATION RATIO 1

SAMPLE DIAMETER = 1.946 IN.
SAMPLE HEIGHT = 3.785 IN.

INITIAL PORE PRESSURE READING = 3644
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 14.4 TSF
LOAD RING SIZE = 1500 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
3882.000	20.000	53.000	51.623	0.053	119.967	59.984	1461.260	1341.290	1.089	41.126	0.343	1401.280
4166.000	60.000	90.700	88.344	0.159	205.085	102.542	1497.300	1292.220	1.159	90.201	0.440	1394.760
4390.000	100.000	112.000	109.091	0.264	252.979	126.490	1506.490	1253.510	1.202	128.908	0.510	1380.000
4604.000	140.000	130.200	126.818	0.370	293.775	146.888	1510.310	1216.530	1.241	165.887	0.565	1363.420
4816.000	180.000	147.000	143.182	0.476	331.332	165.666	1511.230	1179.900	1.281	202.520	0.611	1345.560
5115.000	250.000	169.000	164.583	0.661	380.100	190.050	1508.330	1128.230	1.337	254.187	0.669	1318.280
5486.000	350.000	193.000	187.864	0.925	432.766	216.383	1496.890	1064.120	1.407	318.295	0.735	1280.510
5814.000	450.000	212.000	206.311	1.189	473.993	236.997	1481.430	1007.440	1.470	374.973	0.791	1244.440
6168.000	600.000	232.700	226.408	1.585	518.080	259.041	1464.350	946.268	1.547	436.143	0.842	1205.310
6530.000	800.000	249.200	242.427	2.114	551.757	275.879	1435.470	883.715	1.624	498.697	0.904	1159.590
6802.000	1000.000	258.500	251.456	2.642	569.218	284.609	1405.930	836.712	1.680	545.698	0.959	1121.330
7006.000	1200.000	263.000	255.825	3.170	575.964	287.983	1377.430	801.461	1.719	580.949	1.009	1089.450
7158.000	1400.000	264.000	256.796	3.699	574.995	287.498	1350.190	775.195	1.742	607.214	1.056	1062.700
7286.000	1600.000	262.700	255.534	4.227	569.030	284.515	1322.110	753.077	1.756	629.333	1.106	1037.600
7384.000	1800.000	260.200	253.107	4.756	560.516	280.259	1296.660	736.142	1.761	646.267	1.153	1016.410
7480.000	2000.000	256.000	249.029	5.284	548.426	274.213	1267.980	719.553	1.762	662.855	1.209	993.763
7570.000	2200.000	252.000	245.146	5.812	536.863	268.431	1240.870	704.001	1.763	678.407	1.264	972.432
7629.000	2400.000	248.000	241.262	6.341	525.392	262.696	1219.200	693.805	1.757	688.602	1.311	956.501
7697.000	2600.000	243.700	237.087	6.869	513.387	256.693	1195.440	682.055	1.753	700.353	1.364	938.746
7752.000	2800.000	240.000	233.495	7.398	502.741	251.371	1175.290	672.551	1.748	709.857	1.412	923.918
7805.000	3000.000	236.000	229.612	7.926	491.559	245.780	1154.960	663.393	1.741	719.015	1.463	909.173
7850.000	3200.000	232.200	225.922	8.454	480.884	240.443	1136.510	655.617	1.733	726.791	1.511	896.059
7895.000	3400.000	229.200	223.010	8.983	471.946	235.973	1119.780	647.841	1.728	734.567	1.556	883.810

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-11
TEST NO.: 1 DEPTH: 483 - 523 CMS.
BORING NO.: CD-10 OVERCONSOLIDATION RATIO 4
TEST DATE; 5/9/800

SAMPLE DIAMETER = 1.897 IN.
SAMPLE HEIGHT = 3.826 IN.

INITIAL PORE PRESSURE READING = 2250
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.9 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2274.000	20.000	7.000	4.565	0.052	11.164	5.582	93.417	82.253	1.136	4.147	0.371	87.835
2322.000	80.000	24.000	15.652	0.209	38.217	19.109	112.176	73.959	1.517	12.442	0.326	93.067
2332.000	120.000	32.000	20.870	0.314	50.903	25.452	123.133	72.231	1.705	14.170	0.278	97.682
2350.000	160.000	39.000	25.435	0.418	61.973	30.987	131.093	69.120	1.897	17.280	0.279	100.107
2360.000	200.000	49.000	31.957	0.523	77.782	38.891	145.174	67.392	2.154	19.008	0.244	106.284
2360.000	300.000	58.000	37.826	0.784	91.826	45.913	159.218	67.392	2.363	19.008	0.207	113.305
2354.000	400.000	65.000	42.391	1.045	102.637	51.319	171.066	68.429	2.500	17.971	0.175	119.748
2344.000	500.000	69.000	45.000	1.307	108.666	54.333	178.823	70.157	2.549	16.243	0.149	124.490
2330.000	700.000	76.000	49.565	1.830	119.056	59.528	191.632	72.576	2.640	13.824	0.116	132.105
2324.000	900.000	79.000	51.522	2.352	123.097	61.549	196.710	73.613	2.672	12.787	0.104	135.161
2320.000	1000.000	80.000	52.174	2.614	124.322	62.161	198.626	74.304	2.673	12.096	0.097	136.465
2314.000	1200.000	83.000	54.130	3.136	128.292	64.146	203.632	75.341	2.703	11.059	0.086	139.487
2312.000	1400.000	84.900	55.370	3.659	130.521	65.260	206.207	75.687	2.724	10.714	0.082	140.947
2309.000	1600.000	86.800	56.609	4.182	132.717	66.359	208.922	76.205	2.742	10.195	0.077	142.564
2306.000	1800.000	88.900	57.978	4.705	135.186	67.593	211.909	76.723	2.762	9.677	0.072	144.317
2303.000	2000.000	90.400	58.957	5.227	136.714	68.357	213.955	77.242	2.770	9.158	0.067	145.598
2298.000	2200.000	91.900	59.935	5.750	138.215	69.108	216.321	78.106	2.770	8.294	0.060	147.213
2297.000	2400.000	93.000	60.659	6.273	139.110	69.555	217.388	78.279	2.777	8.122	0.058	147.833
2294.000	2600.000	94.100	61.385	6.796	139.988	69.994	218.785	78.797	2.777	7.603	0.054	148.791
2293.000	2800.000	95.000	61.978	7.318	140.549	70.274	219.518	78.970	2.780	7.430	0.053	149.244
2291.000	3000.000	95.800	62.506	7.841	140.945	70.473	220.260	79.315	2.777	7.085	0.050	149.788
2290.000	3200.000	96.200	62.769	8.364	140.737	70.369	220.225	79.488	2.771	6.912	0.049	149.857
2288.000	3400.000	96.700	63.099	8.887	140.670	70.335	220.503	79.834	2.762	6.566	0.047	150.169
2287.000	3600.000	97.000	63.297	9.409	140.301	70.151	220.308	80.007	2.754	6.394	0.046	150.157
2285.000	3800.000	96.900	63.231	9.932	139.346	69.673	219.698	80.352	2.734	6.048	0.043	150.025
2285.000	4000.000	96.900	63.231	10.455	138.538	69.269	218.890	80.352	2.724	6.048	0.044	149.621
2285.000	4400.000	96.900	63.231	11.500	136.919	68.460	217.271	80.352	2.704	6.048	0.044	148.812
2284.000	4800.000	96.900	63.231	12.546	135.302	67.651	215.827	80.525	2.680	5.875	0.043	148.176

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-11
TEST NO.: 2 DEPTH: 483 - 523 CMS.
BORING NO.: CD-10 OVERCONSOLIDATION RATIO 2
TEST DATE; 5/9/800

SAMPLE DIAMETER = 1.887 IN.
SAMPLE HEIGHT = 3.795 IN.

INITIAL PORE PRESSURE READING = 2620
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.8 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	S3/2 KPS	SIG01 KPS	SIG03 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2706.000	20.000	34.000	13.421	0.053	33.170	16.585	191.111	157.941	1.210	14.861	0.448	174.526
2790.000	60.000	87.000	34.177	0.158	84.380	42.190	227.806	143.426	1.588	29.376	0.348	185.616
2820.000	100.000	113.000	44.051	0.264	108.641	54.321	246.883	138.242	1.786	34.560	0.318	192.563
2836.000	140.000	128.000	49.747	0.369	122.559	61.280	258.036	135.477	1.905	37.325	0.305	196.757
2850.000	180.000	139.000	53.924	0.474	132.710	66.355	265.768	133.058	1.997	39.744	0.299	199.413
2870.000	250.000	150.000	58.101	0.659	142.725	71.363	272.327	129.602	2.101	43.200	0.303	200.964
2896.000	350.000	164.000	63.333	0.922	155.166	77.583	280.275	125.109	2.240	47.692	0.307	202.692
2925.000	450.000	171.000	65.926	1.186	161.088	80.544	281.186	120.098	2.341	52.704	0.327	200.642
2946.000	600.000	179.000	68.889	1.581	167.654	83.827	284.124	116.469	2.439	56.332	0.336	200.296
2980.000	800.000	187.000	71.852	2.108	173.929	86.965	284.523	110.594	2.573	62.208	0.358	197.558
3006.000	1000.000	192.000	73.704	2.635	177.451	88.726	283.551	106.100	2.672	66.700	0.376	194.826
3024.000	1200.000	196.200	75.259	3.162	180.216	90.108	283.206	102.990	2.750	69.811	0.387	193.098
3042.000	1400.000	200.200	76.741	3.689	182.763	91.381	282.642	99.879	2.830	72.921	0.399	191.261
3053.000	1600.000	203.500	77.963	4.216	184.658	92.329	282.636	97.979	2.885	74.822	0.405	190.308
3064.000	1800.000	206.000	78.889	4.743	185.822	92.911	281.900	96.078	2.934	76.723	0.413	188.989
3078.000	2100.000	210.000	80.370	5.534	187.741	93.871	281.400	93.659	3.005	79.142	0.422	187.529
3080.000	2200.000	215.500	82.407	5.797	191.964	95.982	285.276	93.313	3.057	79.487	0.414	189.295
3083.000	2400.000	213.200	81.556	6.324	188.916	94.458	281.710	92.795	3.036	80.006	0.424	187.253
3092.000	2600.000	215.500	82.407	6.851	189.815	94.908	281.054	91.240	3.080	81.561	0.430	186.147
3097.000	2800.000	217.400	83.111	7.378	190.353	95.176	280.728	90.376	3.106	82.425	0.433	185.552
3099.000	3000.000	219.100	83.741	7.905	190.704	95.352	280.734	90.030	3.118	82.771	0.434	185.382
3102.000	3200.000	220.900	84.407	8.432	191.123	95.561	280.634	89.512	3.135	83.289	0.436	185.073
3104.000	3400.000	222.300	84.926	8.959	191.189	95.594	280.355	89.166	3.144	83.635	0.437	184.761
3107.000	3600.000	223.900	85.519	9.486	191.409	95.704	280.056	88.648	3.159	84.153	0.440	184.352
3107.000	3800.000	225.100	85.963	10.013	191.284	95.642	279.931	88.648	3.158	84.153	0.440	184.289
3108.000	4000.000	226.100	86.333	10.540	190.982	95.491	279.457	88.475	3.159	84.326	0.442	183.966
3113.000	4400.000	228.900	87.370	11.594	191.000	95.500	278.610	87.611	3.180	85.190	0.446	183.110
3115.000	4800.000	230.700	88.037	12.648	190.163	95.081	277.428	87.265	3.179	85.535	0.450	182.346
3118.000	5200.000	232.400	88.667	13.702	189.211	94.606	275.958	86.747	3.181	86.054	0.455	181.353
3120.000	5600.000	234.700	89.519	14.756	188.696	94.348	275.097	86.401	3.184	86.399	0.458	180.749
3119.000	5000.000	236.200	90.075	13.175	193.391	96.696	279.965	86.574	3.234	86.227	0.446	183.270
3124.000	6400.000	238.000	90.750	16.864	186.562	93.281	272.271	85.710	3.177	87.091	0.467	178.991
3127.000	6800.000	238.200	90.825	17.918	184.349	92.174	269.540	85.192	3.164	87.609	0.475	177.366

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-11
TEST NO.:	3	DEPTH:	483 - 523 CMS.
BORING NO.:	CD-10	OVERCONSOLIDATION RATIO	1
TEST DATE;	5/8/800		

SAMPLE DIAMETER = 1.874 IN.
SAMPLE HEIGHT = 3.775 IN.

INITIAL PORE PRESSURE READING = 2180
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2320.000	20.000	58.000	22.895	0.053	57.372	28.686	378.781	321.410	1.179	24.192	0.422	350.096
2582.000	60.000	120.000	46.709	0.159	116.923	58.462	393.059	276.135	1.423	69.465	0.594	334.597
2720.000	100.000	149.000	57.722	0.265	144.337	72.169	396.626	252.289	1.572	93.311	0.646	324.458
2816.000	140.000	164.000	63.333	0.371	158.201	79.101	393.901	235.700	1.671	109.900	0.695	314.801
2910.000	180.000	178.000	68.519	0.477	170.972	85.486	390.429	219.457	1.779	126.143	0.738	304.943
3010.000	250.000	192.000	73.704	0.662	183.567	91.784	385.744	202.177	1.908	143.423	0.781	293.961
3100.000	350.000	205.000	78.519	0.927	195.037	97.519	381.662	186.625	2.045	158.975	0.815	284.144
3174.000	450.000	214.000	81.852	1.192	202.774	101.388	376.612	173.838	2.166	171.762	0.847	275.225
3256.000	600.000	224.000	85.556	1.589	211.097	105.549	370.766	159.669	2.322	185.931	0.881	265.218
3326.000	800.000	234.000	89.259	2.119	219.049	109.524	366.622	147.573	2.484	198.027	0.904	257.098
3386.000	1000.000	242.000	92.250	2.649	225.163	112.582	362.368	137.205	2.641	208.395	0.926	249.787
3424.000	1200.000	248.000	94.500	3.179	229.401	114.701	360.039	130.639	2.756	214.961	0.937	245.340
3468.000	1400.000	258.000	98.250	3.709	237.198	118.599	360.233	123.036	2.928	222.564	0.938	241.635
3480.000	1700.000	260.000	99.000	4.503	237.036	118.519	357.998	120.962	2.960	224.638	0.948	239.481
3487.000	1800.000	262.100	99.788	4.768	238.260	119.130	358.012	119.752	2.990	225.848	0.948	238.883
3500.000	2000.000	266.000	101.250	5.298	240.406	120.204	357.912	117.506	3.046	228.094	0.949	237.709
3517.000	2400.000	271.400	103.275	6.358	242.470	121.236	357.038	114.568	3.116	231.032	0.953	235.804
3514.000	2600.000	274.800	104.550	6.887	244.075	122.038	359.162	115.087	3.121	230.513	0.944	237.125
3530.000	2800.000	276.000	105.000	7.417	243.732	121.866	356.053	112.322	3.170	233.278	0.957	234.188
3530.000	3000.000	278.800	106.050	7.947	244.760	122.380	357.082	112.322	3.179	233.278	0.953	234.702
3527.000	3200.000	281.000	106.875	8.477	245.244	122.623	358.085	112.840	3.173	232.760	0.949	235.463
3532.000	3400.000	282.800	107.550	9.007	245.364	122.682	357.341	111.976	3.191	233.624	0.952	234.659
3530.000	3600.000	285.800	108.675	9.536	246.487	123.244	358.809	112.322	3.194	233.278	0.946	235.566
3533.000	3800.000	286.800	109.050	10.066	245.889	122.944	357.692	111.804	3.199	233.796	0.951	234.748
3532.000	4000.000	288.500	109.688	10.596	245.871	122.936	357.848	111.976	3.196	233.624	0.950	234.912
3532.000	4400.000	290.000	110.250	11.656	244.202	122.101	356.178	111.976	3.181	233.624	0.957	234.078
3536.000	4800.000	290.000	110.250	12.715	241.273	120.636	352.558	111.285	3.168	234.315	0.971	231.922
3533.000	5200.000	290.100	110.288	13.775	238.427	119.214	350.230	111.804	3.133	233.796	0.981	231.017
3535.000	5600.000	290.000	110.250	14.834	235.415	117.708	346.873	111.458	3.112	234.142	0.995	229.165
3525.000	6000.000	289.000	109.875	15.894	231.695	115.848	344.881	113.186	3.047	232.414	1.003	229.034

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-11
TEST NO.: 1 DEPTH: 784 - 824 CMS.
BORING NO.: CU-10 OVERCONSOLIDATION RATIO 4
TEST DATE: 4/21/80

SAMPLE DIAMETER = 1.87 IN.
SAMPLE HEIGHT = 3.765 IN.

INITIAL PORE PRESSURE READING = 2395
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.8 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2436.000	40.000	28.000	18.261	0.106	45.931	22.965	211.648	165.717	1.277	7.085	0.154	188.683
2470.000	100.000	46.000	31.304	0.266	78.613	39.307	238.455	159.842	1.492	12.960	0.165	199.149
2489.000	140.000	62.000	40.435	0.372	101.434	50.717	257.992	156.559	1.648	16.243	0.160	207.276
2500.000	180.000	72.500	47.283	0.478	118.486	59.243	273.144	154.658	1.766	18.144	0.153	213.901
2504.000	200.000	77.000	50.217	0.531	125.773	62.887	279.740	153.967	1.817	18.835	0.150	216.853
2510.000	250.000	86.000	56.087	0.664	140.286	70.143	293.216	152.930	1.917	19.872	0.142	223.073
2511.000	350.000	101.000	65.934	0.930	164.475	82.237	317.232	152.757	2.077	20.045	0.122	234.995
2512.000	400.000	107.000	69.890	1.062	174.109	87.055	326.694	152.584	2.141	20.217	0.110	239.639
2509.000	500.000	116.000	75.824	1.328	188.386	94.193	341.488	153.103	2.230	19.699	0.105	247.296
2502.000	600.000	124.000	81.099	1.594	200.949	100.475	355.261	154.312	2.302	18.489	0.092	254.787
2500.000	700.000	131.000	85.714	1.859	211.812	105.906	366.469	154.658	2.370	18.144	0.086	260.564
2497.000	800.000	137.000	89.670	2.125	220.988	110.494	376.164	155.176	2.424	17.626	0.080	265.670
2495.000	1000.000	148.000	96.923	2.656	237.564	118.783	393.086	155.522	2.528	17.280	0.073	274.305
2493.000	1200.000	157.000	102.857	3.187	250.734	125.367	406.601	155.868	2.609	16.934	0.068	281.235
2491.000	1400.000	164.000	107.473	3.718	260.549	130.275	416.762	156.213	2.666	16.589	0.064	286.488
2490.000	1600.000	171.000	112.088	4.250	270.238	135.119	426.624	156.386	2.728	16.416	0.061	291.505
2487.000	1800.000	176.000	115.385	4.781	276.643	138.322	433.548	156.904	2.763	15.898	0.057	295.226
2495.000	2000.000	182.000	119.341	5.312	284.532	142.266	440.053	155.522	2.830	17.280	0.061	297.788
2480.000	2200.000	187.000	122.637	5.843	290.749	145.375	448.863	158.114	2.839	14.688	0.051	303.489
2479.000	2400.000	191.000	125.275	6.375	295.328	147.664	453.614	158.287	2.866	14.515	0.049	305.951
2474.000	2600.000	194.000	127.253	6.906	298.289	149.145	457.440	159.151	2.874	13.651	0.046	308.295
2469.000	2800.000	198.000	129.890	7.437	302.733	151.367	462.748	160.015	2.892	12.787	0.042	311.382
2462.000	3000.000	201.000	131.868	7.968	305.580	152.790	466.804	161.224	2.895	11.578	0.038	314.014
2449.000	3400.000	206.000	135.165	9.031	309.604	154.802	473.075	163.471	2.894	9.331	0.030	318.273
2446.000	3500.000	207.000	135.824	9.296	310.205	155.102	474.194	163.989	2.892	8.813	0.028	319.092
2442.000	3600.000	208.500	136.813	9.562	311.548	155.774	476.228	164.680	2.892	8.122	0.026	320.455
2434.000	3800.000	210.000	137.802	10.093	311.958	155.979	478.020	166.063	2.879	6.739	0.022	322.042
2425.000	4000.000	212.000	139.121	10.624	313.083	156.541	480.701	167.618	2.868	5.184	0.017	324.159
2419.000	4200.000	213.000	139.780	11.155	312.696	156.348	481.351	168.655	2.854	4.147	0.013	325.003
2411.000	4400.000	213.000	139.780	11.687	310.826	155.413	480.863	170.037	2.828	2.765	0.009	325.451
2406.000	4600.000	213.000	139.780	12.218	308.957	154.478	479.858	170.901	2.808	1.901	0.006	325.380
2392.000	5000.000	213.000	139.780	13.280	305.218	152.609	478.536	173.318	2.761	-0.518	-0.002	325.928

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-11
TEST NO.: 2 DEPTH: 784 - 824 CMS.
BORING NO.: CB-10 OVERCONSOLIDATION RATIO 2
TEST DATE: 4/21/80

SAMPLE DIAMETER = 1.9 IN.
SAMPLE HEIGHT = 3.882 IN.

INITIAL PORE PRESSURE READING = 2380
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 3.6 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2491.000	20.000	70.000	27.632	0.052	67.360	33.680	393.781	326.421	1.206	19.181	0.285	360.102
2593.000	60.000	162.000	62.593	0.155	152.431	76.215	461.226	308.796	1.494	36.806	0.241	385.011
2633.000	100.000	214.000	81.852	0.258	199.128	99.565	501.012	301.884	1.660	43.718	0.220	401.448
2656.000	140.000	244.000	93.000	0.361	226.015	113.007	523.924	297.909	1.759	47.692	0.211	410.916
2677.000	180.000	267.000	101.625	0.464	246.721	123.361	541.001	294.280	1.838	51.321	0.208	417.641
2682.000	200.000	275.000	104.625	0.515	253.872	126.936	547.288	293.416	1.865	52.185	0.206	420.352
2725.000	300.000	308.000	117.000	0.773	283.165	141.583	569.151	285.986	1.990	59.616	0.211	427.569
2769.000	400.000	330.000	125.283	1.030	302.425	151.212	580.807	278.382	2.086	67.219	0.222	429.594
2813.000	500.000	347.000	131.698	1.288	317.082	158.541	587.861	270.779	2.171	74.822	0.236	429.320
2891.000	700.000	373.000	141.509	1.803	338.925	169.463	596.225	257.300	2.317	88.300	0.261	426.763
2923.000	800.000	383.000	145.283	2.061	347.052	173.526	598.822	251.771	2.378	93.830	0.270	425.296
2977.000	1000.000	400.000	151.636	2.576	360.323	180.161	602.762	242.439	2.486	103.161	0.286	422.601
3020.000	1200.000	413.000	156.364	3.091	369.592	184.796	604.601	235.009	2.573	110.591	0.299	419.805
3057.000	1400.000	425.000	160.727	3.606	377.886	188.943	606.501	228.615	2.653	116.985	0.310	417.559
3086.000	1600.000	435.000	164.364	4.122	384.372	192.186	607.976	223.604	2.719	121.996	0.317	415.790
3098.000	1700.000	440.000	166.182	4.379	387.579	193.789	609.109	221.531	2.750	124.069	0.320	415.320
3115.000	1900.000	449.000	169.455	4.894	393.083	196.542	611.676	218.593	2.798	127.007	0.323	415.135
3120.000	2000.000	453.000	170.909	5.152	395.381	197.691	613.110	217.729	2.816	127.871	0.323	415.420
3136.000	2200.000	460.000	173.455	5.667	399.091	199.546	614.055	214.964	2.857	130.636	0.327	414.510
3143.000	2400.000	467.000	176.000	6.182	402.736	201.369	616.491	213.755	2.884	131.845	0.327	415.123
3147.000	2600.000	473.000	178.182	6.698	405.490	202.745	618.553	213.063	2.903	132.537	0.327	415.809
3149.000	2700.000	476.000	179.273	6.955	406.847	203.424	619.565	212.718	2.913	132.882	0.327	416.142
3148.000	3000.000	483.000	181.852	7.728	409.271	204.636	622.162	212.891	2.922	132.709	0.324	417.526
3146.000	3200.000	490.000	184.444	8.243	412.788	206.394	626.024	213.236	2.936	132.364	0.321	419.630
3143.000	3400.000	495.000	186.296	8.758	414.591	207.296	628.346	213.755	2.940	131.845	0.318	421.050
3142.000	3600.000	500.000	188.148	9.274	416.348	208.174	630.276	213.927	2.946	131.673	0.316	422.101
3138.000	3800.000	505.000	190.000	9.789	418.059	209.029	632.677	214.619	2.948	130.981	0.313	423.648
3130.000	4000.000	509.000	191.482	10.304	418.913	209.457	634.914	216.001	2.939	129.599	0.309	425.458
3128.000	4200.000	513.000	192.963	10.819	419.728	209.865	636.075	216.347	2.940	129.253	0.308	426.211
3120.000	4400.000	515.000	193.704	11.334	418.906	209.453	636.635	217.729	2.924	127.871	0.305	427.182
3105.000	4600.000	517.000	194.444	11.850	418.063	209.031	638.384	220.321	2.898	125.279	0.300	429.352
3100.000	5000.000	524.000	197.037	12.880	418.686	209.343	639.871	221.185	2.893	124.415	0.297	430.528
3096.000	5200.000	527.000	198.148	13.395	418.558	209.279	640.434	221.876	2.886	123.724	0.296	431.155
3088.000	5600.000	531.000	199.630	14.426	416.671	208.335	639.929	223.259	2.866	122.341	0.294	431.594
3082.000	6000.000	536.000	201.481	15.456	415.471	207.735	639.766	224.295	2.852	121.305	0.292	432.031
3072.000	6400.000	540.000	202.963	16.486	413.426	206.713	639.449	226.023	2.829	119.577	0.289	432.736
3070.000	6600.000	542.000	203.704	17.002	412.376	206.188	638.745	226.369	2.822	119.231	0.289	432.857
3067.000	6800.000	543.000	204.074	17.517	410.559	205.280	637.447	226.887	2.810	118.713	0.289	432.167
3067.000	7000.000	545.000	204.815	18.032	409.477	204.739	636.365	226.887	2.805	118.713	0.290	431.627

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-11
TEST NO.: 3 DEPTH: 784 - 824 CMS.
BORING NO.: CD-10 OVERCONSOLIDATION RATIO 1
TEST DATE: 4/21/80

SAMPLE DIAMETER = 1.849 IN.
SAMPLE HEIGHT = 3.727 IN.

INITIAL PORE PRESSURE READING = 2180
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 7.2 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2256.000	40.000	26.000	10.263	0.107	26.404	13.202	704.473	678.069	1.039	13.133	0.497	691.272
2448.000	80.000	160.000	61.852	0.215	158.956	79.478	803.847	644.892	1.246	46.310	0.291	724.368
2517.000	100.000	189.000	72.593	0.268	186.458	93.229	819.426	632.968	1.295	58.233	0.312	726.197
2649.000	140.000	229.000	87.407	0.376	224.269	112.135	834.427	610.158	1.368	81.043	0.361	722.294
2764.000	180.000	259.000	98.625	0.483	252.780	126.390	843.065	590.286	1.428	100.914	0.399	716.674
2818.000	200.000	272.000	103.500	0.537	265.131	132.565	846.085	580.955	1.456	110.245	0.416	713.520
3092.000	300.000	320.800	121.811	0.805	311.196	155.598	844.803	533.607	1.583	157.593	0.506	689.203
3300.000	400.000	353.000	133.962	1.073	341.311	170.655	838.977	497.666	1.686	193.534	0.567	668.323
3472.000	500.000	375.000	142.264	1.342	361.481	180.741	829.426	467.944	1.772	223.256	0.618	648.686
3624.000	600.000	393.000	149.057	1.610	377.711	188.856	819.390	441.679	1.855	249.521	0.661	630.533
3755.000	700.000	41.000	16.184	1.878	40.899	20.450	459.941	419.042	1.098	272.158	0.654	439.492
3962.000	900.000	432.000	163.273	2.415	410.350	205.175	793.623	383.273	2.071	307.927	0.750	588.446
4040.000	1000.000	441.000	166.545	2.683	417.423	208.712	787.218	369.795	2.129	321.405	0.770	578.506
4175.000	1200.000	456.000	172.000	3.220	428.717	214.358	775.184	346.467	2.237	344.733	0.804	560.827
4279.000	1400.000	469.000	176.727	3.756	438.057	219.029	766.552	328.496	2.334	362.704	0.828	547.526
4364.000	1600.000	480.000	180.741	4.293	445.509	222.755	759.317	313.808	2.420	377.392	0.847	536.563
4473.000	2000.000	500.000	188.148	5.366	458.567	229.284	753.540	294.972	2.555	396.228	0.864	524.256
4526.000	2200.000	508.000	191.111	5.903	463.146	231.573	748.960	285.814	2.620	405.386	0.875	517.387
4562.000	2400.000	516.000	194.074	6.440	467.644	233.822	747.237	279.593	2.673	411.607	0.880	513.418
4585.000	2600.000	523.000	196.667	6.976	471.176	235.588	746.795	275.619	2.710	415.581	0.882	511.205
4612.000	2800.000	531.000	199.630	7.513	475.515	237.757	746.469	270.954	2.755	420.246	0.884	508.714
4634.000	3000.000	541.000	203.333	8.049	481.524	240.762	748.677	267.153	2.802	424.047	0.881	507.917
4648.000	3300.000	547.000	205.556	8.854	482.529	241.264	747.262	264.733	2.823	426.467	0.884	505.997
4653.000	3500.000	553.000	207.778	9.391	484.873	242.436	748.742	263.869	2.838	427.331	0.881	506.304
4661.000	3600.000	557.000	209.259	9.659	486.882	243.442	749.369	262.487	2.855	428.713	0.881	505.930
4654.000	3700.000	559.000	210.000	9.928	487.155	243.578	750.852	263.697	2.847	427.503	0.878	507.274
4670.000	4000.000	569.000	213.636	10.733	491.162	245.581	752.094	260.932	2.882	430.268	0.876	506.515
4670.000	4200.000	575.000	215.818	11.269	493.194	246.597	754.126	260.932	2.890	430.268	0.872	507.528
4678.000	4400.000	580.000	217.636	11.806	494.341	247.171	753.891	259.549	2.905	431.651	0.873	506.722
4668.000	4600.000	585.000	219.455	12.342	495.441	247.720	756.718	261.277	2.896	429.923	0.868	508.997
4668.000	5000.000	596.000	223.455	13.416	498.294	249.147	759.571	261.277	2.907	429.923	0.863	510.422
4676.000	5200.000	601.000	225.273	13.952	499.235	249.617	759.130	259.895	2.921	431.305	0.864	509.510
4663.000	5600.000	609.000	228.182	15.026	499.375	249.687	761.516	262.141	2.905	429.059	0.859	511.829
4666.000	6000.000	618.000	231.455	16.099	500.140	250.070	761.763	261.623	2.912	429.577	0.859	511.694
4658.000	6400.000	624.000	233.636	17.172	498.395	249.198	761.400	263.005	2.895	428.195	0.859	512.203
4655.000	6800.000	632.000	236.545	18.245	498.062	249.032	761.586	263.524	2.890	427.676	0.859	512.554
4652.000	7000.000	638.000	238.727	18.782	499.356	249.679	763.399	264.042	2.891	427.158	0.855	513.720
4650.000	7600.000	641.500	240.000	20.392	492.068	246.035	756.456	264.388	2.861	426.812	0.867	510.422
4650.000	8000.000	646.000	241.636	21.465	488.784	244.392	753.172	264.388	2.849	426.812	0.873	508.781
4638.000	8400.000	650.000	243.129	22.538	485.044	242.522	751.505	266.461	2.820	424.739	0.876	508.982
4648.000	8800.000	654.000	244.601	23.612	481.219	240.610	745.953	264.733	2.818	426.467	0.886	505.344

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-12
TEST NO.:	1	DEPTH:	472 - 512 CMS.
BORING NO.:	CB-11	OVERCONSOLIDATION RATIO	4
TEST DATE;	5/10/80		

SAMPLE DIAMETER = 1.875 IN.
SAMPLE HEIGHT = 3.744 IN.

INITIAL PORE PRESSURE READING = 2592
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.08 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2630.000	20.000	2.000	1.304	0.053	3.265	1.633	100.380	97.116	1.034	6.566	2.011	98.749
2644.000	600.000	2.000	1.304	1.603	3.214	1.607	97.910	94.696	1.034	8.986	2.795	96.303
2648.000	100.000	3.000	1.957	0.267	4.887	2.444	98.893	94.005	1.052	9.677	1.980	96.449
2652.000	140.000	7.000	4.565	0.374	11.391	5.695	104.705	93.314	1.122	10.368	0.910	99.010
2655.000	180.000	11.000	7.174	0.481	17.881	8.940	110.676	92.795	1.193	10.886	0.609	101.736
2656.000	250.000	15.000	9.783	0.668	24.337	12.169	116.960	92.623	1.263	11.059	0.454	104.792
2650.000	350.000	22.000	14.348	0.935	35.599	17.799	129.258	93.659	1.380	10.022	0.282	111.459
2648.000	450.000	28.000	18.261	1.202	45.185	22.593	139.190	94.005	1.481	9.677	0.214	116.598
2637.000	700.000	39.100	25.500	1.870	62.672	31.336	158.578	95.906	1.653	7.776	0.124	127.242
2629.000	900.000	45.300	29.543	2.404	72.214	36.107	169.502	97.288	1.742	6.394	0.089	133.396
2621.000	1100.000	50.900	33.196	2.938	80.697	40.349	179.367	98.671	1.818	5.011	0.062	139.020
2620.000	1200.000	53.000	34.565	3.205	83.795	41.898	182.638	98.844	1.848	4.838	0.058	140.741
2610.000	1500.000	58.600	38.217	4.006	91.882	45.941	192.453	100.572	1.914	3.110	0.034	146.512
2610.000	1600.000	59.900	39.065	4.274	93.659	46.830	194.230	100.572	1.931	3.110	0.033	147.401
2612.000	1800.000	62.600	40.826	4.808	97.334	48.667	197.560	100.226	1.971	3.456	0.036	148.893
2611.000	2000.000	64.900	42.326	5.342	100.344	50.172	200.743	100.399	1.999	3.283	0.033	150.571
2611.000	2200.000	67.100	43.761	5.876	103.160	51.580	203.558	100.399	2.028	3.283	0.032	151.979
2611.000	2400.000	69.200	45.130	6.410	105.785	52.893	206.184	100.399	2.054	3.283	0.031	153.292
2610.000	2600.000	71.100	46.370	6.944	108.070	54.035	208.642	100.572	2.075	3.110	0.029	154.607
2610.000	3000.000	73.700	48.065	8.013	110.735	55.368	211.307	100.572	2.101	3.110	0.028	155.940
2609.000	3200.000	75.500	49.239	8.547	112.781	56.390	213.525	100.744	2.119	2.938	0.026	157.135
2609.000	3400.000	76.200	49.696	9.081	113.162	56.581	213.906	100.744	2.123	2.938	0.026	157.326
2610.000	3600.000	77.100	50.283	9.615	113.826	56.913	214.398	100.572	2.132	3.110	0.027	157.485
2608.000	3800.000	78.000	50.870	10.150	114.473	57.237	215.390	100.917	2.134	2.765	0.024	158.154
2610.000	4000.000	78.800	51.391	10.684	114.960	57.480	215.532	100.572	2.143	3.110	0.027	158.052
2609.000	4200.000	79.600	51.913	11.218	115.432	57.716	216.177	100.744	2.146	2.938	0.025	158.460
2608.000	4400.000	80.200	52.304	11.752	115.603	57.802	216.520	100.917	2.146	2.765	0.024	158.719
2608.000	4600.000	80.900	52.761	12.286	115.906	57.953	216.823	100.917	2.149	2.765	0.024	158.870
2609.000	4800.000	81.700	53.283	12.821	116.340	58.170	217.084	100.744	2.155	2.938	0.025	158.915

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-12
TEST NO.:	2	DEPTH:	472 - 512 CMS.
BORING NO.:	CD-11	OVERCONSOLIDATION RATIO	2
TEST DATE:	5/9/800		

SAMPLE DIAMETER = 1.86 IN.
SAMPLE HEIGHT = 3.715 IN.

INITIAL PORE PRESSURE READING = 2550
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 2.16 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2598.000	20.000	20.000	7.895	0.054	20.082	10.041	219.150	199.068	1.101	8.294	0.413	209.109
2742.000	60.000	85.000	33.418	0.162	84.914	42.457	259.098	174.184	1.487	33.177	0.391	216.641
2648.000	100.000	115.000	44.810	0.269	113.739	56.869	304.166	190.428	1.597	16.934	0.149	247.297
2658.000	140.000	127.000	49.367	0.377	125.171	62.585	313.870	188.700	1.663	18.662	0.149	251.285
2666.000	180.000	139.000	53.924	0.485	136.576	68.288	323.893	187.317	1.729	20.045	0.147	255.606
2687.000	250.000	155.300	60.111	0.673	151.959	75.980	335.648	183.688	1.827	23.673	0.156	259.668
2703.000	350.000	170.900	65.889	0.942	166.114	83.057	347.037	180.924	1.918	26.438	0.159	263.981
2720.000	450.000	182.100	70.037	1.211	176.092	88.046	354.078	177.986	1.989	29.376	0.167	266.032
2743.000	600.000	194.100	74.481	1.615	186.501	93.251	360.513	174.012	2.072	33.350	0.179	267.262
2773.000	800.000	204.500	78.333	2.153	195.072	97.536	363.900	168.828	2.155	38.534	0.198	266.364
2794.000	1000.000	211.800	81.037	2.692	200.695	100.348	365.893	165.199	2.215	42.163	0.210	265.547
2840.000	1400.000	221.200	84.519	3.769	207.002	103.501	364.252	157.250	2.316	50.112	0.242	260.751
2878.000	1800.000	228.900	87.370	4.845	211.592	105.796	362.275	150.684	2.404	56.678	0.268	256.479
2895.000	2000.000	231.800	88.444	5.384	212.981	106.491	360.727	147.746	2.442	59.616	0.280	254.237
2920.000	2400.000	236.800	90.300	6.460	214.975	107.487	358.401	143.426	2.499	63.936	0.297	250.913
2925.000	2600.000	238.700	91.013	6.999	215.425	107.713	357.987	142.562	2.511	64.800	0.301	250.275
2935.000	2800.000	240.200	91.575	7.537	215.502	107.751	356.335	140.833	2.530	66.527	0.309	248.584
2940.000	3000.000	242.100	92.288	8.075	215.913	107.957	355.882	139.969	2.543	67.391	0.312	247.926
2945.000	3200.000	243.900	92.963	8.614	216.219	108.109	355.324	139.105	2.554	68.255	0.316	247.214
2956.000	3400.000	245.900	93.713	9.152	216.679	108.340	353.883	137.204	2.579	70.156	0.324	245.544
2959.000	3600.000	246.500	93.938	9.690	215.912	107.956	352.597	136.686	2.580	70.675	0.327	244.642
2962.000	3800.000	247.700	94.388	10.229	215.652	107.826	351.820	136.167	2.584	71.193	0.330	243.994
2968.000	4000.000	248.800	94.800	10.767	215.296	107.649	350.427	135.131	2.593	72.230	0.335	242.779
2965.000	4200.000	249.900	95.213	11.306	214.929	107.464	350.578	135.649	2.584	71.711	0.334	243.113
2961.000	4400.000	250.200	95.325	11.844	213.876	106.938	350.217	136.340	2.569	71.020	0.332	243.278
2965.000	4600.000	250.800	95.550	12.382	213.072	106.536	348.721	135.649	2.571	71.711	0.337	242.185

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-12
TEST NO.:	3	DEPTH:	472 - 512 CMS.
BORING NO.:	CD-11	OVERCONSOLIDATION RATIO	1
TEST DATE;	5/10/80		

SAMPLE DIAMETER = 1.863 IN.
SAMPLE HEIGHT = 3.731 IN.

INITIAL PORE PRESSURE READING = 2380
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.2 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2422.000	20.000	13.700	8.935	0.054	22.655	11.327	418.599	395.944	1.057	7.258	0.320	407.272
2504.000	60.000	36.000	23.478	0.161	59.466	29.733	441.241	381.775	1.156	21.427	0.360	411.508
2607.000	100.000	54.500	35.543	0.268	89.929	44.964	453.905	363.976	1.247	39.225	0.436	408.941
2714.000	140.000	68.500	44.674	0.375	112.908	56.454	458.395	345.487	1.327	57.715	0.511	401.941
2815.000	180.000	82.500	53.804	0.482	135.838	67.919	463.871	328.033	1.414	75.167	0.553	395.952
2965.000	250.000	94.000	61.319	0.670	154.518	77.259	456.631	302.113	1.511	101.087	0.654	379.372
3138.000	350.000	107.000	69.890	0.938	175.642	87.821	447.860	272.219	1.645	130.981	0.746	360.039
3265.000	450.000	115.000	75.165	1.206	188.387	94.193	438.660	250.273	1.753	152.927	0.812	344.466
3418.000	600.000	125.000	81.758	1.608	204.078	102.039	427.912	223.835	1.912	179.365	0.879	325.874
3555.000	800.000	132.000	86.374	2.144	214.424	107.212	414.586	200.162	2.071	203.038	0.947	307.374
3648.000	1000.000	137.500	90.000	2.680	222.203	111.102	406.294	184.092	2.207	219.108	0.986	295.193
3723.000	1200.000	140.000	91.648	3.216	225.026	112.513	396.157	171.132	2.315	232.068	1.031	283.644
3781.000	1400.000	143.500	93.956	3.752	229.414	114.708	390.523	161.109	2.424	242.091	1.055	275.817
3826.000	1600.000	146.000	95.604	4.288	232.140	116.070	385.473	153.333	2.514	249.867	1.076	269.403
3859.000	1800.000	147.200	96.396	4.824	232.749	116.375	380.380	147.631	2.577	255.569	1.098	264.006
3887.000	2000.000	149.000	97.582	5.360	234.288	117.144	377.080	142.792	2.641	260.408	1.111	259.936
3911.000	2200.000	150.200	98.374	5.897	234.850	117.425	373.495	138.645	2.694	264.555	1.126	256.070
3932.000	2400.000	151.000	98.901	6.433	234.763	117.382	369.780	135.016	2.739	268.184	1.142	252.398
3952.000	2600.000	152.000	99.560	6.969	234.974	117.488	366.535	131.560	2.786	271.640	1.156	249.048
3968.000	2800.000	153.000	100.220	7.505	235.168	117.585	363.964	128.796	2.826	274.404	1.167	246.380
3979.000	3000.000	153.000	101.538	8.041	236.880	118.440	363.775	126.895	2.867	276.305	1.166	245.335
3988.000	3200.000	155.800	102.066	8.577	236.724	118.362	362.064	125.340	2.889	277.860	1.174	243.702
3995.000	3400.000	156.300	102.396	9.113	236.097	118.048	360.227	124.130	2.902	279.070	1.182	242.178
4006.000	3700.000	156.500	102.527	9.917	234.307	117.154	356.536	122.229	2.917	280.971	1.199	239.383
4013.000	3800.000	157.300	103.055	10.185	234.813	117.407	355.833	121.020	2.940	282.180	1.202	238.427
4015.000	4000.000	158.300	103.714	10.721	234.904	117.452	355.578	120.674	2.947	282.526	1.203	238.126
4027.000	4400.000	159.100	104.242	11.793	233.265	116.632	351.865	118.600	2.967	284.600	1.220	235.233
4032.000	4800.000	159.800	104.703	12.865	231.449	115.725	349.186	117.736	2.966	285.464	1.233	233.461
4042.000	5200.000	160.400	105.099	13.937	229.466	114.733	345.474	116.008	2.978	287.192	1.252	230.742

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-12
TEST NO.: 1 DEPTH: 720 - 760 CMS.
BORING NO.: CD-11 OVERCONSOLIDATION RATIO 4
TEST DATE: 4/24/80

SAMPLE DIAMETER = 1.81 IN.
SAMPLE HEIGHT = 3.648 IN.

INITIAL PORE PRESSURE READING = 2212
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 2.11 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2554.000	100.000	125.000	48.608	0.274	130.282	65.141	273.746	143.464	1.908	59.097	0.454	208.605
2574.000	120.000	142.000	55.063	0.329	147.504	73.752	287.512	140.008	2.054	62.553	0.424	213.760
2593.000	180.000	158.000	61.111	0.493	163.435	81.718	300.160	136.725	2.195	65.836	0.403	218.443
2598.000	200.000	164.000	63.333	0.548	169.284	84.642	305.145	135.860	2.246	66.700	0.394	220.502
2613.000	300.000	190.000	72.963	0.822	194.487	97.244	327.756	133.268	2.459	69.292	0.356	230.512
2616.000	400.000	211.000	80.747	1.096	214.623	107.312	347.373	132.750	2.617	69.811	0.325	240.061
2615.000	500.000	230.000	87.778	1.371	232.682	116.341	365.604	132.923	2.751	69.638	0.299	249.264
2613.000	600.000	245.000	93.375	1.645	246.831	123.416	380.100	133.268	2.852	69.292	0.281	256.684
2603.000	700.000	258.000	98.250	1.919	258.996	129.498	393.992	134.996	2.919	67.564	0.261	264.494
2597.000	800.000	270.000	102.750	2.193	270.100	135.050	406.133	136.033	2.986	66.527	0.246	271.083
2592.000	900.000	278.000	105.750	2.467	277.207	138.604	414.105	136.898	3.025	65.664	0.237	275.502
2586.000	1000.000	286.000	108.750	2.741	284.270	142.136	422.205	137.935	3.061	64.627	0.227	280.070
2579.000	1200.000	302.000	114.750	3.289	298.263	149.132	437.408	139.144	3.144	63.417	0.213	288.276
2574.000	1400.000	312.000	118.500	3.838	306.263	153.132	446.271	140.008	3.187	62.553	0.204	293.140
2568.000	1600.000	320.000	121.509	4.386	312.251	156.126	453.296	141.045	3.214	61.516	0.197	297.171
2564.000	1800.000	328.000	124.528	4.934	318.174	159.087	459.910	141.736	3.245	60.825	0.191	300.824
2560.000	2000.000	334.000	126.792	5.482	322.091	161.046	464.518	142.428	3.261	60.134	0.187	303.473
2567.000	2200.000	339.000	128.679	6.031	324.987	162.493	466.205	141.218	3.301	61.344	0.189	303.711
2564.000	2400.000	345.000	130.943	6.579	328.776	164.388	470.512	141.736	3.320	60.825	0.185	306.125
2563.000	2600.000	349.000	132.453	7.127	330.615	165.308	472.524	141.909	3.330	60.652	0.183	307.217
2566.000	2800.000	354.000	134.340	7.675	333.347	166.673	474.737	141.391	3.356	61.171	0.184	308.064
2565.000	3000.000	358.000	135.849	8.224	335.089	167.545	476.652	141.564	3.367	60.998	0.182	309.106
2566.000	3200.000	362.000	137.358	8.772	336.787	168.394	478.178	141.391	3.382	61.171	0.182	309.784
2566.000	3400.000	365.000	138.491	9.320	337.924	168.762	478.915	141.391	3.387	61.171	0.181	310.153
2567.000	3600.000	368.000	139.623	9.868	338.225	169.113	479.443	141.218	3.395	61.344	0.181	310.331
2571.000	3800.000	371.000	140.755	10.417	338.894	169.448	479.421	140.527	3.412	62.035	0.183	309.974
2570.000	4000.000	374.000	141.887	10.965	339.529	169.764	480.228	140.700	3.413	61.862	0.182	310.464
2566.000	4200.000	376.000	142.642	11.513	339.234	169.616	480.625	141.391	3.399	61.171	0.180	311.008
2571.000	4400.000	379.000	143.774	12.061	339.807	169.904	480.334	140.527	3.416	62.035	0.183	310.439
2572.000	4600.000	381.000	144.528	12.610	339.460	169.730	479.814	140.354	3.419	62.208	0.183	310.084
2576.000	5000.000	384.000	145.660	13.706	337.826	168.913	477.489	139.663	3.419	62.899	0.186	308.576
2576.000	5400.000	386.000	146.415	14.803	335.262	167.631	474.924	139.663	3.401	62.899	0.188	307.294
2580.000	5800.000	388.000	147.170	15.899	332.654	166.328	471.626	138.972	3.394	63.590	0.191	305.299

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-12
TEST NO.: 2 DEPTH: 720 - 760 CMS.
BORING NO.: CD-11 OVERCONSOLIDATION RATIO 2
TEST DATE: 4/24/80

SAMPLE DIAMETER = 1.77 IN.
SAMPLE HEIGHT = 3.82 IN.

INITIAL PORE PRESSURE READING = 2680
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.2 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2920.000	60.000	118.000	45.949	0.166	128.926	64.463	490.656	361.730	1.356	41.472	0.322	426.193
3034.000	100.000	174.000	67.037	0.276	187.887	93.944	529.918	342.031	1.549	61.171	0.328	435.974
3093.000	140.000	208.000	79.630	0.387	222.933	111.467	554.768	331.835	1.672	71.366	0.320	443.301
3145.000	200.000	247.000	94.125	0.552	263.076	131.538	585.925	322.849	1.815	80.351	0.305	454.387
3199.000	300.000	292.000	111.000	0.829	309.380	154.691	622.898	313.518	1.987	89.683	0.290	468.208
3232.000	400.000	316.000	120.000	1.105	333.533	166.766	641.348	307.815	2.084	95.385	0.286	474.582
3260.000	500.000	336.000	127.547	1.381	353.520	176.760	656.497	302.977	2.167	100.223	0.284	479.737
3288.000	600.000	350.000	132.830	1.657	367.131	183.565	665.269	298.139	2.231	105.061	0.286	481.704
3314.000	700.000	361.000	136.981	1.934	377.541	188.771	671.187	293.646	2.286	109.554	0.290	482.414
3391.000	1000.000	387.000	146.792	2.762	401.162	200.581	681.502	280.340	2.431	122.860	0.306	480.922
3430.000	1200.000	398.000	150.909	3.315	410.070	205.035	683.671	273.601	2.499	129.599	0.316	478.636
3464.000	1400.000	407.000	154.182	3.867	416.569	208.284	684.295	267.726	2.556	135.474	0.325	476.010
3500.000	1600.000	414.000	156.727	4.420	421.012	210.506	682.517	261.505	2.610	141.695	0.337	472.011
3531.000	1800.000	421.000	159.273	4.972	425.378	212.689	681.526	256.148	2.661	147.052	0.346	468.837
3560.000	2000.000	427.000	161.455	5.525	428.699	214.350	679.836	251.137	2.707	152.063	0.355	465.467
3583.000	2200.000	433.000	163.636	6.077	431.949	215.975	679.112	247.163	2.748	156.037	0.361	463.138
3605.000	2400.000	437.000	165.091	6.630	433.226	216.613	676.587	243.361	2.780	159.839	0.369	459.974
3631.000	2600.000	441.000	166.545	7.182	434.455	217.228	673.323	238.868	2.819	164.332	0.378	456.096
3636.000	2800.000	445.000	168.000	7.735	435.642	217.821	673.646	238.004	2.830	165.196	0.379	455.825
3649.000	3000.000	448.000	169.091	8.287	435.846	217.923	671.604	235.758	2.849	167.442	0.384	453.681
3663.000	3200.000	453.000	170.909	8.840	437.879	218.940	671.218	233.339	2.877	169.861	0.388	452.278
3676.000	3400.000	455.000	171.636	9.392	437.076	218.538	668.169	231.092	2.891	172.108	0.394	449.630
3686.000	3600.000	458.000	172.727	9.945	437.172	218.586	666.537	229.364	2.906	173.836	0.398	447.950
3692.000	3800.000	462.000	174.182	10.497	438.151	219.076	666.478	228.327	2.919	174.873	0.399	447.403
3704.000	4000.000	464.000	174.909	11.050	437.262	218.631	663.516	226.254	2.933	176.946	0.405	444.885
3713.000	4200.000	465.000	175.273	11.602	435.450	217.725	660.149	224.699	2.938	178.501	0.410	442.424
3719.000	4400.000	469.000	176.727	12.155	436.320	218.160	659.982	223.662	2.951	179.538	0.411	441.822
3774.000	4600.000	471.000	177.455	12.707	435.362	217.681	649.521	214.159	3.033	189.041	0.434	431.840
3732.000	4800.000	473.000	178.182	13.260	434.378	217.189	655.794	221.416	2.962	181.784	0.418	438.606
3734.000	5000.000	475.000	178.909	13.812	433.373	216.686	654.444	221.071	2.960	182.129	0.420	437.757
3740.000	5200.000	476.000	179.273	14.365	431.471	215.736	651.505	220.034	2.961	183.166	0.425	435.770
3747.000	5400.000	478.000	180.000	14.917	430.426	215.213	649.250	218.824	2.967	184.376	0.428	434.037
3749.000	5600.000	480.000	180.741	15.470	429.392	214.696	647.870	218.479	2.965	184.721	0.430	433.171
3759.000	6000.000	483.000	181.852	16.575	426.383	213.192	643.134	216.751	2.967	186.449	0.437	429.943
3769.000	6400.000	486.000	182.963	17.680	423.305	211.653	638.328	215.023	2.969	188.177	0.445	426.675
3777.000	7000.000	487.500	183.519	19.337	416.044	208.022	629.684	213.640	2.947	189.560	0.456	421.663

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 **SAMPLE NUMBER:** PC-12
TEST NO.: 3 **DEPTH:** 720 - 760 CMS.
BORING NO.: CD-11 **OVERCONSOLIDATION RATIO** 1
TEST DATE: 4/24/80

SAMPLE DIAMETER = 1.705 IN.
SAMPLE HEIGHT = 3.52 IN.

INITIAL PORE PRESSURE READING = 2.794
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 8.4 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2801.000	40.000	17.000	11.087	0.114	33.543	16.771	838.735	805.192	1.042	1.210	0.036	821.962
2817.000	80.000	39.000	25.435	0.227	76.864	38.432	913.849	836.986	1.092	-30.585	-0.398	875.419
2868.000	100.000	53.000	34.565	0.284	104.396	52.198	929.113	824.717	1.127	-18.317	-0.175	876.917
2836.000	120.000	69.000	45.000	0.341	135.835	67.918	934.980	799.144	1.170	7.258	0.053	867.062
2931.000	160.000	99.000	64.615	0.455	194.822	97.411	977.549	782.728	1.249	23.673	0.122	880.138
3215.000	200.000	122.000	79.780	0.568	240.273	120.136	973.930	733.652	1.328	72.748	0.303	853.790
3726.000	300.000	190.000	124.615	0.852	374.226	187.114	1019.580	645.351	1.580	161.049	0.430	832.464
4035.000	400.000	198.000	129.890	1.136	388.951	194.476	980.909	591.957	1.657	214.443	0.551	786.432
4273.000	500.000	217.000	142.418	1.420	425.240	212.620	976.070	550.831	1.772	255.569	0.601	763.450
4486.000	600.000	235.000	154.286	1.705	459.349	229.675	973.373	514.024	1.894	292.376	0.636	743.698
4520.000	700.000	238.000	156.264	1.989	463.893	231.947	972.038	508.149	1.913	298.251	0.643	740.093
4657.000	900.000	247.000	162.198	2.557	478.717	239.359	963.197	484.476	1.988	321.924	0.672	723.835
4718.000	1000.000	251.000	164.835	2.841	485.081	242.541	959.017	473.936	2.024	332.464	0.685	716.477
4916.000	1200.000	263.000	172.747	3.409	505.393	252.697	945.114	439.721	2.149	366.679	0.726	692.419
5068.000	1400.000	274.000	180.000	3.977	523.515	261.757	936.971	413.456	2.266	392.944	0.751	675.211
5183.000	1600.000	282.000	185.189	4.545	535.419	267.709	929.003	393.584	2.360	412.816	0.771	661.291
5277.000	1800.000	288.000	189.081	5.114	543.419	271.710	920.760	377.341	2.440	429.059	0.790	649.051
5351.000	2000.000	294.000	192.973	5.682	551.283	275.642	915.837	364.554	2.512	441.846	0.801	640.195
5410.000	2200.000	298.000	195.568	6.250	555.331	277.666	909.690	354.359	2.567	452.041	0.814	632.026
5463.000	2400.000	305.000	200.108	6.818	564.778	282.389	909.978	345.201	2.636	461.199	0.817	627.590
5506.000	2600.000	308.000	202.054	7.386	566.794	283.397	904.564	337.770	2.678	468.630	0.827	621.168
5538.000	2800.000	310.000	203.351	7.955	566.932	283.466	899.172	332.241	2.706	474.159	0.836	615.706
5563.000	3000.000	312.000	204.649	8.523	567.029	283.515	894.949	327.921	2.729	478.479	0.844	611.434
5595.000	3200.000	316.000	207.243	9.091	570.650	285.325	893.041	322.391	2.770	484.009	0.848	607.716
5619.000	3400.000	318.000	208.541	9.659	570.635	285.318	888.878	318.244	2.793	488.156	0.855	603.562
5636.000	3600.000	321.000	210.486	10.227	572.334	286.167	887.640	315.306	2.815	491.094	0.858	601.474
5652.000	3800.000	323.000	211.784	10.796	572.219	286.110	884.760	312.541	2.831	493.859	0.863	598.651
5665.000	4000.000	325.000	213.081	11.364	572.058	286.029	882.353	310.295	2.844	496.105	0.867	596.323
5684.000	4400.000	329.000	215.676	12.500	571.600	285.801	878.612	307.012	2.862	499.388	0.874	593.314
5700.000	4800.000	332.000	217.622	13.636	569.267	284.633	873.514	304.247	2.871	502.153	0.882	586.878
5713.000	5200.000	334.000	218.919	14.773	565.125	282.563	867.126	302.001	2.871	504.399	0.893	584.563
5724.000	5600.000	336.000	220.216	15.909	560.894	280.448	860.994	300.100	2.869	506.300	0.903	580.546
5737.000	6200.000	335.000	219.568	17.614	547.907	273.953	845.760	297.853	2.840	508.547	0.928	571.805
5739.000	6600.000	335.000	219.568	18.750	540.348	270.175	837.856	297.508	2.816	506.892	0.941	567.682
5695.000	7200.000	318.000	208.541	20.455	502.447	251.223	807.558	305.111	2.647	501.289	0.998	556.334

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-14
TEST NO.: 1 DEPTH: 407 - 447 CMS.
BORING NO.: CD-12 OVERCONSOLIDATION RATIO 8
TEST DATE: 5/13/80

SAMPLE DIAMETER = 1.872 IN.
SAMPLE HEIGHT = 3.808 IN.

INITIAL PORE PRESSURE READING = 2087
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.526 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIG#1 KPS	SIG#3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2131.000	20.000	32.000	12.632	0.053	31.721	15.861	74.614	42.893	1.740	7.603	0.240	58.753
2151.000	60.000	52.000	20.526	0.158	51.493	25.746	90.930	39.437	2.306	11.059	0.215	65.183
2166.000	100.000	65.000	25.658	0.263	64.298	32.149	101.143	36.845	2.745	13.651	0.212	68.994
2169.000	140.000	79.000	31.139	0.368	77.952	38.976	114.278	36.327	3.146	14.170	0.182	75.302
2168.000	180.000	90.000	35.317	0.473	88.316	44.158	124.815	36.499	3.420	13.997	0.158	80.657
2166.000	250.000	104.000	40.633	0.657	101.423	50.712	138.268	36.845	3.753	13.651	0.135	87.556
2153.000	350.000	118.000	45.949	0.919	114.390	57.195	153.481	39.091	3.926	11.405	0.100	96.286
2142.000	450.000	130.000	50.506	1.182	125.401	62.701	166.393	40.992	4.059	9.504	0.076	103.692
2124.000	600.000	140.000	54.304	1.576	134.292	67.146	178.395	44.103	4.045	6.394	0.048	111.249
2110.000	800.000	150.000	58.101	2.101	142.917	71.459	189.439	46.522	4.072	3.974	0.028	117.980
2087.000	1000.000	167.000	64.444	2.626	157.669	78.835	208.165	50.496	4.122	0.000	0.000	129.331
2065.000	1400.000	180.000	69.259	3.676	167.622	83.811	221.919	54.298	4.087	-3.802	-0.023	138.108
2053.000	1800.000	189.000	72.593	4.727	173.772	86.886	230.144	56.371	4.083	-5.875	-0.034	143.258
2040.000	2200.000	197.000	75.556	5.777	178.871	89.436	237.489	58.618	4.051	-8.122	-0.045	148.053
2034.000	2600.000	203.000	77.778	6.828	182.079	91.040	241.734	59.654	4.052	-9.158	-0.050	150.694
2024.000	3000.000	208.000	79.630	7.878	184.313	92.157	245.696	61.382	4.003	-10.886	-0.059	153.540
2024.000	3400.000	210.000	80.370	8.929	183.906	91.953	245.289	61.382	3.996	-10.886	-0.059	153.336
2020.000	3800.000	212.000	81.111	9.979	183.460	91.730	245.533	62.074	3.956	-11.578	-0.063	153.804
2015.000	4200.000	214.000	81.852	11.029	182.976	91.488	245.914	62.938	3.907	-12.442	-0.068	154.426
2014.000	4600.000	217.000	82.963	12.080	183.270	91.635	246.380	63.110	3.904	-12.614	-0.069	154.745
2016.000	4800.000	218.000	83.333	12.605	182.988	91.494	245.753	62.765	3.915	-12.269	-0.067	154.260
2015.000	5200.000	219.000	83.704	13.656	181.593	90.796	244.530	62.938	3.885	-12.442	-0.069	153.734

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-14
TEST NO.: 2 DEPTH: 407 - 447 CMS.
BORING NO.: CD-12 OVERCONSOLIDATION RATIO 4
TEST DATE; 5/12/80

SAMPLE DIAMETER = 1.889 IN.
SAMPLE HEIGHT = 3.7821 IN.

INITIAL PORE PRESSURE READING = 2476
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.03 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2581.000	20.000	67.000	26.447	0.053	65.226	32.613	145.963	80.738	1.808	18.144	0.278	113.351
2611.000	600.000	91.500	35.886	1.586	87.147	43.573	162.700	75.554	2.153	23.328	0.268	119.127
2631.000	100.000	107.500	41.962	0.264	103.270	51.635	175.368	72.098	2.432	26.784	0.259	123.733
2643.000	140.000	119.000	46.329	0.370	113.896	56.948	183.921	70.024	2.627	28.857	0.253	126.972
2649.000	180.000	131.000	50.886	0.476	124.967	62.484	193.955	68.987	2.811	29.894	0.239	131.471
2656.000	250.000	144.000	55.823	0.661	136.836	68.418	204.613	67.778	3.019	31.104	0.227	136.196
2660.000	350.000	155.000	60.000	0.925	146.683	73.342	213.770	67.086	3.186	31.795	0.217	140.429
2667.000	450.000	163.000	62.963	1.190	153.516	76.758	219.394	65.877	3.330	33.005	0.215	142.636
2676.000	600.000	171.000	65.926	1.586	160.095	80.048	224.417	64.322	3.489	34.560	0.216	144.370
2686.000	800.000	178.000	68.519	2.115	165.497	82.749	228.091	62.594	3.644	36.288	0.219	145.343
2698.000	1000.000	184.000	70.741	2.644	169.941	84.971	230.461	60.520	3.808	38.361	0.226	145.491
2704.000	1200.000	188.000	72.222	3.173	172.558	86.279	232.042	59.483	3.901	39.398	0.228	145.763
2710.000	1400.000	191.000	73.333	3.702	174.255	87.128	232.702	58.446	3.981	40.435	0.232	145.574
2712.000	1600.000	194.000	74.444	4.230	175.925	87.962	234.026	58.101	4.028	40.781	0.232	146.064
2713.000	1800.000	197.000	75.556	4.759	177.564	88.782	235.493	57.928	4.065	40.953	0.231	146.711
2714.000	2000.000	199.000	76.296	5.288	178.309	89.155	236.065	57.755	4.087	41.126	0.231	146.911
2716.000	2200.000	201.000	77.037	5.817	179.036	89.518	236.446	57.410	4.119	41.472	0.232	146.928
2717.000	2400.000	203.000	77.778	6.346	179.743	89.871	236.980	57.237	4.140	41.645	0.232	147.108
2716.000	2600.000	204.000	78.148	6.874	179.579	89.789	236.988	57.410	4.128	41.472	0.231	147.200
2716.000	2800.000	205.000	78.519	7.403	179.405	89.702	236.815	57.410	4.125	41.472	0.231	147.112
2716.000	3000.000	207.000	79.259	7.932	180.063	90.032	237.473	57.410	4.136	41.472	0.230	147.442
2720.000	3200.000	209.000	80.000	8.461	180.702	90.351	237.420	56.718	4.186	42.163	0.233	147.070
2718.000	3400.000	210.000	80.370	8.990	180.490	90.245	237.554	57.064	4.163	41.817	0.232	147.309
2720.000	3600.000	212.000	81.111	9.519	181.095	90.548	237.814	56.718	4.193	42.163	0.233	147.267
2716.000	3800.000	213.000	81.481	10.047	180.859	90.430	238.269	57.410	4.150	41.472	0.229	147.840
2716.000	4000.000	213.000	81.481	10.576	179.796	89.898	237.205	57.410	4.132	41.472	0.231	147.308
2716.000	4400.000	213.000	81.481	11.634	177.669	88.835	235.079	57.410	4.095	41.472	0.233	146.244
2714.000	4800.000	214.000	81.852	12.691	176.340	88.170	234.096	57.755	4.053	41.126	0.233	145.926

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-14
TEST NO.:	3	DEPTH:	407 - 447 CMS.
BORING NO.:	CB-12	OVERCONSOLIDATION RATIO	1
TEST DATE;	5/10/80		

SAMPLE DIAMETER = 1.89 IN.
SAMPLE HEIGHT = 3.784 IN.

INITIAL PORE PRESSURE READING = 2430
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.2 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2599.000	20.000	64.000	25.263	0.053	62.239	31.120	436.238	373.999	1.166	29.203	0.469	405.119
2820.000	60.000	130.000	50.506	0.159	124.298	62.149	460.107	335.809	1.370	67.391	0.542	397.958
2989.000	100.000	169.000	65.185	0.264	160.254	80.127	466.860	306.606	1.523	96.594	0.603	386.733
3113.000	140.000	195.200	74.889	0.370	183.914	91.957	469.092	285.179	1.645	118.021	0.642	377.136
3225.000	180.000	214.500	82.037	0.476	201.254	100.627	467.079	265.825	1.757	137.375	0.683	366.452
3335.000	250.000	237.000	90.375	0.661	221.297	110.649	464.658	243.361	1.909	159.839	0.722	354.010
3495.000	350.000	252.500	96.188	0.925	234.903	117.452	454.073	219.170	2.072	184.030	0.783	336.622
3595.000	450.000	261.500	99.563	1.189	242.497	121.249	444.387	201.890	2.201	201.310	0.830	323.139
3691.000	600.000	269.000	102.375	1.586	248.347	124.174	433.648	185.301	2.340	217.899	0.877	309.475
3783.000	800.000	271.900	103.463	2.114	249.638	124.819	419.042	169.404	2.474	233.796	0.937	294.223
3841.000	1000.000	275.700	104.888	2.643	251.709	125.855	411.090	159.381	2.579	243.819	0.969	285.236
3883.000	1200.000	279.000	106.125	3.171	253.296	126.648	405.420	152.124	2.665	251.076	0.991	278.772
3910.000	1400.000	281.000	106.875	3.700	253.694	126.848	401.152	147.458	2.720	255.742	1.008	274.306
3935.000	1600.000	283.700	107.888	4.228	254.693	127.347	397.831	143.138	2.779	260.062	1.021	270.485
3951.000	1800.000	284.900	108.338	4.757	254.343	127.172	394.716	140.373	2.812	262.827	1.033	267.545
3966.000	2000.000	287.100	109.163	5.285	254.858	127.429	392.639	137.781	2.850	265.419	1.041	265.211
3977.000	2200.000	289.000	109.875	5.814	255.089	127.545	390.970	135.880	2.877	267.320	1.048	263.425
3983.000	2400.000	290.700	110.513	6.342	255.131	127.566	389.974	134.844	2.892	268.356	1.052	262.409
2989.000	2600.000	291.900	110.963	6.871	254.724	127.362	561.329	306.606	1.831	96.594	0.379	433.968
3996.000	2800.000	293.700	111.638	7.400	254.819	127.409	387.416	132.597	2.922	270.603	1.062	260.006
4001.000	3000.000	294.900	112.088	7.928	254.386	127.193	386.119	131.733	2.931	271.467	1.067	258.926
4005.000	3200.000	296.700	112.763	8.457	254.448	127.224	385.490	131.042	2.942	272.158	1.070	258.266
4007.000	3400.000	297.800	113.175	8.985	253.904	126.952	384.600	130.696	2.943	272.504	1.073	257.649
4009.000	3600.000	299.000	113.625	9.514	253.432	126.716	383.783	130.351	2.944	272.849	1.077	257.067
4014.000	3800.000	300.900	114.338	10.042	253.533	126.767	383.020	129.487	2.958	273.713	1.080	256.254
4015.000	4000.000	301.800	114.675	10.571	252.787	126.394	382.101	129.314	2.955	273.886	1.083	255.708
4019.000	4400.000	302.500	114.938	11.628	250.372	125.186	378.995	128.623	2.947	274.577	1.097	253.809
4022.000	4800.000	304.500	115.688	12.685	248.990	124.496	377.095	128.104	2.944	275.096	1.105	252.600
4026.000	5200.000	306.500	116.438	13.742	247.572	123.786	374.985	127.413	2.943	275.787	1.114	251.199
4029.000	5600.000	308.000	117.000	14.799	245.717	122.859	372.612	126.895	2.936	276.305	1.124	249.754
4030.000	6000.000	308.000	117.000	15.856	242.669	121.334	369.391	126.722	2.915	276.478	1.139	248.056
4030.000	6400.000	308.000	117.000	16.913	239.620	119.810	366.342	126.722	2.891	276.478	1.154	246.532

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-14
TEST NO.: 1 DEPTH: 470 - 510 CMS.
BORING NO.: CD-12 OVERCONSOLIDATION RATIO 4
TEST DATE: 4/24/80

SAMPLE DIAMETER = 1.93 IN.
SAMPLE HEIGHT = 3.719 IN.

INITIAL PORE PRESSURE READING = 2422
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 2.11 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2420.000	20.000	4.500	1.776	0.054	4.197	2.098	207.102	202.906	1.021	-0.346	-0.082	205.004
2472.000	60.000	30.000	11.842	0.161	27.947	13.974	221.869	193.922	1.144	8.640	0.309	207.896
2573.000	100.000	98.500	38.544	0.269	90.867	45.434	267.336	176.469	1.515	26.093	0.287	221.903
2646.000	140.000	164.000	63.333	0.376	149.146	74.573	313.000	163.855	1.910	38.707	0.260	238.428
2670.000	180.000	208.000	79.630	0.484	187.319	93.660	347.027	159.708	2.173	42.854	0.229	253.367
2680.000	250.000	260.000	99.000	0.672	232.445	116.222	390.424	157.980	2.471	44.582	0.192	274.202
2677.000	350.000	302.000	114.750	0.941	268.695	134.348	427.193	158.498	2.695	44.064	0.164	292.846
2674.000	450.000	326.000	123.774	1.210	289.041	144.520	448.057	159.016	2.818	43.545	0.151	303.537
2682.000	600.000	349.900	132.792	1.613	308.833	154.417	466.467	157.634	2.959	44.928	0.145	312.051
2691.000	800.000	368.500	139.811	2.151	323.380	161.690	479.459	156.079	3.072	46.483	0.144	317.769
2707.000	1000.000	382.200	144.981	2.689	333.493	166.747	486.807	153.314	3.175	49.248	0.148	320.061
2719.000	1200.000	393.000	149.057	3.227	340.976	170.488	492.216	151.240	3.255	51.321	0.151	321.729
2728.000	1400.000	401.500	152.282	3.764	346.189	173.095	495.875	149.685	3.313	52.876	0.153	322.780
2735.000	1600.000	408.700	154.800	4.302	350.178	175.090	498.654	148.476	3.358	54.086	0.154	323.565
2743.000	1800.000	415.000	157.091	4.840	353.363	176.681	500.456	147.093	3.402	55.468	0.157	323.774
2744.000	2000.000	420.500	159.091	5.378	355.838	177.920	502.759	146.920	3.422	55.641	0.156	324.840
2751.000	2200.000	425.500	160.909	5.916	357.860	178.931	503.571	145.711	3.456	56.851	0.159	324.641
2750.000	2400.000	430.000	162.545	6.453	359.432	179.716	505.315	145.884	3.464	56.678	0.158	325.599
2752.000	2600.000	433.200	163.709	6.991	359.925	179.963	505.463	145.538	3.473	57.024	0.158	325.500
2750.000	2800.000	436.500	164.909	7.529	360.468	180.234	506.351	145.884	3.471	56.678	0.157	326.118
2754.000	3000.000	439.200	165.891	8.067	360.505	180.252	505.697	145.192	3.483	57.369	0.159	325.445
2756.000	3200.000	441.700	166.800	8.604	360.359	180.180	505.206	144.847	3.488	57.715	0.160	325.026
2754.000	3400.000	444.000	167.636	9.142	360.035	180.017	505.227	145.192	3.480	57.369	0.159	325.210
2756.000	3600.000	446.000	168.364	9.680	359.459	179.729	504.305	144.847	3.482	57.715	0.161	324.576
2754.000	3800.000	446.400	168.509	10.218	357.625	178.812	502.817	145.192	3.463	57.369	0.160	324.005
2755.000	4000.000	446.000	168.364	10.756	355.178	177.589	500.197	145.020	3.449	57.542	0.162	322.609
2755.000	4200.000	444.200	167.709	11.293	351.663	175.832	496.683	145.020	3.425	57.542	0.164	320.851

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-14
TEST NO.:	2	DEPTH:	470 - 510 CMS.
BORING NO.:	CM-1C	OVERCONSOLIDATION RATIO	2
TEST DATE:	4/24/80		

SAMPLE DIAMETER = 1.42 IN.
SAMPLE HEIGHT = 3.755 IN.

INITIAL PORE PRESSURE READING = 2296
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.27 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2287.000	20.000	5.500	3.587	0.053	8.563	4.281	414.278	405.715	1.021	-1.555	-0.182	409.997
2302.000	60.000	17.500	11.413	0.160	27.217	13.608	430.342	403.125	1.068	1.037	0.038	416.734
2317.000	100.000	28.500	18.587	0.266	44.277	22.139	444.810	400.533	1.111	3.629	0.082	422.672
2346.000	140.000	45.000	29.348	0.373	69.836	34.918	465.358	395.522	1.177	8.640	0.124	430.440
2486.000	180.000	100.500	65.604	0.479	155.946	77.973	527.276	371.330	1.420	32.832	0.211	449.303
2646.000	250.000	160.000	104.835	0.666	248.732	124.366	592.414	343.682	1.724	60.480	0.243	468.048
2793.000	350.000	197.000	129.231	0.932	305.793	152.896	624.072	318.279	1.961	85.881	0.281	471.176
2914.000	450.000	213.500	140.110	1.198	330.644	165.323	628.015	297.371	2.112	106.789	0.323	462.693
3058.000	600.000	226.400	148.615	1.598	349.297	174.649	621.784	272.487	2.282	131.673	0.377	447.136
3193.000	800.000	236.700	155.407	2.130	363.285	181.643	612.444	249.159	2.458	155.001	0.427	430.802
3294.000	1000.000	243.500	159.890	2.663	371.730	185.866	603.437	231.707	2.604	172.453	0.464	417.572
3371.000	1200.000	249.500	163.846	3.196	379.843	189.421	597.245	218.402	2.735	185.758	0.490	407.823
3420.000	1400.000	254.500	167.143	3.728	384.340	192.170	594.275	209.935	2.831	194.225	0.505	402.105
3467.000	1600.000	256.200	169.582	4.261	387.790	193.895	589.603	201.813	2.922	202.347	0.522	395.708
3500.000	1800.000	262.200	172.220	4.794	391.632	195.816	587.743	196.111	2.997	208.049	0.531	391.927
3524.000	2000.000	266.000	174.725	5.326	395.106	197.554	587.070	191.964	3.058	212.196	0.537	389.517
3540.000	2200.000	269.500	177.033	5.859	398.072	199.036	587.270	189.199	3.104	214.961	0.540	388.235
3556.000	2400.000	271.200	178.154	6.391	398.326	199.164	584.760	186.434	3.137	217.726	0.547	385.597
3572.000	2600.000	275.500	180.973	6.924	402.327	201.164	585.996	183.669	3.191	220.491	0.548	384.833
3580.000	2800.000	278.000	182.595	7.457	403.611	201.805	585.898	182.287	3.214	221.873	0.550	384.092
3587.000	3000.000	280.500	184.216	7.989	404.850	202.426	585.927	181.077	3.236	223.083	0.551	383.503
3591.000	3200.000	283.000	185.838	8.522	406.050	203.026	586.436	180.386	3.251	223.774	0.551	383.412
3593.000	3400.000	285.200	187.265	9.055	406.786	203.393	586.826	180.040	3.259	224.120	0.551	383.434
3594.000	3600.000	287.500	188.757	9.587	407.625	203.813	587.492	179.868	3.266	224.292	0.550	383.680
3593.000	3800.000	290.000	190.378	10.120	408.705	204.352	588.745	180.040	3.270	224.120	0.548	384.393
3590.000	4000.000	292.000	191.676	10.653	409.051	204.526	589.610	180.559	3.265	223.601	0.547	385.085
3592.000	4200.000	293.700	192.778	11.185	408.951	204.476	589.164	180.213	3.269	223.947	0.548	384.689
3592.000	4400.000	296.000	194.270	11.718	409.644	204.823	589.858	180.213	3.273	223.947	0.547	385.036
3592.000	4600.000	298.000	195.568	12.250	409.894	204.948	590.107	180.213	3.275	223.947	0.546	385.161
3590.000	4800.000	299.500	196.541	12.783	409.433	204.717	589.992	180.559	3.268	223.601	0.546	385.276
3589.000	5000.000	301.200	197.643	13.316	409.214	204.608	589.946	180.732	3.264	223.428	0.546	385.339
3589.000	5200.000	302.700	198.616	13.848	408.702	204.351	589.433	180.732	3.261	223.428	0.547	385.083
3595.000	5400.000	304.700	199.914	14.381	408.830	204.416	588.525	179.695	3.275	224.465	0.549	384.110

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221 SAMPLE NUMBER: PC-14
TEST NO.: 3 DEPTH: 470 - 510 CMS.
BORING NO.: CD-12 OVERCONSOLIDATION RATIO 1
TEST DATE: 4/25/80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 5.852 IN.

INITIAL PORE PRESSURE READING = 2790
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 8.42 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2790.000	20.000	4.500	2.935	0.052	6.457	3.228	813.051	806.594	1.008	1.728	0.268	809.822
2793.000	60.000	4.700	3.065	0.156	6.737	3.368	812.813	806.076	1.008	2.246	0.333	809.443
2795.000	100.000	4.700	3.065	0.260	6.730	3.365	812.460	805.730	1.008	2.592	0.385	809.093
2800.000	140.000	5.000	3.261	0.363	7.152	3.576	812.018	804.866	1.009	3.456	0.481	808.440
2804.000	180.000	5.200	3.391	0.467	7.430	3.715	811.605	804.175	1.009	4.147	0.558	807.888
2816.000	250.000	5.200	3.391	0.649	7.417	3.708	809.518	802.101	1.009	6.221	0.839	805.810
2834.000	350.000	6.700	4.370	0.909	9.531	4.766	808.522	798.991	1.012	9.331	0.979	803.755
2848.000	450.000	7.000	4.565	1.168	9.932	4.966	806.504	796.572	1.012	11.750	1.183	801.538
2870.000	600.000	7.500	4.891	1.558	10.599	5.300	803.369	792.770	1.013	15.552	1.467	798.072
3303.000	800.000	111.000	72.527	2.077	156.336	78.168	874.283	717.947	1.218	90.374	0.578	796.114
4170.000	1000.000	370.000	242.270	2.596	519.453	259.727	1087.580	568.130	1.913	240.190	0.462	827.856
4676.000	1200.000	336.000	220.216	3.115	469.651	234.826	950.345	480.694	1.977	327.626	0.698	715.522
4898.000	1400.000	375.000	245.514	3.634	520.796	260.398	963.130	442.332	2.177	365.988	0.703	702.730
5066.000	1600.000	403.000	263.876	4.154	556.309	278.155	969.610	413.302	2.346	395.018	0.710	691.454
5198.000	1800.000	422.000	276.000	4.673	579.156	289.578	969.648	390.492	2.483	417.828	0.721	680.069
5282.000	2000.000	436.000	285.081	5.192	594.954	297.477	970.934	375.978	2.582	432.342	0.727	673.454
5348.000	2200.000	446.000	291.568	5.711	605.159	302.580	969.734	364.573	2.660	443.747	0.733	667.152
5464.000	2400.000	454.000	296.757	6.231	612.538	306.269	957.066	344.529	2.778	463.791	0.757	650.798
5452.000	2600.000	460.000	300.652	6.750	617.142	308.571	963.744	346.602	2.781	461.718	0.748	655.171
5494.000	2800.000	463.000	302.609	7.269	617.700	308.850	957.044	339.345	2.820	468.975	0.759	648.192
5530.000	3000.000	467.000	305.217	7.788	619.536	309.768	952.660	333.124	2.860	475.196	0.767	642.893
5564.000	3200.000	464.000	303.261	8.307	612.100	306.050	939.348	327.249	2.870	481.071	0.786	633.298
5596.000	3400.000	471.000	307.826	8.827	617.794	308.897	939.513	321.719	2.920	486.601	0.788	630.614
5626.000	3600.000	471.500	308.152	9.346	614.927	307.464	931.462	316.535	2.943	491.785	0.800	624.000
5654.000	3800.000	472.000	308.478	9.865	612.052	306.026	923.748	311.697	2.964	496.623	0.811	617.722

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-15
TEST NO.:	1	DEPTH:	477 - 519 CMS.
BORING NO.:	CD-13	OVERCONSOLIDATION RATIO	8
TEST DATE;	5/13/80		

SAMPLE DIAMETER = 1.903 IN.
SAMPLE HEIGHT = 3.822 IN.

INITIAL PORE PRESSURE READING = 2154
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.526 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2161.000	20.000	6.000	3.913	0.052	9.509	4.755	58.796	49.287	1.193	1.210	0.127	54.041
2180.000	60.000	13.000	8.478	0.157	20.582	10.291	66.585	46.003	1.447	4.493	0.218	56.294
2191.000	100.000	18.000	11.739	0.262	28.468	14.234	72.570	44.103	1.645	6.394	0.225	58.336
2193.000	140.000	24.000	15.652	0.366	37.917	18.959	81.674	43.757	1.867	6.739	0.178	62.715
2200.000	180.000	28.000	18.261	0.471	44.190	22.095	86.737	42.547	2.039	7.949	0.180	64.642
2195.000	250.000	35.000	22.826	0.654	55.136	27.568	98.547	43.411	2.270	7.085	0.128	70.979
2187.000	350.000	42.000	27.391	0.916	65.989	32.994	110.783	44.794	2.473	5.702	0.086	77.788
2173.000	450.000	49.000	31.957	1.177	76.783	38.392	123.996	47.213	2.626	3.283	0.043	85.605
2159.000	600.000	56.000	36.522	1.570	87.404	43.702	137.036	49.632	2.761	0.864	0.010	93.334
2138.000	800.000	63.000	41.087	2.093	97.807	48.903	151.068	53.261	2.836	-2.765	-0.028	102.164
2119.000	1000.000	69.000	45.000	2.616	106.549	53.275	163.093	56.544	2.884	-6.048	-0.057	109.819
2100.000	1400.000	77.000	50.217	3.663	117.625	58.813	177.452	59.827	2.966	-9.331	-0.079	118.640
2084.000	1800.000	82.000	53.478	4.710	123.902	61.951	186.494	62.592	2.980	-12.096	-0.098	124.544
2075.000	2200.000	86.000	56.087	5.756	128.519	64.260	192.666	64.147	3.004	-13.651	-0.106	128.407
2064.000	2600.000	89.000	58.043	6.803	131.526	65.763	197.574	66.048	2.991	-15.552	-0.118	131.811
2058.000	3000.000	92.000	60.000	7.849	134.432	67.216	201.516	67.085	3.004	-16.589	-0.123	134.301
2054.000	3400.000	94.000	61.319	8.896	135.826	67.913	203.602	67.776	3.004	-17.280	-0.127	135.689
2053.000	3800.000	96.000	62.637	9.942	137.153	68.577	205.102	67.949	3.018	-17.453	-0.127	136.525
2047.000	4200.000	97.000	63.297	10.989	136.986	68.493	205.972	68.985	2.986	-18.489	-0.135	137.479
2040.000	4600.000	98.000	63.956	12.036	136.786	68.393	206.981	70.195	2.949	-19.699	-0.144	138.588
2048.000	5000.000	99.000	64.615	13.082	136.551	68.276	205.364	68.813	2.984	-18.317	-0.134	137.089

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-15
TEST NO.:	2	DEPTH:	477 - 519 CMS.
BORING NO.:	CD-13	OVERCONSOLIDATION RATIO	4
TEST DATE;	5/14/80		

SAMPLE DIAMETER = 1.899 IN.
SAMPLE HEIGHT = 3.831 IN.

INITIAL PORE PRESSURE READING = 2360
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2423.000	20.000	35.000	13.816	0.052	33.715	16.858	118.831	85.115	1.396	10.886	0.323	101.973
2458.000	60.000	55.000	21.711	0.157	52.926	26.463	131.993	79.067	1.669	16.934	0.320	105.531
2477.000	100.000	68.000	26.842	0.261	65.368	32.684	141.152	75.784	1.863	20.217	0.309	108.468
2486.000	140.000	77.000	30.380	0.365	73.905	36.953	148.135	74.229	1.996	21.773	0.295	111.182
2492.000	180.000	87.000	34.177	0.470	83.056	41.528	156.249	73.192	2.135	22.809	0.275	114.721
2495.000	250.000	100.000	39.114	0.653	94.879	47.440	167.553	72.674	2.306	23.328	0.246	120.113
2495.000	350.000	112.000	43.671	0.914	105.654	52.827	178.328	72.674	2.454	23.328	0.221	125.501
2492.000	450.000	122.000	47.468	1.175	114.539	57.269	187.731	73.192	2.565	22.809	0.199	130.462
2488.000	600.000	133.000	51.646	1.566	124.125	62.063	198.009	73.883	2.680	22.118	0.178	135.947
2482.000	800.000	144.000	55.823	2.088	133.452	66.726	208.373	74.920	2.781	21.081	0.158	141.647
2478.000	1000.000	152.000	58.861	2.610	139.965	69.983	215.577	75.611	2.851	20.390	0.146	145.595
2474.000	1400.000	158.000	61.111	3.654	143.758	71.879	220.061	76.303	2.884	19.699	0.137	148.182
2470.000	1800.000	168.000	64.815	4.699	150.818	75.409	227.812	76.994	2.959	19.008	0.126	152.403
2465.000	2200.000	175.000	67.407	5.743	155.132	77.566	232.990	77.858	2.993	18.144	0.117	155.424
2463.000	2600.000	181.000	69.630	6.787	158.472	79.236	236.676	78.203	3.026	17.798	0.112	157.440
2460.000	3000.000	184.000	70.741	7.831	159.197	79.598	237.919	78.722	3.022	17.280	0.109	158.320
2460.000	3400.000	186.000	71.482	8.875	159.042	79.521	237.764	78.722	3.020	17.280	0.109	158.244
2461.000	3800.000	187.000	71.852	9.919	158.034	79.017	236.583	78.549	3.012	17.453	0.110	157.567
2461.000	4200.000	187.000	71.852	10.963	156.203	78.101	234.752	78.549	2.989	17.453	0.112	156.651
2460.000	4600.000	186.000	71.482	12.007	153.575	76.788	232.297	78.722	2.951	17.280	0.113	155.509
2460.000	5000.000	184.000	70.741	13.051	150.180	75.090	228.901	78.722	2.908	17.280	0.115	153.812
2459.000	5400.000	180.000	69.259	14.096	145.270	72.635	224.165	78.895	2.841	17.107	0.118	151.530
2464.000	5800.000	174.000	67.037	15.140	138.899	69.449	216.929	78.031	2.780	17.971	0.129	147.480

TRIAXIAL TEST RESULTS

PROJECT NO.:	79C01221	SAMPLE NUMBER:	PC-15
TEST NO.:	3	DEPTH:	477 - 519 CMS.
BORING NO.:	CD-13	OVERCONSOLIDATION RATIO	1
TEST DATE;	5/12/80		

SAMPLE DIAMETER = 1.893 IN.
SAMPLE HEIGHT = 3.819 IN.

INITIAL PORE PRESSURE READING = 2490
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.2 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2670.000	20.000	28.000	18.261	0.052	44.846	22.423	416.943	372.098	1.121	31.104	0.694	394.521
2828.000	60.000	57.000	37.174	0.157	91.198	45.599	435.994	344.796	1.265	58.406	0.640	390.395
2940.000	1000.000	71.000	46.304	2.618	110.796	55.398	436.237	325.441	1.340	77.759	0.702	380.840
3022.000	140.000	80.000	52.174	0.367	127.729	63.865	439.000	311.271	1.410	91.929	0.720	375.136
3090.000	180.000	86.000	56.087	0.471	137.164	68.582	436.685	299.521	1.458	103.679	0.756	368.103
3188.000	250.000	93.000	60.659	0.655	148.071	74.036	430.658	282.587	1.524	120.613	0.815	356.623
3270.000	350.000	99.000	64.615	0.916	157.314	78.657	425.731	268.417	1.586	134.783	0.857	347.075
3346.000	450.000	104.000	67.912	1.178	164.903	82.452	420.187	255.284	1.646	147.916	0.897	337.736
3424.000	6000.000	108.000	70.550	15.711	146.114	73.057	387.920	241.806	1.604	161.394	1.105	314.863
3494.000	800.000	112.000	73.187	2.095	176.062	88.031	405.772	229.710	1.766	173.490	0.985	317.741
3543.000	1000.000	115.000	75.165	2.618	179.854	89.927	401.098	221.244	1.813	181.956	1.012	311.171
3580.000	1200.000	116.000	75.824	3.142	180.456	90.228	395.306	214.850	1.840	188.350	1.044	305.078
3606.000	1600.000	119.000	77.802	4.190	183.161	91.581	393.518	210.357	1.871	192.843	1.053	301.938
3628.000	1800.000	121.000	79.121	4.713	185.247	92.624	391.803	206.556	1.897	196.644	1.062	299.179
3646.000	2000.000	123.000	80.440	5.237	187.300	93.650	390.745	203.445	1.921	199.755	1.067	297.095
3668.000	2400.000	125.000	81.758	6.284	188.267	94.133	387.910	199.644	1.943	203.556	1.081	293.777
3675.000	2600.000	127.000	83.077	6.808	190.234	95.117	388.668	198.434	1.959	204.766	1.076	293.551
3680.000	2800.000	128.000	83.736	7.332	190.666	95.333	388.236	197.570	1.965	205.630	1.078	292.903
3684.000	3000.000	129.000	84.396	7.855	191.081	95.541	387.960	196.879	1.971	206.321	1.080	292.420
3693.000	3400.000	130.000	85.055	8.903	190.385	95.193	385.709	195.324	1.975	207.876	1.092	290.516
3698.000	3800.000	131.000	85.714	9.950	189.655	94.827	384.114	194.460	1.975	208.740	1.101	289.287
3704.000	4200.000	133.000	87.033	10.998	190.332	95.166	383.755	193.423	1.984	209.777	1.102	288.589
3708.000	4600.000	134.000	87.692	12.045	189.518	94.759	382.250	192.732	1.983	210.468	1.111	287.491

TRIAXIAL TEST RESULTS

PROJECT NO.: 79001221 SAMPLE NUMBER: PC-15
TEST NO.: 1 DEPTH: 770 - 810 CMS.
BORING NO.: CD-13 OVERCONSOLIDATION RATIO 4
TEST DATE: 4/28/80

SAMPLE DIAMETER = 1.98 IN.
SAMPLE HEIGHT = 3.817 IN.

INITIAL PORE PRESSURE READING = 2464
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 2.11 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG81 KPS	SIG83 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2595.000	20.000	29.500	19.239	0.052	44.073	22.037	223.999	179.925	1.245	22.637	0.514	201.962
2650.000	60.000	58.000	37.826	0.157	86.562	43.281	256.983	170.421	1.508	32.141	0.371	213.703
2672.000	100.000	77.500	50.543	0.262	115.543	57.771	282.162	166.620	1.693	35.942	0.311	224.391
2675.000	140.000	92.000	60.000	0.367	137.017	68.509	303.118	166.101	1.825	36.461	0.266	234.810
2672.000	180.000	103.000	67.253	0.472	153.418	76.709	320.037	166.620	1.921	35.942	0.234	243.328
2663.000	250.000	118.000	77.143	0.655	175.655	87.826	343.830	168.175	2.044	34.387	0.196	256.302
2650.000	350.000	135.000	88.352	0.917	200.646	100.323	371.067	170.421	2.177	32.141	0.160	270.744
2634.000	450.000	147.000	96.264	1.179	218.036	109.019	391.222	173.186	2.259	29.376	0.135	282.204
2628.000	600.000	161.000	105.495	1.572	237.996	118.998	412.218	174.223	2.366	28.339	0.119	293.220
2620.000	800.000	173.000	113.407	2.096	254.483	127.241	430.088	175.605	2.449	26.957	0.106	302.846
2618.000	1000.000	182.000	119.341	2.620	266.365	133.183	442.316	175.951	2.514	26.611	0.100	309.133
2618.000	1200.000	199.500	130.879	3.144	290.546	145.273	466.497	175.951	2.651	26.611	0.092	321.224
2618.000	1400.000	195.000	127.912	3.668	282.422	141.211	458.373	175.951	2.605	26.611	0.094	317.162
2616.000	1600.000	200.500	131.538	4.192	288.850	144.425	465.146	176.296	2.638	26.265	0.091	320.722
2614.000	1800.000	205.000	134.505	4.716	293.749	146.875	470.391	176.642	2.663	25.920	0.088	323.517
2614.000	2000.000	209.000	137.143	5.240	297.863	148.932	474.505	176.642	2.686	25.920	0.087	325.575
2612.000	2200.000	212.500	139.451	5.764	301.202	150.601	478.189	176.988	2.702	25.574	0.085	327.588
2611.000	2400.000	216.000	141.758	6.288	304.481	152.241	481.642	177.160	2.719	25.401	0.083	329.401
2610.000	2600.000	218.000	143.077	6.812	305.597	152.798	482.930	177.333	2.723	25.229	0.083	330.132
2602.000	3000.000	223.000	146.374	7.860	309.123	154.562	487.838	178.716	2.730	23.846	0.077	333.277
2602.000	3200.000	225.200	147.824	8.384	310.410	155.205	489.126	178.716	2.737	23.846	0.077	333.921
2601.000	3400.000	227.200	149.143	8.908	311.386	155.695	490.277	178.888	2.741	23.673	0.076	334.583
2600.000	3600.000	229.200	150.462	9.431	312.336	156.168	491.397	179.061	2.744	23.501	0.075	335.229
2598.000	3800.000	230.700	151.451	9.955	312.569	156.285	491.976	179.407	2.742	23.155	0.074	335.692
2598.000	4000.000	232.200	152.440	10.479	312.780	156.391	492.187	179.407	2.743	23.155	0.074	335.797
2597.000	4200.000	233.800	153.495	11.003	313.101	156.551	492.681	179.580	2.744	22.982	0.073	336.131
2597.000	4400.000	235.500	154.615	11.527	313.529	156.765	493.109	179.580	2.746	22.982	0.073	336.345
2598.000	4600.000	236.900	155.536	12.051	313.533	156.767	492.940	179.407	2.746	23.155	0.074	336.174
2596.000	4800.000	238.000	156.264	12.575	313.119	156.560	492.872	179.752	2.742	22.809	0.073	336.312
2595.000	5000.000	239.000	156.923	13.099	312.556	156.278	492.481	179.925	2.737	22.637	0.072	336.204
2596.000	5400.000	241.000	158.241	14.147	311.383	155.692	491.135	179.752	2.732	22.809	0.073	335.444
2595.000	5800.000	243.000	159.560	15.195	310.143	155.072	490.068	179.925	2.724	22.637	0.073	334.997
2595.000	6000.000	244.000	160.220	15.719	309.502	154.751	489.427	179.925	2.720	22.637	0.073	334.676
2597.000	6400.000	245.200	161.011	16.767	307.162	153.581	486.741	179.580	2.710	22.982	0.075	333.160

TRIAXIAL TEST RESULTS

PROJECT NO.: 79001221 **SAMPLE NUMBER:** PC-15
TEST NO.: 2 **DEPTH:** 770 - 810 CMS.
HORING NO.: CD-13 **OVERCONSOLIDATION RATIO** 2
TEST DATE: 4/29/80

SAMPLE DIAMETER = 1.94 IN.
SAMPLE HEIGHT = 3.775 IN.

INITIAL PORE PRESSURE READING = 2356
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 4.18 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2636.000	20.000	46.000	31.304	0.053	73.198	36.599	425.750	352.552	1.208	48.729	0.660	389.151
2804.000	60.000	97.000	63.297	0.159	147.849	73.924	471.715	323.867	1.457	77.414	0.524	397.791
2870.000	100.000	125.000	81.758	0.265	190.768	95.384	503.230	312.462	1.611	88.819	0.480	407.846
2923.000	140.000	144.200	94.418	0.371	220.072	110.036	523.376	303.303	1.726	97.977	0.445	413.340
2960.000	180.000	157.000	102.857	0.477	239.488	119.745	536.398	296.910	1.807	104.370	0.436	416.654
3020.000	250.000	172.200	112.879	0.662	262.333	131.167	548.875	286.542	1.916	114.738	0.437	417.708
3095.000	350.000	187.000	122.637	0.927	284.251	142.126	557.833	273.582	2.039	127.698	0.449	415.708
3159.000	450.000	196.700	129.033	1.192	298.277	149.139	560.799	262.523	2.136	138.757	0.468	411.861
3240.000	600.000	207.500	136.154	1.589	313.472	156.736	561.997	248.526	2.261	152.754	0.487	405.262
3326.000	800.000	218.800	142.286	2.119	325.826	162.913	559.491	233.665	2.394	167.615	0.514	396.578
3391.000	1000.000	223.500	146.703	2.649	334.122	167.061	556.555	222.433	2.502	178.847	0.535	389.494
3444.000	1200.000	229.500	150.659	3.179	341.265	170.632	554.540	213.276	2.600	188.004	0.551	383.908
3485.000	1400.000	234.000	153.626	3.709	346.081	173.041	552.272	206.191	2.678	195.089	0.564	379.232
3543.000	1800.000	241.000	158.242	4.768	352.557	176.279	548.725	196.168	2.797	205.112	0.582	372.447
3565.000	2000.000	244.000	160.220	5.298	354.979	177.490	547.346	192.367	2.845	208.913	0.589	369.856
3585.000	2200.000	246.300	161.736	5.828	356.333	178.166	545.244	188.911	2.886	212.369	0.596	367.077
3596.000	2400.000	249.000	163.516	6.358	358.228	179.114	545.238	187.010	2.916	214.270	0.598	366.124
3606.000	2600.000	251.000	164.835	6.887	359.074	179.537	544.356	185.282	2.938	215.998	0.602	364.819
3615.000	2800.000	252.900	166.088	7.417	359.746	179.873	543.472	183.727	2.958	217.553	0.605	363.600
3624.000	3000.000	254.700	167.275	7.947	360.242	180.121	542.413	182.172	2.977	219.108	0.608	362.292
3630.000	3200.000	256.100	168.198	8.477	360.146	180.073	541.281	181.135	2.988	220.145	0.611	361.208
3633.000	3400.000	257.300	168.989	9.007	359.746	179.873	540.362	180.616	2.992	220.664	0.613	360.490
3640.000	3600.000	258.500	169.780	9.536	359.323	179.662	538.730	179.407	3.003	221.873	0.617	359.069
3642.000	3800.000	259.200	170.242	10.066	358.191	179.096	537.252	179.061	3.000	222.219	0.620	358.157
3644.000	4000.000	260.100	170.835	10.596	357.323	178.662	536.038	178.716	2.999	222.564	0.623	357.377
3648.000	4200.000	261.700	171.890	11.126	357.398	178.699	535.423	178.024	3.008	223.256	0.625	356.724
3650.000	4400.000	263.000	172.747	11.656	357.038	178.520	534.717	177.679	3.009	223.601	0.626	356.198
3654.000	4600.000	264.000	173.407	12.185	356.254	178.127	533.242	176.988	3.013	224.292	0.630	355.115
3657.000	5000.000	266.100	174.791	13.245	354.764	177.382	531.233	176.469	3.010	224.811	0.634	353.851

TRIAXIAL TEST RESULTS

PROJECT NO.: 79001221 **SAMPLE NUMBER:** PC-15
TEST NO.: 3 **DEPTH:** 770 - 810 CMS.
BORING NO.: CD-13 **OVERCONSOLIDATION RATIO** 1
TEST DATE: 4/28/80

SAMPLE DIAMETER = 1.95 IN.
SAMPLE HEIGHT = 3.75 IN.

INITIAL PORE PRESSURE READING = 2610
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 8.42 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG3 KPS	SIG1 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
3115.000	20.000	37.500	14.803	0.053	34.259	17.129	755.316	721.057	1.048	87.2e3	2.547	738.187
33e6.000	60.000	84.000	33.038	0.160	76.381	38.190	754.065	677.684	1.113	130.e3e	1.710	715.877
3e25.000	100.000	154.000	59.620	0.267	137.e88	68.844	770.617	e32.929	1.218	175.391	1.274	701.774
3506.000	140.000	124.000	48.228	0.373	111.259	55.630	764.751	653.492	1.170	154.828	1.392	709.123
3593.000	180.000	181.000	e9.e30	0.480	160.459	80.230	798.918	e38.459	1.251	169.861	1.059	718.e90
3882.000	250.000	249.500	95.e63	0.667	218.e58	109.330	807.179	588.520	1.372	219.800	1.005	e97.848
4195.000	350.000	303.000	115.125	0.933	264.094	132.e47	798.528	534.434	1.494	273.886	1.037	eee.480
4419.000	450.000	34.000	13.421	1.200	30.705	15.352	526.432	495.728	1.062	312.592	10.181	511.080
4419.000	450.000	334.000	126.792	1.200	290.875	145.e38	785.602	495.728	1.585	312.592	1.078	e40.76e
4667.000	600.000	3e2.000	137.358	1.e00	312.975	15e.488	765.849	452.873	1.691	355.447	1.13e	e09.3e0
4900.000	800.000	395.200	149.887	2.133	339.672	169.836	752.283	412.e11	1.823	395.709	1.165	582.446
5061.000	1000.000	399.000	151.273	2.e67	340.945	170.473	725.736	384.791	1.886	423.529	1.242	555.264
5175.000	1200.000	409.000	154.909	3.200	347.226	173.e13	712.318	365.092	1.951	443.228	1.276	538.704
5265.000	1400.000	418.000	156.182	3.733	352.e10	176.305	702.150	349.e40	2.009	458.780	1.301	525.845
5327.000	1600.000	424.000	160.364	4.267	355.494	177.747	694.320	338.826	2.049	469.494	1.321	516.571
5382.000	1800.000	430.500	162.727	4.800	358.722	179.362	e88.044	329.322	2.089	478.998	1.335	508.e85
5418.000	2000.000	435.200	164.e36	5.333	360.458	180.229	e83.559	323.101	2.116	485.219	1.346	503.333
5446.000	2200.000	438.500	165.e3e	5.e67	361.044	180.522	e79.307	318.2e3	2.134	490.057	1.357	498.787
5480.000	2400.000	443.500	167.455	e.400	362.940	181.471	e75.328	312.388	2.1e2	495.932	1.3ee	493.e56
5502.000	2600.000	448.000	169.e91	e.933	364.398	182.199	e72.784	308.58e	2.181	499.734	1.371	490.78e
5518.000	2800.000	452.000	170.545	7.467	365.426	182.713	e71.247	305.821	2.195	502.499	1.3e5	48e.e34
5530.000	3000.000	455.000	171.e3e	e.000	365.e43	182.821	e69.391	303.748	2.204	504.572	1.380	48e.571
5544.000	3200.000	458.200	172.e00	e.533	365.988	182.994	e67.317	301.329	2.215	506.991	1.385	484.325
5555.000	3400.000	460.000	173.455	9.e67	365.234	182.e17	e64.e62	299.428	2.220	508.892	1.393	482.045
5564.000	3600.000	463.000	174.545	9.e00	365.373	182.e87	e63.246	297.873	2.227	510.447	1.397	480.562
5574.000	3800.000	465.000	175.273	10.133	364.733	182.3e6	e60.877	296.145	2.232	512.175	1.404	478.511
5582.000	4000.000	4e7.000	176.000	10.e67	364.073	182.037	e58.83e	294.762	2.235	513.558	1.411	47e.799
5589.000	4200.000	4e6.200	17e.436	11.200	362.796	181.398	e56.348	293.553	2.23e	514.767	1.419	474.950
5595.000	4400.000	470.000	177.091	11.733	361.95e	180.978	e54.471	292.516	2.237	515.804	1.425	473.494
5e02.000	4600.000	472.200	177.891	12.267	361.393	180.e97	e52.e99	291.30e	2.241	517.014	1.431	472.003
5e08.000	4800.000	473.700	178.43e	12.800	3e0.297	180.149	e50.56e	290.269	2.241	518.051	1.438	470.416
5e14.000	5000.000	475.200	178.982	13.333	359.190	179.595	e48.422	289.233	2.242	519.087	1.445	4ee.825
5e24.000	5400.000	477.000	179.e3e	14.400	356.065	178.033	e43.570	287.505	2.238	520.815	1.463	4e5.538
5e37.000	5800.000	478.500	180.185	15.467	352.701	176.351	e37.959	285.256	2.236	522.e62	1.483	4e1.e0e
5e49.000	6200.000	482.700	181.741	16.533	351.259	175.e30	e34.444	283.185	2.240	525.135	1.495	458.815
5ee2.000	ee00.000	485.700	182.852	17.600	348.890	174.445	e29.828	280.938	2.242	527.382	1.512	455.384
5e73.000	7e0.000	489.500	184.e59	1.867	418.703	209.352	697.740	279.037	2.501	529.283	1.2e4	488.390
5e73.000	7000.000	489.500	184.e59	18.667	347.e24	173.912	e26.e61	279.037	2.244	529.283	1.525	452.550
5ee6.000	7400.000	491.500	185.000	19.733	343.e50	171.925	e20.e41	276.791	2.242	531.529	1.54e	446.71e
5704.000	8000.000	493.000	185.55e	21.333	338.008	169.004	e11.689	273.681	2.235	534.639	1.582	442.e85

APPENDIX

E

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-1
TEST DATE; 1/28/80

SAMPLE DIAMETER = 2.04 IN.
SAMPLE HEIGHT = 3.924 IN.

INITIAL PORE PRESSURE READING = 2336
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.14 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2344.000	20.000	11.000	4.342	0.051	9.182	4.591	21.240	12.058	1.762	1.382	0.151	16.649
2350.000	60.000	23.000	9.079	0.153	19.180	9.590	30.201	11.021	2.740	2.419	0.126	20.611
2356.000	100.000	27.000	10.658	0.255	22.492	11.246	32.476	9.984	3.253	3.456	0.154	21.230
2358.000	140.000	40.000	15.789	0.357	33.288	16.644	42.926	9.639	4.454	3.802	0.114	26.282
2360.000	180.000	32.800	12.947	0.459	27.268	13.634	36.561	9.293	3.934	4.147	0.152	22.927
2360.000	200.000	34.000	13.421	0.510	28.251	14.126	37.544	9.293	4.040	4.147	0.147	23.419
2364.000	300.000	36.500	14.408	0.765	30.251	15.125	38.852	8.602	4.517	4.838	0.160	23.727
2368.000	400.000	41.800	16.500	1.019	34.554	17.277	42.465	7.911	5.368	5.530	0.160	25.188
2371.000	500.000	43.800	17.289	1.274	36.114	18.057	43.507	7.392	5.886	6.048	0.167	25.449
2373.000	600.000	45.700	18.039	1.529	37.584	18.792	44.630	7.047	6.334	6.394	0.170	25.839
2373.000	800.000	49.000	19.342	2.039	40.089	20.045	47.136	7.047	6.689	6.394	0.159	27.091
2374.000	1000.000	51.500	20.329	2.548	41.915	20.958	48.789	6.874	7.098	6.566	0.157	27.832
2374.000	1200.000	53.900	21.276	3.058	43.639	21.820	50.513	6.874	7.349	6.566	0.150	28.693
2373.000	1400.000	55.800	22.026	3.568	44.940	22.470	51.987	7.047	7.378	6.394	0.142	29.517
2369.000	1600.000	57.400	22.658	4.077	45.984	22.992	53.722	7.738	6.943	5.702	0.124	30.730
2371.000	1800.000	59.100	23.329	4.587	47.095	23.547	54.487	7.392	7.371	6.048	0.128	30.940
2370.000	2000.000	60.500	23.882	5.097	47.953	23.976	55.518	7.565	7.339	5.875	0.123	31.541
2368.000	2200.000	62.000	24.474	5.607	48.877	24.439	56.788	7.911	7.179	5.530	0.113	32.349
2368.000	2400.000	63.200	24.947	6.116	49.555	24.777	57.465	7.911	7.264	5.530	0.112	32.688
2368.000	2600.000	64.200	25.342	6.626	50.066	25.033	57.976	7.911	7.329	5.530	0.110	32.943
2364.000	2800.000	65.500	25.855	7.136	50.800	25.400	59.402	8.602	6.906	4.838	0.095	34.002
2364.000	2900.000	66.100	26.092	7.390	51.125	25.563	59.727	8.602	6.944	4.838	0.095	34.164
2365.000	3100.000	67.100	26.487	7.900	51.613	25.807	60.042	8.429	7.123	5.011	0.097	34.236
2363.000	3400.000	69.000	27.237	8.665	52.634	26.317	61.408	8.775	6.998	4.666	0.089	35.092
2361.000	3600.000	69.500	27.434	9.174	52.719	26.360	61.840	9.120	6.781	4.320	0.082	35.480
2362.000	3800.000	70.100	27.671	9.684	52.876	26.438	61.824	8.947	6.910	4.493	0.085	35.386
2361.000	4000.000	70.500	27.829	10.194	52.878	26.439	61.998	9.120	6.798	4.320	0.082	35.559
2360.000	4200.000	70.900	27.987	10.703	52.876	26.438	62.169	9.293	6.690	4.147	0.078	35.731
2355.000	4400.000	71.200	28.105	11.213	52.796	26.398	62.953	10.157	6.198	3.283	0.062	36.555
2355.000	4600.000	71.200	28.105	11.723	52.494	26.247	62.651	10.157	6.168	3.283	0.063	36.404
2356.000	4800.000	71.300	28.145	12.232	52.264	26.132	62.248	9.984	6.235	3.456	0.066	36.116
2359.000	5200.000	71.500	28.224	13.252	51.802	25.901	61.267	9.466	6.473	3.974	0.077	35.367
2359.000	5600.000	71.500	28.224	14.271	51.193	25.596	60.659	9.466	6.408	3.974	0.078	35.062
2359.000	6000.000	71.500	28.224	15.291	50.584	25.292	60.050	9.466	6.344	3.974	0.079	34.758

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CB-1
TEST DATE; 1/28/80

SAMPLE DIAMETER = 2.078 IN.
SAMPLE HEIGHT = 3.904 IN.

INITIAL PORE PRESSURE READING = 2368
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.3 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2362.000	20.000	6.800	2.684	0.051	5.471	2.735	35.307	29.837	1.183	-1.037	-0.190	32.572
2375.000	60.000	16.800	6.632	0.154	13.502	6.751	41.092	27.591	1.489	1.210	0.090	34.341
2389.000	100.000	25.900	10.224	0.256	20.794	10.397	45.965	25.171	1.826	3.629	0.175	35.568
2398.000	140.000	31.800	12.553	0.359	25.504	12.752	49.120	23.616	2.080	5.184	0.203	36.368
2406.000	180.000	36.000	14.211	0.461	28.843	14.422	51.077	22.234	2.297	6.566	0.228	36.655
2409.000	250.000	40.100	15.829	0.640	32.070	16.035	53.785	21.715	2.477	7.085	0.221	37.750
2416.000	350.000	44.500	17.566	0.897	35.497	17.749	56.003	20.506	2.731	8.294	0.234	38.254
2419.000	450.000	47.500	18.750	1.153	37.792	18.896	57.780	19.987	2.891	8.813	0.233	38.884
2424.000	550.000	50.100	19.776	1.409	39.758	19.879	58.881	19.123	3.079	9.627	0.243	39.002
2431.000	800.000	54.800	21.632	2.049	43.205	21.603	61.119	17.914	3.412	10.886	0.252	39.516
2484.000	1000.000	59.600	23.526	2.561	46.744	23.372	55.499	8.755	6.339	20.045	0.429	32.127
2485.000	1200.000	62.400	24.632	3.074	48.682	24.341	57.265	8.583	6.672	20.217	0.415	32.924
2488.000	1400.000	66.200	26.132	3.586	51.374	25.687	59.438	8.064	7.371	20.736	0.404	33.751
2487.000	1600.000	68.500	27.039	4.098	52.876	26.438	61.113	8.237	7.419	20.563	0.389	34.675
2488.000	1800.000	70.000	27.632	4.611	53.746	26.873	61.810	8.064	7.665	20.736	0.386	34.937
2488.000	2000.000	72.500	28.618	5.123	55.366	27.683	63.431	8.064	7.866	20.736	0.375	35.747
2488.000	2200.000	74.000	29.211	5.635	56.207	28.103	64.271	8.064	7.970	20.736	0.369	36.168
2488.000	2800.000	77.000	30.380	7.172	57.504	28.752	65.569	8.064	8.131	20.736	0.361	36.816
2485.000	3200.000	78.200	30.835	8.197	57.723	28.861	66.305	8.583	7.726	20.217	0.350	37.444
2483.000	3600.000	79.400	31.291	9.221	57.922	28.961	66.850	8.928	7.488	19.872	0.343	37.889
2482.000	4000.000	80.000	31.519	10.246	57.685	28.843	66.786	9.101	7.338	19.699	0.341	37.944
2481.000	4400.000	79.900	31.481	11.271	56.958	28.479	66.232	9.274	7.142	19.526	0.343	37.753
2480.000	4800.000	79.400	31.291	12.295	55.961	27.980	65.407	9.447	6.924	19.353	0.346	37.427
2480.000	5000.000	79.200	31.215	12.807	55.499	27.750	64.946	9.447	6.875	19.353	0.349	37.196
2480.000	5600.000	78.900	31.101	14.344	54.322	27.161	63.768	9.447	6.750	19.353	0.356	36.608
2479.000	6000.000	78.600	30.987	15.369	53.475	26.738	63.095	9.619	6.559	19.181	0.359	36.357

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD-1
TEST DATE; 1/30/80

SAMPLE DIAMETER = 2.088 IN.
SAMPLE HEIGHT = 3.886 IN.

INITIAL PORE PRESSURE READING = 2356
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.58 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2355.000	20.000	4.000	1.579	0.051	3.187	1.594	59.040	55.853	1.057	-0.173	-0.054	57.446
2384.000	60.000	22.000	8.684	0.154	17.512	8.756	68.354	50.842	1.344	4.838	0.276	59.598
2406.000	100.000	40.000	15.789	0.257	31.807	15.903	78.847	47.040	1.676	8.640	0.272	62.943
2436.000	140.000	47.800	18.868	0.360	37.970	18.985	79.826	41.856	1.907	13.824	0.364	60.841
2450.000	180.000	52.000	20.526	0.463	41.263	20.632	80.700	39.437	2.046	16.243	0.394	60.069
2465.000	250.000	57.500	22.697	0.643	45.545	22.773	82.390	36.845	2.236	18.835	0.414	59.617
2481.000	350.000	62.500	24.671	0.901	49.377	24.689	83.458	34.080	2.449	21.600	0.437	58.769
2497.000	500.000	67.200	26.526	1.287	52.884	26.442	84.199	31.315	2.689	24.365	0.461	57.757
2516.000	700.000	73.000	28.816	1.801	57.148	28.574	85.181	28.032	3.039	27.648	0.484	56.606
2525.000	900.000	76.500	30.190	2.316	59.560	29.780	86.037	26.477	3.250	29.203	0.490	56.257
2530.000	1000.000	78.000	30.760	2.573	60.524	30.262	86.137	25.613	3.363	30.067	0.497	55.875
2536.000	1200.000	81.000	31.899	3.088	62.434	31.217	87.010	24.576	3.540	31.104	0.498	55.793
2542.000	1400.000	83.200	32.734	3.603	63.729	31.864	87.268	23.540	3.707	32.141	0.504	55.404
2547.000	1600.000	85.800	33.722	4.117	65.301	32.650	87.976	22.676	3.880	33.005	0.505	55.326
2548.000	1800.000	87.800	34.481	4.632	66.413	33.206	88.915	22.503	3.951	33.177	0.500	55.709
2549.000	2000.000	89.000	34.937	5.147	66.927	33.464	89.257	22.330	3.997	33.350	0.498	55.794
2550.000	2200.000	90.800	35.620	5.661	67.867	33.933	90.024	22.157	4.063	33.523	0.494	56.090
2552.000	2400.000	92.000	36.076	6.176	68.360	34.180	90.171	21.812	4.134	33.869	0.495	55.992
2552.000	2600.000	92.900	36.418	6.691	68.629	34.314	90.440	21.812	4.146	33.869	0.494	56.126
2552.000	2800.000	94.200	36.911	7.205	69.175	34.588	90.987	21.812	4.172	33.869	0.490	56.399
2551.000	3000.000	95.000	37.215	7.720	69.358	34.679	91.342	21.984	4.155	33.696	0.486	56.663
2553.000	3200.000	96.200	37.671	8.235	69.816	34.908	91.455	21.639	4.226	34.041	0.488	56.547
2552.000	3400.000	96.200	37.671	8.749	69.424	34.712	91.236	21.812	4.183	33.869	0.488	56.524
2552.000	3600.000	97.000	37.975	9.264	69.589	34.795	91.401	21.812	4.190	33.869	0.487	56.606
2551.000	4000.000	98.800	38.658	10.293	70.038	35.019	92.022	21.984	4.186	33.696	0.481	57.003
2550.000	4600.000	99.300	38.848	11.837	69.171	34.585	91.328	22.157	4.122	33.523	0.485	56.742
2550.000	5000.000	99.800	39.038	12.867	68.697	34.349	90.855	22.157	4.100	33.523	0.488	56.506
2550.000	5400.000	100.300	39.228	13.896	68.216	34.108	90.373	22.157	4.079	33.523	0.491	56.265
2551.000	5800.000	100.200	39.190	14.925	67.335	33.668	89.320	21.984	4.063	33.696	0.500	55.652
2551.000	6200.000	100.200	39.190	15.955	66.521	33.260	88.505	21.984	4.026	33.696	0.507	55.245
2551.000	6800.000	100.300	39.228	17.499	65.362	32.681	87.346	21.984	3.973	33.696	0.516	54.665
2551.000	7200.000	100.200	39.190	18.528	64.484	32.242	86.468	21.984	3.933	33.696	0.523	54.226

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD1.PC3
TEST DATE: 1/29/80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 3.89 IN.

INITIAL PORE PRESSURE READING = 2546
INITIAL DEFLECTION = 0.1102
CONFINING PRESSURE = 0.094 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2546.000	1102.000	147.000	11.214	2.833	23.986	11.993	33.010	9.024	3.658	0.000	0.000	21.017
2544.000	1120.000	169.000	12.786	2.879	27.334	13.667	36.704	9.370	3.917	-0.346	-0.013	23.037
2550.000	1160.000	202.000	15.143	2.982	32.339	16.170	40.672	8.333	4.881	0.691	0.021	24.503
2550.000	1200.000	212.000	15.857	3.085	33.829	16.914	42.162	8.333	5.060	0.691	0.020	25.247
2549.000	1260.000	216.000	16.143	3.239	34.384	17.192	42.889	8.506	5.042	0.518	0.015	25.698
2551.000	1300.000	219.000	16.357	3.342	34.803	17.402	42.963	8.160	5.265	0.864	0.025	25.562
2551.000	1400.000	227.000	16.929	3.599	35.923	17.962	44.083	8.160	5.402	0.864	0.024	26.122
2551.000	1600.000	236.000	17.571	4.113	37.088	18.544	45.248	8.160	5.545	0.864	0.023	26.704
2550.000	1800.000	245.000	18.214	4.627	38.239	19.120	46.572	8.333	5.589	0.691	0.018	27.452
2546.000	2000.000	251.000	18.643	5.141	38.928	19.464	47.952	9.024	5.314	0.000	0.000	28.488
2546.000	2200.000	257.000	19.071	5.655	39.607	19.804	48.631	9.024	5.389	0.000	0.000	28.828
2546.000	2400.000	260.000	19.286	6.169	39.834	19.917	48.858	9.024	5.414	0.000	0.000	28.941
2546.000	2600.000	269.000	19.929	6.684	40.936	20.468	49.960	9.024	5.536	0.000	0.000	29.492
2549.000	2800.000	274.000	20.286	7.198	41.440	20.720	49.945	8.506	5.872	0.518	0.013	29.226
2547.000	3000.000	276.000	20.429	7.712	41.501	20.750	50.352	8.851	5.689	0.173	0.004	29.602
2549.000	3200.000	280.000	20.714	8.226	41.847	20.923	50.352	8.506	5.920	0.518	0.012	29.429
2546.000	3400.000	283.000	20.929	8.740	42.043	21.021	51.067	9.024	5.659	0.000	0.000	30.045
2545.000	3600.000	285.000	21.071	9.254	42.091	21.046	51.288	9.197	5.577	-0.173	-0.004	30.242
2544.000	3800.000	288.000	21.286	9.768	42.278	21.139	51.648	9.370	5.512	-0.346	-0.008	30.509
2542.000	4000.000	288.000	21.286	10.283	42.037	21.019	51.753	9.715	5.327	-0.691	-0.016	30.734
2539.000	4200.000	290.000	21.429	10.797	42.077	21.039	52.311	10.234	5.112	-1.210	-0.029	31.272

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01211
TEST NO.: 1
BORING NO.: CD4
TEST DATE: 02-04-80

SAMPLE DIAMETER = 2.867 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2360
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.25 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2388.000	20.000	6.000	3.913	0.050	8.060	4.030	27.222	19.162	1.421	4.838	0.600	23.192
2395.000	40.000	10.000	6.522	0.100	13.427	6.714	31.379	17.952	1.748	6.048	0.450	24.666
2400.000	60.000	11.800	7.696	0.150	15.836	7.918	32.924	17.088	1.927	6.912	0.436	25.006
2400.000	80.000	12.200	7.957	0.200	16.365	8.182	33.453	17.088	1.958	6.912	0.422	25.270
2400.000	100.000	13.000	8.478	0.250	17.429	8.714	34.517	17.088	2.020	6.912	0.397	25.803
2407.000	120.000	13.800	9.000	0.300	18.492	9.246	34.371	15.879	2.165	8.122	0.439	25.125
2408.000	140.000	14.200	9.261	0.350	19.019	9.509	34.724	15.706	2.211	8.294	0.436	25.215
2408.000	160.000	14.500	9.457	0.400	19.411	9.705	35.116	15.706	2.236	8.294	0.427	25.411
2410.000	180.000	15.000	9.783	0.450	20.070	10.035	35.430	15.360	2.307	8.640	0.430	25.395
2414.000	250.000	15.800	10.304	0.625	21.103	10.552	35.772	14.669	2.439	9.331	0.442	25.220
2414.000	250.000	16.500	10.761	0.625	22.038	11.019	36.707	14.669	2.502	9.331	0.423	25.688
2418.000	300.000	17.200	11.217	0.750	22.944	11.472	36.722	13.978	2.641	10.022	0.437	25.450
2419.000	350.000	18.200	11.870	0.875	24.247	12.124	38.052	13.805	2.756	10.195	0.420	25.929
2422.000	400.000	19.000	12.391	1.000	25.281	12.641	38.568	13.287	2.903	10.714	0.424	25.927
2423.000	450.000	20.000	13.043	1.125	26.578	13.289	39.692	13.114	3.027	10.886	0.410	26.403
2426.000	500.000	20.500	13.370	1.250	27.208	13.604	39.804	12.595	3.160	11.405	0.419	26.200
2426.000	550.000	21.200	13.826	1.375	28.102	14.051	40.697	12.595	3.231	11.405	0.406	26.646
2428.000	600.000	21.900	14.283	1.500	28.993	14.497	41.243	12.250	3.367	11.750	0.405	26.746
2431.000	700.000	23.000	15.000	1.750	30.372	15.186	42.103	11.731	3.589	12.269	0.404	26.917
2433.000	800.000	24.200	15.783	2.000	31.875	15.938	43.261	11.386	3.800	12.614	0.396	27.323
2434.000	900.000	25.300	16.500	2.250	33.239	16.620	44.452	11.213	3.964	12.787	0.385	27.833
2435.000	1000.000	26.100	17.022	2.500	34.202	17.101	45.243	11.040	4.098	12.960	0.379	28.141
2436.000	1100.000	27.200	17.739	2.750	35.553	17.776	46.420	10.867	4.272	13.133	0.369	28.644
2437.000	1200.000	28.100	18.326	3.000	36.634	18.317	47.329	10.695	4.426	13.306	0.363	29.012
2437.000	1300.000	28.800	18.783	3.250	37.451	18.725	48.145	10.695	4.502	13.306	0.355	29.420
2437.000	1400.000	29.200	19.043	3.500	37.872	18.936	48.567	10.695	4.541	13.306	0.351	29.631
2437.000	1500.000	30.000	19.565	3.750	38.809	19.405	49.504	10.695	4.629	13.306	0.343	30.099
2437.000	1600.000	30.200	19.696	4.000	38.966	19.483	49.661	10.695	4.644	13.306	0.341	30.178
2438.000	1700.000	30.800	20.087	4.250	39.637	19.819	50.159	10.522	4.767	13.478	0.340	30.340
2438.000	1800.000	31.100	20.283	4.500	39.719	19.759	50.440	10.522	4.794	13.478	0.338	30.481
2438.000	1900.000	31.600	20.609	4.750	40.454	20.227	50.976	10.522	4.845	13.478	0.333	30.749
2438.000	2000.000	32.000	20.870	5.000	40.859	20.429	51.380	10.522	4.883	13.478	0.330	30.951
2438.000	2100.000	32.400	21.130	5.250	41.261	20.630	51.782	10.522	4.921	13.478	0.327	31.152
2438.000	2200.000	33.000	21.522	5.500	41.914	20.957	52.436	10.522	4.984	13.478	0.322	31.479
2440.000	2300.000	33.300	22.043	5.750	42.816	21.408	52.793	10.176	5.208	13.824	0.323	31.584
2440.000	2400.000	34.000	22.174	6.000	42.956	21.478	53.132	10.176	5.221	13.824	0.322	31.654
2440.000	2500.000	34.000	22.174	6.250	42.841	21.421	53.018	10.176	5.210	13.824	0.323	31.597
2440.000	2600.000	34.100	22.239	6.500	42.853	21.426	53.029	10.176	5.211	13.824	0.323	31.603
2440.000	2700.000	34.200	22.304	6.750	42.863	21.432	53.040	10.176	5.212	13.824	0.323	31.608
2439.000	2800.000	34.900	22.761	7.000	43.624	21.812	53.972	10.349	5.215	13.651	0.313	32.161
2440.000	2900.000	35.000	22.826	7.250	43.631	21.815	53.807	10.176	5.298	13.824	0.317	31.992
2440.000	3000.000	35.200	22.957	7.500	43.762	21.881	53.938	10.176	5.300	13.824	0.316	32.057
2439.000	3100.000	35.400	23.087	7.750	43.892	21.946	54.241	10.349	5.241	13.651	0.311	32.295
2440.000	3200.000	35.400	23.087	8.000	43.773	21.886	53.949	10.176	5.302	13.824	0.316	32.063
2440.000	3400.000	36.000	23.478	8.500	44.273	22.136	54.449	10.176	5.351	13.824	0.312	32.312
2440.000	3500.000	36.200	23.609	8.750	44.397	22.199	54.573	10.176	5.363	13.824	0.311	32.375
2440.000	3600.000	36.400	23.739	9.000	44.520	22.260	54.696	10.176	5.375	13.824	0.311	32.436
2440.000	3800.000	37.000	24.130	9.500	45.005	22.503	55.181	10.176	5.423	13.824	0.307	32.679
2440.000	4000.000	37.100	24.196	10.000	44.878	22.439	55.054	10.176	5.410	13.824	0.308	32.615
2440.000	4200.000	37.200	24.261	10.500	44.749	22.374	54.925	10.176	5.397	13.824	0.309	32.550
2440.000	4400.000	37.200	24.261	11.000	44.498	22.249	54.675	10.176	5.373	13.824	0.311	32.425
2440.000	4600.000	37.300	24.652	11.500	44.962	22.481	55.138	10.176	5.418	13.824	0.307	32.657
2440.000	4800.000	37.200	24.261	12.000	43.998	21.999	54.175	10.176	5.324	13.824	0.314	32.175
2440.000	5000.000	37.200	24.261	12.500	43.748	21.874	53.925	10.176	5.299	13.824	0.316	32.050
2440.000	5200.000	37.300	24.326	13.000	43.615	21.808	53.791	10.176	5.286	13.824	0.317	31.984
2440.000	5400.000	37.300	24.326	13.500	43.365	21.682	53.541	10.176	5.261	13.824	0.319	31.859
2440.000	5600.000	37.300	24.326	14.000	43.114	21.557	53.290	10.176	5.237	13.824	0.321	31.733
2440.000	5800.000	37.300	24.326	14.500	42.863	21.432	53.040	10.176	5.212	13.824	0.323	31.608
2440.000	6000.000	37.300	24.326	15.000	42.613	21.306	52.789	10.176	5.188	13.824	0.324	31.483

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-4
TEST DATE: 4/25/80

SAMPLE DIAMETER = 2.061 IN.
SAMPLE HEIGHT = 3.952 IN.

INITIAL PORE PRESSURE READING = 2290
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.5 TSF
LOAD RING SIZE = 600 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG3 KPS	SIG1 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2330.000	40.000	14.500	9.457	0.101	19.583	9.791	60.671	41.088	1.477	6.912	0.353	50.880
2364.000	100.000	20.000	13.043	0.253	26.969	13.485	62.182	35.213	1.766	12.787	0.474	48.697
2380.000	140.000	24.000	15.652	0.354	32.330	16.165	64.778	32.448	1.996	15.552	0.481	48.613
2400.000	200.000	28.000	18.261	0.506	37.661	18.831	66.653	28.992	2.299	19.008	0.505	47.823
2422.000	300.000	32.000	20.870	0.759	42.932	21.466	68.122	25.191	2.704	22.809	0.531	46.656
2438.000	400.000	35.000	22.826	1.012	46.837	23.418	69.263	22.426	3.089	25.574	0.546	45.844
2446.000	500.000	37.000	24.130	1.265	49.387	24.693	70.430	21.043	3.347	26.957	0.546	45.737
2458.000	600.000	39.000	25.435	1.518	51.923	25.961	70.893	18.970	3.737	29.030	0.559	44.931
2466.000	700.000	40.600	26.478	1.771	53.914	26.957	71.501	17.588	4.065	30.413	0.564	44.545
2484.000	1000.000	42.500	27.717	2.530	56.001	28.001	70.478	14.477	4.868	33.523	0.599	42.478
2495.000	1400.000	44.000	28.696	3.543	57.376	28.688	69.952	12.576	5.562	35.424	0.617	41.264
2502.000	1700.000	42.000	27.391	4.302	54.337	27.168	65.703	11.367	5.780	36.633	0.674	38.535
2502.000	1700.000	45.200	29.478	4.302	58.476	29.238	69.843	11.367	6.145	36.633	0.626	40.605
2506.000	2000.000	46.000	30.000	5.061	59.039	29.520	69.715	10.676	6.530	37.325	0.632	40.195
2507.000	2200.000	46.000	30.000	5.567	58.725	29.362	69.227	10.503	6.591	37.497	0.639	39.865
2509.000	2400.000	47.000	30.652	6.073	59.680	29.840	69.837	10.157	6.876	37.843	0.634	39.997
2513.000	2600.000	46.800	30.522	6.579	59.106	29.553	68.572	9.466	7.244	38.534	0.652	39.019
2516.000	3000.000	48.500	31.630	7.591	60.589	30.295	69.536	8.947	7.772	39.053	0.645	39.242
2516.000	3200.000	49.000	31.957	8.097	60.878	30.439	69.826	8.947	7.804	39.053	0.641	39.387
2516.000	3400.000	49.000	31.957	8.603	60.543	30.272	69.491	8.947	7.766	39.053	0.645	39.219
2516.000	3600.000	49.000	31.957	9.109	60.208	30.104	69.155	8.947	7.729	39.053	0.649	39.052
2516.000	4000.000	49.000	31.957	10.122	59.537	29.769	68.485	8.947	7.654	39.053	0.656	38.716

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD-4
TEST DATE: 4/25/80

SAMPLE DIAMETER = 2.044 IN.
SAMPLE HEIGHT = 3.926 IN.

INITIAL PORE PRESSURE READING = 2400
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.01 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2446.000	20.000	22.500	8.882	0.051	18.708	9.354	107.722	89.013	1.210	7.949	0.425	98.367
2487.000	60.000	34.500	13.618	0.153	28.657	14.329	110.585	81.928	1.350	15.034	0.525	96.257
2515.000	100.000	40.500	15.987	0.255	33.606	16.803	110.696	77.090	1.436	19.872	0.591	93.893
2547.000	160.000	46.200	18.237	0.408	38.278	19.139	109.837	71.560	1.535	25.401	0.664	90.699
2562.000	200.000	59.000	23.289	0.509	48.833	24.416	117.801	68.968	1.708	27.993	0.573	93.385
2595.000	300.000	53.500	21.118	0.764	44.167	22.084	107.433	63.266	1.698	33.696	0.763	85.349
2618.000	400.000	56.200	22.184	1.019	46.277	23.139	105.568	59.291	1.781	37.670	0.814	82.430
2636.000	500.000	59.000	23.289	1.274	48.457	24.229	104.638	56.181	1.863	40.781	0.842	80.410
2650.000	600.000	60.900	24.039	1.528	49.889	24.944	103.650	53.762	1.928	43.200	0.866	78.706
2664.000	700.000	62.500	24.671	1.783	51.067	25.534	102.410	51.342	1.995	45.619	0.893	76.876
2676.000	800.000	65.000	25.658	2.038	52.972	26.486	102.241	49.269	2.075	47.692	0.900	75.755
2686.000	900.000	67.900	26.803	2.292	55.192	27.596	102.732	47.541	2.161	49.420	0.895	75.137
2695.000	1000.000	75.500	29.803	2.547	61.209	30.605	107.195	45.986	2.331	50.976	0.833	76.590
2709.000	1200.000	77.500	30.570	3.057	62.456	31.228	106.022	43.566	2.434	53.395	0.855	74.795
2718.000	1400.000	80.800	31.823	3.566	64.675	32.338	106.686	42.011	2.539	54.950	0.850	74.349
2736.000	1800.000	84.000	33.038	4.585	66.436	33.218	105.336	38.901	2.708	58.060	0.874	72.119
2740.000	2000.000	86.200	33.873	5.094	67.752	33.876	105.961	38.209	2.773	58.752	0.867	72.085
2745.000	2200.000	88.200	34.633	5.604	68.899	34.450	106.244	37.345	2.845	59.616	0.865	71.795
2750.000	2400.000	89.200	35.013	6.113	69.278	34.639	105.760	36.481	2.899	60.480	0.873	71.121
2755.000	2600.000	89.000	34.937	6.623	68.753	34.377	104.370	35.617	2.930	61.344	0.892	69.994
2758.000	2800.000	89.000	34.937	7.132	68.378	34.189	103.477	35.099	2.948	61.862	0.905	69.089
2760.000	3000.000	88.500	34.747	7.641	67.633	33.817	102.387	34.753	2.946	62.208	0.920	68.570
2765.000	3400.000	87.500	34.367	8.660	66.156	33.078	100.045	33.889	2.952	63.072	0.953	66.968

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CB-40
TEST DATE; 3/12/80

SAMPLE DIAMETER = 1.97 IN.
SAMPLE HEIGHT = 3.897 IN.

INITIAL PORE PRESSURE READING = 2263
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.18 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2274.000	20.000	7.200	2.842	0.051	23.725	11.862	39.104	15.379	2.543	1.901	0.080	27.242
2288.000	60.000	17.700	6.987	0.154	33.107	16.554	46.068	12.960	3.535	4.320	0.130	29.514
2293.000	100.000	24.500	9.671	0.257	39.165	19.583	51.262	12.096	4.238	5.184	0.132	31.679
2300.000	140.000	30.000	11.842	0.359	44.051	22.026	54.938	10.887	5.046	6.394	0.145	32.912
2303.000	180.000	33.000	13.026	0.462	46.698	23.349	57.066	10.368	5.504	6.912	0.148	33.717
2303.000	250.000	36.500	14.408	0.642	49.759	24.880	60.127	10.368	5.799	6.912	0.139	35.248
2309.000	350.000	40.000	15.789	0.898	52.781	26.391	62.113	9.331	6.656	7.949	0.151	35.722
2312.000	450.000	42.000	16.579	1.155	54.460	27.230	63.273	8.813	7.180	8.467	0.155	36.043
2312.000	550.000	43.500	17.171	1.411	55.688	27.844	64.501	8.813	7.319	8.467	0.152	36.657
2315.000	700.000	45.700	18.039	1.796	57.473	28.736	65.767	8.295	7.929	8.986	0.156	37.031
2320.000	900.000	47.500	18.750	2.309	58.838	29.419	66.268	7.431	8.918	9.850	0.167	36.849
2320.000	1000.000	48.500	19.145	2.566	59.601	29.801	67.032	7.431	9.021	9.850	0.165	37.231
2321.000	1200.000	50.000	19.737	3.079	60.680	30.340	67.938	7.258	9.361	10.022	0.165	37.598
2324.000	1400.000	50.700	20.013	3.593	61.055	30.527	67.794	6.739	10.060	10.541	0.173	37.267
2323.000	1600.000	51.500	20.329	4.106	61.509	30.754	68.421	6.912	9.899	10.368	0.169	37.667
2324.000	1800.000	51.700	20.408	4.619	61.443	30.721	68.182	6.739	10.117	10.541	0.172	37.461
2323.000	2000.000	52.000	20.526	5.132	61.460	30.730	68.372	6.912	9.892	10.368	0.169	37.642
2323.000	2200.000	52.200	20.605	5.645	61.390	30.695	68.302	6.912	9.882	10.368	0.169	37.607
2327.000	2400.000	52.500	20.724	6.159	61.402	30.701	67.623	6.221	10.870	11.059	0.180	36.922
2327.000	2600.000	52.700	20.803	6.672	61.328	30.664	67.549	6.221	10.858	11.059	0.180	36.885
2324.000	2800.000	53.000	20.921	7.185	61.335	30.668	68.075	6.739	10.101	10.541	0.172	37.407
2324.000	3000.000	53.000	20.921	7.698	61.092	30.546	67.831	6.739	10.065	10.541	0.173	37.285
2326.000	3200.000	53.000	20.921	8.211	60.848	30.424	67.242	6.394	10.517	10.886	0.179	36.818
2328.000	3400.000	52.700	20.803	8.725	60.359	30.180	66.407	6.048	10.980	11.232	0.186	36.228
2324.000	3800.000	52.500	20.724	9.751	59.713	29.857	66.452	6.739	9.860	10.541	0.177	36.596
2324.000	4000.000	52.200	20.605	10.264	59.231	29.615	65.970	6.739	9.789	10.541	0.178	36.355
2327.000	4400.000	51.700	20.408	11.291	58.354	29.177	64.575	6.221	10.380	11.059	0.190	35.398

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-5
TEST DATE; 1/17/80

SAMPLE DIAMETER = 2.052 IN.
SAMPLE HEIGHT = 3.973 IN.

INITIAL PORE PRESSURE READING = 2326
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.11 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIB	EXC PP KPS	A-F	AVG ES KPS
2352.000	40.000	2.800	1.105	0.101	2.309	1.154	8.376	6.067	1.381	4.493	1.946	7.222
2360.000	80.000	5.000	1.974	0.201	4.119	2.059	8.804	4.685	1.879	5.875	1.426	6.744
2364.000	120.000	7.000	2.763	0.302	5.761	2.880	9.754	3.994	2.442	6.566	1.140	6.874
2366.000	160.000	8.400	3.316	0.403	6.906	3.453	10.554	3.648	2.893	6.912	1.001	7.101
2368.000	200.000	9.800	3.868	0.503	8.049	4.024	11.351	3.303	3.437	7.258	0.902	7.327
2375.000	300.000	11.800	4.658	0.755	9.667	4.833	11.759	2.093	5.619	8.467	0.876	6.926
2379.000	400.000	14.200	5.605	1.007	11.603	5.802	13.005	1.402	9.278	9.158	0.789	7.203
2380.000	500.000	17.000	6.711	1.258	13.856	6.928	15.085	1.229	12.275	9.331	0.673	8.157
2383.000	600.000	18.500	7.303	1.510	15.040	7.520	15.750	0.710	22.168	9.850	0.635	8.230
2386.000	800.000	22.000	8.684	2.014	17.794	8.897	17.986	0.192	93.631	10.368	0.583	9.089
2388.000	1200.000	28.000	11.053	3.020	22.414	11.207	22.261	0.154	145.016	10.714	0.478	11.054
2388.000	1800.000	33.500	13.224	4.531	26.399	13.200	26.246	0.154	170.977	10.714	0.406	13.046
2388.000	2000.000	34.500	13.618	5.034	27.044	13.522	26.891	0.154	175.178	10.714	0.396	13.369
2388.000	2200.000	35.500	14.013	5.537	27.680	13.840	27.527	0.154	179.323	10.714	0.387	13.687
2386.000	2600.000	37.200	14.684	6.544	28.697	14.348	28.889	0.192	150.387	10.368	0.361	14.540
2386.000	3000.000	39.500	15.592	7.551	30.143	15.071	30.335	0.192	157.915	10.368	0.344	15.264
2385.000	3600.000	40.600	16.026	9.061	30.476	15.238	30.841	0.365	84.520	10.195	0.333	15.603
2385.000	4000.000	40.900	16.145	10.068	30.361	15.181	30.726	0.365	84.205	10.195	0.336	15.546
2385.000	4200.000	41.500	16.382	10.571	30.634	15.317	30.999	0.365	84.953	10.195	0.333	15.682
2384.000	4400.000	42.000	16.579	11.075	30.829	15.414	31.367	0.538	58.335	10.022	0.325	15.952
2385.000	4800.000	43.500	17.171	12.082	31.568	15.784	31.933	0.365	87.513	10.195	0.323	16.149
2386.000	5200.000	44.000	17.368	13.088	31.566	15.783	31.758	0.192	165.322	10.368	0.328	15.975
2388.000	5600.000	44.800	17.684	14.095	31.767	15.884	31.614	0.154	205.947	10.714	0.337	15.730
2390.000	6000.000	45.500	17.961	15.102	31.885	15.943	31.386	0.499	62.885	11.059	0.347	15.444
2390.000	6400.000	46.200	18.237	16.109	31.992	15.996	31.493	0.499	63.099	11.059	0.346	15.497
2392.000	7000.000	47.200	18.632	17.619	32.096	16.048	31.251	0.845	36.997	11.405	0.355	15.203
2392.000	7400.000	47.000	18.553	18.626	31.570	15.785	30.725	0.845	36.373	11.405	0.361	14.940

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-5
TEST DATE; 1/11/80

SAMPLE DIAMETER = 2.057 IN.
SAMPLE HEIGHT = 3.95 IN.

INITIAL PORE PRESSURE READING = 2380
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.22 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2400.000	20.000	3.000	1.184	0.051	2.463	1.232	20.127	17.664	1.139	3.456	1.403	18.896
2404.000	60.000	6.000	2.368	0.152	4.921	2.461	21.894	16.973	1.290	4.147	0.843	19.434
2411.000	100.000	8.200	3.237	0.253	6.719	3.359	22.482	15.763	1.426	5.357	0.797	19.123
2414.000	140.000	9.200	3.632	0.354	7.530	3.765	22.775	15.245	1.494	5.875	0.780	19.010
2416.000	180.000	10.200	4.026	0.456	8.340	4.170	23.240	14.899	1.560	6.221	0.746	19.070
2422.000	250.000	11.800	4.658	0.633	9.631	4.816	23.494	13.863	1.695	7.258	0.754	18.678
2425.000	350.000	14.500	5.724	0.886	11.805	5.903	25.149	13.344	1.885	7.776	0.659	19.247
2443.000	450.000	17.000	6.711	1.139	13.805	6.903	24.039	10.234	2.349	10.886	0.789	17.136
2446.000	550.000	18.600	7.342	1.392	15.066	7.533	24.781	9.715	2.551	11.405	0.757	17.248
2446.000	650.000	20.600	8.132	1.646	16.643	8.322	26.358	9.715	2.713	11.405	0.685	18.037
2488.000	750.000	22.100	8.724	1.899	17.809	8.904	20.267	2.458	8.246	18.662	1.048	11.362
2453.000	850.000	23.500	9.276	2.152	18.888	9.444	27.394	8.506	3.221	12.614	0.668	17.950
2454.000	1000.000	25.500	10.066	2.532	20.416	10.208	28.749	8.333	3.450	12.787	0.626	18.541
2454.000	1200.000	26.700	10.540	3.038	21.266	10.633	29.599	8.333	3.552	12.787	0.601	18.966
2458.000	1400.000	29.000	11.447	3.544	22.977	11.489	30.619	7.642	4.007	13.478	0.587	19.138
2457.000	1800.000	31.200	12.316	4.557	24.461	12.230	32.275	7.815	4.130	13.306	0.544	20.045
2457.000	2200.000	32.300	12.750	5.570	25.054	12.527	32.869	7.815	4.206	13.306	0.531	20.342
2459.000	2600.000	34.900	13.776	6.582	26.781	13.390	34.250	7.469	4.586	13.651	0.510	20.859
2458.000	3000.000	36.800	14.526	7.595	27.933	13.966	35.574	7.642	4.655	13.478	0.483	21.608
2454.000	3400.000	41.500	16.382	8.608	31.155	15.577	39.488	8.333	4.739	12.787	0.410	23.910
2458.000	3800.000	54.200	21.395	9.620	40.238	20.119	47.880	7.642	6.266	13.478	0.335	27.761
2456.000	4200.000	54.200	21.395	10.633	39.787	19.894	47.775	7.987	5.981	13.133	0.330	27.881
2456.000	4600.000	55.900	22.066	11.646	40.570	20.285	48.558	7.987	6.079	13.133	0.324	28.272
2457.000	5000.000	56.000	22.105	12.658	40.177	20.089	47.992	7.815	6.141	13.306	0.331	27.903
2457.000	5400.000	57.100	22.539	13.671	40.491	20.246	48.306	7.815	6.182	13.306	0.329	28.060
2455.000	5800.000	55.200	21.789	14.684	38.685	19.342	46.845	8.160	5.741	12.960	0.335	27.503
2456.000	6200.000	54.500	21.513	15.696	37.741	18.870	45.728	7.987	5.725	13.133	0.348	26.858
2456.000	6600.000	53.500	21.118	16.709	36.603	18.302	44.591	7.987	5.583	13.133	0.359	26.289

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD-5
TEST DATE; 1/18/80

SAMPLE DIAMETER = 2.031 IN.
SAMPLE HEIGHT = 3.906 IN.

INITIAL PORE PRESSURE READING = 2247
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.43 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EIC PP KPS	A-F	AVG ES KPS
2250.000	20.000	1.500	0.592	0.051	1.263	0.632	42.025	40.762	1.031	0.518	0.410	41.394
2251.000	60.000	7.000	2.763	0.154	5.889	2.945	46.478	40.589	1.145	0.691	0.117	43.534
2260.000	100.000	10.500	4.145	0.256	8.825	4.412	47.858	39.034	1.226	2.246	0.255	43.446
2280.000	140.000	20.000	7.895	0.358	16.792	8.396	52.369	35.578	1.472	5.702	0.340	43.974
2300.000	180.000	30.000	11.842	0.461	25.161	12.581	57.283	32.122	1.783	9.158	0.364	44.702
2325.000	250.000	40.000	15.789	0.640	33.488	16.744	61.290	27.802	2.205	13.478	0.402	44.546
2365.000	450.000	54.200	21.395	1.152	45.142	22.571	66.032	20.890	3.161	20.390	0.452	43.461
2375.000	550.000	58.200	22.974	1.408	48.348	24.174	67.510	19.162	3.523	22.118	0.457	43.336
2388.000	700.000	63.000	24.868	1.792	52.132	26.066	69.048	16.915	4.082	24.365	0.467	42.982
2406.000	900.000	67.500	26.645	2.304	55.565	27.782	69.370	13.805	5.025	27.475	0.494	41.587
2408.000	1000.000	69.200	27.316	2.560	56.815	28.407	70.274	13.459	5.221	27.821	0.490	41.867
2416.000	1200.000	72.000	28.421	3.072	58.803	29.402	70.880	12.077	5.869	29.203	0.497	41.479
2431.000	1700.000	76.300	30.114	4.352	61.483	30.741	70.968	9.485	7.482	31.795	0.517	40.227
2434.000	2000.000	78.100	30.798	5.120	62.373	31.187	71.340	8.967	7.956	32.313	0.518	40.153
2442.000	2400.000	80.000	31.519	6.144	63.146	31.573	70.730	7.584	9.326	33.696	0.534	39.157
2444.000	2800.000	81.100	31.937	7.168	63.284	31.642	70.523	7.239	9.743	34.041	0.538	38.881
2441.000	3000.000	81.900	32.241	7.680	63.534	31.767	71.291	7.757	9.190	33.523	0.528	39.524
2444.000	3600.000	82.000	32.279	9.217	62.551	31.275	69.789	7.239	9.641	34.041	0.544	38.514
2446.000	4000.000	81.900	32.241	10.241	61.772	30.886	68.665	6.893	9.961	34.387	0.557	37.779
2445.000	4200.000	81.400	32.051	10.753	61.058	30.529	68.124	7.066	9.641	34.214	0.560	37.595
2447.000	4400.000	80.500	31.709	11.265	60.060	30.030	66.781	6.720	9.937	34.560	0.575	36.751
2448.000	4800.000	80.800	31.823	12.289	59.581	29.790	66.128	6.547	10.100	34.733	0.583	36.338
2453.000	5200.000	80.500	31.709	13.313	58.674	29.337	64.358	5.683	11.324	35.597	0.607	35.021
2457.000	5600.000	80.500	31.709	14.337	57.981	28.991	62.973	4.992	12.614	36.288	0.626	33.983
2461.000	6000.000	80.500	31.709	15.361	57.288	28.644	61.589	4.301	14.319	36.979	0.645	32.945

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C0121
TEST NO.: 4
BORING NO.: CD-5,PC-4
TEST DATE: 3/3/80

SAMPLE DIAMETER = 1.98 IN.
SAMPLE HEIGHT = 3.959 IN.

INITIAL PORE PRESSURE READING = 2340
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.079 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2340.000	410.000	130.000	70.000	1.036	22.227	11.114	29.811	7.584	3.931	0.000	0.000	18.698
2370.000	500.000	200.000	15.000	1.263	33.264	16.632	35.664	2.400	14.860	5.184	0.156	19.032
2370.000	600.000	215.000	16.071	1.516	35.549	17.774	37.949	2.400	15.812	5.184	0.146	20.174
2372.000	800.000	230.000	17.143	2.021	37.724	18.862	39.779	2.054	19.362	5.530	0.147	20.917
2374.000	1000.000	239.000	17.786	2.526	38.937	19.468	40.646	1.709	23.786	5.875	0.151	21.177
2376.000	1200.000	245.700	18.264	3.031	39.777	19.889	41.141	1.363	30.178	6.221	0.156	21.252
2378.000	1400.000	252.000	18.714	3.536	40.545	20.273	41.563	1.018	40.842	6.566	0.162	21.290
2378.000	1600.000	256.000	19.000	4.041	40.949	20.474	41.766	1.018	41.238	6.566	0.160	21.492
2376.000	1800.000	258.000	19.143	4.547	41.039	20.520	42.403	1.363	31.104	6.221	0.152	21.883
2374.000	2000.000	261.000	19.357	5.052	41.279	20.639	42.988	1.709	25.156	5.875	0.142	22.348
2372.000	2200.000	263.000	19.500	5.557	41.362	20.681	43.417	2.054	21.133	5.530	0.134	22.736
2371.000	2400.000	265.000	19.643	6.062	41.443	20.721	43.670	2.227	19.607	5.357	0.129	22.949
2372.000	2600.000	268.000	19.857	6.567	41.669	20.835	43.724	2.054	21.282	5.530	0.133	22.889
2372.000	2800.000	269.000	19.929	7.072	41.593	20.797	43.648	2.054	21.245	5.530	0.133	22.851
2370.000	3000.000	270.000	20.000	7.578	41.515	20.758	43.915	2.400	18.298	5.184	0.125	23.158
2369.000	3200.000	270.500	20.036	8.083	41.362	20.681	43.935	2.573	17.076	5.011	0.121	23.254
2368.000	3400.000	271.000	20.071	8.588	41.208	20.604	43.954	2.746	16.009	4.838	0.117	23.350
2367.000	3600.000	272.000	20.143	9.093	41.126	20.563	44.045	2.918	15.092	4.666	0.113	23.482
2366.000	3800.000	273.000	20.214	9.598	41.043	20.521	44.134	3.091	14.277	4.493	0.109	23.613
2368.000	4000.000	273.000	20.214	10.104	40.813	20.407	43.359	2.746	15.865	4.838	0.117	23.152
2367.000	4200.000	273.000	20.214	10.609	40.584	20.292	43.502	2.918	14.906	4.666	0.115	23.210
2366.000	4400.000	273.000	20.214	11.114	40.355	20.177	43.446	3.091	14.055	4.493	0.111	23.269

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-6
TEST DATE; 1/22/80

SAMPLE DIAMETER = 2.065 IN.
SAMPLE HEIGHT = 3.935 IN.

INITIAL PORE PRESSURE READING = 2372
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.32 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2372.000	20.000	4.900	1.934	0.051	3.992	1.996	34.712	30.720	1.130	0.000	0.000	32.716
2372.000	60.000	12.100	4.776	0.152	9.847	4.924	40.567	30.720	1.321	0.000	0.000	35.644
2371.000	100.000	14.000	5.526	0.254	11.382	5.691	42.275	30.893	1.368	-0.173	-0.015	36.584
2371.000	140.000	14.000	5.526	0.356	11.370	5.685	42.263	30.893	1.368	-0.173	-0.015	36.578
2382.000	180.000	20.500	8.092	0.457	16.633	8.316	45.625	28.992	1.574	1.728	0.104	37.309
2413.000	250.000	27.000	10.658	0.635	21.867	10.934	45.503	23.635	1.925	7.085	0.324	34.569
2436.000	350.000	49.500	19.539	0.889	39.987	19.994	59.648	19.661	3.034	11.059	0.277	39.655
2448.000	450.000	57.000	22.500	1.144	45.928	22.964	63.515	17.587	3.611	13.133	0.286	40.551
2459.000	550.000	62.800	24.789	1.398	50.471	25.236	66.158	15.687	4.217	15.034	0.298	40.922
2470.000	700.000	70.000	27.632	1.779	56.040	28.020	69.826	13.786	5.065	16.934	0.302	41.806
2477.000	900.000	77.500	30.570	2.287	61.678	30.839	74.254	12.576	5.904	18.144	0.294	43.415
2485.000	1200.000	84.900	33.380	3.050	66.822	33.411	78.016	11.194	6.970	19.526	0.292	44.605
2487.000	1400.000	89.100	34.975	3.558	69.648	34.824	80.496	10.848	7.420	19.872	0.285	45.672
2487.000	1600.000	92.100	36.114	4.066	71.538	35.769	82.386	10.848	7.594	19.872	0.278	46.617
2488.000	1800.000	95.100	37.253	4.574	73.404	36.702	84.080	10.675	7.876	20.045	0.273	47.378
2488.000	2000.000	97.800	38.279	5.083	75.022	37.511	85.698	10.675	8.028	20.045	0.267	48.187
2488.000	2400.000	99.000	38.734	6.099	75.102	37.551	85.778	10.675	8.035	20.045	0.267	48.227
2488.000	2600.000	99.500	38.924	6.607	75.062	37.531	85.738	10.675	8.031	20.045	0.267	48.206
2488.000	2800.000	100.100	39.152	7.116	75.091	37.545	85.766	10.675	8.034	20.045	0.267	48.221
2488.000	3000.000	100.200	39.190	7.624	74.752	37.376	85.427	10.675	8.002	20.045	0.268	48.051
2488.000	3200.000	100.900	39.456	8.132	74.845	37.423	85.521	10.675	8.011	20.045	0.268	48.098
2490.000	3400.000	101.100	39.532	8.640	74.574	37.287	84.904	10.330	8.219	20.390	0.273	47.617
2490.000	3600.000	100.600	39.342	9.149	73.803	36.902	84.133	10.330	8.145	20.390	0.276	47.231
2490.000	3800.000	99.700	39.000	9.657	72.753	36.377	83.083	10.330	8.043	20.390	0.280	46.706
2490.000	4200.000	99.900	39.076	10.673	72.074	36.037	82.404	10.330	7.977	20.390	0.283	46.367
2490.000	4600.000	100.200	39.190	11.690	71.462	35.731	81.792	10.330	7.918	20.390	0.285	46.061
2490.000	5000.000	100.200	39.190	12.707	70.639	35.320	80.969	10.330	7.838	20.390	0.289	45.650
2491.000	5200.000	102.000	39.873	13.215	71.453	35.727	81.610	10.157	8.035	20.563	0.288	45.884
2491.000	5600.000	99.200	38.810	14.231	68.733	34.366	78.890	10.157	7.767	20.563	0.299	44.523
2492.000	6200.000	98.500	38.544	15.756	67.049	33.524	77.033	9.984	7.715	20.736	0.309	43.508
2493.000	6600.000	98.000	38.354	16.773	65.913	32.957	75.724	9.811	7.718	20.909	0.317	42.768
2493.000	7200.000	97.800	38.279	18.297	64.578	32.289	74.389	9.811	7.582	20.909	0.324	42.100

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-6
TEST DATE; 1/22/80

SAMPLE DIAMETER = 2.066 IN.
SAMPLE HEIGHT = 3.9055 IN.

INITIAL PORE PRESSURE READING = 2272
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.65 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2327.000	40.000	33.000	13.026	0.102	26.844	13.422	79.740	52.896	1.507	9.504	0.354	66.318
2344.000	80.000	41.000	16.184	0.205	33.317	16.659	83.276	49.959	1.667	12.442	0.373	66.617
2361.000	120.000	47.000	18.553	0.307	38.154	19.077	85.175	47.021	1.811	15.379	0.403	66.098
2371.000	160.000	51.000	20.132	0.410	41.358	20.679	86.651	45.293	1.913	17.107	0.414	65.972
2380.000	200.000	55.000	21.711	0.512	44.556	22.278	88.294	43.738	2.019	18.662	0.419	66.016
2400.000	300.000	62.000	24.474	0.768	50.098	25.049	90.380	40.282	2.244	22.118	0.442	65.331
2413.000	400.000	67.000	26.447	1.024	53.998	26.999	92.034	38.035	2.420	24.365	0.451	65.035
2424.000	500.000	71.500	28.224	1.280	57.476	28.738	93.611	36.135	2.591	26.265	0.457	64.873
2437.000	650.000	77.000	30.380	1.664	61.626	30.813	95.514	33.888	2.819	28.512	0.463	64.701
2447.000	800.000	82.000	32.279	2.048	65.222	32.611	97.382	32.160	3.028	30.240	0.464	64.771
2455.000	1000.000	88.000	34.557	2.560	69.461	34.731	100.238	30.778	3.257	31.622	0.455	65.508
2462.000	1200.000	90.000	35.317	3.073	70.615	35.307	100.183	29.568	3.388	32.832	0.465	64.875
2467.000	1600.000	95.000	37.215	4.097	73.625	36.812	102.329	28.704	3.565	33.696	0.458	65.517
2471.000	1800.000	98.000	38.354	4.609	75.473	37.736	103.486	28.013	3.694	34.387	0.456	65.749
2472.000	2200.000	108.000	42.152	5.633	82.055	41.028	109.895	27.840	3.947	34.560	0.421	68.868
2475.000	2600.000	116.000	45.190	6.657	87.015	43.507	114.336	27.322	4.185	35.078	0.403	70.829
2477.000	2800.000	120.000	46.709	7.169	89.446	44.723	116.422	26.976	4.316	35.424	0.396	71.699
2478.000	3200.000	124.000	48.228	8.194	91.336	45.668	118.140	26.804	4.408	35.597	0.390	72.471
2479.000	3600.000	128.000	49.747	9.218	93.161	46.581	119.792	26.631	4.498	35.769	0.384	73.211
2481.000	4000.000	129.000	50.127	10.242	92.814	46.407	119.099	26.285	4.531	36.115	0.389	72.692
2483.000	4400.000	129.000	50.127	11.266	91.754	45.877	117.693	25.940	4.537	36.461	0.397	71.816
2484.000	4800.000	129.000	50.127	12.290	90.695	45.348	116.461	25.767	4.520	36.633	0.404	71.114
2484.000	5000.000	128.500	49.937	12.803	89.824	44.912	115.591	25.767	4.486	36.633	0.408	70.679

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD-6
TEST DATE; 1/24/80

SAMPLE DIAMETER = 2.059 IN.
SAMPLE HEIGHT = 3.972 IN.

INITIAL PORE PRESSURE READING = 2326
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 1.3 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2326.000	20.000	9.500	3.750	0.050	7.785	3.892	132.585	124.800	1.062	0.000	0.000	128.693
2324.000	60.000	19.500	7.697	0.151	15.963	7.981	141.108	125.146	1.128	-0.346	-0.022	133.127
2324.000	100.000	27.000	10.658	0.252	22.080	11.040	147.226	125.146	1.176	-0.346	-0.016	136.186
2328.000	140.000	33.000	13.026	0.352	26.959	13.480	151.415	124.456	1.217	0.346	0.013	137.936
2354.000	180.000	49.500	19.539	0.453	40.398	20.199	160.361	119.964	1.337	4.838	0.120	140.163
2513.000	350.000	109.000	42.532	0.881	87.556	43.778	180.044	92.488	1.947	32.313	0.369	136.266
2568.000	450.000	123.500	48.038	1.133	98.640	49.320	181.624	82.984	2.189	41.817	0.424	132.304
2654.000	700.000	142.800	55.367	1.762	112.966	56.483	181.090	68.123	2.658	56.678	0.502	124.607
2696.000	900.000	150.200	58.177	2.266	118.092	59.046	178.957	60.865	2.940	63.936	0.541	119.912
2714.000	1000.000	153.100	59.278	2.518	120.016	60.008	177.771	57.755	3.078	67.046	0.559	117.763
2738.000	1200.000	157.600	60.963	3.021	122.790	61.395	176.397	53.608	3.291	71.193	0.580	115.002
2774.000	1600.000	162.800	62.889	4.028	125.354	62.677	172.740	47.387	3.645	77.414	0.618	110.064
2798.000	2000.000	166.400	64.222	5.035	126.667	63.334	169.907	43.240	3.929	81.561	0.644	106.573
2813.000	2400.000	167.200	64.519	6.042	125.902	62.951	166.549	40.648	4.097	84.153	0.668	103.598
2823.000	2800.000	168.200	64.889	7.049	125.268	62.634	164.188	38.920	4.219	85.881	0.686	101.354
2830.000	3200.000	167.900	64.778	8.056	123.699	61.849	161.409	37.710	4.280	87.091	0.704	99.560
2838.000	3800.000	165.300	63.815	9.567	119.858	59.929	156.185	36.328	4.299	88.473	0.738	96.256
2839.000	4200.000	162.000	62.593	10.574	116.253	58.127	152.408	36.155	4.215	88.646	0.763	94.281
2845.000	4600.000	160.000	61.852	11.581	113.584	56.792	148.702	35.118	4.234	89.683	0.790	91.910

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD-6
TEST DATE; 3/8/800

SAMPLE DIAMETER = 1.95 IN.
SAMPLE HEIGHT = 3.74 IN.

INITIAL PORE PRESSURE READING = 2320
INITIAL DEFLECTION = 3100
CONFINING PRESSURE = 0.216 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2360.000	3200.000	71.000	28.026	0.267	85.460	42.730	99.284	13.824	7.182	6.912	0.081	56.554
2371.000	3300.000	75.700	29.882	0.535	89.559	44.780	101.483	11.923	8.511	8.813	0.098	56.703
2372.000	3400.000	78.200	30.835	0.802	91.566	45.783	103.316	11.751	8.792	8.986	0.098	57.533
2377.000	3500.000	79.700	31.405	1.070	92.680	46.340	103.566	10.887	9.513	9.850	0.106	57.226
2380.000	3600.000	80.800	31.823	1.337	93.439	46.720	103.808	10.368	10.012	10.368	0.111	57.088
2380.000	3700.000	82.000	32.279	1.604	94.280	47.140	104.649	10.368	10.093	10.368	0.110	57.508
2384.000	3800.000	82.500	32.468	1.872	94.513	47.256	104.190	9.677	10.767	11.059	0.117	56.933
2382.000	3900.000	83.000	32.658	2.139	94.742	47.371	104.764	10.023	10.453	10.714	0.113	57.393
2384.000	4000.000	83.200	32.734	2.406	94.711	47.356	104.388	9.677	10.787	11.059	0.117	57.033
2386.000	4400.000	85.000	33.418	3.476	95.428	47.714	104.759	9.331	11.227	11.405	0.120	57.045
2389.000	4800.000	86.000	33.798	4.545	95.440	47.720	104.252	8.813	11.830	11.923	0.125	56.533
2390.000	5200.000	86.000	33.798	5.615	94.603	47.301	103.242	8.640	11.949	12.096	0.128	55.941
2386.000	5600.000	85.800	33.722	6.684	93.602	46.801	102.933	9.331	11.031	11.405	0.122	56.132
2388.000	6000.000	85.500	33.608	7.754	92.524	46.262	101.509	8.986	11.297	11.750	0.127	55.248
2350.000	6400.000	85.500	33.608	8.824	91.491	45.845	107.243	15.552	6.896	5.184	0.057	61.397
2387.000	6800.000	85.300	33.532	9.893	90.700	45.350	99.858	9.159	10.903	11.578	0.128	54.508
2386.000	7200.000	85.300	33.532	10.963	89.869	44.935	99.201	9.331	10.631	11.405	0.127	54.266

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-7
TEST DATE: 1/29/80

SAMPLE DIAMETER = 2.098 IN.
SAMPLE HEIGHT = 3.766 IN.

INITIAL PORE PRESSURE READING = 2382
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.24 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2372.000	40.000	11.500	4.539	0.106	9.071	4.536	33.839	24.768	1.366	-1.728	-0.190	29.304
2372.000	60.000	16.000	6.316	0.159	12.614	6.307	37.382	24.768	1.509	-1.728	-0.137	31.075
2371.000	100.000	21.000	8.289	0.266	16.538	8.269	41.479	24.941	1.663	-1.901	-0.115	33.210
2371.000	140.000	25.000	9.868	0.372	19.668	9.834	44.608	24.941	1.789	-1.901	-0.097	34.775
2382.000	180.000	29.800	11.763	0.478	23.419	11.709	46.459	23.040	2.016	0.000	0.000	34.749
2398.000	200.000	32.000	12.632	0.531	25.134	12.567	45.410	20.275	2.240	2.765	0.110	32.843
2443.000	400.000	38.700	15.276	1.062	30.234	15.117	42.734	12.499	3.419	10.541	0.349	27.617
2461.000	600.000	42.000	16.579	1.593	32.636	16.318	42.025	9.389	4.476	13.651	0.418	25.707
2474.000	800.000	45.000	17.763	2.124	34.779	17.389	41.921	7.143	5.869	15.898	0.457	24.532
2481.000	1000.000	49.600	19.579	2.655	38.126	19.063	44.059	5.933	7.426	17.107	0.449	24.996
2485.000	1300.000	51.700	20.408	3.452	39.415	19.707	44.656	5.242	8.519	17.798	0.452	24.949
2487.000	1500.000	52.600	20.763	3.983	39.880	19.940	44.777	4.896	9.145	18.144	0.455	24.836
2488.000	1800.000	53.800	21.237	4.780	40.452	20.226	45.175	4.723	9.564	18.317	0.453	24.949
2488.000	2000.000	54.700	21.592	5.311	40.899	20.450	45.623	4.723	9.659	18.317	0.448	25.173
2488.000	2200.000	55.300	21.829	5.842	41.116	20.558	45.839	4.723	9.705	18.317	0.445	25.281
2488.000	2400.000	56.000	22.105	6.373	41.401	20.701	46.125	4.723	9.765	18.317	0.442	25.424
2487.000	2600.000	56.900	22.461	6.904	41.828	20.914	46.724	4.896	9.543	18.144	0.434	25.810
2488.000	2800.000	57.200	22.579	7.435	41.809	20.905	46.532	4.723	9.851	18.317	0.438	25.628
2490.000	3000.000	57.600	22.737	7.966	41.860	20.930	46.238	4.378	10.562	18.662	0.446	25.308
2490.000	3200.000	57.800	22.816	8.497	41.763	20.881	46.141	4.378	10.540	18.662	0.447	25.259
2489.000	3400.000	58.000	22.895	9.028	41.664	20.832	46.215	4.551	10.156	18.489	0.444	25.383

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-7
TEST DATE: 2/1/800

SAMPLE DIAMETER = 2.044 IN.
SAMPLE HEIGHT = 3.957 IN.

INITIAL PORE PRESSURE READING = 2358
INITIAL DEFLECTION = 0.04
CONFINING PRESSURE = 0.5 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2390.000	20.000	10.000	3.947	0.050	8.315	4.157	50.785	42.471	1.196	5.530	0.665	46.628
2420.000	60.000	23.200	9.158	0.152	19.271	9.636	56.558	37.287	1.517	10.714	0.556	46.922
2440.000	100.000	30.500	12.040	0.253	25.309	12.655	59.140	33.831	1.748	14.170	0.560	46.485
2450.000	140.000	35.000	13.816	0.354	29.014	14.507	61.116	32.103	1.904	15.898	0.548	46.609
2459.000	180.000	38.500	15.197	0.455	31.883	15.941	62.430	30.547	2.044	17.453	0.547	46.489
2472.000	250.000	42.200	16.658	0.632	34.885	17.442	63.186	28.301	2.233	19.699	0.565	45.743
2483.000	350.000	46.200	18.237	0.884	38.094	19.047	64.494	26.400	2.443	21.600	0.567	45.447
2494.000	450.000	49.800	19.658	1.137	40.958	20.479	65.457	24.499	2.672	23.501	0.574	44.978
2505.000	6000.000	53.500	21.118	1.643	37.759	18.879	60.357	22.599	2.671	25.401	0.673	41.478
2514.000	800.000	56.500	22.303	2.022	46.053	23.026	67.096	21.043	3.188	26.957	0.585	44.070
2520.000	1000.000	58.800	23.211	2.527	47.680	23.840	67.687	20.007	3.383	27.993	0.587	43.847
2526.000	1300.000	60.900	24.039	3.285	48.999	24.499	67.969	18.970	3.583	29.030	0.592	43.469
2530.000	1600.000	62.200	24.553	4.043	49.652	24.826	67.931	18.279	3.716	29.721	0.599	43.105
2530.000	1800.000	63.200	24.947	4.549	50.185	25.093	68.464	18.279	3.746	29.721	0.592	43.371
2533.000	2200.000	64.200	25.342	5.560	50.439	25.220	68.200	17.760	3.840	30.240	0.600	42.980
2535.000	2400.000	64.700	25.539	6.065	50.560	25.280	67.975	17.415	3.903	30.585	0.605	42.695
2535.000	2600.000	65.200	25.737	6.571	50.677	25.338	68.091	17.415	3.910	30.585	0.604	42.753
2535.000	2800.000	65.500	25.855	7.076	50.634	25.317	68.049	17.415	3.908	30.585	0.604	42.732
2537.000	3000.000	66.000	26.053	7.581	50.743	25.372	67.813	17.069	3.973	30.931	0.610	42.441
2536.000	3200.000	66.200	26.132	8.087	50.619	25.309	67.861	17.242	3.936	30.758	0.608	42.551
2537.000	3400.000	66.200	26.132	8.592	50.340	25.170	67.409	17.069	3.949	30.931	0.614	42.239
2537.000	3600.000	66.600	26.289	9.098	50.365	25.182	67.434	17.069	3.951	30.931	0.614	42.251
2537.000	3800.000	66.800	26.368	9.603	50.235	25.117	67.304	17.069	3.943	30.931	0.616	42.187
2537.000	4000.000	67.200	26.526	10.109	50.253	25.127	67.322	17.069	3.944	30.931	0.616	42.196
2537.000	4200.000	67.200	26.526	10.614	49.971	24.985	67.040	17.069	3.928	30.931	0.619	42.054

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD-7
TEST DATE; 2/4/800

SAMPLE DIAMETER = 1.993 IN.
SAMPLE HEIGHT = 3.83 IN.

INITIAL PORE PRESSURE READING = 2464
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.994 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2466.000	20.000	3.000	1.184	0.052	2.624	1.312	97.702	95.079	1.028	0.346	0.132	96.391
2466.000	60.000	5.000	1.974	0.157	4.368	2.184	99.447	95.079	1.046	0.346	0.079	97.263
2467.000	100.000	5.800	2.289	0.261	5.062	2.531	99.968	94.906	1.053	0.518	0.102	97.437
2475.000	140.000	13.500	5.329	0.366	11.770	5.885	105.293	93.523	1.126	1.901	0.161	99.408
2508.000	180.000	38.000	15.000	0.470	33.095	16.547	120.916	87.821	1.377	7.603	0.230	104.368
2565.000	250.000	63.000	24.868	0.653	54.767	27.384	132.738	77.971	1.702	17.453	0.319	105.355
2622.000	350.000	77.000	30.380	0.914	66.729	33.364	134.850	68.122	1.980	27.302	0.409	101.486
2658.000	450.000	85.900	33.760	1.175	73.957	36.979	135.858	61.901	2.195	33.523	0.453	98.880
2688.000	550.000	91.200	35.772	1.436	78.159	39.080	134.876	56.717	2.378	38.707	0.495	95.797
2699.000	600.000	93.400	36.608	1.567	79.879	39.939	134.695	54.816	2.457	40.608	0.508	94.755
2737.000	800.000	100.000	39.114	2.089	84.895	42.447	133.144	48.250	2.759	47.174	0.556	90.697
2766.000	1000.000	104.500	40.823	2.611	88.132	44.066	131.370	43.239	3.038	52.185	0.592	87.304
2785.000	1200.000	107.900	42.114	3.133	90.431	45.216	130.387	39.956	3.263	55.468	0.613	85.172
2800.000	1400.000	110.800	43.215	3.655	92.295	46.148	129.659	37.364	3.470	58.060	0.629	83.511
2814.000	1600.000	113.000	44.051	4.178	93.570	46.785	128.514	34.945	3.678	60.480	0.646	81.730
2823.000	1800.000	115.100	44.848	4.700	94.744	47.372	128.133	33.389	3.838	62.035	0.655	80.761
2830.000	2000.000	116.800	45.494	5.222	95.582	47.791	127.762	32.180	3.970	63.244	0.662	79.971
2839.000	2200.000	118.100	45.987	5.744	96.086	48.043	126.711	30.625	4.138	64.800	0.674	78.668
2844.000	2400.000	119.500	46.519	6.266	96.659	48.329	126.420	29.761	4.248	65.664	0.679	78.090
2850.000	2600.000	121.100	47.127	6.789	97.376	48.688	126.100	28.724	4.390	66.700	0.685	77.412
2854.000	2800.000	122.100	47.506	7.311	97.611	48.805	125.644	28.033	4.482	67.391	0.690	76.838
2858.000	3000.000	123.200	47.924	7.833	97.914	48.957	125.256	27.341	4.581	68.083	0.695	76.299
2860.000	3200.000	124.200	48.304	8.355	98.130	49.065	125.126	26.996	4.635	68.428	0.697	76.061
2864.000	3400.000	125.100	48.646	8.877	98.263	49.131	124.568	26.305	4.736	69.119	0.703	75.436
2860.000	3600.000	125.200	48.684	9.399	97.775	48.888	124.771	26.996	4.622	68.428	0.700	75.884
2865.000	3800.000	126.000	48.987	9.922	97.818	48.909	123.950	26.132	4.743	69.292	0.708	75.041
2867.000	4000.000	126.200	49.063	10.444	97.402	48.701	123.188	25.786	4.777	69.638	0.715	74.487
2866.000	4400.000	126.500	49.177	11.488	96.490	48.245	122.449	25.959	4.717	69.465	0.729	74.204
2868.000	4800.000	126.800	49.291	12.533	95.572	47.786	121.186	25.613	4.731	69.811	0.730	73.409
2869.000	5200.000	126.500	49.177	13.577	94.213	47.106	119.653	25.441	4.703	69.983	0.743	72.547

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD-7,PC-10
TEST DATE: 2/19/80

SAMPLE DIAMETER = 2.05 IN.
SAMPLE HEIGHT = 3.909 IN.

INITIAL PORE PRESSURE READING = 2315
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.173 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2319.000	2932.000	193.000	14.500	7.501	28.102	14.051	44.019	15.917	2.766	0.691	0.025	29.968
2328.000	2960.000	251.000	18.643	7.572	36.103	18.051	50.464	14.362	3.514	2.246	0.062	32.413
2330.000	3000.000	280.000	20.714	7.675	40.070	20.035	54.086	14.016	3.859	2.592	0.065	34.051
2334.000	3020.000	295.000	21.786	7.726	42.119	21.059	55.444	13.325	4.161	3.283	0.078	34.384
2336.000	3080.000	319.000	23.500	7.879	45.357	22.679	58.337	12.979	4.495	3.629	0.080	35.658
2336.000	3100.000	325.000	23.929	7.930	46.159	23.080	59.138	12.979	4.556	3.629	0.079	36.059
2336.000	3140.000	333.000	24.500	8.033	47.209	23.604	60.188	12.979	4.637	3.629	0.077	36.584
2340.000	3200.000	341.000	25.071	8.186	48.229	24.115	60.517	12.288	4.925	4.320	0.090	36.403
2340.000	3300.000	349.000	25.643	8.442	49.191	24.596	61.479	12.288	5.003	4.320	0.088	36.884
2340.000	3340.000	352.000	25.857	8.544	49.547	24.773	61.835	12.288	5.032	4.320	0.087	37.062
2338.000	3400.000	354.000	26.000	8.698	49.737	24.868	62.371	12.634	4.937	3.974	0.080	37.302
2338.000	3600.000	356.000	26.143	9.210	49.730	24.865	62.364	12.634	4.936	3.974	0.080	37.499
2336.000	3700.000	356.000	26.143	9.465	49.590	24.795	62.569	12.979	4.821	3.629	0.073	37.774
2336.000	3800.000	356.000	26.143	9.721	49.450	24.725	62.429	12.979	4.810	3.629	0.073	37.704
2339.000	4000.000	353.000	26.071	10.233	49.035	24.517	61.496	12.461	4.935	4.147	0.085	36.978
2339.000	4200.000	353.000	25.929	10.744	48.488	24.244	60.949	12.461	4.891	4.147	0.086	36.705
2338.000	4400.000	354.000	26.000	11.256	48.343	24.172	60.977	12.634	4.827	3.974	0.082	36.805
2338.000	4500.000	353.000	25.929	11.512	48.071	24.036	60.705	12.634	4.803	3.974	0.083	36.679

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-9
TEST DATE; 2/18/80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 3.881 IN.

INITIAL PORE PRESSURE READING = 2428
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.101 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2441.000	20.000	42.000	3.231	0.052	7.108	3.554	14.558	7.450	1.954	2.246	0.316	11.904
2453.000	60.000	82.200	6.323	0.155	13.897	6.949	19.273	5.376	3.585	4.320	0.311	12.325
2460.000	100.000	99.800	7.677	0.258	16.855	8.428	21.022	4.167	5.045	5.530	0.328	12.594
2465.000	140.000	107.000	8.231	0.361	18.053	9.026	21.355	3.303	6.466	6.394	0.354	12.329
2465.000	180.000	117.200	9.015	0.464	19.753	9.877	23.056	3.303	6.981	6.394	0.324	13.179
2470.000	250.000	126.500	9.731	0.644	21.282	10.641	23.720	2.439	9.727	7.258	0.341	13.079
2473.000	350.000	137.000	10.500	0.902	22.905	11.452	24.825	1.920	12.929	7.776	0.339	13.372
2477.000	500.000	148.000	11.286	1.288	24.523	12.261	25.752	1.229	20.955	8.467	0.345	13.490
2481.000	700.000	159.000	12.071	1.804	26.093	13.047	26.631	0.538	49.525	9.158	0.351	13.584
2483.000	900.000	168.200	12.729	2.319	27.369	13.685	27.561	0.192	143.462	9.504	0.347	13.877
2483.000	1000.000	172.600	13.043	2.577	27.971	13.986	28.163	0.192	146.595	9.504	0.340	14.178
2483.000	1200.000	180.000	13.571	3.092	28.950	14.475	29.142	0.192	151.692	9.504	0.328	14.667
2485.000	1400.000	185.200	13.943	3.607	29.585	14.792	29.431	-0.154	-191.729	9.850	0.333	14.639
2486.000	1600.000	190.900	14.350	4.123	30.286	15.143	29.959	-0.326	-91.814	10.022	0.331	14.817
2487.000	1800.000	195.500	14.679	4.638	30.813	15.406	30.314	-0.499	-60.736	10.195	0.331	14.907
2489.000	2000.000	199.800	14.986	5.153	31.287	15.644	30.443	-0.845	-36.039	10.541	0.337	14.799
2490.000	2200.000	204.100	15.293	5.669	31.755	15.878	30.738	-1.018	-30.209	10.714	0.337	14.860
2491.000	2400.000	208.200	15.586	6.184	32.186	16.093	30.996	-1.190	-26.041	10.886	0.338	14.903
2491.000	2600.000	212.800	15.914	6.699	32.685	16.342	31.494	-1.190	-26.459	10.886	0.333	15.152
2490.000	2800.000	217.600	16.257	7.215	33.204	16.602	32.187	-1.018	-31.633	10.714	0.323	15.585
2493.000	3000.000	221.500	16.536	7.730	33.586	16.793	32.050	-1.536	-20.867	11.232	0.334	15.257
2493.000	3200.000	225.100	16.793	8.245	33.918	16.959	32.382	-1.536	-21.083	11.232	0.331	15.423
2494.000	3400.000	227.900	16.993	8.761	34.129	17.064	32.420	-1.709	-18.973	11.405	0.334	15.336
2493.000	3600.000	230.900	17.207	9.276	34.364	17.182	32.828	-1.536	-21.374	11.232	0.327	15.646
2494.000	3800.000	234.000	17.429	9.791	34.608	17.304	32.900	-1.709	-19.254	11.405	0.330	15.596
2494.000	4000.000	237.200	17.657	10.307	34.862	17.431	33.153	-1.709	-19.403	11.405	0.327	15.722
2495.000	4200.000	240.900	17.921	10.822	35.180	17.590	33.299	-1.882	-17.698	11.578	0.329	15.709

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-9
TEST DATE; 2/18/80

SAMPLE DIAMETER = 1.99 IN.
SAMPLE HEIGHT = 3.801 IN.

INITIAL PORE PRESSURE READING = 2405
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.194 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2406.000	20.000	3.000	1.184	0.053	2.632	1.316	21.083	18.451	1.143	0.173	0.066	19.767
2404.000	60.000	5.100	2.013	0.158	4.469	2.235	23.266	18.797	1.238	-0.173	-0.039	21.031
2403.000	120.000	4.000	1.579	0.316	3.500	1.750	22.469	18.970	1.184	-0.346	-0.099	20.719
2404.000	160.000	4.200	1.658	0.421	3.671	1.835	22.468	18.797	1.195	-0.173	-0.047	20.632
2405.000	200.000	4.200	1.658	0.526	3.667	1.833	22.291	18.624	1.197	0.000	0.000	20.457
2404.000	300.000	4.500	1.776	0.789	3.918	1.959	22.715	18.797	1.208	-0.173	-0.044	20.756
2407.000	400.000	4.700	1.855	1.052	4.082	2.041	22.360	18.279	1.223	0.346	0.085	20.320
2407.000	600.000	5.000	1.974	1.579	4.319	2.160	22.598	18.279	1.236	0.346	0.080	20.438
2415.000	800.000	9.200	3.632	2.105	7.905	3.952	24.801	16.896	1.468	1.728	0.219	20.849
2442.000	1000.000	29.200	11.526	2.631	24.954	12.477	37.184	12.231	3.040	6.394	0.256	24.707
2447.000	1200.000	35.200	13.895	3.157	29.919	14.959	41.285	11.367	3.632	7.258	0.243	26.326
2451.000	1400.000	38.500	15.197	3.683	32.546	16.273	43.221	10.675	4.049	7.949	0.244	26.948
2453.000	1600.000	41.000	16.184	4.209	34.470	17.235	44.800	10.330	4.337	8.294	0.241	27.565
2456.000	1800.000	43.200	17.053	4.736	36.120	18.060	45.931	9.811	4.681	8.813	0.244	27.871
2457.000	2000.000	45.200	17.842	5.262	37.583	18.792	47.222	9.639	4.899	8.986	0.239	28.430
2457.000	2200.000	46.800	18.474	5.788	38.697	19.349	48.336	9.639	5.015	8.986	0.232	28.987
2457.000	2400.000	47.900	18.908	6.314	39.386	19.693	49.024	9.639	5.086	8.986	0.228	29.331
2457.000	2600.000	48.600	19.184	6.840	39.737	19.869	49.376	9.639	5.123	8.986	0.226	29.507
2457.000	2800.000	49.100	19.382	7.366	39.919	19.960	49.558	9.639	5.142	8.986	0.225	29.598
2458.000	3000.000	49.800	19.658	7.893	40.258	20.129	49.724	9.466	5.253	9.158	0.227	29.595
2458.000	3200.000	50.400	19.895	8.419	40.511	20.255	49.976	9.466	5.280	9.158	0.226	29.721
2459.000	3400.000	51.000	20.132	8.945	40.757	20.379	50.050	9.293	5.386	9.331	0.229	29.672
2462.000	3600.000	51.800	20.447	9.471	41.157	20.579	49.932	8.775	5.691	9.850	0.239	29.353
2463.000	3800.000	52.500	20.724	9.997	41.471	20.736	50.073	8.602	5.821	10.022	0.242	29.337
2463.000	4000.000	53.200	21.000	10.524	41.778	20.889	50.380	8.602	5.857	10.022	0.240	29.491
2463.000	4200.000	54.000	21.316	11.050	42.157	21.079	50.759	8.602	5.901	10.022	0.238	29.680

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD-9
TEST DATE: 2/16/80

SAMPLE DIAMETER = 1.93 IN.
SAMPLE HEIGHT = 3.934 IN.

INITIAL PORE PRESSURE READING = 2352
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.389 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG31 KPS	SIG33 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2362.000	20.000	7.000	2.763	0.051	6.528	3.264	42.145	35.616	1.183	1.728	0.265	38.880
2386.000	60.000	18.000	7.105	0.153	16.770	8.385	48.239	31.469	1.533	5.875	0.350	39.854
2400.000	100.000	25.000	9.868	0.254	23.268	11.634	52.318	29.050	1.801	8.294	0.356	40.684
2408.000	140.000	31.000	12.237	0.356	28.823	14.411	56.490	27.667	2.042	9.677	0.336	42.079
2411.000	187.000	35.500	14.013	0.475	32.967	16.484	60.116	27.149	2.214	10.195	0.309	43.632
2414.000	259.000	39.000	15.395	0.658	36.151	18.076	62.781	26.631	2.358	10.714	0.296	44.706
2419.000	358.000	41.500	16.382	0.910	38.371	19.185	64.137	25.767	2.489	11.578	0.302	44.952
2424.000	450.000	43.000	16.974	1.144	39.664	19.832	64.566	24.903	2.593	12.442	0.314	44.734
2424.000	550.000	44.500	17.566	1.398	40.942	20.471	65.844	24.903	2.644	12.442	0.304	45.373
2430.000	700.000	45.500	17.961	1.779	41.700	20.850	65.566	23.866	2.747	13.478	0.323	44.716
2433.000	800.000	46.500	18.355	2.034	42.506	21.253	65.853	23.347	2.821	13.997	0.329	44.600
2438.000	1000.000	48.000	18.947	2.542	43.650	21.825	66.133	22.483	2.941	14.861	0.340	44.308
2441.000	1200.000	49.500	19.539	3.050	44.779	22.389	66.744	21.965	3.039	15.379	0.343	44.354
2442.000	1400.000	50.000	19.737	3.559	44.994	22.497	66.786	21.792	3.065	15.552	0.346	44.289
2444.000	1600.000	51.000	20.132	4.067	45.652	22.826	67.098	21.447	3.129	15.898	0.348	44.272
2446.000	1800.000	52.000	20.526	4.576	46.301	23.150	67.402	21.101	3.194	16.243	0.351	44.251
2450.000	2000.000	52.500	20.724	5.084	46.496	23.248	66.906	20.410	3.278	16.934	0.364	43.658
2451.000	2200.000	53.000	20.921	5.592	46.688	23.344	66.925	20.237	3.307	17.107	0.366	43.581
2451.000	2400.000	53.500	21.118	6.101	46.875	23.437	67.112	20.237	3.316	17.107	0.365	43.674
2451.000	2600.000	54.000	21.316	6.609	47.056	23.528	67.293	20.237	3.325	17.107	0.364	43.765
2453.000	2800.000	54.500	21.513	7.117	47.234	23.617	67.125	19.891	3.375	17.453	0.369	43.508
2455.000	3000.000	55.000	21.711	7.626	47.406	23.703	66.952	19.546	3.425	17.798	0.375	43.249
2457.000	3200.000	55.200	21.789	8.134	47.317	23.658	66.517	19.200	3.464	18.144	0.383	42.859
2458.000	3400.000	56.000	22.105	8.643	47.737	23.868	66.764	19.027	3.509	18.317	0.384	42.896
2457.000	3600.000	56.500	22.303	9.151	47.895	23.948	67.095	19.200	3.495	18.144	0.379	43.148
2457.000	3800.000	56.800	22.421	9.659	47.880	23.940	67.080	19.200	3.494	18.144	0.379	43.140
2459.000	4000.000	57.000	22.500	10.168	47.778	23.889	66.633	18.855	3.534	18.489	0.387	42.744
2461.000	4400.000	58.000	22.895	11.185	48.066	24.033	66.575	18.509	3.597	18.835	0.392	42.542
2460.000	4800.000	58.500	23.092	12.201	47.926	23.963	66.607	18.682	3.565	18.662	0.389	42.645
2463.000	5200.000	59.500	23.487	13.218	48.180	24.090	66.344	18.163	3.653	19.181	0.398	42.254
2462.000	5600.000	60.000	23.684	14.235	48.016	24.008	66.352	18.336	3.619	19.008	0.396	42.344
2462.000	6000.000	60.500	23.882	15.252	47.842	23.921	66.178	18.336	3.609	19.008	0.397	42.257
2463.000	6400.000	61.000	24.079	16.268	47.659	23.829	65.822	18.163	3.624	19.181	0.402	41.993
2465.000	6800.000	61.500	24.276	17.285	47.466	23.733	65.284	17.818	3.664	19.526	0.411	41.551
2465.000	7200.000	61.700	24.355	18.302	47.035	23.517	64.852	17.818	3.640	19.526	0.415	41.335

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD-9.PC7
TEST DATE: 3/15/80

SAMPLE DIAMETER = 1.936 IN.
SAMPLE HEIGHT = 3.976 IN.

INITIAL PORE PRESSURE READING = 2336
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.07 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2336.000	0.098	120.000	9.231	0.000	21.685	10.842	28.405	6.720	4.227	0.000	0.000	17.562
2382.000	1000.000	130.000	10.000	2.515	22.901	11.451	21.672	-1.229	-17.638	7.949	0.347	10.222
2358.000	1200.000	184.000	13.857	3.018	31.571	15.785	34.489	2.918	11.818	3.802	0.120	18.704
2367.000	1400.000	196.000	14.714	3.521	33.350	16.675	34.713	1.363	25.464	5.357	0.161	18.038
2370.000	1600.000	197.000	14.786	4.024	33.337	16.668	34.182	0.845	40.459	5.875	0.176	17.513
2372.000	1800.000	203.000	15.214	4.527	34.123	17.062	34.623	0.499	69.349	6.221	0.182	17.561
2387.000	2000.000	205.000	15.357	5.030	34.262	17.131	32.169	-2.093	-15.372	8.813	0.257	15.038
2380.000	2200.000	207.000	15.500	5.533	34.398	17.199	33.515	-0.883	-37.949	7.603	0.221	16.316
2386.000	2400.000	209.000	15.643	6.036	34.530	17.265	32.610	-1.920	-16.985	8.640	0.250	15.345
2380.000	2600.000	210.000	15.714	6.539	34.502	17.251	33.619	-0.883	-38.067	7.603	0.220	16.368
2380.000	2800.000	212.000	15.857	7.042	34.628	17.314	33.745	-0.883	-38.210	7.603	0.220	16.431
2386.000	3000.000	214.000	16.000	7.545	34.751	17.376	32.831	-1.920	-17.100	8.640	0.249	15.456
2384.000	3200.000	213.400	15.957	8.048	34.469	17.235	32.895	-1.574	-20.895	8.294	0.241	15.660
2385.000	3400.000	215.000	16.071	8.551	34.526	17.263	32.779	-1.747	-18.762	8.467	0.245	15.516
2386.000	3600.000	217.000	16.214	9.054	34.642	17.321	32.722	-1.920	-17.043	8.640	0.249	15.401
2386.000	3800.000	216.000	16.143	9.557	34.298	17.149	32.379	-1.920	-16.864	8.640	0.252	15.229
2388.000	4000.000	216.000	16.143	10.060	34.108	17.054	31.842	-2.266	-14.055	8.986	0.263	14.788
2387.000	4200.000	218.500	16.321	10.563	34.292	17.146	32.199	-2.093	-15.386	8.813	0.257	15.053
2389.000	4400.000	217.000	16.214	11.066	33.875	16.938	31.437	-2.438	-12.893	9.158	0.270	14.499
2391.000	4800.000	219.500	16.393	12.072	33.861	16.931	31.077	-2.784	-11.163	9.504	0.281	14.147
2382.000	5200.000	221.000	16.500	13.079	33.692	16.846	32.464	-1.229	-26.420	7.949	0.236	15.618
2387.000	5600.000	222.000	16.571	14.085	33.446	16.723	31.354	-2.093	-14.982	8.813	0.263	14.631
2385.000	5800.000	222.000	16.571	14.588	33.251	16.625	31.504	-1.747	-18.032	8.467	0.255	14.878

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-10
TEST DATE: 2/1/80

SAMPLE DIAMETER = 2.03 IN.
SAMPLE HEIGHT = 3.957 IN.

INITIAL PORE PRESSURE READING = 2374
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.17 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2371.000	80.000	12.000	4.737	0.202	10.101	5.050	26.939	16.838	1.600	-0.518	-0.051	21.889
2419.000	200.000	16.500	6.513	0.505	13.846	6.923	22.390	8.544	2.621	7.776	0.562	15.467
2438.000	300.000	36.000	14.211	0.758	30.133	15.067	35.394	5.261	6.728	11.059	0.367	20.327
2451.000	600.000	49.000	19.342	1.516	40.701	20.351	43.716	3.015	14.502	13.306	0.327	23.363
2454.000	1000.000	58.000	22.895	2.527	47.682	23.841	50.178	2.496	20.103	13.824	0.290	26.337
2454.000	1200.000	61.500	24.276	3.033	50.298	25.149	52.794	2.496	21.151	13.824	0.275	27.645
2453.000	1400.000	65.000	25.658	3.538	52.883	26.441	55.552	2.669	20.814	13.651	0.256	29.110
2451.000	1600.000	68.000	26.842	4.043	55.034	27.517	58.048	3.015	19.256	13.306	0.242	30.532
2420.000	2200.000	75.000	29.605	5.560	59.740	29.870	68.111	8.371	8.136	7.949	0.133	38.241
2417.000	2400.000	77.000	30.380	6.065	60.975	30.487	69.864	8.890	7.859	7.430	0.122	39.377
2415.000	2600.000	78.500	30.949	6.571	61.784	30.892	71.019	9.235	7.690	7.085	0.115	40.127
2414.000	2800.000	78.900	31.101	7.076	61.751	30.876	71.159	9.408	7.564	6.912	0.112	40.284
2412.000	3000.000	80.000	31.519	7.582	62.240	31.120	71.994	9.754	7.381	6.566	0.106	40.874
2411.000	3200.000	80.800	31.823	8.087	62.496	31.248	72.423	9.927	7.296	6.394	0.102	41.175
2410.000	3400.000	81.000	31.899	8.592	62.301	31.151	72.400	10.099	7.169	6.221	0.100	41.250
2408.000	3600.000	83.000	32.658	9.098	63.431	31.716	73.876	10.445	7.073	5.875	0.093	42.161
2407.000	3800.000	84.500	33.228	9.603	64.179	32.089	74.797	10.618	7.044	5.702	0.089	42.707
2405.000	4000.000	85.000	33.418	10.109	64.185	32.092	75.148	10.963	6.854	5.357	0.083	43.056
2407.000	4400.000	87.000	34.177	11.120	64.905	32.453	75.523	10.618	7.113	5.702	0.088	43.071

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-10
TEST DATE: 2/4/80

SAMPLE DIAMETER = 2.02 IN.
SAMPLE HEIGHT = 3.955 IN.

INITIAL PORE PRESSURE READING = 2387
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.35 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG01 KPS	SIG03 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2383.000	100.000	19.600	7.737	0.253	16.653	8.327	50.944	34.291	1.486	-0.691	-0.042	42.618
2382.000	200.000	20.900	8.250	0.506	17.713	8.856	52.177	34.464	1.514	-0.864	-0.049	43.320
2381.000	300.000	21.400	8.447	0.759	18.090	9.045	52.727	34.637	1.522	-1.037	-0.057	43.682
2401.000	400.000	44.900	17.724	1.011	37.859	18.929	69.040	31.181	2.214	2.419	0.064	50.110
2416.000	500.000	60.900	24.039	1.264	51.219	25.609	79.808	28.589	2.792	5.011	0.098	54.198
2436.000	600.000	67.300	26.566	1.517	56.456	28.228	81.589	25.133	3.246	8.467	0.150	55.361
2453.000	300.000	75.200	29.684	2.023	62.759	31.380	84.955	22.195	3.828	11.405	0.182	53.575
2462.000	1000.000	80.800	31.823	2.528	66.934	33.467	87.574	20.640	4.243	12.960	0.194	54.107
2465.000	1200.000	85.200	33.494	3.034	70.082	35.041	90.204	20.122	4.483	13.478	0.192	55.163
2467.000	1400.000	89.500	35.127	3.540	73.116	36.558	92.892	19.776	4.697	13.824	0.189	56.334
2469.000	1600.000	92.900	36.418	4.046	75.406	37.703	94.836	19.431	4.881	14.170	0.188	57.133
2470.000	1800.000	95.600	37.443	4.551	77.121	38.560	96.378	19.258	5.005	14.342	0.186	57.818
2469.000	2000.000	98.000	38.354	5.057	78.579	39.290	98.009	19.431	5.044	14.170	0.180	58.720
2466.000	2400.000	102.500	40.063	6.068	81.296	40.603	101.154	19.949	5.071	13.651	0.168	60.552
2463.000	2800.000	104.400	40.785	6.574	82.223	41.112	102.690	20.467	5.017	13.133	0.160	61.579
2462.000	2800.000	106.400	41.544	7.080	83.301	41.650	103.941	20.640	5.036	12.960	0.156	62.291
2463.000	3000.000	108.900	42.494	7.585	84.741	42.371	105.208	20.467	5.140	13.133	0.155	62.838
2463.000	3200.000	110.100	42.949	8.091	85.181	42.590	105.648	20.467	5.162	13.133	0.154	63.058
2461.000	3400.000	111.700	43.557	8.597	85.911	42.955	106.723	20.813	5.128	12.787	0.149	63.768
2458.000	3700.000	113.000	44.051	9.355	86.164	43.082	107.495	21.331	5.039	12.269	0.142	64.413
2450.000	4000.000	115.000	44.810	10.114	86.916	43.458	109.629	22.714	4.827	10.886	0.125	66.171
2450.000	4200.000	116.000	45.190	10.620	87.159	43.580	109.873	22.714	4.837	10.886	0.125	66.293
2450.000	4400.000	116.800	45.494	11.125	87.248	43.624	109.962	22.714	4.841	10.886	0.125	66.338
2450.000	4600.000	117.000	45.570	11.631	86.897	43.449	109.611	22.714	4.826	10.886	0.125	66.162
2450.000	4800.000	117.500	45.759	12.137	86.759	43.380	109.474	22.714	4.820	10.886	0.125	66.094
2450.000	5000.000	117.500	45.759	12.642	86.260	43.130	108.974	22.714	4.798	10.886	0.126	65.844

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CB-10
TEST DATE: 2/6/80

SAMPLE DIAMETER = 2.01 IN.
SAMPLE HEIGHT = 3.952 IN.

INITIAL PORE PRESSURE READING = 2434
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.69 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2434.000	20.000	10.000	3.947	0.051	8.599	4.299	74.839	66.240	1.130	0.000	0.000	79.539
2436.000	60.000	17.000	6.711	0.152	14.603	7.301	80.497	65.895	1.222	0.346	0.024	73.196
2444.000	100.000	18.500	7.303	0.253	15.875	7.938	80.387	64.512	1.246	1.728	0.109	72.450
2454.000	160.000	20.000	7.895	0.405	17.136	8.568	79.920	62.784	1.273	3.456	0.202	71.353
2520.000	200.000	36.800	14.526	0.506	31.499	15.749	82.878	51.379	1.613	14.861	0.472	67.129
2561.000	300.000	68.000	26.842	0.759	58.056	29.028	102.350	44.295	2.311	21.945	0.678	73.322
2602.000	400.000	89.000	34.937	1.012	75.371	37.685	112.580	37.210	3.026	29.030	0.385	74.895
2640.000	500.000	100.000	39.114	1.265	84.167	42.083	114.810	30.644	3.747	35.597	0.423	72.727
2695.000	700.000	111.000	43.291	1.771	92.677	46.339	113.817	21.140	5.384	45.100	0.487	67.478
2725.000	800.000	115.000	44.810	2.024	95.683	47.841	111.638	15.956	6.797	50.284	0.526	63.797
2780.000	1000.000	116.000	45.190	2.530	95.995	47.998	102.447	6.452	15.879	59.788	0.623	54.450
2810.000	1200.000	117.000	45.570	3.036	96.299	48.149	97.567	1.268	76.965	64.972	0.675	49.417
2855.000	1400.000	117.800	45.873	3.543	96.435	48.217	124.486	28.052	4.438	38.189	0.396	76.259
2855.000	1600.000	118.600	46.177	4.049	96.565	48.282	124.616	28.052	4.442	38.189	0.395	76.353
2476.000	2300.000	122.000	47.468	5.820	97.432	48.716	156.415	58.983	2.652	7.256	0.074	107.699
2482.000	2500.000	123.000	47.848	6.326	97.684	48.842	155.629	57.946	2.686	8.294	0.085	106.788
2482.000	2700.000	123.800	48.152	6.832	97.773	48.887	155.719	57.946	2.687	8.294	0.085	106.833
2483.000	2800.000	123.800	48.152	7.085	97.507	48.754	155.280	57.773	2.688	8.467	0.087	106.626
2483.000	3000.000	124.200	48.304	7.591	97.283	48.641	155.055	57.773	2.684	8.467	0.087	106.414
2483.000	3200.000	124.800	48.532	8.097	97.206	48.603	154.979	57.773	2.683	8.467	0.087	106.376
2482.000	3400.000	125.800	48.911	8.603	97.427	48.713	155.372	57.946	2.681	8.294	0.085	106.659
2482.000	3600.000	127.000	49.367	9.109	97.790	48.895	155.736	57.946	2.688	8.294	0.085	106.841
2480.000	3800.000	128.500	49.937	9.615	98.368	49.184	156.660	58.291	2.688	7.949	0.081	107.476
2480.000	4000.000	129.200	50.203	10.122	98.338	49.169	156.629	58.291	2.687	7.949	0.081	107.460
2480.000	4400.000	130.400	50.658	11.134	98.113	49.057	156.404	58.291	2.683	7.949	0.081	107.348
2480.000	4800.000	131.000	50.886	12.146	97.431	48.716	155.723	58.291	2.671	7.949	0.082	107.007
2480.000	5000.000	132.000	51.266	12.652	97.594	48.797	155.885	58.291	2.674	7.949	0.081	107.088
2480.000	5400.000	132.000	51.266	13.664	96.463	48.231	154.754	58.291	2.655	7.949	0.082	106.523
2480.000	5600.000	132.000	51.266	14.170	95.897	47.949	154.188	58.291	2.645	7.949	0.083	106.240
2482.000	6000.000	132.500	51.456	15.182	95.117	47.558	153.062	57.946	2.641	8.294	0.087	105.504

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD-10
TEST DATE; 2/15/80

SAMPLE DIAMETER = 2.027 IN.
SAMPLE HEIGHT = 3.72 IN.

INITIAL PORE PRESSURE READING = 2380
INITIAL DEFLECTION = 3994
CONFINING PRESSURE = 0.1152 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIG#1 KPS	SIG#3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2390.000	4040.000	44.000	17.368	0.124	48.234	24.117	57.565	9.331	6.169	1.728	0.036	33.448
2386.000	4100.000	50.000	19.737	0.285	53.235	26.617	63.257	10.023	6.311	1.037	0.019	36.640
2382.000	4200.000	53.000	20.921	0.554	55.645	27.822	66.359	10.714	6.194	0.346	0.006	38.536
2379.000	4300.000	53.000	20.921	0.823	55.524	27.762	66.756	11.232	5.943	-0.173	-0.003	38.794
2378.000	4400.000	57.000	22.500	1.091	58.751	29.375	70.155	11.405	6.151	-0.346	-0.006	40.780
2373.000	4600.000	60.000	23.684	1.629	60.988	30.494	73.257	12.269	5.971	-1.210	-0.020	42.763
2373.000	4800.000	62.900	24.829	2.167	63.115	31.557	75.384	12.269	6.144	-1.210	-0.019	43.826
2369.000	5100.000	66.000	26.053	2.973	65.230	32.615	78.190	12.960	6.033	-1.901	-0.029	45.575
2367.000	5400.000	68.000	26.842	3.780	66.408	33.204	79.714	13.306	5.991	-2.246	-0.034	46.510
2363.000	5600.000	69.900	27.592	4.317	67.636	33.818	81.633	13.997	5.832	-2.938	-0.043	47.815
2362.000	5800.000	71.100	28.066	4.855	68.284	34.142	82.454	14.170	5.819	-3.110	-0.046	48.312
2357.000	6000.000	72.200	28.500	5.392	68.841	34.421	83.875	15.034	5.579	-3.974	-0.058	49.454
2357.000	6200.000	73.200	28.895	5.930	69.309	34.654	84.342	15.034	5.610	-3.974	-0.057	49.688
2357.000	6400.000	74.100	29.250	6.468	69.688	34.844	84.722	15.034	5.635	-3.974	-0.057	49.878
2356.000	6600.000	75.000	29.605	7.005	70.059	35.029	85.265	15.206	5.607	-4.147	-0.059	50.236
2353.000	6800.000	76.000	30.000	7.543	70.500	35.250	86.225	15.725	5.483	-4.666	-0.066	50.975
2352.000	7000.000	76.900	30.342	8.081	70.828	35.414	86.725	15.898	5.455	-4.838	-0.068	51.312
2351.000	7200.000	77.500	30.570	8.618	70.924	35.462	86.994	16.070	5.413	-5.011	-0.071	51.532
2348.000	7600.000	79.000	31.139	9.694	71.322	35.661	87.911	16.589	5.299	-5.530	-0.078	52.250
2350.000	7800.000	79.600	31.367	10.231	71.402	35.701	87.645	16.243	5.396	-5.184	-0.073	51.944
2349.000	8000.000	80.400	31.671	10.769	71.621	35.811	88.037	16.416	5.363	-5.357	-0.075	52.226
2346.000	8400.000	81.100	31.937	11.844	71.394	35.697	88.328	16.934	5.216	-5.875	-0.082	52.631
2346.000	8800.000	81.900	32.241	12.919	71.225	35.612	88.159	16.934	5.206	-5.875	-0.082	52.547

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD11
TEST DATE: 04-04-80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2374
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.18 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2385.000	20.000	48.000	3.692	0.050	8.124	4.062	23.503	15.379	1.528	1.901	0.234	19.441
2386.000	40.000	72.000	5.538	0.100	12.179	6.090	27.386	15.207	1.801	2.074	0.170	21.296
2387.000	60.000	84.000	6.462	0.150	14.202	7.101	29.236	15.034	1.945	2.246	0.158	22.135
2388.000	80.000	92.000	7.077	0.200	15.547	7.774	30.408	14.861	2.046	2.419	0.156	22.635
2390.000	100.000	99.300	7.677	0.250	16.857	8.428	31.372	14.515	2.161	2.765	0.164	22.744
2393.000	120.000	105.000	8.077	0.300	17.726	8.863	31.723	13.997	2.266	3.293	0.185	22.860
2394.000	140.000	110.000	8.462	0.350	18.561	9.280	32.385	13.824	2.343	3.456	0.186	23.105
2395.000	160.000	112.000	8.615	0.400	18.889	9.444	32.540	13.651	2.384	3.629	0.192	23.096
2396.000	180.000	115.000	8.846	0.450	19.385	9.693	32.864	13.479	2.438	3.802	0.196	23.171
2396.000	200.000	119.000	9.154	0.500	20.049	10.025	33.528	13.479	2.487	3.802	0.190	23.503
2402.000	300.000	131.000	10.071	0.750	22.003	11.002	34.445	12.442	2.769	4.838	0.220	23.444
2402.000	350.000	137.000	10.500	0.875	22.911	11.456	35.353	12.442	2.841	4.838	0.211	23.897
2410.000	400.000	143.800	10.986	1.000	23.941	11.970	35.000	11.059	3.165	6.221	0.260	23.030
2410.000	450.000	146.800	11.200	1.125	24.377	12.188	35.436	11.059	3.204	6.221	0.255	23.248
2410.000	500.000	151.800	11.557	1.250	25.122	12.561	36.181	11.059	3.272	6.221	0.248	23.620
2407.000	550.000	154.000	11.714	1.375	25.432	12.716	37.009	11.578	3.197	5.702	0.224	24.294
2412.000	600.000	156.500	11.893	1.500	25.787	12.893	36.500	10.714	3.407	6.566	0.255	23.607
2412.000	800.000	168.000	12.714	2.000	27.428	13.714	38.142	10.714	3.560	6.566	0.239	24.428
2416.000	900.000	171.000	12.929	2.250	27.819	13.909	37.841	10.023	3.776	7.258	0.261	23.932
2416.000	1000.000	173.000	13.071	2.500	28.054	14.027	38.077	10.023	3.799	7.258	0.259	24.050
2418.000	1100.000	177.000	13.357	2.750	28.594	14.297	38.271	9.677	3.955	7.603	0.266	23.974
2418.000	1200.000	179.000	13.500	3.000	28.825	14.413	38.502	9.677	3.979	7.603	0.264	24.090
2418.000	1300.000	183.000	13.786	3.250	29.360	14.680	39.037	9.677	4.034	7.603	0.259	24.357
2420.000	1400.000	186.000	14.000	3.500	29.739	14.869	39.070	9.331	4.187	7.949	0.267	24.201
2421.000	1500.000	187.000	14.071	3.750	29.813	14.907	38.972	9.159	4.255	8.122	0.272	24.065
2423.000	1600.000	187.200	14.086	4.000	29.766	14.883	38.579	8.813	4.378	8.467	0.284	23.896
2422.000	1700.000	187.500	14.107	4.250	29.734	14.867	38.719	8.986	4.309	8.294	0.279	23.853
2421.000	1800.000	188.000	14.143	4.500	29.731	14.866	38.890	9.159	4.246	8.122	0.273	24.024
2422.000	1900.000	189.000	14.214	4.750	29.803	14.902	38.789	8.986	4.317	8.294	0.278	23.887
2424.000	2000.000	188.900	14.207	5.000	29.710	14.855	38.350	8.640	4.439	8.640	0.291	23.495
2424.000	2100.000	188.200	14.157	5.250	29.527	14.764	38.167	8.640	4.417	8.640	0.293	23.404
2421.000	2200.000	188.000	14.143	5.500	29.420	14.710	38.578	9.159	4.212	8.122	0.276	23.869
2424.000	2300.000	188.200	14.157	5.750	29.372	14.686	38.012	8.640	4.399	8.640	0.294	23.326
2422.000	2500.000	188.000	14.143	6.250	29.186	14.593	38.172	8.986	4.248	8.294	0.284	23.579
2424.000	2600.000	188.000	14.143	6.500	29.108	14.554	37.749	8.640	4.369	8.640	0.297	23.194
2422.000	2700.000	188.000	14.143	6.750	29.031	14.515	38.016	8.986	4.231	8.294	0.286	23.501
2425.000	2800.000	187.000	14.071	7.000	28.807	14.403	37.274	8.467	4.402	8.813	0.306	22.871
2427.000	2900.000	187.500	14.107	7.250	28.802	14.401	36.924	8.122	4.546	9.158	0.318	22.523
2424.000	3000.000	187.800	14.129	7.500	28.748	14.384	37.408	8.640	4.330	8.640	0.300	23.024
2424.000	3100.000	187.800	14.129	7.750	28.690	14.345	37.331	8.640	4.321	8.640	0.301	22.985
2424.000	3200.000	188.200	14.157	8.000	28.670	14.335	37.310	8.640	4.318	8.640	0.301	22.975
2426.000	3300.000	188.000	14.143	8.250	28.564	14.282	36.858	8.295	4.444	8.986	0.315	22.576
2430.000	3400.000	186.500	14.036	8.500	28.270	14.135	35.873	7.603	4.718	9.677	0.342	21.738
2427.000	3500.000	186.000	14.000	8.750	28.121	14.061	36.243	8.122	4.462	9.158	0.326	22.182
2426.000	3600.000	187.000	14.071	9.000	28.187	14.094	36.481	8.295	4.398	8.986	0.319	22.388
2425.000	3900.000	186.000	14.000	9.750	27.813	13.907	36.280	8.467	4.285	8.813	0.317	22.374
2424.000	3800.000	186.000	14.000	9.500	27.890	13.945	36.530	8.640	4.228	8.640	0.310	22.585
2430.000	3900.000	185.000	13.929	9.750	27.671	13.836	35.274	7.603	4.639	9.677	0.350	21.439
2428.000	4000.000	185.200	13.943	10.000	27.623	13.811	35.572	7.949	4.475	9.331	0.338	21.760
2426.000	4200.000	185.500	13.964	10.500	27.511	13.756	35.806	8.295	4.317	8.986	0.327	22.059
2430.000	4400.000	186.000	14.000	11.000	27.428	13.714	35.031	7.603	4.607	9.677	0.353	21.317
2430.000	4600.000	185.000	13.929	11.500	27.134	13.567	34.738	7.603	4.569	9.677	0.357	21.171

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD11
TEST DATE: 04-04-80

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2404
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.72 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2430.000	20.000	6.000	2.368	0.050	5.211	2.605	69.838	64.627	1.081	4.493	0.862	67.233
2438.000	40.000	10.000	3.947	0.100	8.681	4.340	71.926	63.245	1.137	5.875	0.677	67.585
2443.000	60.000	12.000	4.737	0.150	10.411	5.206	72.792	62.381	1.167	6.739	0.647	67.586
2452.000	80.000	14.000	5.526	0.200	12.140	6.070	72.966	60.826	1.200	8.294	0.683	66.896
2458.000	100.000	16.000	6.316	0.250	13.868	6.934	73.657	59.789	1.232	9.331	0.673	66.723
2464.000	120.000	17.000	6.711	0.300	14.727	7.364	73.479	58.752	1.251	10.368	0.704	66.116
2473.000	140.000	19.000	7.500	0.350	16.452	8.226	73.649	57.197	1.288	11.923	0.725	65.423
2476.000	160.000	20.200	7.974	0.400	17.482	8.741	74.160	56.679	1.308	12.442	0.712	65.420
2480.000	180.000	21.200	8.368	0.450	18.338	9.169	74.325	55.987	1.328	13.133	0.716	65.156
2484.000	200.000	22.500	8.882	0.500	19.453	9.726	74.749	55.296	1.352	13.824	0.711	65.023
2496.000	250.000	25.000	9.868	0.625	21.587	10.794	74.810	53.223	1.406	15.898	0.736	64.016
2505.000	300.000	27.000	10.658	0.750	23.285	11.642	74.952	51.667	1.451	17.453	0.750	63.310
2512.000	350.000	29.000	11.447	0.875	24.978	12.489	75.436	50.458	1.495	18.662	0.747	62.947
2521.000	400.000	31.000	12.237	1.000	26.667	13.333	75.570	48.903	1.545	20.217	0.758	62.236
2527.000	450.000	32.500	12.829	1.125	27.922	13.961	75.788	47.866	1.583	21.254	0.761	61.827
2532.000	500.000	34.000	13.421	1.250	29.174	14.587	76.176	47.002	1.621	22.118	0.758	61.589
2538.000	550.000	35.300	13.934	1.375	30.251	15.126	76.216	45.965	1.658	23.155	0.765	61.091
2544.000	600.000	36.900	14.566	1.500	31.582	15.791	76.510	44.928	1.703	24.192	0.766	60.719
2552.000	700.000	39.500	15.592	1.750	33.722	16.861	77.267	43.546	1.774	25.574	0.758	60.407
2560.000	800.000	42.500	16.776	2.000	36.190	18.095	78.354	42.163	1.858	26.957	0.745	60.259
2568.000	900.000	44.500	17.566	2.250	37.797	18.898	78.578	40.781	1.927	28.339	0.750	59.679
2575.000	1000.000	46.700	18.434	2.500	39.564	19.782	79.135	39.571	2.000	29.549	0.747	59.358
2578.000	1100.000	48.300	19.066	2.750	40.814	20.407	79.367	39.053	2.045	30.067	0.737	59.461
2583.000	1200.000	49.800	19.658	3.000	41.974	20.987	80.163	38.189	2.099	30.931	0.737	59.176
2587.000	1300.000	51.700	20.408	3.250	43.463	21.731	80.961	37.498	2.159	31.622	0.728	59.229
2591.000	1400.000	53.000	20.921	3.500	44.441	22.220	81.247	36.807	2.207	32.313	0.727	59.027
2595.000	1500.000	54.000	21.316	3.750	45.162	22.581	81.277	36.116	2.250	33.005	0.731	58.696
2597.000	1600.000	55.300	21.829	4.000	46.129	23.065	81.899	35.770	2.290	33.350	0.723	58.835
2598.000	1700.000	56.200	22.184	4.250	46.758	23.379	82.355	35.597	2.314	33.523	0.717	58.979
2601.000	1800.000	57.600	22.737	4.500	47.797	23.899	82.876	35.079	2.363	34.041	0.712	58.977
2604.000	1900.000	58.000	22.895	4.750	48.003	24.002	82.564	34.560	2.389	34.560	0.720	58.562
2605.000	2000.000	58.800	23.211	5.000	48.538	24.269	82.925	34.388	2.411	34.733	0.716	58.657
2605.000	2100.000	59.300	23.408	5.250	48.821	24.411	83.209	34.388	2.420	34.733	0.711	58.798
2608.000	2200.000	59.700	23.566	5.500	49.021	24.511	82.890	33.869	2.447	35.251	0.719	58.380
2610.000	2300.000	59.800	23.605	5.750	48.973	24.487	82.497	33.524	2.461	35.597	0.727	58.010
2612.000	2400.000	60.500	23.882	6.000	49.415	24.708	82.593	33.178	2.489	35.942	0.727	57.886
2618.000	3000.000	60.800	24.000	7.500	48.868	24.434	81.009	32.141	2.520	36.979	0.757	56.575
2618.000	3100.000	60.800	24.000	7.750	48.736	24.368	80.877	32.141	2.516	36.979	0.759	56.509
2618.000	3200.000	60.200	23.763	8.000	48.124	24.062	80.265	32.141	2.497	36.979	0.768	56.203
2618.000	3300.000	60.200	23.763	8.250	47.993	23.997	80.134	32.141	2.493	36.979	0.771	56.138
2618.000	3400.000	60.200	23.763	8.500	47.862	23.931	80.004	32.141	2.489	36.979	0.773	56.072
2618.000	3600.000	60.200	23.763	9.000	47.601	23.800	79.742	32.141	2.481	36.979	0.777	55.942
2618.000	3800.000	60.200	23.763	9.500	47.339	23.670	79.480	32.141	2.473	36.979	0.781	55.811
2618.000	4000.000	60.300	23.803	10.000	47.156	23.578	79.297	32.141	2.467	36.979	0.784	55.719

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD-11
TEST DATE: 6/4/80

SAMPLE DIAMETER = 1.966 IN.
SAMPLE HEIGHT = 3.934 IN.

INITIAL PORE PRESSURE READING = 2302
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.36 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2321.000	20.000	9.000	0.692	0.051	1.576	0.788	32.853	31.277	1.050	3.283	2.083	32.065
2353.000	40.000	36.000	2.769	0.102	6.302	3.151	32.049	25.747	1.245	8.813	1.398	28.898
2364.000	60.000	54.000	4.154	0.153	9.448	4.724	33.295	23.847	1.396	10.714	1.134	28.571
2370.000	80.000	66.000	5.077	0.203	11.542	5.771	34.352	22.810	1.506	11.750	1.018	28.581
2375.000	100.000	76.000	5.846	0.254	13.284	6.642	35.230	21.946	1.605	12.614	0.950	28.588
2379.000	120.000	84.000	6.462	0.305	14.675	7.337	35.929	21.255	1.690	13.306	0.907	28.592
2386.000	140.000	91.000	7.000	0.356	15.890	7.945	35.935	20.045	1.793	14.515	0.913	27.990
2392.000	160.000	98.000	7.538	0.407	17.103	8.552	36.111	19.008	1.900	15.552	0.909	27.560
2396.000	180.000	104.000	8.000	0.458	18.141	9.071	36.458	18.317	1.990	16.243	0.895	27.388
2396.000	200.000	109.500	8.423	0.508	19.091	9.545	37.408	18.317	2.042	16.243	0.851	27.862
2411.000	300.000	131.000	10.071	0.763	22.768	11.384	38.493	15.725	2.448	18.835	0.827	27.109
2424.000	400.000	149.000	11.357	1.017	25.609	12.805	39.088	13.479	2.900	21.081	0.823	26.283
2427.000	500.000	165.000	12.500	1.271	28.114	14.057	41.074	12.960	3.169	21.600	0.768	27.017
2439.000	600.000	178.000	13.429	1.525	30.125	15.062	41.011	10.887	3.767	23.673	0.786	25.949
2445.000	800.000	203.000	15.214	2.034	33.954	16.977	43.804	9.850	4.447	24.710	0.728	26.827
2455.000	1000.000	228.000	17.000	2.542	37.742	18.871	45.864	8.122	5.647	26.438	0.700	26.993
2462.000	1200.000	251.000	18.643	3.050	41.174	20.587	48.086	6.912	6.957	27.648	0.671	27.499
2465.000	1400.000	273.000	20.214	3.559	44.411	22.205	50.804	6.394	7.946	28.166	0.634	28.599
2466.000	1800.000	316.000	23.286	4.576	50.619	25.309	56.840	6.221	9.137	28.339	0.560	31.530
2466.000	2000.000	333.000	24.500	5.084	52.975	26.488	59.196	6.221	9.515	28.339	0.535	32.708
2458.000	2700.000	358.000	26.286	6.863	55.770	27.885	63.374	7.603	8.335	26.957	0.483	35.489
2460.000	3000.000	358.000	26.286	7.626	55.314	27.657	62.572	7.258	8.621	27.302	0.494	34.915
2460.000	3500.000	358.000	26.286	8.897	54.553	27.276	61.811	7.258	8.516	27.302	0.500	34.534

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD11.PC12
TEST DATE: 3/7/800

SAMPLE DIAMETER = 2 IN.
SAMPLE HEIGHT = 3.894 IN.

INITIAL PORE PRESSURE READING = 2254
INITIAL DEFLECTION = 0.1016
CONFINING PRESSURE = 0.24 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2254.000	1016.000	122.000	9.385	2.609	20.119	10.060	43.159	23.040	1.873	0.000	0.000	33.100
2301.000	1216.000	175.000	13.214	3.123	28.180	14.090	43.098	14.919	2.889	8.122	0.288	29.008
2312.000	1316.000	211.000	15.786	3.379	33.574	16.787	46.592	13.018	3.579	10.022	0.299	29.805
2320.000	1416.000	249.000	18.500	3.636	39.243	19.621	50.878	11.635	4.373	11.405	0.291	31.257
2322.000	1516.000	265.000	19.643	3.893	41.556	20.778	52.845	11.290	4.681	11.750	0.283	32.068
2326.000	1616.000	280.000	20.714	4.150	43.705	21.853	54.304	10.599	5.124	12.442	0.285	32.451
2326.000	1816.000	307.000	22.643	4.663	47.519	23.759	58.117	10.599	5.484	12.442	0.262	34.358
2330.000	2016.000	0.332	0.026	5.177	0.053	0.027	9.961	9.907	1.005	13.133	246.362	9.934
2330.000	2016.000	332.000	24.429	5.177	50.990	25.495	60.897	9.907	6.147	13.133	0.258	35.402
2330.000	2216.000	357.000	26.214	5.691	54.421	27.210	64.328	9.907	6.493	13.133	0.241	37.118
2327.000	2416.000	378.000	27.714	6.204	57.221	28.611	67.647	10.426	6.488	12.614	0.220	39.036
2328.000	2616.000	394.000	28.857	6.718	59.253	29.627	69.508	10.253	6.779	12.787	0.216	39.880
2324.000	2816.000	406.000	29.714	7.231	60.679	30.339	71.623	10.944	6.544	12.096	0.199	41.284
2320.000	3016.000	414.000	30.308	7.745	61.548	30.774	73.183	11.635	6.290	11.405	0.185	42.409
2317.000	3216.000	420.000	30.769	8.259	62.137	31.069	74.291	12.154	6.113	10.886	0.175	43.222
2317.000	3400.000	424.000	31.077	8.731	62.435	31.218	74.589	12.154	6.137	10.886	0.174	43.372
2313.000	3816.000	427.000	31.308	9.799	62.163	31.081	75.008	12.845	5.840	10.195	0.164	43.926
2310.000	4016.000	429.000	31.462	10.313	62.113	31.056	75.476	13.363	5.648	9.677	0.156	44.420
2308.000	4217.000	429.000	31.462	10.829	61.755	30.878	75.464	13.709	5.505	9.331	0.151	44.586
2310.000	4416.000	430.500	31.577	11.340	61.626	30.813	74.990	13.363	5.612	9.677	0.157	44.177

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD-12
TEST DATE; 2/14/80

SAMPLE DIAMETER = 2.048 IN.
SAMPLE HEIGHT = 3.963 IN.

INITIAL PORE PRESSURE READING = 2300
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.15 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2300.000	20.000	3.900	1.539	0.050	3.230	1.615	17.630	14.400	1.224	0.000	0.000	16.015
2302.000	60.000	13.900	5.487	0.151	11.501	5.751	25.556	14.055	1.818	0.346	0.030	19.805
2303.000	100.000	19.800	7.816	0.252	16.366	8.183	30.248	13.882	2.179	0.518	0.032	22.065
2302.000	140.000	22.100	8.724	0.353	18.249	9.124	32.303	14.055	2.298	0.346	0.019	23.179
2302.000	180.000	22.000	8.684	0.454	18.148	9.074	32.202	14.055	2.291	0.346	0.019	23.129
2304.000	250.000	21.000	8.289	0.631	17.292	8.646	31.001	13.709	2.261	0.691	0.040	22.355
2332.000	350.000	35.200	13.895	0.883	28.911	14.456	37.782	8.871	4.259	5.530	0.191	23.326
2354.000	450.000	48.900	19.303	1.136	40.061	20.031	45.130	5.069	8.903	9.331	0.233	25.100
2371.000	600.000	57.000	22.500	1.514	46.519	23.259	48.650	2.131	22.826	12.269	0.264	25.391
2385.000	800.000	63.900	25.224	2.019	51.883	25.941	51.595	-0.288	-179.208	14.688	0.283	25.653
2392.000	1000.000	67.900	26.803	2.523	54.846	27.423	53.349	-1.498	-35.625	15.898	0.290	25.926
2395.000	1200.000	72.000	28.421	3.028	57.857	28.929	55.841	-2.016	-27.700	16.416	0.284	26.913
2398.000	1400.000	75.900	29.961	3.533	60.674	30.337	58.139	-2.534	-22.941	16.934	0.279	27.803
2400.000	1600.000	78.100	30.798	4.037	62.042	31.021	59.163	-2.880	-20.543	17.280	0.279	28.141
2402.000	1800.000	81.000	31.899	4.542	63.923	31.962	60.697	-3.226	-18.818	17.626	0.276	28.736
2401.000	2000.000	80.400	31.671	5.047	63.131	31.565	60.078	-3.053	-19.680	17.453	0.276	28.513
2405.000	2200.000	80.700	31.785	5.551	63.021	31.511	59.277	-3.744	-15.833	18.144	0.288	27.767
2403.000	2400.000	82.200	32.354	6.056	63.808	31.904	60.409	-3.398	-17.776	17.798	0.279	28.506
2402.000	2600.000	82.900	32.620	6.561	63.986	31.993	60.761	-3.226	-18.838	17.626	0.275	28.768
2402.000	2800.000	82.100	32.317	7.065	63.048	31.524	59.823	-3.226	-18.547	17.626	0.280	28.299
2401.000	3000.000	83.000	32.658	7.570	63.369	31.684	60.316	-3.053	-19.758	17.453	0.275	28.632
2401.000	3200.000	83.200	32.734	8.075	63.170	31.585	60.117	-3.053	-19.693	17.453	0.276	28.532
2398.000	3400.000	83.200	32.734	8.579	62.823	31.411	60.288	-2.534	-23.789	16.934	0.270	28.877
2400.000	3600.000	83.300	32.772	9.084	62.548	31.274	59.668	-2.880	-20.719	17.280	0.276	28.394
2402.000	3800.000	83.500	32.848	9.589	62.345	31.173	59.120	-3.226	-18.329	17.626	0.283	27.947
2402.000	4400.000	83.900	33.000	11.103	61.585	30.792	58.359	-3.226	-18.093	17.626	0.286	27.567
2405.000	5500.000	85.200	33.494	13.878	60.554	30.277	56.811	-3.744	-15.175	18.144	0.300	26.533
2404.000	6600.000	84.000	33.038	16.654	57.805	28.903	54.234	-3.571	-15.187	17.971	0.311	25.332

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD12
TEST DATE: 02-04-80

SAMPLE DIAMETER = 2.867 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2352
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.302 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG01 KPS	SIG03 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2354.000	20.000	22.000	1.692	0.050	3.486	1.743	32.132	28.647	1.122	0.346	0.099	30.390
2354.000	40.000	42.000	3.231	0.100	6.652	3.326	35.298	28.647	1.232	0.346	0.052	31.972
2352.000	60.000	66.000	5.077	0.150	10.447	5.224	39.439	28.992	1.360	0.000	0.000	34.216
2374.000	80.000	103.000	7.923	0.200	16.296	8.148	41.486	25.191	1.647	3.802	0.233	33.339
2384.000	100.000	137.500	10.536	0.250	21.658	10.829	45.121	23.463	1.923	5.530	0.255	34.292
2390.000	120.000	168.000	12.714	0.300	26.124	13.062	48.550	22.426	2.165	6.566	0.251	35.488
2396.000	140.000	193.000	14.500	0.350	29.778	14.889	51.167	21.389	2.392	7.603	0.255	36.278
2406.000	160.000	213.000	15.929	0.400	32.695	16.348	52.356	19.661	2.663	9.331	0.285	36.009
2408.000	180.000	227.000	16.929	0.450	34.731	17.365	54.046	19.315	2.798	9.677	0.279	36.681
2411.000	200.000	236.500	17.607	0.500	36.104	18.052	54.901	18.797	2.921	10.195	0.282	36.849
2416.000	250.000	258.000	19.143	0.625	39.204	19.602	57.137	17.933	3.186	11.059	0.282	37.535
2422.000	300.000	272.000	20.143	0.750	41.201	20.600	58.097	16.896	3.438	12.096	0.294	37.496
2427.000	350.000	283.000	20.929	0.875	42.754	21.377	58.786	16.032	3.667	12.960	0.303	37.409
430.000	400.000	291.000	21.500	1.000	43.866	21.933	404.976	361.111	1.121	-382.119	-7.571	383.044
2436.000	450.000	299.000	22.071	1.125	44.975	22.487	59.451	14.477	4.107	14.515	0.323	36.964
2436.000	500.000	305.000	22.500	1.250	45.790	22.895	60.267	14.477	4.163	14.515	0.317	37.372
2437.000	550.000	311.500	22.964	1.375	46.676	23.338	60.980	14.304	4.263	14.688	0.315	37.642
2442.000	600.000	317.000	23.357	1.500	47.414	23.707	60.854	13.440	4.528	15.552	0.328	37.147
2442.000	700.000	325.500	23.964	1.750	48.523	24.262	61.963	13.440	4.610	15.552	0.321	37.702
2447.000	800.000	337.000	24.786	2.000	50.058	25.029	62.634	12.576	4.980	16.416	0.328	37.605
2450.000	900.000	344.000	25.286	2.250	50.938	25.469	62.996	12.058	5.225	16.934	0.332	37.527
2450.000	1000.000	351.000	25.786	2.500	51.812	25.906	63.870	12.058	5.297	16.934	0.327	37.964
2453.000	1100.000	358.000	26.286	2.750	52.682	26.341	64.221	11.539	5.565	17.453	0.331	37.880
2451.000	1200.000	365.000	26.786	3.000	53.546	26.773	65.431	11.885	5.505	17.107	0.319	38.652
2455.000	1300.000	372.000	27.286	3.250	54.405	27.202	65.598	11.194	5.860	17.798	0.327	38.396
2456.000	1400.000	379.500	27.821	3.500	55.330	27.665	66.350	11.021	6.020	17.971	0.325	38.686
2454.000	1500.000	384.500	28.179	3.750	55.895	27.947	67.261	11.367	5.917	17.626	0.315	39.314
2456.000	1600.000	390.000	28.571	4.000	56.527	28.263	67.547	11.021	6.129	17.971	0.318	39.284
2455.000	1700.000	393.000	28.786	4.250	56.802	28.401	67.996	11.194	6.074	17.798	0.313	39.595
2456.000	1800.000	398.000	29.143	4.500	57.357	28.679	68.378	11.021	6.204	17.971	0.313	39.699
2457.000	1900.000	401.500	29.393	4.750	57.698	28.849	68.546	10.848	6.319	18.144	0.314	39.697
2454.000	2000.000	405.000	29.643	5.000	58.036	29.018	69.402	11.367	6.196	17.626	0.304	40.384
2456.000	2100.000	407.000	29.786	5.250	58.162	29.081	69.183	11.021	6.277	17.971	0.309	40.102
2455.000	2200.000	408.500	29.893	5.500	58.217	29.109	69.411	11.194	6.201	17.798	0.306	40.302
2455.000	2300.000	413.500	30.269	5.750	58.794	29.397	69.988	11.194	6.252	17.798	0.303	40.591
2457.000	2400.000	416.500	30.500	6.000	59.085	29.543	69.933	10.848	6.447	18.144	0.307	40.391
2454.000	2505.000	418.000	30.615	6.263	59.143	29.572	70.509	11.367	6.203	17.626	0.298	40.938
2455.000	2600.000	419.500	30.731	6.500	59.216	29.608	70.409	11.194	6.290	17.798	0.301	40.801
2456.000	2700.000	422.500	30.962	6.750	59.500	29.750	70.521	11.021	6.399	17.971	0.302	40.771
2455.000	2800.000	424.500	31.115	7.000	59.636	29.818	70.830	11.194	6.328	17.798	0.298	41.012
2457.000	2900.000	427.500	31.346	7.250	59.917	29.958	70.765	10.848	6.523	18.144	0.303	40.807
2453.000	3000.000	430.500	31.577	7.500	60.195	30.098	71.734	11.539	6.217	17.453	0.290	41.637
2456.000	3100.000	432.000	31.692	7.750	60.252	30.126	71.273	11.021	6.467	17.971	0.298	41.147
2456.000	3200.000	432.500	31.731	8.000	60.162	30.081	71.183	11.021	6.459	17.971	0.299	41.101
2455.000	3300.000	434.000	31.846	8.250	60.216	30.108	71.410	11.194	6.379	17.798	0.296	41.202
2456.000	3400.000	435.000	31.923	8.500	60.197	30.099	71.218	11.021	6.462	17.971	0.299	41.120
2451.000	3500.000	438.000	32.154	8.750	60.467	30.233	72.352	11.885	6.088	17.107	0.283	42.118
2454.000	3600.000	440.000	32.308	9.000	60.590	30.295	71.956	11.367	6.331	17.626	0.291	41.660
2453.000	3700.000	440.000	32.308	9.250	60.423	30.212	71.962	11.539	6.236	17.453	0.289	41.751
2452.000	3800.000	440.500	32.346	9.500	60.328	30.164	72.040	11.712	6.151	17.280	0.286	41.876
2455.000	3900.000	443.000	32.539	9.750	60.520	30.260	71.713	11.194	6.407	17.798	0.294	41.454
2451.000	4000.000	444.000	32.615	10.000	60.494	30.247	72.379	11.885	6.090	17.107	0.283	42.132
2453.000	4200.000	445.000	32.692	10.500	60.300	30.150	71.840	11.539	6.226	17.453	0.289	41.689
2453.000	4400.000	446.000	32.769	11.000	60.104	30.052	71.644	11.539	6.209	17.453	0.290	41.591
2451.000	4600.000	447.000	32.846	11.500	59.907	29.954	71.792	11.885	6.041	17.107	0.286	41.936
2453.000	4800.000	450.000	33.077	12.000	59.987	29.994	71.526	11.539	6.199	17.453	0.291	41.833
2451.000	5000.000	450.000	33.077	12.500	59.646	29.823	71.531	11.885	6.019	17.107	0.287	41.708
2454.000	5200.000	451.000	33.154	13.000	59.443	29.722	70.810	11.367	6.230	17.626	0.297	41.388
2452.000	5400.000	452.000	33.231	13.500	59.239	29.620	70.951	11.712	6.058	17.280	0.292	41.832
2453.000	5600.000	453.000	33.308	14.000	59.033	29.516	70.572	11.539	6.116	17.453	0.296	41.056
2450.000	5800.000	453.500	33.346	14.500	58.757	29.379	70.815	12.058	5.873	16.934	0.288	41.436
2451.000	6000.000	454.000	33.385	15.000	58.491	29.241	70.366	11.885	5.921	17.107	0.293	41.125
2450.000	6200.000	455.000	33.462	15.500	58.271	29.136	70.329	12.058	5.833	16.934	0.291	41.193
2450.000	6400.000	455.500	33.500	16.000	57.993	28.996	70.050	12.058	5.810	16.934	0.292	41.054
2454.000	6600.000	457.000	33.615	16.500	57.846	28.923	69.213	11.367	6.089	17.626	0.305	40.290
2455.000	6800.000	456.800	33.600	17.000	57.474	28.737	68.667	11.194	6.134	17.798	0.310	39.930
2455.000	7000.000	454.500	33.423	17.500	56.827	28.413	68.020	11.194	6.077	17.798	0.313	39.807
2452.000	7200.000	454.200	33.400	18.000	56.443	28.222	68.155	11.712	5.819	17.280	0.306	39.934

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CD12
TEST DATE: 02-04-80

SAMPLE DIAMETER = 2.867 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2422
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.605 TSF
LOAD RING SIZE = 250 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG#1 KPS	SIG#3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2420.000	20.000	41.100	3.162	0.050	6.512	3.256	64.938	58.426	1.111	-0.346	-0.053	61.682
2422.000	40.000	82.000	6.308	0.100	12.986	6.493	71.066	58.080	1.224	0.000	0.000	64.573
2422.000	60.000	112.200	8.631	0.150	17.760	8.880	75.840	58.080	1.306	0.000	0.000	66.960
2422.000	80.000	128.800	9.908	0.200	20.378	10.189	78.458	58.080	1.351	0.000	0.000	68.269
2422.000	100.000	133.200	10.229	0.250	21.027	10.514	79.107	58.080	1.362	0.000	0.000	68.593
2422.000	120.000	135.000	10.357	0.300	21.281	10.640	79.361	58.080	1.366	0.000	0.000	68.720
2422.000	140.000	135.100	10.364	0.350	21.285	10.642	79.365	58.080	1.366	0.000	0.000	68.723
2424.000	160.000	136.100	10.436	0.400	21.421	10.710	79.155	57.735	1.371	0.346	0.016	68.445
2422.000	180.000	135.900	10.421	0.450	21.380	10.690	79.460	58.080	1.368	0.000	0.000	68.770
2422.000	200.000	135.700	10.421	0.500	21.370	10.685	79.450	58.080	1.368	0.000	0.000	68.765
2422.000	220.000	136.100	10.436	0.625	21.372	10.686	79.452	58.080	1.368	0.000	0.000	68.766
2430.000	300.000	135.900	10.421	0.750	21.316	10.658	78.014	56.698	1.376	1.382	0.065	67.356
2446.000	350.000	196.500	14.750	0.875	30.132	15.066	84.065	53.933	1.559	4.147	0.138	68.999
2481.000	400.000	314.500	23.179	1.000	47.270	23.645	95.175	47.885	1.988	10.195	0.216	71.530
2512.000	450.000	389.900	28.564	1.125	58.205	29.103	100.733	42.528	2.369	15.552	0.267	71.630
2528.000	500.000	428.100	31.392	1.250	63.887	31.943	103.650	39.763	2.607	18.317	0.287	71.707
2548.000	600.000	474.000	34.723	1.500	70.892	35.446	107.199	36.307	2.953	21.773	0.307	71.753
2562.000	700.000	502.900	37.146	1.750	75.214	37.607	109.102	33.888	3.219	24.192	0.322	71.495
2596.000	800.000	525.000	38.846	2.000	78.455	39.228	106.469	28.013	3.801	30.067	0.383	67.241
2575.000	900.000	544.200	40.323	2.250	81.231	40.615	112.872	31.642	3.567	26.438	0.325	72.257
2578.000	1000.000	564.000	41.846	2.500	84.083	42.042	115.207	31.123	3.702	26.957	0.321	73.165
2580.000	450.000	587.900	43.685	1.125	89.016	44.508	119.794	30.778	3.892	27.302	0.307	75.286
2582.000	1200.000	595.200	44.246	3.000	88.450	44.225	118.883	30.432	3.906	27.648	0.313	74.657
2580.000	1300.000	610.000	45.385	3.250	90.492	45.246	121.270	30.778	3.940	27.302	0.302	76.024
2579.000	1400.000	623.500	46.423	3.500	92.324	46.162	123.275	30.951	3.983	27.129	0.294	77.113
2580.000	1500.000	636.900	47.454	3.750	94.129	47.065	124.907	30.778	4.058	27.302	0.290	77.842
2578.000	1600.000	649.700	48.439	4.000	95.832	47.916	126.955	31.123	4.079	26.957	0.281	79.039
2578.000	1700.000	663.100	49.623	4.250	97.920	48.960	129.043	31.123	4.146	26.957	0.275	80.063
2575.000	1800.000	677.400	50.463	4.500	99.317	49.658	130.958	31.642	4.139	26.438	0.266	81.300
2572.000	1900.000	688.900	51.181	4.750	100.468	50.234	132.628	32.160	4.124	25.920	0.258	82.394
2571.000	2000.000	700.700	51.919	5.000	101.648	50.824	133.980	32.333	4.144	25.747	0.253	83.157
2570.000	2100.000	711.900	52.619	5.250	102.748	51.374	135.253	32.506	4.161	25.574	0.249	83.880
2568.000	2200.000	721.900	53.244	5.500	103.693	51.847	136.545	32.851	4.156	25.229	0.243	84.698
2569.000	2300.000	730.200	53.763	5.750	104.426	52.213	137.104	32.679	4.196	25.401	0.243	84.891
2566.000	2400.000	738.900	54.306	6.000	105.204	52.602	138.400	33.197	4.169	24.883	0.237	85.799
2562.000	2500.000	747.500	54.844	6.250	105.962	52.981	139.850	33.888	4.127	24.192	0.228	86.869
2562.000	2600.000	757.100	55.444	6.500	106.836	53.418	140.724	33.888	4.153	24.192	0.226	87.306
2562.000	2700.000	765.800	55.988	6.750	107.594	53.797	141.482	33.888	4.175	24.192	0.225	87.685
2561.000	2800.000	772.800	56.425	7.000	108.145	54.073	142.206	34.061	4.175	24.019	0.222	88.133
2557.000	2900.000	777.800	56.738	7.250	108.451	54.226	143.203	34.752	4.121	23.328	0.215	88.978
2554.000	3000.000	783.100	57.069	7.500	108.790	54.395	144.060	35.271	4.084	22.809	0.210	89.665
2555.000	3100.000	789.000	57.438	7.750	109.198	54.599	144.296	35.098	4.111	22.982	0.210	89.697
2554.000	3200.000	795.400	57.838	8.000	109.660	54.830	144.930	35.271	4.109	22.809	0.208	90.100
2552.000	3300.000	805.000	58.438	8.250	110.496	55.248	146.112	35.616	4.102	22.464	0.203	90.864
2548.000	3500.000	815.000	59.063	8.750	111.069	55.535	147.376	36.307	4.059	21.773	0.196	91.840
2547.000	3600.000	821.200	59.450	9.000	111.492	55.746	147.972	36.480	4.056	21.600	0.194	92.226
2547.000	3700.000	827.100	59.819	9.250	111.876	55.938	148.356	36.480	4.067	21.600	0.193	92.418
2546.000	3800.000	832.000	60.148	9.500	112.182	56.091	148.835	36.653	4.061	21.427	0.191	92.744
2543.000	3900.000	839.000	60.667	9.750	112.836	56.418	150.008	37.171	4.036	20.909	0.185	93.589
2543.000	4000.000	845.600	61.156	10.000	113.430	56.715	150.601	37.171	4.052	20.909	0.184	93.886
2540.000	4200.000	858.000	62.074	10.500	114.494	57.247	152.184	37.690	4.038	20.390	0.178	94.937
2540.000	4400.000	862.000	62.370	11.000	114.398	57.199	152.088	37.690	4.035	20.390	0.178	94.889
2536.000	4600.000	877.000	63.482	11.500	115.782	57.891	154.163	38.381	4.017	19.699	0.170	96.272
2536.000	4800.000	886.000	64.148	12.000	116.337	58.168	154.717	38.381	4.031	19.699	0.169	96.549
2524.000	5000.000	896.000	64.889	12.500	117.012	58.506	157.466	40.455	3.892	17.628	0.151	98.961
2532.000	5400.000	904.000	65.482	13.500	116.731	58.366	155.803	39.072	3.988	19.008	0.163	97.438
2532.000	5600.000	910.000	65.926	14.000	116.844	58.422	155.916	39.072	3.990	19.008	0.163	97.494
2532.000	5800.000	920.000	66.667	14.500	117.469	58.735	156.541	39.072	4.006	19.008	0.162	97.807
2530.000	6000.000	924.000	66.963	15.000	117.302	58.651	156.720	39.416	3.976	18.662	0.159	98.069
2527.000	6200.000	928.000	67.259	15.500	117.128	58.564	157.064	39.936	3.933	18.144	0.155	98.500

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD-12,PC-1
TEST DATE: 3/3/80

SAMPLE DIAMETER = 1.99 IN.
SAMPLE HEIGHT = 3.987 IN.

INITIAL PORE PRESSURE READING = 2457
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.101 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SB/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2467.000	200.000	62.000	24.474	0.502	54.143	27.071	62.111	7.968	7.795	1.728	0.032	35.039
2464.000	300.000	67.000	26.447	0.752	58.361	29.181	66.848	8.487	7.877	1.210	0.021	37.667
2464.000	400.000	70.800	27.947	1.003	61.516	30.758	70.002	8.487	8.249	1.210	0.020	39.244
2464.000	500.000	75.000	29.605	1.254	65.000	32.500	73.486	8.487	8.659	1.210	0.019	40.986
2457.000	600.000	77.000	30.380	1.505	66.531	33.265	76.227	9.696	7.862	0.000	0.000	42.961
2457.000	800.000	83.000	32.658	2.007	71.156	35.578	80.852	9.696	8.339	0.000	0.000	45.274
2453.000	900.000	86.000	33.798	2.257	73.451	36.725	83.838	10.387	8.071	-0.691	-0.009	47.113
2448.000	1100.000	87.000	34.177	2.759	73.894	36.947	85.145	11.251	7.568	-1.555	-0.021	48.198
2446.000	1200.000	93.000	36.456	3.010	78.617	39.309	90.214	11.597	7.779	-1.901	-0.024	50.905
2438.000	1400.000	96.800	37.899	3.511	81.307	40.653	94.286	12.979	7.264	-3.283	-0.040	53.632
2423.000	2000.000	106.300	41.696	5.016	88.058	44.029	103.629	15.571	6.655	-5.875	-0.067	59.600
2418.000	2200.000	110.000	42.911	5.518	90.146	45.073	106.581	16.435	6.485	-6.739	-0.075	61.508
2416.000	2400.000	112.000	43.671	6.020	91.254	45.627	108.035	16.781	6.438	-7.085	-0.078	62.408
2412.000	2600.000	115.000	44.810	6.521	93.133	46.568	110.607	17.472	6.331	-7.776	-0.083	64.040
2405.000	2800.000	117.800	45.873	7.023	94.833	47.417	113.515	18.682	6.076	-8.986	-0.095	66.098
2402.000	3000.000	120.000	46.709	7.524	96.039	48.020	115.239	19.200	6.002	-9.504	-0.099	67.220
2401.000	3200.000	122.000	47.468	8.026	97.071	48.536	116.444	19.373	6.011	-9.677	-0.100	67.909
2397.000	3400.000	125.000	48.608	8.528	98.860	49.430	118.924	20.064	5.927	-10.368	-0.105	69.494
2391.000	3800.000	129.000	50.127	9.531	100.831	50.415	121.932	21.101	5.779	-11.405	-0.113	71.516
2391.000	4000.000	131.000	50.886	10.033	101.791	50.895	122.892	21.101	5.824	-11.405	-0.112	71.996
2388.000	4200.000	133.000	51.646	10.534	102.734	51.367	124.354	21.619	5.752	-11.923	-0.116	72.986
2385.000	4400.000	134.000	52.025	11.036	102.909	51.455	125.047	22.138	5.649	-12.442	-0.121	73.592
2382.000	4600.000	136.000	52.785	11.538	103.823	51.912	126.479	22.656	5.583	-12.960	-0.125	74.568
2378.000	4800.000	137.000	53.165	12.039	103.977	51.988	127.324	23.347	5.454	-13.651	-0.131	75.336
2376.000	5000.000	139.000	53.924	12.541	104.861	52.430	128.554	23.693	5.426	-13.997	-0.133	76.123
2376.000	5200.000	140.500	54.494	13.042	105.360	52.680	129.053	23.693	5.447	-13.997	-0.133	76.373
2376.000	5600.000	143.800	55.747	14.046	106.540	53.270	130.233	23.693	5.497	-13.997	-0.131	76.963
2371.000	6000.000	146.000	56.582	15.049	106.874	53.437	131.431	24.557	5.352	-14.861	-0.139	77.994
2369.000	6600.000	150.000	58.101	16.554	107.799	53.900	132.702	24.902	5.329	-15.206	-0.141	78.802
2369.000	7000.000	152.000	58.861	17.557	107.895	53.948	132.798	24.902	5.333	-15.206	-0.141	78.850

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 1
BORING NO.: CD13
TEST DATE: 04-04-80

SAMPLE DIAMETER = 2.867 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2343
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.17 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2394.000	350.000	34.000	13.421	0.750	25.239	12.619	32.746	7.507	4.362	8.813	0.349	20.127
2392.000	400.000	37.000	14.605	1.000	29.798	14.899	37.651	7.853	4.795	8.467	0.284	22.752
2394.000	450.000	38.800	15.316	1.125	31.209	15.604	38.716	7.507	5.157	8.813	0.282	23.112
2394.000	500.000	40.000	15.789	1.250	32.133	16.067	39.640	7.507	5.280	8.813	0.274	23.574
2394.000	550.000	41.000	16.184	1.375	32.895	16.448	40.402	7.507	5.382	8.813	0.268	23.955
2396.000	600.000	42.800	16.895	1.500	34.296	17.148	41.457	7.162	5.789	9.158	0.267	24.310
2395.000	700.000	45.800	18.079	1.750	36.606	18.303	43.941	7.335	5.991	8.986	0.245	25.638
2396.000	800.000	48.200	19.026	2.000	38.426	19.213	45.588	7.162	6.366	9.158	0.238	26.375
2397.000	900.000	51.000	20.132	2.250	40.555	20.278	47.544	6.989	6.803	9.331	0.230	27.266
2396.000	1000.000	53.000	20.921	2.500	42.037	21.019	49.199	7.162	6.870	9.158	0.218	28.180
2396.000	1100.000	55.000	21.711	2.750	43.512	21.756	50.674	7.162	7.076	9.158	0.210	28.918
2396.000	1200.000	57.000	22.500	3.000	44.978	22.489	52.140	7.162	7.280	9.158	0.204	29.651
2398.000	1300.000	58.000	22.895	3.250	45.650	22.825	52.466	6.816	7.697	9.504	0.208	29.641
2396.000	1400.000	59.200	23.368	3.500	46.474	23.237	53.635	7.162	7.489	9.158	0.197	30.399
2394.000	1600.000	60.800	24.000	4.000	47.482	23.741	54.990	7.507	7.325	8.813	0.186	31.249
2394.000	1700.000	61.200	24.158	4.250	47.670	23.835	55.177	7.507	7.350	8.813	0.185	31.342
2394.000	1800.000	61.600	24.316	4.500	47.856	23.928	55.364	7.507	7.375	8.813	0.184	31.436
2393.000	1900.000	62.000	24.474	4.750	48.041	24.021	55.721	7.680	7.255	8.640	0.180	31.701
2393.000	2000.000	62.200	24.553	5.000	48.070	24.035	55.750	7.680	7.259	8.640	0.180	31.715
2394.000	2100.000	62.200	24.553	5.250	47.943	23.972	55.450	7.507	7.386	8.813	0.184	31.479
2392.000	2200.000	62.800	24.789	5.500	48.278	24.139	56.131	7.853	7.148	8.467	0.175	31.992
2393.000	2300.000	62.500	24.671	5.750	47.920	23.960	55.600	7.680	7.239	8.640	0.180	31.640
2395.000	2400.000	62.800	24.789	6.000	48.022	24.011	55.357	7.335	7.547	8.986	0.187	31.346
2394.000	2500.000	62.800	24.789	6.250	47.895	23.947	55.402	7.507	7.380	8.813	0.184	31.455
2394.000	2600.000	62.500	24.671	6.500	47.539	23.769	55.046	7.507	7.332	8.813	0.185	31.277
2394.000	2700.000	62.200	24.553	6.750	47.184	23.592	54.691	7.507	7.285	8.813	0.187	31.099
2394.000	3000.000	62.100	24.513	7.500	46.729	23.365	54.237	7.507	7.224	8.813	0.189	30.872
2395.000	3200.000	61.800	24.395	8.000	46.252	23.126	53.587	7.335	7.306	8.986	0.194	30.461
2394.000	3300.000	61.500	24.276	8.250	45.903	22.951	53.410	7.507	7.114	8.813	0.192	30.459
2394.000	3400.000	61.200	24.158	8.500	45.554	22.777	53.062	7.507	7.068	8.813	0.193	30.284
2394.000	3600.000	61.000	24.079	9.000	45.157	22.579	52.665	7.507	7.015	8.813	0.195	30.086
2396.000	3800.000	60.300	24.000	9.500	44.762	22.381	51.924	7.162	7.250	9.158	0.205	29.543
2395.000	3900.000	60.800	24.000	9.750	44.638	22.319	51.973	7.335	7.086	8.986	0.201	29.654
2395.000	4000.000	60.800	24.000	10.000	44.515	22.257	51.849	7.335	7.069	8.986	0.202	29.592

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 2
BORING NO.: CD13
TEST DATE: 04-04-80

SAMPLE DIAMETER = 2.867 IN.
SAMPLE HEIGHT = 6 IN.

INITIAL PORE PRESSURE READING = 2420
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.34 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	BBAR KPS	EXC PP KPS	A-F	AVG ES KPS
2424.000	20.000	9.200	3.632	0.050	7.480	3.740	39.429	31.949	1.234	0.691	0.092	35.689
2430.000	40.000	15.900	6.276	0.100	12.922	6.461	43.334	30.912	1.418	1.728	0.184	37.373
2432.000	60.000	19.900	7.855	0.150	16.164	8.082	46.731	30.567	1.529	2.074	0.128	38.649
2434.000	80.000	22.200	8.763	0.200	18.024	9.012	48.245	30.221	1.596	2.419	0.134	39.233
2437.000	100.000	24.900	9.829	0.250	20.206	10.103	49.908	29.703	1.680	2.938	0.145	39.805
2438.000	140.000	28.100	11.092	0.350	22.779	11.390	52.309	29.530	1.771	3.110	0.137	40.919
2436.000	160.000	31.200	12.316	0.400	25.280	12.640	55.155	29.875	1.846	2.765	0.109	42.515
2436.000	200.000	32.900	12.987	0.500	26.630	13.315	56.506	29.875	1.891	2.765	0.104	43.191
2436.000	250.000	36.000	14.211	0.625	29.103	14.552	58.978	29.875	1.974	2.765	0.095	44.427
2434.000	300.000	38.900	15.355	0.750	31.408	15.704	61.629	30.221	2.039	2.419	0.077	45.925
2432.000	350.000	40.500	15.987	0.875	32.658	16.329	63.225	30.567	2.068	2.074	0.063	46.896
2433.000	400.000	43.800	17.289	1.000	35.275	17.637	65.869	30.394	2.161	2.246	0.064	48.031
2434.000	450.000	45.900	18.118	1.125	36.920	18.460	67.741	30.221	2.222	2.419	0.066	48.881
2428.000	500.000	48.000	18.947	1.250	38.560	19.280	69.818	31.258	2.234	1.382	0.036	50.538
2429.000	550.000	49.800	19.658	1.375	39.955	19.978	71.040	31.085	2.285	1.555	0.039	51.062
2428.000	600.000	51.500	20.329	1.500	41.267	20.633	72.525	31.258	2.320	1.382	0.033	51.897
2428.000	700.000	54.900	21.671	1.750	43.880	21.940	75.137	31.258	2.404	1.382	0.032	53.197
2425.000	800.000	57.900	22.855	2.000	46.159	23.080	77.936	31.776	2.453	0.864	0.019	54.656
2424.000	900.000	60.300	23.803	2.250	47.950	23.975	79.899	31.949	2.501	0.691	0.014	55.924
2423.000	1000.000	62.500	24.671	2.500	49.573	24.786	81.694	32.122	2.543	0.518	0.010	56.908
2423.000	1100.000	64.900	25.618	2.750	51.344	25.672	83.466	32.122	2.598	0.518	0.011	57.795
2420.000	1300.000	68.100	26.882	3.250	53.599	26.799	86.239	32.640	2.642	0.000	0.000	58.439
2421.000	1400.000	69.400	27.395	3.500	54.481	27.241	86.948	32.467	2.678	0.173	0.003	59.708
2416.000	1500.000	71.000	28.026	3.750	55.593	27.796	88.924	33.331	2.668	-0.691	-0.012	61.128
2416.000	1800.000	73.500	29.013	4.500	57.402	28.551	90.433	33.331	2.713	-0.691	-0.012	61.882
2416.000	1900.000	74.100	29.250	4.750	57.417	28.709	90.748	33.331	2.723	-0.691	-0.012	62.040
2416.000	2000.000	74.700	29.487	5.000	57.730	28.865	91.061	33.331	2.732	-0.691	-0.012	62.196
2414.000	2100.000	75.100	29.645	5.250	57.886	28.943	91.563	33.677	2.719	-1.037	-0.018	62.622
2414.000	2200.000	75.400	29.763	5.500	57.964	28.982	91.641	33.677	2.721	-1.037	-0.018	62.659
2413.000	2300.000	75.600	29.842	5.750	57.964	28.982	91.814	33.850	2.712	-1.210	-0.021	62.832
2412.000	2400.000	75.900	29.961	6.000	58.040	29.020	92.062	34.022	2.706	-1.382	-0.024	63.040
2412.000	2500.000	76.000	30.000	6.250	57.962	28.981	91.984	34.022	2.704	-1.382	-0.024	63.003
2413.000	2600.000	76.000	30.000	6.500	57.807	28.904	91.657	33.850	2.708	-1.210	-0.021	62.753
2412.000	2700.000	76.000	30.000	6.750	57.653	28.826	91.675	34.022	2.695	-1.382	-0.024	62.649
2412.000	2800.000	76.000	30.000	7.000	57.498	28.749	91.521	34.022	2.690	-1.382	-0.024	62.572
2412.000	2900.000	76.000	30.000	7.250	57.344	28.672	91.366	34.022	2.685	-1.382	-0.024	62.494
2410.000	3000.000	75.900	29.961	7.500	57.114	28.557	91.482	34.368	2.662	-1.728	-0.030	62.925
2410.000	3100.000	75.800	29.921	7.750	56.884	28.442	91.252	34.368	2.655	-1.728	-0.030	62.810
2410.000	3400.000	75.500	29.803	8.500	56.199	28.099	90.567	34.368	2.635	-1.728	-0.030	62.467
2411.000	3500.000	75.200	29.684	8.750	55.822	27.911	90.018	34.195	2.632	-1.555	-0.028	62.106
2411.000	3600.000	75.100	29.645	9.000	55.595	27.798	89.791	34.195	2.626	-1.555	-0.028	61.993
2412.000	3700.000	74.900	29.566	9.250	55.295	27.647	89.317	34.022	2.625	-1.382	-0.025	61.670
2414.000	3800.000	74.800	29.526	9.500	55.069	27.535	88.746	33.677	2.635	-1.037	-0.019	61.210
2413.000	3900.000	74.600	29.447	9.750	54.770	27.385	88.620	33.850	2.618	-1.210	-0.022	61.235
2412.000	4000.000	74.400	29.368	10.000	54.472	27.236	88.494	34.022	2.601	-1.382	-0.025	61.254
2412.000	4200.000	74.100	29.250	10.500	53.951	26.976	87.973	34.022	2.586	-1.382	-0.025	60.998
2416.000	4400.000	74.000	29.211	11.000	53.577	26.789	86.908	33.331	2.607	-0.691	-0.013	60.120
2415.000	4600.000	73.900	29.171	11.500	53.204	26.602	86.708	33.504	2.588	-0.864	-0.016	60.106
2416.000	4800.000	73.500	29.013	12.000	52.817	26.409	85.948	33.331	2.579	-0.691	-0.013	59.640

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 3
BORING NO.: CB13
TEST DATE: 04-04-80

SAMPLE DIAMETER = 2.867 IN.
SAMPLE HEIGHT = 4 IN.

INITIAL PORE PRESSURE READING = 2456
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.67 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIG01 KPS	SIG03 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2476.000	40.000	7.000	2.763	0.100	5.689	2.844	68.281	62.592	1.091	1.728	0.304	65.437
2494.000	60.000	16.000	6.316	0.150	12.997	6.498	72.478	59.482	1.219	4.838	0.372	65.980
2514.000	80.000	28.000	11.053	0.200	22.732	11.366	78.758	56.026	1.406	8.294	0.365	67.392
2533.000	100.000	37.000	14.605	0.250	30.024	15.012	82.767	52.743	1.569	11.578	0.386	67.754
2550.000	120.000	44.000	17.368	0.300	35.687	17.843	85.492	49.805	1.717	14.515	0.407	67.648
2570.000	140.000	51.500	20.329	0.400	41.728	20.864	88.076	46.349	1.900	17.971	0.431	67.213
2580.000	180.000	55.000	21.711	0.450	44.541	22.271	89.162	44.621	1.998	19.699	0.442	66.891
2588.000	200.000	57.000	22.500	0.500	46.138	23.069	89.376	43.239	2.067	21.081	0.457	66.308
2598.000	250.000	62.000	24.474	0.625	50.122	25.061	91.632	41.511	2.207	22.809	0.455	66.571
2614.000	300.000	66.000	26.053	0.750	53.288	26.644	92.034	38.746	2.375	25.574	0.480	65.390
2620.000	350.000	69.000	27.237	0.875	55.640	27.820	93.349	37.709	2.476	26.611	0.478	65.529
2626.000	400.000	71.000	28.026	1.000	57.181	28.590	93.853	36.672	2.559	27.648	0.484	65.263
2634.000	450.000	73.000	28.816	1.125	58.717	29.359	94.007	35.290	2.664	29.030	0.494	64.648
2640.000	500.000	76.000	30.000	1.250	61.053	30.527	95.306	34.253	2.782	30.067	0.492	64.780
2650.000	600.000	78.500	30.949	1.500	62.826	31.413	95.351	32.525	2.932	31.795	0.506	63.938
2660.000	700.000	82.000	32.279	1.750	65.358	32.679	96.155	30.797	3.122	33.523	0.513	63.476
2664.000	800.000	84.000	33.038	2.000	66.725	33.363	96.831	30.106	3.216	34.214	0.513	63.469
2673.000	900.000	86.000	33.798	2.250	68.085	34.043	96.636	28.551	3.385	35.769	0.525	62.593
2678.000	1000.000	88.000	34.557	2.500	69.437	34.718	97.123	27.687	3.508	36.633	0.528	62.405
2680.000	1100.000	89.000	34.937	2.750	70.020	35.010	97.361	27.341	3.561	36.979	0.528	62.351
2685.000	1200.000	90.000	35.317	3.000	70.599	35.300	97.076	26.477	3.666	37.843	0.536	61.777
2694.000	1400.000	92.000	36.076	3.500	71.745	35.873	96.667	24.922	3.879	39.398	0.549	60.794
2698.000	1700.000	93.300	36.570	4.250	72.162	36.081	96.393	24.231	3.978	40.089	0.556	60.312
2702.000	1800.000	93.600	36.684	4.500	72.198	36.099	95.738	23.540	4.067	40.781	0.565	59.639
2702.000	1900.000	94.000	36.835	4.750	72.307	36.154	95.847	23.540	4.072	40.781	0.564	59.693
2704.000	2000.000	94.100	36.873	5.000	72.192	36.096	95.386	23.194	4.113	41.126	0.570	59.290
2707.000	2100.000	94.100	36.873	5.250	72.002	36.001	94.677	22.676	4.175	41.645	0.578	58.676
2710.000	2300.000	94.700	37.101	5.750	72.065	36.032	94.222	22.157	4.252	42.163	0.585	58.189
2712.000	2400.000	94.800	37.139	6.000	71.946	35.973	93.758	21.812	4.299	42.508	0.591	57.785
2714.000	2700.000	94.800	37.139	6.750	71.373	35.686	92.839	21.466	4.325	42.854	0.600	57.152
2716.000	2800.000	95.200	37.291	7.000	71.472	35.736	92.593	21.120	4.384	43.200	0.604	56.857
2717.000	2900.000	95.200	37.291	7.250	71.280	35.640	92.228	20.948	4.403	43.372	0.608	56.588
2719.000	3000.000	95.200	37.291	7.500	71.088	35.544	91.690	20.602	4.451	43.718	0.615	56.146
2720.000	3200.000	95.200	37.291	8.000	70.704	35.352	91.133	20.429	4.461	43.891	0.621	55.781
2721.000	3400.000	95.200	37.291	8.500	70.319	35.160	90.576	20.256	4.471	44.064	0.627	55.416
2722.000	3500.000	95.200	37.291	8.750	70.127	35.064	90.211	20.084	4.492	44.236	0.631	55.147
2724.000	3600.000	95.200	37.291	9.000	69.936	34.968	89.674	19.738	4.543	44.582	0.637	54.706
2724.000	3700.000	95.100	37.253	9.250	69.672	34.836	89.410	19.738	4.530	44.582	0.640	54.574
2724.000	3800.000	95.000	37.215	9.500	69.410	34.705	89.148	19.738	4.517	44.582	0.642	54.443
2724.000	4000.000	94.800	37.139	10.000	68.885	34.443	88.623	19.738	4.490	44.582	0.647	54.181
2724.000	4200.000	94.500	37.025	10.500	68.292	34.146	88.030	19.738	4.460	44.582	0.653	53.884

TRIAXIAL TEST RESULTS

PROJECT NO.: 79C01221
TEST NO.: 4
BORING NO.: CD-13
TEST DATE: 3/8/80

SAMPLE DIAMETER = 1.98 IN.
SAMPLE HEIGHT = 3.967 IN.

INITIAL PORE PRESSURE READING = 2282
INITIAL DEFLECTION = 0
CONFINING PRESSURE = 0.11 TSF
LOAD RING SIZE = 300 LBS

PP RDG	DEFL 10-4 IN.	LR RDG DIV	LOAD POUNDS	STRAIN %	S DIFF KPS	SD/2 KPS	SIGB1 KPS	SIGB3 KPS	OBLIQ	EXC PP KPS	A-F	AVG ES KPS
2282.000	0.032	27.100	10.697	0.000	24.026	12.013	34.586	10.560	3.275	0.000	0.000	22.573
2301.000	500.000	48.000	18.947	1.260	42.018	21.009	49.295	7.277	6.774	3.283	0.078	28.286
2301.000	600.000	50.700	20.013	1.512	44.269	22.134	51.546	7.277	7.083	3.283	0.074	29.411
2300.000	800.000	54.000	21.316	2.017	46.909	23.454	54.358	7.450	7.297	3.110	0.066	30.904
2299.000	1000.000	56.500	22.303	2.521	48.828	24.414	56.451	7.623	7.406	2.938	0.060	32.037
2296.000	1200.000	58.700	23.171	3.025	50.467	25.233	58.608	8.141	7.199	2.419	0.048	33.374
2295.000	1400.000	60.000	23.684	3.529	51.316	25.658	59.630	8.314	7.172	2.246	0.044	33.972
2293.000	1600.000	60.300	23.803	4.033	51.303	25.652	59.963	8.659	6.925	1.901	0.037	34.311
2291.000	1800.000	62.000	24.474	4.537	52.472	26.236	61.477	9.005	6.827	1.555	0.030	35.241
2293.000	2000.000	63.000	24.868	5.042	53.037	26.519	61.697	8.659	7.125	1.901	0.036	35.178
2293.000	2200.000	63.000	24.868	5.546	52.756	26.378	61.415	8.659	7.092	1.901	0.036	35.037
2290.000	2400.000	63.800	25.184	6.050	53.141	26.570	62.318	9.178	6.790	1.382	0.026	35.748
2290.000	2600.000	63.800	25.184	6.554	52.855	26.428	62.033	9.178	6.759	1.382	0.026	35.606
2292.000	2800.000	63.800	25.184	7.058	52.570	26.285	61.403	8.832	6.952	1.728	0.033	35.117
2289.000	3000.000	64.100	25.303	7.562	52.531	26.266	61.882	9.351	6.618	1.210	0.023	35.616
2291.000	3200.000	64.500	25.461	8.067	52.570	26.285	61.575	9.005	6.838	1.555	0.030	35.290
2292.000	3400.000	64.500	25.461	8.571	52.282	26.141	61.114	8.832	6.919	1.728	0.033	34.973
2290.000	3700.000	65.000	25.658	9.327	52.252	26.126	61.429	9.178	6.693	1.382	0.026	35.304

Part II

By
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LAW ENGINEERING TESTING COMPANY

Geotechnical and Materials Engineers

P. O. DRAWER QQ / 7913 WESTPARK DRIVE / McLEAN, VIRGINIA, 22101 / (703) 790-5700

July 25, 1980

United States Geological Survey
Mail Stop 903
Denver Federal Center
Post Office Box 25046
Denver, Colorado 80225

ATTENTION: Harold W. Olsen

SUBJECT: Report of Laboratory Testing
Atlantic Core Samples
from the Continental Slope
USGS Contract No. 14-08-0001-18708
LETCO Project No. W-9-2679

Gentlemen:

Law Engineering Testing Company has completed the triaxial, consolidation and index properties testing of the piston core samples taken from the continental slope off the coasts of New Jersey, Delaware and Maryland. This work was conducted in accordance with the terms, conditions and specifications contained in RFP No. 2-80 dated August 31, 1979. This report of the laboratory test results has been prepared under U. S. Geological Survey Contract No. 14-08-0001-18708 which was awarded by Alf Aanensen on December 7, 1979 and Amendment Nos. 1 and 2 which were administered by John J. Arnold on February 15 and June 11, 1980, respectively. The report text summarizes the laboratory test results, testing procedures and data reduction techniques used in this study. The results of the triaxial, consolidation, and classification tests are included in Appendices A, B, and C, respectively.

SCOPE AND PURPOSE OF WORK

The development of offshore oil and gas reserves in the Atlantic Corridor appears potentially viable in the near future. The U. S. Geological Survey requires a general evaluation of the geotechnical properties of the shallow sediments on the continental slope with respect to environmental hazards from possible downslope instability which

can affect petroleum development. The study has focused on areas off the coasts of New Jersey, Delaware, and Maryland. Law Engineering has been retained to conduct a portion of the laboratory testing needed to evaluate the relevant geotechnical properties of these offshore sediments.

TRANSPORTATION, HANDLING AND PREPARATION OF TEST SPECIMENS

The soil samples tested in this program were obtained from 21 different core borings conducted by the U.S.G.S. A representative of Law Engineering received the piston core samples from the U.S.G.S. Center at Woods Hole, Massachusetts. The cores were transported in specially constructed boxes lined with materials to minimize vibration of the cores during transit. The cores were stored upright in a temperature controlled storage area at 4° to 6°C throughout the duration of the project. These cores were only removed from the storage area as needed for testing.

In general, testing intervals and pressures were established by the U.S.G.S. prior to implementation of the testing program. Certain inherent problems associated with laboratory testing became apparent as the testing progressed. In addition, testing methods which appeared beneficial in providing superior data became available. Therefore, after consultation with the U.S.G.S. technical project officer, various modifications to the original testing format were enacted.

TRIAXIAL TEST PROGRAM

The results of all triaxial tests are contained in Appendices A1 and A2 of this report. The computer printout data for each triaxial test specimen is contained in Appendix A1. Appendix A2 includes the summary graphical plot of each test series. A total of 192 triaxial shear tests were planned under this contract. Five specimens were discarded because of severe sampling disturbance effects (two from CD20-PC22, Group 1 and all of CD34-PC34, Group 3). In addition, three specimens were also not tested because, after opening the core tubes, it was evident that insufficient undisturbed material existed to complete the triaxial test series for the core (CAU tests for CD18-PC20, CD25-PC29, and CD37-PC37).

Triaxial testing was divided into three series:

Group 1: to evaluate strength parameters
Group 2: to evaluate undrained behavior
Group 3: to evaluate undrained behavior

All triaxial shear tests were of the consolidated-undrained type, using Wykeham-Farrance strain-controlled loading frames. Shear to failure occurred under axial compression. Measurements of deformation, pore pressure and stress were made using a combination of load cells, transducers, LVDTs, proving rings, and/or pressure gauges. The equipment was calibrated or checked frequently for accuracy and consistency of results.

One of two methods was used to measure volume changes during the consolidation phase of the triaxial tests. A back pressure system was used to saturate each specimen before consolidation. Generally, volume changes were measured using a burrette system. Alternatively, a Wykeham-Farrance electronic volume change transducer was used. Filter paper strips (Whatman No. 1) were used to expedite drainage and equalization of pore pressures throughout the specimen. Latex membranes were used to envelop all triaxial specimens.

Samples ranged in height from 9 to 12 cm. Sample diameters were approximately 5 cm for all specimens. Due to relatively large sample sizes tested, no membrane or filter paper corrections were made to the results. Based on the work of France (1976), membrane corrections would reduce the deviator stress values by no more than 0.4 kPa. Olson (1979) and France (1976) discuss difficulties in applying filter paper drain corrections.

In general, a Daytronic Model 9020 data acquisition system monitored triaxial data output during testing. This data was reduced using a computer program developed by Law Engineering.

The general format for triaxial sample preparation and testing was performed in accordance with the procedures described in The Measurement of Soil Properties in the Triaxial Test by Bishop and Henkel (1957). Strain rates to failure were determined using methods presented by Blight (1963) and Olson (1979). For Group Series 2 and 3, the SHANSEP (Stress History and Normalized Soil Engineering Properties) method proposed by Ladd and Foott (1974) was employed. The SHANSEP method helps to correct for sampling disturbance effects. This is accomplished by initially consolidating each specimen beyond its estimated natural maximum preconsolidation stress and then rebounding the sample to known values of overconsolidation ratio (OCR= $\sigma_{v_{max}}' / \sigma_{v_o}'$). Consequently, the actual stress history of these specimens is known.

The triaxial tests used to evaluate strength parameters in Group Series 1 were tested in sets of four. Three of the four tests were isotropically consolidated (CIU tests) under effective stress levels of approximately 0.75, 1.5 and 3.0 times the estimated in situ effective vertical stress. The fourth test of each set was anisotropically consolidated (CAU tests). For this test, the axial effective stress when consolidated was equal to the estimated in situ vertical effective stress. The radial effective stress was one-half the axial effective stress. The consolidation phase of the CAU tests was performed in two steps: First, the specimen was isotropically consolidated to one-half the estimated in situ overburden stress; then, the sample was axially-loaded under drained conditions. When the vertical stress became equal to twice the lateral stress (K_o = 0.50; (q/p) = 0.75), drainage valves were closed and the pore pressures measured to ensure no residual excess pore pressures were present. The samples were then sheared undrained to failure. A total of 22 sets were performed as Group Series 1.

The triaxial tests of Group Series 2 were conducted in sets of three in order to determine the undrained strength and stress-strain characteristics. These tests were performed using SHANSEP methods. In general, specimens were initially consolidated to six times the apparent preconsolidation stress in situ and rebounded to OCR values of 1, 2, and 4. The samples were then sheared to failure at constant water content. Several samples exhibited large volume changes during the induced preconsolidation phase (as much as 25% of the total sample volume). Therefore, for these samples, the initial consolidation stress was reduced to only four or five times the estimated in situ preconsolidation pressure in order to minimize distortion and necking of the samples. A total of 20 sets were conducted as Group Series 2 .

Group Series 3 tests were performed in a similar manner to Group 2. In general, Group 3 consisted of 15 sets of triaxial tests, with three specimens per set. Using the SHANSEP technique, the triaxial specimens of Group 3 were initially consolidated to three times the estimated in situ preconsolidation pressure and generally rebounded to OCR values of 1, 4, and 8.

TRIAXIAL TEST RESULTS

The results of all triaxial tests of Groups 1, 2, and 3 are summarized in Table I of Appendix A1. The specimens of Group 1 were tested under natural preconsolidation conditions (n). Preconsolidation and OCR were artificially induced for samples tested in Groups 2 and 3.

For each of the 56 sets of triaxial compression tests, a graphical plot is shown in Appendix A2. These graphs summarize the stress paths, stress-strain response and pore pressure behavior of the soils during undrained shear to failure. Three graphs are included:

(1) deviator stress (q) versus mean effective stress (P')

(2) deviator stress (q) versus axial strain (ε)

(3) pore water pressure (u) versus axial strain (ε)

where $q = (\sigma_1 - \sigma_3)$

and $P' = (\sigma_1' + 2\sigma_3')/3$

are the Cambridge University q-p invariant stress parameters (reference Schofield and Wroth, 1968). The slope and ordinate intercept of the failure envelope of the q-p space diagram are designated as M and k, respectively. These parameters are directly analogous to the effective stress friction angle ($\emptyset'$) and effective cohesion intercept (c') from Mohr-Coulomb failure criterion. The corresponding relationships are:

$$\sin \emptyset' = 3M/(6 + M)$$

$$c' = k/2$$

In general, all tests were run to at least 20 percent strain. Failure was defined at the maximum value of deviator stress (q_{max}). This definition of failure was used to determine M and the normalized undrained shear strength to overburden ratio ($Su/\sigma_{VC'}$) for each triaxial specimen as given in Table I.

CONSOLIDATION TEST PROGRAM

A total of 57 consolidation tests were performed supplementary to the sets of triaxial tests. The consolidation tests were conducted under conditions of one-dimensional vertical compression (ASTM D-2435). Loading increments were applied in stress-controlled Anteus consolidometers. Teflon-coated rings were employed to minimize side friction effects. In addition, the rings were lubricated with silicon oil prior to each test. The load increments were specified by the U. S. Geological Survey prior to testing.

The computer printout data for all tests are contained in Appendix B1. The computer printout represents the test data reduction as recommended by ASTM. A second reduction has also been included which removes the effects of initial and secondary consolidation. The plot of e versus log σ_v' is the total compression (i.e., primary, secondary and initial). A summary graph of each consolidation test is included in Appendix B2. The graphs have been plotted in conventional form: void ratio (e) versus logarithm of applied vertical stress (σ_v')

A novel analytical technique has recently been proposed by Butterfield (1979) for evaluating consolidation data. Pursuant to this approach, an additional rebound increment was applied in some tests should Butterfield's method prove superior to traditional methods.

CONSOLIDATION TEST RESULTS.

Table II in Appendix B1 summarizes the results of all consolidation testing conducted.

The overburden stress (σ_{vo}') included in Table II was calculated using effective unit weights and the depth corresponding to the approximate midheight of each sample. The apparent preconsolidation stress ($\sigma_{v'max}$) given in Table II is only an estimated value based on a visual examination of the graph. In general, the virgin compression index (Cc) is representative of the last load increment. The swelling index (Cs) shown generally represents the last rebound cycle.

IDENTIFICATION TESTS

The results of the identification tests are contained in Appendix C. The in-place physical properties; specific gravity, wet unit weight and natural moisture content were determined for each core sample. Grain size distribution of the soils was determined by sieve analysis on material greater than 0.075 mm and by hydrometer analysis on material passing the 2mm sieve. These analyses were conducted in accordance with ASTM D-2217 and D-422, respectively. Plasticity properties were determined on material passing the 0.42 mm sieve in accordance with ASTM D-424 and D-423. These test results were used to classify the soils according to the Unified Classification System (ASTM D-2487) and AASHTO Classification System.

Fall cone penetrometer tests were conducted in conjunction with this testing program. Fall cone tests were conducted on remolded samples simultaneously with the standard Atterberg limits testing. The liquid limit (LL) was determined by the Fall Cone Method as outlined by Wroth and Wood (1978). In addition, after failure of each triaxial specimen, fall cone penetrations were conducted on the undisturbed materials for correlation with undrained strength data.

The results of all index properties tests and cone penetrometer data are summarized in Table III. For those samples on which grain size/hydrometer analyses were conducted, a computer output and graph of percent finer by weight is included.

General Discussion

As compared with previous USGS testing programs, the degree of sample disturbance appeared to be much less for this series. We believe this may be attributed to the selection via x-ray examination by USGS prior to providing the samples to us.

In addition, it appears that the SHANSEP method (Groups 2 and 3) gave more consistent results within each core section than samples which were merely reconsolidated and tested under natural preconsolidation conditions (Group 1). It is noted, however, that the SHANSEP method probably also destroyed any inherent structure due to anisotropy, cementation, and sensitivity. This is somewhat evident in Table I since Groups 2 and 3 consistently revealed lower values of M (and $\emptyset'$) than Group 1 series.

It is observed also that in Group 1, the CAU tests consistently gave higher values of M than the CIU test results. It is believed that this occurs due to two primary reasons: (1) effect of preshear stress path to obtain the initial K_o stress state; and (2) the anisotropic yield surface due to natural preconsolidation. Tavenas (1980) has discussed the importance of these effects on the strength/deformation characteristics of clay soils.

Almost all the soils tested classify as silt or clay. In fact, Core CD24-PC28 was the only section which classified as silty sand (SM). The majority of the fine-grained soils were determined to be CL materials, although many have liquid limits near 50, and several classify as MH and CH. The liquid limits determined by the fall cone penetrometer method were generally slightly higher than those determined by standard ASTM methods

Based on the visual estimate of the in situ vertical preconsolidation pressure from the consolidation tests, several soils appear to be underconsolidated. It is recommended, however, that the Schmertmann method be used to better define the natural preconsolidation. Two tests revealed very high virgin compression indices (C_c approx 1.00): CD34-PC34 (363-378 cm) and CD36-PC36 (366-381 cm).

From the results of the CIU tests conducted in the normally-consolidated range, the normalized shear strength to overburden ratio (Su/σ_{vc}') for all core sections has a mean of 0.302 and standard deviation of 0.067. A similar statistical analysis revealed that the parameter M has a mean of 1.133 and standard deviation of 0.117 for OCR = 1.

Should questions arise concerning the test results included in this report please contact the undersigned.

Very truly yours,
LAW ENGINEERING TESTING COMPANY

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TABLE I.

SUMMARY OF TRIAXIAL DATA

Core No.	Group No.	Sample Depth (cm)	$\sigma_{v_{max}}$ (kPa)	σ_{vc}' (kPa)	OCR	TYPE TEST	q_{max} (kPa)	M	Su/σ_{vc}'
CD14 PC16	1	295-306	n	52.4	n	CIU	91.4	1.50	0.872
		306-317	n	104.0	n	CIU	125.7	1.44	0.604
		317-328	n	68.2	n	CAU	178.1	1.43	1.306
		328-339	n	208.1	n	CIU	267.3	1.33	0.642
	2	472-484	n	146.1	n	CIU	111.1	1.31	0.380
		484-496	n	243.9	n	CIU	158.1	1.33	0.324
		496-514	n	390.0	n	CIU	200.4	1.20	0.257
	3	197-210	83.0	82.7	1.00	CIU	58.9	1.36	0.356
		210-223	83.0	41.3	2.00	CIU	69.1	1.59	0.837
		223-237	83.0	20.7	4.00	CIU	61.7	1.55	1.490
CD16 PC17	1	225-237	n	28.3	n	CIU	36.7	1.29	0.648
		237-249	n	68.9	n	CIU	40.5	1.23	0.294
		249-261	n	111.9	n	CIU	39.8	1.14	0.178
		261-275	n	15.9	n	CAU	21.2	2.51	0.667
	2	529-542	93.1	93.1	1.00	CIU	57.0	1.04	0.306
		542-555	103.4	51.7	2.00	CIU	60.2	1.19	0.582
		555-569	103.4	27.6	3.75	CIU	51.5	1.46	0.933
	3	778-791	334.9	165.4	2.02	CIU	153.8	1.22	0.465
		791-804	334.9	334.9	1.00	CIU	149.2	1.05	0.223
		804-818	334.9	82.7	4.05	CIU	87.7	1.08	0.530
CD15 PC18	1	294-306	n	66.1	n	CIU	46.9	1.59	0.355
		306-318	n	33.0	n	CIU	31.5	2.16	0.477
		318-330	n	16.5	n	CIU	28.9	2.22	0.876
		330-344	n	28.4	n	CAU	31.7	1.92	0.558
	2	753-766	382.4	382.4	1.00	CIU	175.1	0.97	0.229
		766-779	382.4	189.5	2.02	CIU	174.6	1.28	0.461
		779-793	382.4	96.5	3.96	CIU	126.3	1.18	0.654
	3	504-517	165.0	165.4	1.00	CIU	103.7	1.27	0.314
		517-529	165.0	82.7	2.00	CIU	115.4	1.58	0.698
		529-541	165.0	41.3	4.00	CIU	71.6	1.29	0.867
CD17 PC19	1	350-362	n	21.1	n	CIU	55.0	1.74	1.322
		362-376	n	42.2	n	CIU	69.3	1.45	0.821
		376-388	n	84.3	n	CIU	85.2	1.44	0.505
		388-400	n	27.7	n	CAU	49.7	1.51	0.897
	2	588-600	165.4	165.4	1.00	CIU	158.1	1.27	0.478
		600-612	165.4	82.7	2.00	CIU	116.0	1.23	0.701
		612-628	165.4	41.3	4.00	CIU	110.6	1.17	1.339
	3	636-649	248.0	248.1	1.00	CIU	235.4	1.06	0.474
		649-662	248.0	62.0	4.00	CIU	131.6	1.20	1.061
		662-676	248.0	31.0	8.00	CIU	121.9	1.23	1.966
CD18 PC20	1	183-195	n	23.4	n	CIU	55.9	1.54	1.194
		195-207	n	13.8	n	CIU	50.3	1.64	1.823
		207-223	n	48.2	n	CIU	66.5	1.48	0.690
	2	333-346	378.9	379.0	1.00	CIU	294.4	1.18	0.329
		346-358	378.8	189.5	2.00	CIU	174.5	1.10	0.460
		358-373	378.8	95.1	3.99	CIU	158.4	1.18	0.833
CD19 PC21	1	368-380	n	99.2	n	CIU	126.7	1.37	0.639
		380-392	n	49.6	n	CIU	95.5	1.32	0.963
		392-404	n	24.8	n	CIU	91.6	1.66	1.847
		404-418	n	33.2	n	CAU	72.5	1.47	1.092
	2	452-465	578.5	289.4	2.00	CIU	320.6	1.05	0.554
		465-478	578.5	578.5	1.00	CIU	435.3	1.10	0.376
		478-492	578.5	144.7	4.00	CIU	281.6	1.16	0.973
CD20 PC22	1	554-568	vertical fissures; untested			N/A	N/A	N/A	N/A
		568-580	vertical fissures; untested			N/A	N/A	N/A	NA
		580-592	n	82.7	n	CIU	98.1	1.48	0.592
		592-604	n	41.3	n	CIU	80.4	1.69	0.973
	2	387-400	599.2	599.5	1.00	CIU	788.6	1.27	0.658
		400-413	599.2	299.7	2.00	CIU	392.6	1.31	0.655
		413-427	599.2	150.2	3.99	CIU	297.9	1.32	0.992
	3	635-648	399.0	99.9	4.00	CIU	225.9	1.33	1.131
		648-661	399.0	399.6	1.00	CIU	284.7	1.33	0.356
		661-675	399.0	50.0	8.00	CIU	165.0	1.31	1.658

TABLE I.

SUMMARY OF TRIAXIAL DATA (Cont'd.)

Core No.	Group No.	Sample Depth(cm)	σ_{vc} max (kPa)	σ_{vc}' (kPa)	OCR	TYPE TEST	τ_{max} (kPa)	M	Su/σ_{vc}'
CD21 PC23	1	300-312	n	17.9	n	CIU	53.8	2.06	1.503
		312-324	n	42.2	n	CIU	62.4	1.64	0.739
		324-336	n	71.7	n	CIU	101.2	1.62	0.706
		336-350	n	28.2	n	CAU	32.0	2.60	0.567
	2	686-699	606.0	151.5	4.00	CIU	208.9	1.17	0.688
		699-711	606.0	606.4	1.00	CIU	332.0	1.07	0.274
		711-726	606.0	303.2	2.00	CIU	261.3	1.05	0.431
	3	434-448	455.0	113.7	4.00	CIU	173.8	1.23	0.764
		448-462	455.0	454.8	1.00	CIU	289.1	1.14	0.318
		462-476	455.0	56.8	8.00	CIU	130.6	1.18	1.150
CD22 PC24	1	323-334	n	20.7	n	CIU	29.8	2.17	0.708
		334-346	n	41.3	n	CIU	47.6	1.38	0.576
		346-357	n	83.4	n	CIU	57.3	1.53	0.344
		360-373	n	27.3	n	CAU	41.7	2.01	0.764
	2	566-579	248.0	248.1	1.00	CIU	123.5	0.99	0.249
		579-591	248.0	124.0	2.00	CIU	106.9	1.23	0.431
		591-600	248.0	62.0	4.00	CIU	101.0	1.29	0.815
	3	283-295	165.0	165.4	1.00	CIU	82.1	0.89	0.248
		295-307	165.0	41.3	4.00	CIU	72.3	1.29	0.875
		307-323	165.0	20.7	8.00	CIU	54.8	1.21	1.324
CD22 PC25	1	188-200	n	10.3	n	CIU	27.5	2.91	1.335
		200-212	n	20.7	n	CIU	25.5	2.02	0.616
		212-224	n	41.3	n	CIU	38.6	1.77	0.467
		224-238	n	69.6	n	CAU	36.9	1.76	0.265
	2	581-594	392.5	392.8	1.00	CIU	221.3	1.13	0.282
		594-606	392.5	196.4	2.00	CIU	206.6	1.23	0.526
		606-620	392.5	98.5	4.00	CIU	155.3	1.31	0.787
	3	425-438	248.1	248.1	1.00	CIU	157.4	1.29	0.317
		438-450	248.1	62.0	4.00	CIU	103.2	1.29	0.832
		452-464	248.0	31.0	8.00	CIU	79.6	1.26	1.284
CD24 PC28	1	121-133	n	10.3	n	CIU	333.5	1.55	16.189
		133-145	n	20.7	n	CIU	353.2	1.39	8.531
		145-157	n	41.3	n	CIU	414.9	1.41	5.023
		157-171	n	27.8	n	CAU	280.0	1.51	5.036
	2	271-284	199.7	199.8	1.00	CIU	270.3	1.37	0.676
		284-296	199.7	99.9	2.00	CIU	209.3	1.39	1.048
		296-311	199.7	48.2	4.14	CIU	128.8	1.30	1.336
CD25 PC29	1	172-184	n	11.7	n	CIU	65.5	1.47	2.799
		184-194	n	22.7	n	CIU	73.2	1.55	1.612
		194-202	n	46.2	n	CIU	110.5	1.66	1.196
	2	235-248	413.4	413.4	1.00	CIU	260.5	1.18	0.315
		248-261	413.0	206.7	2.00	CIU	205.8	1.10	0.498
		261-275	413.0	103.4	4.00	CIU	203.8	1.27	0.986
CD26 PC30	1	300-312	n	17.2	n	CIU	34.3	1.89	0.997
		312-324	n	34.5	n	CIU	39.1	1.58	0.567
		324-336	n	68.9	n	CIU	65.6	1.55	0.476
		336-350	n	20.2	n	CAU	32.6	2.19	0.807
	2	511-524	179.0	179.2	1.00	CIU	90.0	1.15	0.251
		524-537	179.0	89.6	2.00	CIU	86.1	1.33	0.481
		537-551	179.0	44.8	4.00	CIU	59.0	1.25	0.659
	3	360-372	137.6	137.8	1.00	CIU	68.4	1.09	0.248
		372-384	136.0	34.5	4.00	CIU	62.1	1.65	0.900
		384-400	137.6	17.2	8.00	CIU	44.9	1.66	1.305
CD27 PC31	1	121-133	n	6.9	n	CIU	33.4	1.63	2.420
		133-145	n	13.8	n	CIU	35.2	1.69	1.275
		145-157	n	27.6	n	CIU	35.9	1.31	0.650
		157-171	n	13.4	n	CAU	39.0	2.09	1.455
	2	510-523	551.0	551.2	1.00	CIU	283.1	1.14	0.257
		523-536	551.0	275.6	2.00	CIU	288.5	1.14	0.523
		536-550	551.0	137.8	4.00	CIU	232.2	1.21	0.843
	3	365-377	248.0	62.0	4.00	CIU	124.8	1.38	1.006
		377-389	248.0	248.1	1.00	CIU	163.6	1.28	0.330
		392-405	248.0	31.0	8.00	CIU	94.7	1.45	1.527

TABLE I.

SUMMARY OF TRIAXIAL DATA (Cont'd.)

Core No.	Group No.	Sample Depth (cm)	$\sigma_{v_{max}}$ (kPa)	σ_{vc}' (kPa)	OCR	TYPE TEST	τ_{max} (kPa)	M	Su/σ_{vc}'
CD32 PC32	1	296-308	n	17.2	n	CIU	213.3	1.91	0.677
		308-320	n	34.5	n	CIU	24.3	1.20	0.359
		320-332	n	68.9	n	CIU	44.4	1.29	0.322
		332-346	n	20.2	n	CAU	23.1	2.15	0.572
	2	751-764	179.1	179.2	1.00	CIU	101.5	1.24	0.283
		764-777	179.1	89.6	2.00	CIU	77.9	1.24	0.435
		777-791	179.1	44.8	4.00	CIU	61.4	1.11	0.685
	3	498-511	165.6	165.4	1.00	CIU	83.0	1.19	0.251
		511-524	165.4	41.3	4.00	CIU	45.3	1.13	0.548
		524-538	165.4	20.7	8.00	CIU	58.4	1.46	1.411
CD32A PC33	1	371-383	n	15.8	n	CIU	23.6	2.09	0.747
		383-395	n	31.7	n	CIU	26.8	1.52	0.423
		395-407	n	62.0	n	CIU	40.8	1.35	0.329
		407-421	n	26.7	n	CAU	24.9	2.31	0.466
	2	765-780	151.5	151.6	1.00	CIU	70.1	0.98	0.231
		780-794	151.5	75.8	2.00	CIU	46.6	0.77	0.307
		794-806	151.5	151.6	1.00	CIU	78.9	0.99	0.260
	3	513-525	303.0	75.8	4.00	CIU	119.2	1.35	0.786
		525-540	303.0	303.2	1.00	CIU	133.2	0.98	0.220
		540-553	303.0	151.6	2.00	CIU	101.3	0.99	0.334
CD34 PC34	1	378-390	n	15.2	n	CIU	24.9	1.60	0.819
		390-402	n	29.6	n	CIU	28.0	1.28	0.473
		402-414	n	59.9	n	CIU	35.6	1.03	0.297
		414-428	n	73.9	n	CAU	27.2	2.54	0.667
	2	528-542	385.7	385.9	1.00	CIU	180.4	1.06	0.234
		542-555	385.7	192.9	2.00	CIU	163.0	1.03	0.423
		555-568	385.7	96.5	4.00	CIU	139.3	1.21	0.722
	3	236-242	(material gelled)		Untested	N/A			
		242-260	(material gelled)		Untested	N/A			
		260-276	(material gelled)		Untested	N/A			
CD35 PC35	1	510-522	n	24.8	n	CIU	49.0	1.89	0.988
		522-534	n	49.6	n	CIU	50.9	1.39	0.513
		534-546	n	99.2	n	CIU	65.8	1.17	0.332
		546-560	n	34.2	n	CAU	48.7	1.93	0.712
	2	670-682	241.0	241.2	1.00	CIU	188.8	1.05	0.226
		682-695	241.0	120.6	2.00	CIU	144.0	1.24	0.597
		695-710	241.0	60.3	4.00	CIU	71.2	0.99	0.590
	3	264-277	179.2	179.2	1.00	CIU	117.1	1.20	0.327
		277-290	179.2	44.8	4.00	CIU	63.6	1.19	0.710
		290-304	179.2	22.4	8.00	CIU	63.5	1.54	1.417
CD36 PC36	1	381-393	n	20.7	n	CIU	20.2	1.29	0.488
		393-405	n	29.6	n	CIU	26.6	1.44	0.449
		405-417	n	64.8	n	CIU	35.3	0.92	0.272
		417-431	n	20.5	n	CAU	22.3	2.65	0.544
	2	663-676	537.0	537.5	1.00	CIU	368.2	1.06	0.343
		676-688	537.0	268.7	2.00	CIU	255.3	1.00	0.475
		688-703	537.0	134.4	4.00	CIU	263.7	1.25	0.981
	3	535-548	413.6	413.4	1.00	CIU	285.7	1.13	0.346
		548-560	413.6	103.4	4.00	CIU	236.8	1.22	1.145
		560-575	413.6	51.7	8.00	CIU	154.5	1.14	1.494
CD37 PC37	1	80-92	n	6.9	n	CIU	35.7	1.77	2.587
		92-106	n	12.4	n	CIU	50.5	1.93	2.036
		106-130	n	22.0	n	CIU	54.6	1.59	1.241
	2	344-356	523.0	523.7	1.00	CIU	380.9	1.25	0.364
		356-369	523.0	261.8	2.00	CIU	298.2	1.22	0.569
		372-384	523.0	130.9	4.00	CIU	245.8	1.25	0.939
CD38 PC38	1	180-192	n	11.0	n	CIU	33.2	1.60	1.509
		192-204	n	22.7	n	CIU	47.8	1.54	1.053
		204-216	n	46.2	n	CIU	57.5	1.33	0.622
		216-230	n	15.2	n	CAU	42.4	1.61	1.395
	2	238-251	179.0	179.2	1.00	CIU	192.6	1.22	0.537
		251-264	179.0	89.6	2.00	CIU	114.6	1.08	0.640
		264-278	179.0	44.8	4.00	CIU	139.2	1.35	1.554

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 197-210 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS= 83.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 18.4 CC
CELL PRESSURE =151.6 KPA
CONSOLIDATION PRESSURE = 82.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.88	10.54	CM
VOID RATIO	= 0.979	0.810	
AREA	= 19.86	18.75	CM2
PERCENT MOISTURE	= 35.15	29.58	PERCENT
WET DENSITY	= 18.35	19.23	KN/M3
DRY DENSITY	= 13.58	14.84	KN/M3
PERCENT SATURATION	= 98.41	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.810	0.000
2	0.002409	0.002409	0.0000	0.810	0.734
3	0.005782	0.005782	0.0000	0.810	0.942
4	0.010119	0.010119	0.0000	0.810	0.972
5	0.023130	0.023130	0.0000	0.810	1.045
6	0.032767	0.032767	0.0000	0.810	1.067
7	0.052283	0.052283	0.0000	0.810	1.064
8	0.071799	0.071799	0.0000	0.810	1.032
9	0.091796	0.091796	0.0000	0.810	1.000
10	0.111553	0.111553	0.0000	0.810	1.027
11	0.131551	0.131551	0.0000	0.810	1.033
12	0.161186	0.161186	0.0000	0.810	1.006
13	0.191062	0.191062	0.0000	0.810	1.020
14	0.215396	0.215396	0.0000	0.810	0.996

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	82.7	0.0	82.7	82.7	1.00	1.00	0.0	82.7	0.00
2	109.5	19.7	89.8	63.0	1.32	1.43	26.8	71.9	0.37
3	117.2	32.5	84.6	50.2	1.42	1.69	34.5	61.7	0.56
4	125.9	42.0	83.8	40.7	1.52	2.06	43.2	55.1	0.78
5	134.1	53.7	80.3	28.9	1.62	2.78	51.4	46.1	1.12
6	135.7	56.6	79.1	26.0	1.64	3.04	53.0	43.7	1.21
7	137.8	58.7	79.1	24.0	1.67	3.30	55.1	42.4	1.30
8	139.8	59.0	80.8	23.7	1.69	3.41	57.1	42.7	1.34
9	141.6	59.0	82.6	23.7	1.71	3.49	58.9	43.3	1.36
10	140.3	59.3	81.1	23.4	1.70	3.46	57.7	42.6	1.35
11	140.0	59.3	80.8	23.4	1.69	3.45	57.3	42.5	1.35
12	141.8	59.5	82.3	23.2	1.72	3.55	59.1	42.9	1.38
13	141.5	60.1	81.4	22.6	1.71	3.60	58.8	42.2	1.39
14	143.3	60.4	82.9	22.3	1.73	3.71	60.6	42.5	1.42

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD # 210-223 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS= 83.0 KPA
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 17.8 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.89	10.56	CM
VOID RATIO	= 0.911	0.753	
AREA	= 19.79	18.72	CM2
PERCENT MOISTURE	= 32.97	27.49	PERCENT
WET DENSITY	= 18.69	19.54	KN/M3
DRY DENSITY	= 14.06	15.32	KN/M3
PERCENT SATURATION	= 99.16	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.753	0.000
2	0.004329	0.004329	0.0000	0.753	0.118
3	0.011303	0.011303	0.0000	0.753	0.193
4	0.018037	0.018037	0.0000	0.753	0.256
5	0.032226	0.032226	0.0000	0.753	0.282
6	0.046656	0.046656	0.0000	0.753	0.298
7	0.068782	0.068782	0.0000	0.753	0.305
8	0.091388	0.091388	0.0000	0.753	0.304
9	0.174600	0.174600	0.0000	0.753	0.311
10	0.205143	0.205143	0.0000	0.753	0.318
11	0.228230	0.228230	0.0000	0.753	0.333

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	76.4	4.1	72.3	37.2	1.85	1.94	35.1	48.9	0.72
3	93.0	10.0	83.0	31.4	2.25	2.65	51.7	48.6	1.06
4	99.1	14.8	84.3	26.5	2.40	3.18	57.8	45.8	1.26
5	104.9	17.9	87.0	23.4	2.54	3.71	63.6	44.6	1.42
6	108.1	20.0	88.1	21.4	2.62	4.14	67.0	43.7	1.53
7	110.3	21.0	89.3	20.3	2.67	4.39	69.0	43.3	1.59
8	110.5	21.0	89.5	20.1	2.67	4.40	69.1	43.4	1.59
9	107.7	20.7	87.0	20.7	2.61	4.21	66.4	42.8	1.55
10	106.3	20.7	85.6	20.7	2.57	4.14	64.9	42.3	1.53
11	105.4	21.4	84.0	20.0	2.55	4.20	64.0	41.3	1.55

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 49-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 223-237 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.74
OVERCONSOLIDATION RATIO	= 4.0
PRECONSOLIDATION STRESS	= 83.0 KPA
MEASURED VOLUME CHANGE	= 10.6 CC
CELL PRESSURE	= 89.6 KPA
CONSOLIDATION PRESSURE	= 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.85	10.67 CM
VOID RATIO	= 0.863	0.772
AREA	= 19.99	19.35 CM2
PERCENT MOISTURE	= 30.39	28.18 PERCENT
WET DENSITY	= 18.80	19.43 KN/M3
DRY DENSITY	= 14.42	15.16 KN/M3
PERCENT SATURATION	= 96.49	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.772	0.000
2	0.006190	0.006190	0.0000	0.772	0.234
3	0.007142	0.007142	0.0000	0.772	0.217
4	0.014285	0.014285	0.0000	0.772	0.122
5	0.021904	0.021904	0.0000	0.772	0.096
6	0.036903	0.036903	0.0000	0.772	0.058
7	0.052378	0.052378	0.0000	0.772	0.040
8	0.075472	0.075472	0.0000	0.772	0.025
9	0.106423	0.106423	0.0000	0.772	0.013
10	0.161420	0.161420	0.0000	0.772	0.013
11	0.192847	0.192847	0.0000	0.772	0.018

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	48.3	6.6	41.8	14.2	2.34	2.95	27.6	23.4	1.18
3	50.5	6.6	44.0	14.2	2.44	3.10	29.8	24.1	1.23
4	63.4	6.2	58.2	15.4	3.07	3.77	42.7	29.7	1.44
5	69.6	4.7	64.9	16.0	3.37	4.06	48.9	32.3	1.51
6	75.3	3.2	72.1	17.5	3.64	4.12	54.6	35.7	1.53
7	78.6	2.3	76.3	18.3	3.80	4.16	57.9	37.6	1.54
8	82.3	1.5	80.8	19.2	3.98	4.22	61.7	39.7	1.55
9	82.2	0.8	81.4	19.3	3.98	4.10	61.6	40.4	1.53
10	82.2	0.8	81.4	19.3	3.98	4.10	61.6	40.3	1.52
11	81.7	1.1	80.6	19.6	3.95	4.12	61.0	39.9	1.53

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2769
USGS BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 295-306 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.74
PRECONSOLIDATION STRESS(NATURAL)	
MEASURED VOLUME CHANGE	= 11.0 CC
CELL PRESSURE	=121.3 KPA
CONSOLIDATION PRESSURE	= 82.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.69	9.50	CM
VOID RATIO	= 0.776	0.678	
AREA	= 20.67	19.92	CM2
PERCENT MOISTURE	= 30.59	24.75	PERCENT
WET DENSITY	= 19.76	19.97	KN/M3
DRY DENSITY	= 15.13	16.01	KN/M3
PERCENT SATURATION	=108.07	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.678	0.000
2	0.013103	0.013103	0.0000	0.678	0.567
3	0.026207	0.026207	0.0000	0.678	0.521
4	0.045996	0.045996	0.0000	0.678	0.462
5	0.059099	0.059099	0.0000	0.678	0.422
6	0.079888	0.079888	0.0000	0.678	0.361
7	0.105095	0.105095	0.0000	0.678	0.296
8	0.131569	0.131569	0.0000	0.678	0.261
9	0.157776	0.157776	0.0000	0.678	0.241
10	0.183181	0.183181	0.0000	0.678	0.236
11	0.204307	0.204307	0.0000	0.678	0.242

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	82.4	0.0	82.4	82.4	1.00	1.00	0.0	82.4	0.00
2	89.3	9.6	79.7	62.7	1.32	1.40	17.0	68.4	0.25
3	102.6	26.2	76.4	26.2	1.96	2.92	50.2	42.9	1.17
4	118.0	30.3	87.7	22.0	2.25	3.98	65.6	43.9	1.49
5	124.2	30.3	93.9	22.0	2.37	4.26	71.8	46.0	1.56
6	132.6	29.3	103.6	23.4	2.53	4.42	80.2	50.2	1.60
7	140.9	26.2	114.7	26.2	2.69	4.38	88.5	55.7	1.59
8	142.0	23.4	118.6	28.9	2.71	4.10	89.6	58.8	1.52
9	143.8	22.0	121.8	30.3	2.75	4.02	91.4	60.8	1.50
10	142.8	21.4	121.5	31.3	2.73	3.92	90.4	61.2	1.48
11	140.5	21.4	119.1	31.3	2.68	3.84	88.1	60.4	1.46

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 306-317 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 14.8 CC
CELL PRESSURE =172.9 KPA
CONSOLIDATION PRESSURE =104.0 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.98	10.72 CM
VOID RATIO	= 0.668	0.557
AREA	= 20.20	19.31 CM2
PERCENT MOISTURE	= 25.54	20.32 PERCENT
WET DENSITY	= 20.22	20.77 KN/M3
DRY DENSITY	= 16.11	17.26 KN/M3
PERCENT SATURATION	=104.78	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.556	0.000
2	0.005687	0.005687	0.0000	0.556	0.729
3	0.017297	0.017297	0.0000	0.556	0.828
4	0.028434	0.028434	0.0000	0.556	0.776
5	0.040163	0.040163	0.0000	0.556	0.731
6	0.051892	0.051892	0.0000	0.556	0.680
7	0.063502	0.063502	0.0000	0.556	0.649
8	0.080918	0.080918	0.0000	0.556	0.601
9	0.092528	0.092528	0.0000	0.556	0.570
10	0.110181	0.110181	0.0000	0.556	0.523
11	0.133402	0.133402	0.0000	0.556	0.508
12	0.156030	0.156030	0.0000	0.556	0.482
13	0.178422	0.178422	0.0000	0.556	0.466
14	0.195245	0.195245	0.0000	0.556	0.486
15	0.217755	0.217755	0.0000	0.556	0.508
16	0.245241	0.245241	0.0000	0.556	0.511

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	104.0	0.0	104.0	104.0	1.00	1.00	0.0	104.0	0.00
2	152.2	35.1	117.0	68.9	1.46	1.70	48.1	85.0	0.57
3	179.7	62.7	117.0	41.3	1.73	2.83	75.7	66.6	1.14
4	192.8	68.9	123.9	35.1	1.85	3.52	88.7	64.7	1.37
5	200.2	70.3	129.9	33.8	1.92	3.85	96.1	65.8	1.46
6	207.3	70.3	137.0	33.8	1.99	4.06	103.3	68.2	1.51
7	210.2	68.9	141.3	35.1	2.02	4.02	106.1	70.5	1.51
8	215.3	66.8	148.4	37.2	2.07	3.99	111.2	74.3	1.50
9	218.9	65.5	153.4	38.6	2.10	3.98	114.8	76.9	1.49
10	226.4	64.1	162.3	40.0	2.18	4.06	122.4	80.3	1.52
11	226.1	62.0	164.1	42.0	2.17	3.90	122.1	82.7	1.48
12	228.5	59.9	168.5	44.1	2.20	3.82	124.4	85.6	1.45
13	229.7	58.6	171.1	45.5	2.21	3.76	125.7	87.4	1.44
14	224.5	58.6	165.9	45.5	2.16	3.65	120.4	85.6	1.41
15	219.4	58.6	160.8	45.5	2.11	3.54	115.3	83.9	1.37
16	218.6	58.6	160.1	45.5	2.10	3.52	114.6	83.7	1.37

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS CD @ 317-328 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 4.6 CC
CELL PRESSURE =103.6 KPA
CONSOLIDATION PRESSURE = 34.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.16	10.99	CM
VOID RATIO	= 0.511	0.474	
AREA	= 20.33	20.35	CM2
PERCENT MOISTURE	= 18.35	17.30	PERCENT
WET DENSITY	= 21.04	21.38	KN/M3
DRY DENSITY	= 17.78	18.23	KN/M3
PERCENT SATURATION	= 98.39	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.474	0.000
2	0.002196	0.002196	0.0000	0.474	0.087
3	0.011213	0.011213	0.0000	0.474	0.172
4	0.021270	0.021270	0.0000	0.474	0.135
5	0.043002	0.043002	0.0000	0.474	0.060
6	0.065659	0.065659	0.0000	0.474	-0.006
7	0.088317	0.088317	0.0000	0.474	-0.050
8	0.111436	0.111436	0.0000	0.474	-0.082
9	0.134556	0.134556	0.0000	0.474	-0.108
10	0.157444	0.157444	0.0000	0.474	-0.122
11	0.203568	0.203568	0.0000	0.474	-0.144
12	0.271886	0.271886	0.0000	0.474	-0.170

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	68.2	0.0	68.2	34.7	1.97	1.97	33.5	45.8	0.73
2	82.2	4.1	78.0	30.5	2.37	2.56	47.5	46.4	1.02
3	98.9	11.0	87.8	23.6	2.85	3.72	64.2	45.0	1.43
4	116.2	11.0	105.2	23.6	3.35	4.45	81.6	50.8	1.60
5	137.2	6.2	131.0	28.5	3.96	4.60	102.5	62.6	1.64
6	158.0	-0.7	158.7	35.3	4.56	4.49	123.4	76.5	1.61
7	173.3	-6.9	180.7	41.5	5.01	4.35	139.1	87.9	1.58
8	185.6	-12.4	198.0	47.1	5.36	4.21	151.0	97.4	1.55
9	193.9	-17.2	211.1	51.9	5.59	4.07	159.2	105.0	1.52
10	197.9	-20.0	217.8	54.6	5.71	3.99	163.2	109.0	1.50
11	207.0	-24.8	231.8	59.5	5.97	3.90	172.4	116.9	1.47
12	212.7	-30.3	243.1	65.0	6.14	3.74	178.1	124.0	1.43

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 328-339 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.74
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 20.8 CC
CELL PRESSURE	=345.9 KPA
CONSOLIDATION PRESSURE	=208.1 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.50	10.12 CM
VOID RATIO	= 0.556	0.405
AREA	= 20.40	19.10 CM2
PERCENT MOISTURE	= 19.98	14.78 PERCENT
WET DENSITY	= 20.72	21.95 KN/M3
DRY DENSITY	= 17.27	19.12 KN/M3
PERCENT SATURATION	= 98.46	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.404	0.000
2	0.011794	0.011794	0.0000	0.404	0.518
3	0.024215	0.024215	0.0000	0.404	0.624
4	0.036761	0.036761	0.0000	0.404	0.607
5	0.049182	0.049182	0.0000	0.404	0.573
6	0.061729	0.061729	0.0000	0.404	0.526
7	0.074149	0.074149	0.0000	0.404	0.480
8	0.086570	0.086570	0.0000	0.404	0.437
9	0.105265	0.105265	0.0000	0.404	0.389
10	0.123708	0.123708	0.0000	0.404	0.358
11	0.148550	0.148550	0.0000	0.404	0.342
12	0.173266	0.173266	0.0000	0.404	0.330
13	0.198108	0.198108	0.0000	0.404	0.329

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	208.1	0.0	208.1	208.1	1.00	1.00	0.0	208.1	0.00
2	321.1	58.6	262.6	149.5	1.54	1.76	113.0	187.2	0.60
3	378.2	106.1	272.1	102.0	1.82	2.67	170.1	158.7	1.07
4	402.2	117.8	284.4	90.3	1.93	3.15	194.1	155.0	1.25
5	417.3	119.9	297.4	88.2	2.01	3.37	209.2	157.9	1.32
6	431.9	117.8	314.1	90.3	2.08	3.48	223.8	164.9	1.36
7	445.1	113.7	331.4	94.4	2.14	3.51	237.0	173.4	1.37
8	458.8	109.6	349.3	98.5	2.21	3.54	250.8	182.1	1.38
9	472.2	102.7	369.6	105.4	2.27	3.51	264.1	193.5	1.37
10	475.4	95.8	379.6	112.3	2.28	3.38	267.3	201.4	1.33
11	469.7	89.6	380.1	118.5	2.26	3.21	261.6	205.7	1.27
12	471.1	86.8	384.3	121.3	2.26	3.17	263.0	208.3	1.26
13	463.2	84.1	379.1	124.0	2.23	3.06	255.1	209.1	1.22

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS CD # 472-484 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.83
PRECONSOLIDATION STRESS(NATURAL)	
MEASURED VOLUME CHANGE	= 18.5 CC
CELL PRESSURE	=215.0 KPA
CONSOLIDATION PRESSURE	=146.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.32	9.49	CM
VOID RATIO	= 1.038	0.850	
AREA	= 20.40	19.17	CM2
PERCENT MOISTURE	= 37.07	30.03	PERCENT
WET DENSITY	= 18.67	19.51	KN/M3
DRY DENSITY	= 13.62	15.00	KN/M3
PERCENT SATURATION	=101.09	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.849	0.000
2	0.021014	0.021014	0.0000	0.849	0.320
3	0.032659	0.032659	0.0000	0.849	0.752
4	0.045374	0.045374	0.0000	0.849	0.864
5	0.058090	0.058090	0.0000	0.849	0.881
6	0.077765	0.077765	0.0000	0.849	0.879
7	0.097842	0.097842	0.0000	0.849	0.882
8	0.124880	0.124880	0.0000	0.849	0.886
9	0.151917	0.151917	0.0000	0.849	0.889
10	0.179221	0.179221	0.0000	0.849	0.903
11	0.199700	0.199700	0.0000	0.849	0.912
12	0.213486	0.213486	0.0000	0.849	0.923

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	146.1	0.0	146.1	146.1	1.00	1.00	0.0	146.1	0.00
2	218.8	37.9	180.9	108.2	1.50	1.67	72.8	132.4	0.55
3	240.1	71.7	168.5	74.4	1.64	2.26	94.0	105.8	0.89
4	247.3	87.5	159.8	58.6	1.69	2.73	101.3	92.3	1.10
5	250.9	92.3	158.5	52.7	1.72	2.95	104.8	88.7	1.18
6	254.3	95.1	159.3	51.0	1.74	3.12	108.3	87.1	1.24
7	256.2	97.2	159.0	48.9	1.75	3.25	110.1	85.6	1.29
8	257.2	98.5	158.7	47.5	1.75	3.34	111.1	84.6	1.31
9	256.3	98.5	158.4	47.5	1.76	3.33	110.8	84.5	1.31
10	256.0	99.2	156.7	46.9	1.75	3.35	109.9	83.5	1.32
11	254.8	99.2	155.6	46.9	1.74	3.32	108.7	83.1	1.31
12	253.5	99.2	154.3	46.9	1.74	3.29	107.4	82.7	1.30

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 484-496 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 24.0 CC
CELL PRESSURE =312.8 KPA
CONSOLIDATION PRESSURE =243.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.60	10.16	CM
VOID RATIO	= 0.995	0.773	
AREA	= 20.40	18.92	CM2
PERCENT MOISTURE	= 32.95	27.33	PERCEN
WET DENSITY	= 18.50	19.92	KN/M3
DRY DENSITY	= 13.91	15.65	KN/M3
PERCENT SATURATION	= 93.76	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.773	0.000
2	0.012501	0.012501	0.0000	0.773	0.702
3	0.024877	0.024877	0.0000	0.773	1.084
4	0.037252	0.037252	0.0000	0.773	1.156
5	0.055879	0.055879	0.0000	0.773	1.209
6	0.074255	0.074255	0.0000	0.773	1.219
7	0.092631	0.092631	0.0000	0.773	1.183
8	0.111132	0.111132	0.0000	0.773	1.174
9	0.129634	0.129634	0.0000	0.773	1.154
10	0.147885	0.147885	0.0000	0.773	1.137
11	0.166136	0.166136	0.0000	0.773	1.124
12	0.184137	0.184137	0.0000	0.773	1.156

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	243.9	0.0	243.9	243.9	1.00	1.00	0.0	243.9	0.00
2	345.0	71.0	274.1	172.9	1.41	1.58	101.1	206.7	0.49
3	373.5	140.6	233.0	103.4	1.53	2.25	129.6	146.6	0.88
4	383.4	161.2	222.2	82.7	1.57	2.69	139.5	129.2	1.08
5	386.9	172.9	213.9	71.0	1.59	3.01	143.0	118.6	1.21
6	389.1	177.1	212.1	66.8	1.60	3.17	145.2	115.2	1.26
7	394.2	177.8	216.4	66.1	1.62	3.27	150.2	116.2	1.29
8	395.9	178.5	217.5	65.5	1.62	3.32	152.0	116.1	1.31
9	398.5	178.5	220.0	65.5	1.63	3.36	154.5	117.0	1.32
10	400.3	178.5	222.3	65.5	1.64	3.40	156.9	117.8	1.33
11	402.0	177.8	224.2	66.1	1.65	3.39	158.1	118.8	1.33
12	397.7	177.8	219.9	66.1	1.63	3.32	153.8	117.4	1.31

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS CD @ 496-514 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 31.4 CC
CELL PRESSURE =458.9 KPA
CONSOLIDATION PRESSURE =390.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.41	9.80	CM
VOID RATIO	= 1.101	0.790	
AREA	= 20.33	18.38	CM2
PERCENT MOISTURE	= 37.76	27.91	PERCENT
WET DENSITY	= 18.19	19.83	KN/M3
DRY DENSITY	= 13.20	15.50	KN/M3
PERCENT SATURATION	= 97.02	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.789	0.000
2	0.012310	0.012310	0.0000	0.789	4.481
3	0.024490	0.024490	0.0000	0.789	1.392
4	0.041982	0.041982	0.0000	0.789	1.488
5	0.092776	0.092776	0.0000	0.789	1.456
6	0.112082	0.112082	0.0000	0.789	1.442
7	0.157174	0.157174	0.0000	0.789	1.444
8	0.176351	0.176351	0.0000	0.789	1.456
9	0.208615	0.208615	0.0000	0.789	1.500
10	0.234530	0.234530	0.0000	0.789	1.549

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	390.0	0.0	390.0	390.0	1.00	1.00	0.0	390.0	0.00
2	406.1	72.3	333.7	317.6	1.04	1.05	16.1	323.0	0.05
3	525.6	188.8	336.8	201.2	1.35	1.67	135.6	246.4	0.55
4	559.8	252.9	307.0	137.1	1.44	2.24	169.9	193.7	0.88
5	585.3	284.6	300.8	105.4	1.50	2.85	195.3	170.5	1.15
6	588.2	286.0	302.2	104.0	1.51	2.90	198.2	170.1	1.17
7	590.4	289.4	301.0	100.6	1.51	2.99	200.4	167.4	1.20
8	589.7	290.8	298.9	99.2	1.51	3.01	199.7	165.8	1.20
9	585.6	293.5	292.1	96.5	1.50	3.03	195.6	161.7	1.21
10	580.3	294.9	285.4	95.1	1.49	3.00	190.3	158.5	1.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 294-306 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.49
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 20.6 CC
CELL PRESSURE =135.1 KPA
CONSOLIDATION PRESSURE = 66.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.36	9.98	CM
VOID RATIO	= 1.327	1.096	
AREA	= 19.99	18.69	CM2
PERCENT MOISTURE	= 59.37	44.00	PERCENT
WET DENSITY	= 16.72	16.78	KN/M3
DRY DENSITY	= 10.49	11.65	KN/M3
PERCENT SATURATION	=111.41	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.095	0.000
2	0.011069	0.011069	0.0000	1.095	0.624
3	0.027354	0.027354	0.0000	1.095	0.805
4	0.045293	0.045293	0.0000	1.095	0.999
5	0.082317	0.082317	0.0000	1.095	1.120
6	0.101020	0.101020	0.0000	1.095	1.108
7	0.139188	0.139188	0.0000	1.095	1.116
8	0.196059	0.196059	0.0000	1.095	1.163
9	0.234101	0.234101	0.0000	1.095	1.213
10	0.265144	0.265144	0.0000	1.095	1.240

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	66.1	0.0	66.1	66.1	1.00	1.00	0.0	66.1	0.00
2	74.9	5.5	69.4	60.6	1.13	1.15	8.3	63.6	0.14
3	102.9	29.6	73.3	36.5	1.56	2.01	36.8	48.8	0.75
4	105.4	39.3	66.1	26.9	1.59	2.46	39.3	40.0	0.98
5	111.0	50.3	60.7	15.8	1.68	3.83	44.9	30.8	1.46
6	112.1	51.0	61.1	15.2	1.69	4.03	46.0	30.5	1.51
7	113.0	52.4	60.7	13.8	1.71	4.40	46.9	29.4	1.59
8	111.7	53.1	58.7	13.1	1.69	4.48	45.6	28.3	1.61
9	110.4	53.7	56.7	12.4	1.67	4.57	44.3	27.2	1.63
10	109.4	53.7	55.7	12.4	1.65	4.49	43.3	26.8	1.61

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 306-318 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.49
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 17.6 CC
CELL PRESSURE =101.9 KPA
CONSOLIDATION PRESSURE = 33.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.13	9.81	CM
VOID RATIO	= 1.588	1.362	
AREA	= 19.36	18.72	CM2
PERCENT MOISTURE	= 69.85	54.71	PERCENT
WET DENSITY	= 16.02	15.99	KN/M3
DRY DENSITY	= 9.43	10.34	KN/M3
PERCENT SATURATION	=109.49	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.361	0.000
2	0.010226	0.010226	0.0000	1.361	0.732
3	0.024854	0.024854	0.0000	1.361	0.820
4	0.054497	0.054497	0.0000	1.361	0.884
5	0.083752	0.083752	0.0000	1.361	0.917
6	0.113524	0.113524	0.0000	1.361	0.943
7	0.128669	0.128669	0.0000	1.361	0.969
8	0.135012	0.135012	0.0000	1.361	0.973

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	33.0	0.0	33.0	33.0	1.00	1.00	0.0	33.0	0.00
2	56.0	16.9	39.1	16.1	1.70	2.43	23.0	23.8	0.97
3	61.1	23.1	38.0	9.9	1.85	3.83	28.1	19.3	1.46
4	63.4	26.9	36.5	6.1	1.92	5.95	30.4	16.3	1.87
5	64.5	28.9	35.6	4.1	1.95	8.75	31.5	14.6	2.16
6	64.4	29.6	34.7	3.4	1.95	10.29	31.4	13.8	2.27
7	63.2	29.3	33.9	3.7	1.91	9.11	30.2	13.8	2.19
8	63.0	26.2	36.8	6.8	1.91	5.39	30.0	16.8	1.78

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 318-330 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.49
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 12.0 CC
CELL PRESSURE = 85.4 KPA
CONSOLIDATION PRESSURE = 16.5 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.57	10.37 CM
VOID RATIO	= 1.520	1.382
AREA	= 20.67	19.92 CM2
PERCENT MOISTURE	= 62.74	55.50 PERCENT
WET DENSITY	= 15.77	15.94 KN/M3
DRY DENSITY	= 9.69	10.25 KN/M3
PERCENT SATURATION	=102.76	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.381	0.000
2	0.013961	0.013961	0.0000	1.381	0.439
3	0.021432	0.021432	0.0000	1.381	0.442
4	0.031229	0.031229	0.0000	1.381	0.459
5	0.049109	0.049109	0.0000	1.381	0.429
6	0.066989	0.066989	0.0000	1.381	0.457
7	0.084992	0.084992	0.0000	1.381	0.465
8	0.103361	0.103361	0.0000	1.381	0.452
9	0.121854	0.121854	0.0000	1.381	0.481
10	0.140224	0.140224	0.0000	1.381	0.491
11	0.158471	0.158471	0.0000	1.381	0.491
12	0.176719	0.176719	0.0000	1.381	0.520

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	16.5	0.0	16.5	16.5	1.00	1.00	0.0	16.5	0.00
2	35.5	8.4	27.1	8.1	2.16	3.37	19.1	14.4	1.32
3	38.6	9.8	28.8	6.7	2.34	4.31	22.1	14.0	1.57
4	40.4	11.0	29.4	5.4	2.45	5.40	24.0	13.4	1.78
5	44.1	11.9	32.2	4.6	2.68	6.98	27.6	13.8	2.00
6	43.5	12.4	31.1	4.1	2.64	7.66	27.1	13.1	2.07
7	44.0	12.8	31.2	3.7	2.67	8.54	27.5	12.8	2.15
8	45.4	13.1	32.3	3.4	2.76	9.56	28.9	13.0	2.22
9	44.8	13.6	31.1	2.8	2.72	11.02	28.3	12.3	2.31
10	44.2	13.6	30.6	2.8	2.68	10.82	27.7	12.1	2.30
11	44.5	13.8	30.7	2.7	2.70	11.44	28.0	12.0	2.33
12	42.1	13.4	28.8	3.1	2.56	9.28	25.7	11.7	2.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 330-344 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.69
PRECONSOLIDATION STRESS	(NATURAL)
ANISOTROPIC CONSOLIDATION	
MEASURED VOLUME CHANGE	= 8.0 CC
CELL PRESSURE	= 82.7 KPA
CONSOLIDATION PRESSURE	= 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.72	CM
VOID RATIO	= 1.130	1.044	
AREA	= 19.79	19.42	CM2
PERCENT MOISTURE	= 49.92	41.95	PERCENT
WET DENSITY	= 17.19	16.95	KN/M3
DRY DENSITY	= 11.46	11.94	KN/M3
PERCENT SATURATION	=110.01	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.044	0.000
2	0.009478	0.009478	0.0000	1.044	0.247
3	0.022036	0.022036	0.0000	1.044	0.300
4	0.044547	0.044547	0.0000	1.044	0.318
5	0.067531	0.067531	0.0000	1.044	0.258
6	0.090515	0.090515	0.0000	1.044	0.248
7	0.113499	0.113499	0.0000	1.044	0.259
8	0.137195	0.137195	0.0000	1.044	0.225
9	0.183400	0.183400	0.0000	1.044	0.253
10	0.218232	0.218232	0.0000	1.044	0.254

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P PARAMETERS
							CAMBRIDGE		
1	28.4	0.0	28.4	13.8	2.06	2.06	14.6	18.6	0.78
2	36.0	5.5	30.5	8.3	2.61	3.69	22.2	15.7	1.42
3	39.0	7.6	31.5	6.2	2.83	5.07	25.3	14.6	1.73
4	40.6	8.5	32.1	5.2	2.95	6.12	26.8	14.2	1.89
5	45.2	8.1	37.1	5.7	3.28	6.56	31.4	16.1	1.95
6	45.4	7.9	37.6	5.9	3.30	6.34	31.7	16.5	1.92
7	44.6	8.0	36.6	5.8	3.24	6.33	30.9	16.1	1.92
8	47.7	8.0	39.7	5.8	3.46	6.86	33.9	17.1	1.98
9	45.9	8.1	37.7	5.7	3.33	6.68	32.1	16.3	1.96
10	46.3	8.3	38.0	5.5	3.36	6.89	32.5	16.3	1.99

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 504-517 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=165.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 40.6 CC
CELL PRESSURE =234.3 KPA
CONSOLIDATION PRESSURE =165.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	10.01	CM
VOID RATIO	= 1.392	0.938	
AREA	= 19.73	17.34	CM2
PERCENT MOISTURE	= 50.78	34.00	PERCENT
WET DENSITY	= 17.06	18.71	KN/M3
DRY DENSITY	= 11.32	13.96	KN/M3
PERCENT SATURATION	=100.71	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.938	0.000
2	0.003299	0.003299	0.0000	0.938	0.618
3	0.007360	0.007360	0.0000	0.938	1.015
4	0.011928	0.011928	0.0000	0.938	1.073
5	0.014974	0.014974	0.0000	0.938	0.698
6	0.021065	0.021065	0.0000	0.938	0.756
7	0.033755	0.033755	0.0000	0.938	0.944
8	0.047713	0.047713	0.0000	0.938	1.042
9	0.075884	0.075884	0.0000	0.938	1.139
10	0.105070	0.105070	0.0000	0.938	1.198
11	0.143647	0.143647	0.0000	0.938	1.276
12	0.187046	0.187046	0.0000	0.938	1.364
13	0.247956	0.247956	0.0000	0.938	1.503

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	165.4	0.0	165.4	165.4	1.00	1.00	0.0	165.4	0.00
2	177.0	7.2	169.8	158.1	1.07	1.07	11.7	162.0	0.07
3	182.3	17.2	165.1	148.1	1.10	1.11	16.9	153.8	0.11
4	185.2	21.4	163.9	144.0	1.12	1.14	19.9	150.6	0.13
5	208.7	30.3	178.4	135.1	1.26	1.32	43.4	149.5	0.29
6	249.6	63.7	185.8	101.6	1.51	1.83	84.2	129.7	0.65
7	264.2	93.4	170.9	72.0	1.60	2.37	98.9	105.0	0.94
8	268.1	107.1	161.0	58.2	1.62	2.76	102.8	92.5	1.11
9	269.1	118.2	150.9	47.2	1.63	3.20	103.7	81.8	1.27
10	267.4	122.3	145.1	43.1	1.62	3.37	102.0	77.1	1.32
11	263.9	125.7	138.1	39.6	1.60	3.49	98.5	72.5	1.36
12	259.5	128.5	131.0	36.9	1.57	3.55	94.1	68.2	1.38
13	252.5	130.9	121.5	34.5	1.53	3.53	87.1	63.5	1.37

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 517-529 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=165.0
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 38.6 CC
CELL PRESSURE =151.6 KPA
CONSOLIDATION PRESSURE = 82.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.02	9.22	CM
VOID RATIO	= 1.404	0.940	
AREA	= 19.93	17.47	CM2
PERCENT MOISTURE	= 48.75	34.05	PERCENT
WET DENSITY	= 16.75	18.70	KN/M3
DRY DENSITY	= 11.26	13.95	KN/M3
PERCENT SATURATION	= 95.85	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.939	0.000
2	0.002754	0.002754	0.0000	0.939	0.287
3	0.005507	0.005507	0.0000	0.939	0.350
4	0.018724	0.018724	0.0000	0.939	0.240
5	0.031390	0.031390	0.0000	0.939	0.293
6	0.083156	0.083156	0.0000	0.939	0.394
7	0.123082	0.123082	0.0000	0.939	0.415
8	0.177050	0.177050	0.0000	0.939	0.462
9	0.231294	0.231294	0.0000	0.939	0.521

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	82.7	0.0	82.7	82.7	1.00	1.00	0.0	82.7	0.00
2	107.2	7.0	100.1	75.7	1.30	1.32	24.5	83.8	0.29
3	131.5	17.1	114.4	65.6	1.59	1.74	48.8	81.9	0.60
4	189.9	25.8	164.2	56.9	2.30	2.88	107.2	92.7	1.16
5	196.1	33.2	162.9	49.5	2.37	3.29	113.4	87.3	1.30
6	196.2	44.8	151.4	37.9	2.37	3.99	113.5	75.7	1.50
7	198.1	48.0	150.1	34.7	2.40	4.32	115.4	73.2	1.58
8	191.9	50.4	141.5	32.2	2.32	4.39	109.2	68.6	1.59
9	184.7	53.2	131.5	29.5	2.23	4.46	102.0	63.5	1.61

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 529-541 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=165.0 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 27.5 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.84	9.29	CM
VOID RATIO	= 0.996	0.710	
AREA	= 19.46	17.65	CM2
PERCENT MOISTURE	= 37.57	25.71	PERCENT
WET DENSITY	= 18.65	19.90	KN/M3
DRY DENSITY	= 13.56	15.83	KN/M3
PERCENT SATURATION	=104.10	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.709	0.000
2	0.007930	0.007930	0.0000	0.709	0.249
3	0.016681	0.016681	0.0000	0.709	0.174
4	0.038284	0.038284	0.0000	0.709	0.148
5	0.056059	0.056059	0.0000	0.709	0.152
6	0.086412	0.086412	0.0000	0.709	0.135
7	0.117313	0.117313	0.0000	0.709	0.127
8	0.148487	0.148487	0.0000	0.709	0.141
9	0.189505	0.189505	0.0000	0.709	0.164
10	0.225054	0.225054	0.0000	0.709	0.186

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	75.9	8.6	67.3	32.7	1.84	2.06	34.5	44.2	0.78
3	92.8	9.0	83.9	32.4	2.25	2.59	51.5	49.5	1.04
4	104.4	9.3	95.1	32.0	2.52	2.97	63.0	53.0	1.19
5	109.3	10.3	98.9	31.0	2.64	3.19	67.9	53.7	1.27
6	113.0	9.6	103.3	31.7	2.73	3.26	71.6	55.6	1.29
7	111.9	9.0	103.0	32.4	2.71	3.18	70.6	55.9	1.26
8	109.9	9.6	100.2	31.7	2.66	3.16	68.5	54.5	1.26
9	104.3	10.3	93.9	31.0	2.52	3.03	62.9	52.0	1.21
10	100.7	11.0	89.7	30.3	2.44	2.96	59.4	50.1	1.18

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 753-766 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS=382.4 KPA
OVERCONSOLIDATION RATIO= 2.02
MEASURED VOLUME CHANGE = 45.6 CC
CELL PRESSURE =258.4 KPA
CONSOLIDATION PRESSURE =189.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.69	9.76	CM
VOID RATIO	= 1.251	0.785	
AREA	= 20.60	17.90	CM2
PERCENT MOISTURE	= 44.93	28.35	PERCENT
WET DENSITY	= 17.49	19.53	KN/M3
DRY DENSITY	= 12.07	15.22	KN/M3
PERCENT SATURATION	= 99.51	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.784	0.000
2	0.018471	0.018471	0.0000	0.784	0.243
3	0.056713	0.056713	0.0000	0.784	0.562
4	0.095475	0.095475	0.0000	0.784	0.636
5	0.133978	0.133978	0.0000	0.784	0.688
6	0.172220	0.172220	0.0000	0.784	0.723
7	0.210462	0.210462	0.0000	0.784	0.784
8	0.267695	0.267695	0.0000	0.784	0.873

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	189.5	0.0	189.5	189.5	1.00	1.00	0.0	189.5	0.00
2	317.6	31.1	286.4	158.3	1.68	1.81	128.1	201.0	0.64
3	362.4	97.2	265.3	92.3	1.91	2.87	173.0	150.0	1.15
4	364.1	111.1	253.0	78.4	1.92	3.23	174.6	136.6	1.28
5	358.6	116.3	242.2	73.2	1.89	3.31	169.1	129.5	1.31
6	354.7	119.5	235.2	70.0	1.87	3.36	165.2	125.1	1.32
7	345.3	122.2	223.1	67.3	1.82	3.32	155.8	119.2	1.31
8	334.0	126.2	207.8	63.3	1.76	3.29	144.5	111.4	1.30

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 766-779 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS=382.4 KPA
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 48.8 CC
CELL PRESSURE =451.3 KPA
CONSOLIDATION PRESSURE =382.4 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.45	9.42 CM
VOID RATIO	= 1.335	0.804
AREA	= 20.53	17.59 CM2
PERCENT MOISTURE	= 46.91	29.02 PERCENT
WET DENSITY	= 17.09	19.43 KN/M3
DRY DENSITY	= 11.63	15.06 KN/M3
PERCENT SATURATION	= 97.37	100.02 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.803	0.000
2	0.002156	0.002156	0.0000	0.803	1.121
3	0.008356	0.008356	0.0000	0.803	0.589
4	0.034233	0.034233	0.0000	0.803	1.267
5	0.066040	0.066040	0.0000	0.803	1.487
6	0.095961	0.095961	0.0000	0.803	1.592
7	0.126151	0.126151	0.0000	0.803	1.672
8	0.156610	0.156610	0.0000	0.803	1.747
9	0.203243	0.203243	0.0000	0.803	1.892
10	0.218607	0.218607	0.0000	0.803	1.941
11	0.233972	0.233972	0.0000	0.803	1.997

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	382.4	0.0	382.4	382.4	1.00	1.00	0.0	382.4	0.00
2	388.5	6.9	381.6	375.5	1.02	1.02	6.1	377.6	0.02
3	483.0	59.3	423.8	323.2	1.26	1.31	100.6	356.7	0.28
4	554.8	218.4	336.4	164.0	1.45	2.05	172.4	221.4	0.78
5	557.6	260.5	297.1	122.0	1.46	2.44	175.1	180.3	0.97
6	554.8	274.6	280.2	107.8	1.45	2.60	172.4	165.3	1.04
7	550.1	280.4	269.7	102.0	1.44	2.64	167.7	157.9	1.06
8	545.1	284.2	260.9	98.2	1.43	2.66	162.7	152.4	1.07
9	535.3	289.4	245.9	93.0	1.40	2.64	152.9	144.0	1.06
10	532.2	290.8	241.4	91.6	1.39	2.63	149.8	141.6	1.06
11	528.9	292.5	236.4	89.9	1.38	2.63	146.5	138.7	1.06

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 779-793 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.77
PRECONSOLIDATION STRESS	=382.4 KPA
OVERCONSOLIDATION RATIO	= 3.96
MEASURED VOLUME CHANGE	= 43.0 CC
CELL PRESSURE	=165.4 KPA
CONSOLIDATION PRESSURE	= 96.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.82	9.96	CM
VOID RATIO	= 1.383	0.925	
AREA	= 20.67	18.14	CM2
PERCENT MOISTURE	= 48.20	33.41	PERCENT
WET DENSITY	= 16.89	18.82	KN/M3
DRY DENSITY	= 11.40	14.11	KN/M3
PERCENT SATURATION	= 96.52	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.925	0.000
2	0.003824	0.003824	0.0000	0.925	0.000
3	0.006119	0.006119	0.0000	0.925	0.201
4	0.021671	0.021671	0.0000	0.925	0.188
5	0.049462	0.049462	0.0000	0.925	0.204
6	0.078017	0.078017	0.0000	0.925	0.235
7	0.106828	0.106828	0.0000	0.925	0.251
8	0.135383	0.135383	0.0000	0.925	0.268
9	0.193259	0.193259	0.0000	0.925	0.312
10	0.222579	0.222579	0.0000	0.925	0.333
11	0.237367	0.237367	0.0000	0.925	0.333

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	96.5	0.0	96.5	96.5	1.00	1.00	0.0	96.5	0.00
2	104.4	2.4	102.0	94.1	1.08	1.08	8.0	96.7	0.08
3	139.2	8.6	130.6	87.9	1.44	1.49	42.7	102.1	0.42
4	200.8	19.6	181.1	76.8	2.08	2.36	104.3	111.6	0.93
5	217.9	24.8	193.1	71.7	2.26	2.69	121.4	112.1	1.08
6	222.5	29.6	192.9	66.8	2.31	2.89	126.1	108.9	1.16
7	222.7	31.7	191.0	64.8	2.31	2.95	126.3	106.9	1.18
8	221.2	33.4	187.8	63.0	2.29	2.98	124.7	104.6	1.19
9	214.4	36.9	177.6	59.6	2.22	2.98	118.0	98.9	1.19
10	210.3	37.9	172.4	58.6	2.18	2.94	113.9	96.5	1.18
11	207.0	36.9	170.2	59.6	2.15	2.86	110.6	96.5	1.15

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 225-237 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 24.9 CC
CELL PRESSURE = 97.2 KPA
CONSOLIDATION PRESSURE = 28.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.31	8.85	CM
VOID RATIO	= 2.405	1.961	
AREA	= 20.47	18.73	CM2
PERCENT MOISTURE	= 76.22	69.44	PERCENT
WET DENSITY	= 14.33	15.85	KN/M3
DRY DENSITY	= 8.13	9.35	KN/M3
PERCENT SATURATION	= 89.49	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.960	0.000
2	0.006890	0.006890	0.0000	1.960	0.048
3	0.013781	0.013781	0.0000	1.960	0.153
4	0.033591	0.033591	0.0000	1.960	0.326
5	0.047228	0.047228	0.0000	1.960	0.423
6	0.074790	0.074790	0.0000	1.960	0.516
7	0.102351	0.102351	0.0000	1.960	0.577
8	0.144555	0.144555	0.0000	1.960	0.680
9	0.173265	0.173265	0.0000	1.960	0.730
10	0.201975	0.201975	0.0000	1.960	0.804
11	0.230542	0.230542	0.0000	1.960	0.838
12	0.259252	0.259252	0.0000	1.960	0.923

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	28.3	0.0	28.3	28.3	1.00	1.00	0.0	28.3	0.00
2	54.1	1.2	52.9	27.0	1.92	1.96	25.9	35.6	0.73
3	61.4	5.1	56.3	23.2	2.18	2.43	33.2	34.2	0.97
4	65.0	12.0	53.0	16.3	2.30	3.26	36.7	28.5	1.29
5	62.4	14.5	47.9	13.8	2.21	3.48	34.1	25.2	1.36
6	62.4	17.6	44.8	10.6	2.21	4.22	34.2	22.0	1.55
7	62.4	19.7	42.7	8.5	2.21	4.99	34.1	19.9	1.71
8	59.8	21.5	38.3	6.8	2.12	5.68	31.6	17.3	1.83
9	58.8	22.3	36.4	5.9	2.08	6.15	30.5	16.1	1.90
10	56.8	23.0	33.8	5.2	2.01	6.46	28.6	14.8	1.94
11	56.7	23.8	32.8	4.4	2.01	7.44	28.4	13.9	2.05
12	54.8	24.5	30.3	3.7	1.94	8.13	26.5	12.6	2.11

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 237-249 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.82
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 50.0 CC
CELL PRESSURE	=137.8 KPA
CONSOLIDATION PRESSURE	= 68.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.94	9.91	CM
VOID RATIO	= 2.190	1.487	
AREA	= 20.74	17.85	CM2
PERCENT MOISTURE	= 75.79	52.66	PERCENT
WET DENSITY	= 15.26	17.00	KN/M3
DRY DENSITY	= 8.68	11.13	KN/M3
PERCENT SATURATION	= 97.74	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.486	0.000
2	0.012945	0.012945	0.0000	1.486	0.777
3	0.028069	0.028069	0.0000	1.486	1.023
4	0.042425	0.042425	0.0000	1.486	1.075
5	0.071904	0.071904	0.0000	1.486	1.198
6	0.085874	0.085874	0.0000	1.486	1.224
7	0.114841	0.114841	0.0000	1.486	1.285
8	0.143295	0.143295	0.0000	1.486	1.356
9	0.158291	0.158291	0.0000	1.486	1.429
10	0.172133	0.172133	0.0000	1.486	1.464
11	0.186488	0.186488	0.0000	1.486	1.517
12	0.200587	0.200587	0.0000	1.486	1.535
13	0.214558	0.214558	0.0000	1.486	1.562

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	68.9	0.0	68.9	68.9	1.00	1.00	0.0	68.9	0.00
2	105.2	28.3	77.0	40.7	1.53	1.89	36.3	52.8	0.69
3	107.3	39.3	68.0	29.6	1.56	2.29	38.4	42.4	0.90
4	109.2	43.4	65.8	25.5	1.59	2.58	40.3	38.9	1.04
5	109.1	48.2	60.9	20.7	1.58	2.95	40.2	34.1	1.18
6	109.4	49.6	59.8	19.3	1.59	3.10	40.3	32.8	1.23
7	108.5	51.0	57.6	17.9	1.58	3.21	39.6	31.1	1.27
8	107.5	52.4	55.1	16.5	1.56	3.33	38.6	29.4	1.31
9	106.0	53.1	52.9	15.8	1.54	3.34	37.1	28.2	1.31
10	105.6	53.7	51.8	15.2	1.53	3.42	36.7	27.4	1.34
11	104.7	54.4	50.3	14.5	1.52	3.48	35.8	26.4	1.36
12	104.3	54.4	49.9	14.5	1.51	3.45	35.4	26.3	1.35
13	103.7	54.4	49.3	14.5	1.50	3.40	34.8	26.1	1.33

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 249-261 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 34.4 CC
CELL PRESSURE =180.8 KPA
CONSOLIDATION PRESSURE =111.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.32	9.65	CM
VOID RATIO	= 2.184	1.667	
AREA	= 20.53	18.39	CM2
PERCENT MOISTURE	= 75.32	59.05	PERCENT
WET DENSITY	= 15.25	16.51	KN/M3
DRY DENSITY	= 8.70	10.38	KN/M3
PERCENT SATURATION	= 97.40	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.666	0.000
2	0.003946	0.003946	0.0000	1.666	7.076
3	0.006314	0.006314	0.0000	1.666	6.304
4	0.013023	0.013023	0.0000	1.666	5.416
5	0.019074	0.019074	0.0000	1.666	4.145
6	0.220862	0.220862	0.0000	1.666	2.265
7	0.233095	0.233095	0.0000	1.666	2.263
8	0.239146	0.239146	0.0000	1.666	2.285
9	0.249012	0.249012	0.0000	1.666	2.285

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	111.9	0.0	111.9	111.9	1.00	1.00	0.0	111.9	0.00
2	115.1	22.7	92.3	89.2	1.03	1.04	3.2	90.2	0.04
3	115.8	24.8	91.0	87.1	1.03	1.04	3.9	88.4	0.04
4	117.4	30.3	87.1	81.6	1.05	1.07	5.5	83.4	0.07
5	121.5	40.0	81.5	71.9	1.09	1.13	9.6	75.1	0.13
6	151.7	90.3	61.4	21.6	1.36	2.84	39.8	34.9	1.14
7	150.5	87.5	63.0	24.4	1.35	2.58	38.6	37.3	1.04
8	149.8	86.8	63.0	25.1	1.34	2.51	37.9	37.7	1.01
9	149.5	86.1	63.4	25.8	1.34	2.46	37.6	38.3	0.98

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS CD @ 261-275 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.82	
PRECONSOLIDATION STRESS(NATURAL)		
ANISOTROPIC CONSOLIDATION		
MEASURED VOLUME CHANGE	= 1.2	CC
CELL PRESSURE	= 77.2	KPA
CONSOLIDATION PRESSURE	= 8.3	KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.11	10.04	CM
VOID RATIO	= 1.396	1.970	
AREA	= 20.47	20.44	CM2
PERCENT MOISTURE	= 71.93	69.77	PERCENT
WET DENSITY	= 15.89	15.83	KN/M3
DRY DENSITY	= 9.24	9.32	KN/M3
PERCENT SATURATION	=101.75	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.969	0.000
2	0.010123	0.010123	0.0000	1.969	0.295
3	0.022778	0.022778	0.0000	1.969	0.288
4	0.035432	0.035432	0.0000	1.969	0.311
5	0.047959	0.047959	0.0000	1.969	0.299
6	0.060360	0.060360	0.0000	1.969	0.303
7	0.072888	0.072888	0.0000	1.969	0.341
8	0.091743	0.091743	0.0000	1.969	0.332
9	0.111363	0.111363	0.0000	1.969	0.324
10	0.135526	0.135526	0.0000	1.969	0.366
11	0.160582	0.160582	0.0000	1.969	0.343
12	0.185384	0.185384	0.0000	1.969	0.353

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	15.9	0.0	15.9	8.3	1.92	1.92	7.6	10.8	0.70
2	22.2	4.1	18.1	4.1	2.69	4.38	14.0	8.8	1.59
3	27.4	5.5	21.9	2.8	3.31	7.93	19.1	9.1	2.09
4	28.2	6.2	22.0	2.1	3.41	10.63	19.9	9.7	2.29
5	28.9	6.2	22.7	2.1	3.50	11.00	20.7	9.0	2.31
6	28.7	6.2	22.5	2.1	3.47	10.87	20.4	8.9	2.30
7	28.4	6.9	21.5	1.4	3.43	15.61	20.1	8.1	2.49
8	29.0	6.9	22.1	1.4	3.50	16.03	20.7	8.3	2.50
9	29.5	6.9	22.6	1.4	3.57	16.09	21.2	8.4	2.51
10	28.9	7.6	21.3	0.7	3.50	30.97	20.6	7.6	2.73
11	28.3	6.9	21.4	1.4	3.42	15.55	20.1	8.1	2.49
12	27.7	6.9	20.8	1.4	3.35	15.12	19.5	7.9	2.47

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 529-542 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.73
PRECONSOLIDATION STRESS= 93.1 KPA
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 36.4 CC
CELL PRESSURE =172.3 KPA
CONSOLIDATION PRESSURE = 93.0 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.74	10.05 CM
VOID RATIO	= 1.669	1.235
AREA	= 20.81	18.63 CM2
PERCENT MOISTURE	= 61.94	45.24 PERCENT
WET DENSITY	= 16.24	17.40 KN/M3
DRY DENSITY	= 10.03	11.98 KN/M3
PERCENT SATURATION	=101.30	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.234	0.000
2	0.000885	0.000885	0.0000	1.234	0.484
3	0.003539	0.003539	0.0000	1.234	0.509
4	0.016305	0.016305	0.0000	1.234	0.803
5	0.035264	0.035264	0.0000	1.234	1.002
6	0.064208	0.064208	0.0000	1.234	1.118
7	0.093025	0.093025	0.0000	1.234	1.223
8	0.122349	0.122349	0.0000	1.234	1.324
9	0.151293	0.151293	0.0000	1.234	1.371
10	0.189716	0.189716	0.0000	1.234	1.422
11	0.218155	0.218155	0.0000	1.234	1.443

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	93.0	0.0	93.0	93.0	1.00	1.00	0.0	93.0	0.00
2	105.8	6.2	99.6	86.8	1.14	1.15	12.8	91.1	0.14
3	125.5	16.5	108.9	76.5	1.35	1.42	32.5	87.3	0.37
4	146.2	42.7	103.5	50.3	1.57	2.06	53.2	68.0	0.78
5	150.0	57.2	92.9	35.8	1.61	2.59	57.0	54.8	1.04
6	149.7	63.4	86.3	29.6	1.61	2.91	56.7	48.5	1.17
7	148.2	67.5	80.6	25.5	1.59	3.16	55.1	43.9	1.26
8	146.6	71.0	75.6	22.0	1.58	3.43	53.6	39.9	1.34
9	146.3	73.0	73.2	20.0	1.57	3.66	53.2	37.7	1.41
10	143.9	72.3	71.5	20.7	1.55	3.46	50.8	37.6	1.35
11	142.6	71.7	71.0	21.4	1.53	3.32	49.6	37.9	1.31

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 542-555 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.73
PRECONSOLIDATION STRESS=103.4 KPA
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 34.4 CC
CELL PRESSURE =120.6 KPA
CONSOLIDATION PRESSURE = 51.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.95	10.29	CM
VOID RATIO	= 1.705	1.291	
AREA	= 20.53	18.51	CM2
PERCENT MOISTURE	= 63.17	47.29	PERCENT
WET DENSITY	= 16.15	17.21	KN/M3
DRY DENSITY	= 9.90	11.68	KN/M3
PERCENT SATURATION	=101.18	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.290	0.000
2	0.002963	0.002963	0.0000	1.290	0.108
3	0.008888	0.008888	0.0000	1.290	0.118
4	0.011850	0.011850	0.0000	1.290	0.168
5	0.023700	0.023700	0.0000	1.290	0.350
6	0.055301	0.055301	0.0000	1.290	0.439
7	0.082951	0.082951	0.0000	1.290	0.469
8	0.137759	0.137759	0.0000	1.290	0.515
9	0.172815	0.172815	0.0000	1.290	0.552
10	0.197503	0.197503	0.0000	1.290	0.596
11	0.246879	0.246879	0.0000	1.290	0.640

READING NUMBER	SIG1 (KPA)	PWP KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	51.7	0.0	51.7	51.7	1.00	1.00	0.0	51.7	0.00
2	77.6	3.6	74.0	48.1	1.50	1.54	25.9	56.7	0.46
3	103.2	6.1	97.1	45.6	2.00	2.13	51.5	62.8	0.82
4	107.3	9.4	97.9	42.3	2.08	2.31	55.6	60.8	0.91
5	111.9	21.1	90.8	30.6	2.17	2.97	60.2	50.7	1.19
6	111.0	26.0	84.9	25.6	2.15	3.31	59.3	45.4	1.31
7	111.2	28.0	83.2	23.7	2.15	3.51	59.5	43.6	1.37
8	110.5	30.3	80.1	21.4	2.14	3.75	58.8	41.0	1.44
9	108.1	31.1	76.9	20.5	2.09	3.75	56.4	39.0	1.43
10	105.5	32.1	73.4	19.6	2.04	3.75	53.8	37.5	1.44
11	101.4	31.8	69.6	19.8	1.96	3.51	49.7	36.4	1.37

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 555-569 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.73
PRECONSOLIDATION STRESS=103.4 KPA
OVERCONSOLIDATION RATIO= 3.75
MEASURED VOLUME CHANGE = 24.6 CC
CELL PRESSURE = 96.5 KPA
CONSOLIDATION PRESSURE = 27.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.46	CM
VOID RATIO	= 1.729	1.434	
AREA	= 20.88	19.40	CM2
PERCENT MOISTURE	= 61.35	52.53	PERCENT
WET DENSITY	= 15.83	16.77	KN/M3
DRY DENSITY	= 9.81	11.00	KN/M3
PERCENT SATURATION	= 96.87	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.433	0.000
2	0.004005	0.004005	0.0000	1.433	0.100
3	0.016869	0.016869	0.0000	1.433	0.104
4	0.034466	0.034466	0.0000	1.433	0.111
5	0.052063	0.052063	0.0000	1.433	0.136
6	0.087742	0.087742	0.0000	1.433	0.182
7	0.141746	0.141746	0.0000	1.433	0.233
8	0.201843	0.201843	0.0000	1.433	0.279

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	27.6	0.0	27.6	27.6	1.00	1.00	0.0	27.6	0.00
2	41.3	1.4	40.0	26.2	1.50	1.53	13.8	30.8	0.45
3	67.3	4.1	63.2	23.4	2.44	2.70	39.8	36.7	1.08
4	74.8	5.2	69.6	22.3	2.72	3.12	47.3	38.1	1.24
5	78.0	6.9	71.1	20.7	2.83	3.44	50.5	37.5	1.35
6	79.0	9.4	69.7	18.2	2.87	3.83	51.5	35.3	1.46
7	77.8	11.7	66.1	15.8	2.82	4.17	50.2	32.6	1.54
8	73.4	12.8	60.6	14.7	2.66	4.11	45.9	30.0	1.53

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 778-791 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS=334.9 KPA
OVERCONSOLIDATION RATIO= 2.02
MEASURED VOLUME CHANGE = 46.8 CC
CELL PRESSURE =234.3 KPA
CONSOLIDATION PRESSURE =165.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.84	9.86	CM
VOID RATIO	= 1.351	1.009	
AREA	= 20.33	17.60	CM2
PERCENT MOISTURE	= 55.20	35.79	PERCENT
WET DENSITY	= 16.82	18.69	KN/M3
DRY DENSITY	= 10.84	13.76	KN/M3
PERCENT SATURATION	=100.19	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.008	0.000
2	0.002446	0.002446	0.0000	1.008	0.164
3	0.014936	0.014936	0.0000	1.008	0.279
4	0.030515	0.030515	0.0000	1.008	0.388
5	0.062060	0.062060	0.0000	1.008	0.504
6	0.093992	0.093992	0.0000	1.008	0.562
7	0.125795	0.125795	0.0000	1.008	0.587
8	0.173434	0.173434	0.0000	1.008	0.648
9	0.220559	0.220559	0.0000	1.008	0.705

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	165.4	0.0	165.4	165.4	1.00	1.00	0.0	165.4	0.00
2	238.4	12.0	226.4	153.4	1.44	1.48	73.1	177.7	0.41
3	291.3	35.1	256.2	130.2	1.76	1.97	126.0	172.2	0.73
4	307.4	55.1	252.2	110.2	1.86	2.29	142.0	157.6	0.90
5	317.1	76.5	240.6	88.9	1.92	2.71	151.7	139.5	1.09
6	317.9	85.7	232.2	79.7	1.92	2.91	152.5	130.5	1.17
7	319.2	90.4	228.8	75.0	1.93	3.05	153.8	126.2	1.22
8	311.7	94.8	216.9	70.6	1.89	3.07	146.4	119.3	1.23
9	305.1	98.5	206.6	66.8	1.84	3.09	139.7	113.4	1.23

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 791-804 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS=334.9 KPA
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 48.1 CC
CELL PRESSURE =403.8 KPA
CONSOLIDATION PRESSURE =334.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.80	9.81	CM
VOID RATIO	= 1.656	1.080	
AREA	= 20.53	17.72	CM2
PERCENT MOISTURE	= 58.85	38.32	PERCENT
WET DENSITY	= 16.54	18.38	KN/M3
DRY DENSITY	= 10.41	13.29	KN/M3
PERCENT SATURATION	=100.22	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.080	0.000
2	0.004532	0.004532	0.0000	1.080	2.184
3	0.013986	0.013986	0.0000	1.080	1.275
4	0.030821	0.030821	0.0000	1.080	1.440
5	0.049598	0.049598	0.0000	1.080	1.555
6	0.068893	0.068893	0.0000	1.080	1.603
7	0.098031	0.098031	0.0000	1.080	1.638
8	0.127038	0.127038	0.0000	1.080	1.644
9	0.176248	0.176248	0.0000	1.080	1.625
10	0.195802	0.195802	0.0000	1.080	1.638
11	0.215486	0.215486	0.0000	1.080	1.664
12	0.231026	0.231026	0.0000	1.080	1.687

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	334.9	0.0	334.9	334.9	1.00	1.00	0.0	334.9	0.00
2	347.3	27.2	320.1	307.7	1.04	1.04	12.4	311.8	0.04
3	417.8	105.8	312.0	229.1	1.25	1.36	82.9	256.7	0.32
4	461.6	182.6	279.0	152.3	1.38	1.83	126.8	194.5	0.65
5	472.4	213.9	258.5	120.9	1.41	2.14	137.6	166.8	0.82
6	476.9	227.7	249.2	107.1	1.42	2.33	142.0	154.5	0.92
7	480.4	238.4	242.0	96.5	1.43	2.51	145.5	145.0	1.00
8	481.9	241.9	240.1	93.0	1.44	2.58	147.0	142.0	1.04
9	484.1	242.5	241.6	92.3	1.45	2.62	149.2	142.1	1.05
10	483.3	243.2	240.1	91.6	1.44	2.62	148.4	141.1	1.05
11	481.8	244.6	237.2	90.3	1.44	2.63	146.9	139.2	1.06
12	480.0	245.0	235.1	89.9	1.43	2.61	145.1	138.3	1.05

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 804-818 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS=334.9 KPA
OVERCONSOLIDATION RATIO= 4.05
MEASURED VOLUME CHANGE = 43.9 CC
CELL PRESSURE =151.6 KPA
CONSOLIDATION PRESSURE = 82.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.71	9.82	CM
VOID RATIO	= 1.664	1.134	
AREA	= 20.60	17.99	CM2
PERCENT MOISTURE	= 58.70	40.21	PERCENT
WET DENSITY	= 16.48	18.17	KN/M3
DRY DENSITY	= 10.38	12.96	KN/M3
PERCENT SATURATION	= 99.52	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.133	0.000
2	0.004266	0.004266	0.0000	1.133	0.849
3	0.016288	0.016288	0.0000	1.133	0.555
4	0.034904	0.034904	0.0000	1.133	0.431
5	0.064249	0.064249	0.0000	1.133	0.372
6	0.095016	0.095016	0.0000	1.133	0.349
7	0.119707	0.119707	0.0000	1.133	0.353
8	0.144528	0.144528	0.0000	1.133	0.352
9	0.169736	0.169736	0.0000	1.133	0.352
10	0.195203	0.195203	0.0000	1.133	0.360
11	0.218214	0.218214	0.0000	1.133	0.362

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	82.7	0.0	82.7	82.7	1.00	1.00	0.0	82.7	0.00
2	96.0	11.4	84.7	71.3	1.16	1.19	13.3	75.8	0.18
3	135.4	29.3	106.1	53.4	1.64	1.99	52.7	71.0	0.74
4	154.6	31.0	123.6	51.7	1.87	2.39	72.0	75.7	0.95
5	165.9	31.0	134.9	51.7	2.01	2.61	83.2	79.4	1.05
6	169.6	30.3	139.3	52.4	2.05	2.66	86.9	81.3	1.07
7	170.4	31.0	139.4	51.7	2.06	2.70	87.7	80.9	1.08
8	168.8	30.3	138.5	52.4	2.04	2.64	86.1	81.1	1.06
9	166.8	29.6	137.2	53.1	2.02	2.59	84.2	81.1	1.04
10	164.1	29.3	134.8	53.4	1.98	2.52	81.4	80.5	1.01
11	161.6	28.6	133.0	54.1	1.95	2.46	78.9	80.4	0.98

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 350-362 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 9.2 CC
CELL PRESSURE =158.9 KPA
CONSOLIDATION PRESSURE = 21.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.40	11.24	CM
VOID RATIO	= 1.286	1.197	
AREA	= 20.74	20.20	CM2
PERCENT MOISTURE	= 46.85	43.54	PERCENT
WET DENSITY	= 17.32	17.61	KN/M3
DRY DENSITY	= 11.79	12.27	KN/M3
PERCENT SATURATION	=100.17	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.197	0.000
2	0.000678	0.000678	0.0000	1.197	0.445
3	0.013669	0.013669	0.0000	1.197	2.204
4	0.025982	0.025982	0.0000	1.197	0.490
5	0.043266	0.043266	0.0000	1.197	0.387
6	0.060211	0.060211	0.0000	1.197	0.312
7	0.077043	0.077043	0.0000	1.197	0.246
8	0.077043	0.077043	0.0000	1.197	0.246
9	0.080545	0.080545	0.0000	1.197	0.236
10	0.094326	0.094326	0.0000	1.197	0.207
11	0.111610	0.111610	0.0000	1.197	0.169
12	0.117936	0.117936	0.0000	1.197	0.155
13	0.129007	0.129007	0.0000	1.197	0.148
14	0.146291	0.146291	0.0000	1.197	0.136

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	21.1	0.0	21.1	21.1	1.00	1.00	0.0	21.1	0.00
2	21.8	0.3	21.5	20.7	1.03	1.03	0.7	21.0	0.03
3	22.8	3.8	19.0	17.3	1.08	1.10	1.7	17.9	0.09
4	50.6	14.5	36.1	6.6	2.40	5.46	29.5	16.4	1.79
5	60.2	15.2	45.1	5.9	2.86	7.61	39.1	19.0	2.06
6	66.4	14.1	52.2	7.0	3.15	7.51	45.3	22.0	2.05
7	71.4	12.4	59.0	8.7	3.38	6.79	50.3	25.4	1.98
8	71.4	12.4	59.0	8.7	3.38	6.79	50.3	25.4	1.98
9	72.1	12.1	60.0	9.0	3.42	6.65	51.0	26.0	1.96
10	74.4	11.0	63.3	10.1	3.53	6.30	53.3	27.8	1.92
11	76.1	9.3	66.8	11.8	3.61	5.67	55.1	30.1	1.83
12	76.6	8.6	68.0	12.5	3.63	5.45	55.5	31.0	1.79
13	76.7	8.3	68.5	12.8	3.64	5.34	55.7	31.4	1.77
14	76.9	7.6	69.3	13.5	3.65	5.13	55.8	32.1	1.74

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 362-374 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 11.3 CC
CELL PRESSURE =130.0 KPA
CONSOLIDATION PRESSURE = 42.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.39	10.20	CM
VOID RATIO	= 1.172	1.058	
AREA	= 20.74	20.02	CM2
PERCENT MOISTURE	= 41.38	38.47	PERCENT
WET DENSITY	= 17.62	18.14	KN/M3
DRY DENSITY	= 12.42	13.10	KN/M3
PERCENT SATURATION	= 98.29	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.057	0.000
2	0.016938	0.016938	0.0000	1.057	0.564
3	0.020799	0.020799	0.0000	1.057	0.561
4	0.035745	0.035745	0.0000	1.057	0.484
5	0.054427	0.054427	0.0000	1.057	0.398
6	0.061277	0.061277	0.0000	1.057	0.385
7	0.072984	0.072984	0.0000	1.057	0.351
8	0.091542	0.091542	0.0000	1.057	0.312
9	0.110223	0.110223	0.0000	1.057	0.287
10	0.149580	0.149580	0.0000	1.057	0.253
11	0.156679	0.156679	0.0000	1.057	0.258
12	0.169009	0.169009	0.0000	1.057	0.243

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	42.2	0.0	42.2	42.2	1.00	1.00	0.0	42.2	0.00
2	82.2	22.6	59.6	19.6	1.95	3.05	40.0	32.9	1.22
3	84.1	23.6	60.6	18.6	2.00	3.26	42.0	32.6	1.29
4	92.8	24.5	68.3	17.6	2.20	3.87	50.6	34.5	1.47
5	100.9	23.4	77.5	18.7	2.39	4.14	58.8	38.3	1.53
6	101.5	22.9	78.6	19.3	2.41	4.08	59.3	39.1	1.52
7	105.7	22.3	83.4	19.8	2.51	4.20	63.6	41.0	1.55
8	107.4	20.4	87.0	21.8	2.55	4.00	65.2	43.6	1.50
9	108.9	19.2	89.8	23.0	2.58	3.90	66.7	45.3	1.47
10	111.4	17.5	93.9	24.7	2.64	3.81	69.3	47.8	1.45
11	109.9	17.5	92.4	24.7	2.61	3.75	67.8	47.3	1.43
12	110.7	16.7	94.1	25.5	2.63	3.69	68.6	48.3	1.42

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 376-388 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.75
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 17.1 CC
CELL PRESSURE	=153.2 KPA
CONSOLIDATION PRESSURE	= 84.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.11	10.81	CM
VOID RATIO	= 1.144	0.986	
AREA	= 20.88	19.86	CM2
PERCENT MOISTURE	= 41.02	35.87	PERCENT
WET DENSITY	= 17.73	18.44	KN/M3
DRY DENSITY	= 12.57	13.57	KN/M3
PERCENT SATURATION	= 98.58	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.986	0.000
2	0.003288	0.003288	0.0000	0.986	1.101
3	0.009396	0.009396	0.0000	0.986	1.556
4	0.013271	0.013271	0.0000	0.986	0.922
5	0.021257	0.021257	0.0000	0.986	0.886
6	0.036643	0.036643	0.0000	0.986	0.817
7	0.052967	0.052967	0.0000	0.986	0.744
8	0.087496	0.087496	0.0000	0.986	0.662
9	0.123199	0.123199	0.0000	0.986	0.627
10	0.159020	0.159020	0.0000	0.986	0.629
11	0.180042	0.180042	0.0000	0.986	0.641

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	84.3	0.0	84.3	84.3	1.00	1.00	0.0	84.3	0.00
2	89.6	5.9	83.8	78.5	1.06	1.07	5.3	80.2	0.07
3	96.2	18.6	77.6	65.7	1.14	1.18	11.9	69.7	0.17
4	125.4	37.9	87.5	46.4	1.49	1.88	41.1	60.1	0.68
5	139.9	49.3	90.6	35.1	1.66	2.58	55.5	53.6	1.04
6	151.8	55.1	96.6	29.2	1.80	3.31	67.4	51.7	1.30
7	159.7	56.2	103.6	28.2	1.89	3.67	75.4	53.3	1.41
8	167.5	55.1	112.4	29.2	1.99	3.85	83.2	56.9	1.46
9	169.5	53.4	116.1	30.9	2.01	3.75	85.2	59.3	1.44
10	168.1	52.7	115.4	31.6	1.99	3.65	83.7	59.5	1.41
11	166.0	52.4	113.6	32.0	1.97	3.55	81.6	59.2	1.38

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 388-400 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = -0.4 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.64	10.56	CM
VOID RATIO	= 1.182	1.169	
AREA	= 20.74	20.79	CM2
PERCENT MOISTURE	= 40.64	42.52	PERCENT
WET DENSITY	= 17.38	17.72	KN/M3
DRY DENSITY	= 12.36	12.43	KN/M3
PERCENT SATURATION	= 94.57	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.169	0.000
2	0.005052	0.005052	0.0000	1.169	0.236
3	0.011788	0.011788	0.0000	1.169	0.248
4	0.023336	0.023336	0.0000	1.169	0.186
5	0.044987	0.044987	0.0000	1.169	0.098
6	0.070007	0.070007	0.0000	1.169	0.029
7	0.093824	0.093824	0.0000	1.169	-0.012
8	0.117641	0.117641	0.0000	1.169	-0.038
9	0.141217	0.141217	0.0000	1.169	-0.050
10	0.164793	0.164793	0.0000	1.169	-0.050
11	0.188610	0.188610	0.0000	1.169	-0.059
12	0.223734	0.223734	0.0000	1.169	-0.065
13	0.294222	0.294222	0.0000	1.169	-0.072

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	27.7	0.0	27.7	13.8	2.01	2.01	13.9	18.4	0.76
2	33.0	4.5	28.4	9.2	2.39	3.08	19.2	15.6	1.23
3	37.1	5.8	31.3	8.0	2.69	3.91	23.3	15.8	1.48
4	44.1	5.7	38.5	8.1	3.20	4.73	30.3	18.2	1.66
5	51.6	3.7	47.9	10.1	3.75	4.76	37.9	22.7	1.67
6	56.6	1.2	55.4	12.5	4.11	4.42	42.8	26.8	1.60
7	61.4	-0.6	61.9	14.3	4.45	4.32	47.6	30.2	1.58
8	61.1	-1.8	62.8	15.6	4.43	4.04	47.2	31.0	1.51
9	63.5	-2.5	66.0	16.3	4.61	4.06	49.7	32.8	1.51
10	63.0	-2.5	65.5	16.3	4.57	4.03	49.2	32.7	1.51
11	62.5	-2.9	65.4	16.7	4.53	3.92	48.7	32.9	1.48
12	62.9	-3.2	66.0	17.0	4.56	3.90	49.1	33.3	1.47
13	59.9	-3.3	63.2	17.1	4.35	3.70	46.1	32.5	1.42

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 588-600 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=165.4 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 28.0 CC
CELL PRESSURE =234.3 KPA
CONSOLIDATION PRESSURE =165.4 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.07	9.56 CM
VOID RATIO	= 1.217	0.923
AREA	= 2 01	19.21 CM2
PERCENT MOISTURE	= 43.39	32.87 PERCENT
WET DENSITY	= 18.07	19.03 KN/M3
DRY DENSITY	= 12.43	14.32 KN/M3
PERCENT SATURATION	=104.84	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.923	0.000
2	0.004519	0.004519	0.0000	0.923	0.369
3	0.021532	0.021532	0.0000	0.923	0.705
4	0.038544	0.038544	0.0000	0.923	0.735
5	0.055823	0.055823	0.0000	0.923	0.731
6	0.081874	0.081874	0.0000	0.923	0.708
7	0.108190	0.108190	0.0000	0.923	0.650
8	0.134507	0.134507	0.0000	0.923	0.641
9	0.160824	0.160824	0.0000	0.923	0.602
10	0.173849	0.173849	0.0000	0.923	0.593

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	165.4	0.0	165.4	165.4	1.00	1.00	0.0	165.4	0.00
2	211.7	17.1	194.6	148.3	1.28	1.31	46.3	163.7	0.28
3	269.9	73.7	196.2	91.6	1.63	2.14	104.5	126.5	0.83
4	290.4	91.9	198.5	73.5	1.76	2.70	125.1	115.1	1.09
5	300.2	98.5	201.6	66.8	1.82	3.02	134.8	111.8	1.21
6	308.1	101.0	207.1	64.4	1.86	3.22	142.7	111.9	1.28
7	319.1	99.9	219.2	65.5	1.93	3.35	153.7	116.7	1.32
8	317.3	97.4	219.9	67.9	1.92	3.24	151.9	118.6	1.28
9	323.3	95.1	228.2	70.3	1.96	3.25	158.0	122.9	1.28
10	323.5	93.8	229.7	71.5	1.96	3.21	158.1	124.2	1.27

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 600-612 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=165.4 KPA
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 26.0 CC
CELL PRESSURE =151.6 KPA
CONSOLIDATION PRESSURE = 82.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.46	9.99	CM
VOID RATIO	= 1.235	0.972	
AREA	= 21.08	19.46	CM2
PERCENT MOISTURE	= 42.03	34.59	PERCENT
WET DENSITY	= 17.31	18.81	KN/M3
DRY DENSITY	= 12.33	13.97	KN/M3
PERCENT SATURATION	= 95.60	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.971	0.000
2	0.006610	0.006610	0.0000	0.971	0.209
3	0.021356	0.021356	0.0000	0.971	0.290
4	0.035085	0.035085	0.0000	0.971	0.330
5	0.049069	0.049069	0.0000	0.971	0.341
6	0.077289	0.077289	0.0000	0.971	0.319
7	0.091527	0.091527	0.0000	0.971	0.304
8	0.120256	0.120256	0.0000	0.971	0.266
9	0.148477	0.148477	0.0000	0.971	0.235

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	82.7	0.0	82.7	82.7	1.00	1.00	0.0	82.7	0.00
2	130.5	10.0	120.5	72.7	1.58	1.66	47.8	88.6	0.54
3	156.3	21.4	135.0	61.3	1.89	2.20	73.6	85.9	0.86
4	167.2	27.9	139.3	54.8	2.02	2.54	84.6	83.0	1.02
5	174.6	31.4	143.3	51.3	2.11	2.79	91.9	82.0	1.12
6	185.1	32.7	152.3	50.0	2.24	3.05	102.4	84.1	1.22
7	189.1	32.4	156.7	50.3	2.29	3.12	106.4	85.8	1.24
8	195.4	30.0	165.4	52.7	2.36	3.14	112.7	90.3	1.25
9	198.7	27.2	171.5	55.5	2.40	3.09	116.0	94.1	1.23

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 612-628 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=165.4 KPA
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 21.1 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.80	10.42	CM
VOID RATIO	= 1.199	0.989	
AREA	= 20.47	19.19	CM2
PERCENT MOISTURE	= 41.34	35.20	PERCENT
WET DENSITY	= 17.71	18.73	KN/M3
DRY DENSITY	= 12.53	13.85	KN/M3
PERCENT SATURATION	= 96.90	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.989	0.000
2	0.010722	0.010722	0.0000	0.989	0.034
3	0.018032	0.018032	0.0000	0.989	0.017
4	0.037039	0.037039	0.0000	0.989	0.000
5	0.063843	0.063843	0.0000	0.989	-0.027
6	0.090891	0.090891	0.0000	0.989	-0.059
7	0.118669	0.118669	0.0000	0.989	-0.091
8	0.145961	0.145961	0.0000	0.989	-0.117
9	0.187386	0.187386	0.0000	0.989	-0.149
10	0.215165	0.215165	0.0000	0.989	-0.163
11	0.265362	0.265362	0.0000	0.989	-0.178

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	91.6	1.7	89.9	39.6	2.22	2.27	50.2	56.4	0.89
3	101.3	1.0	100.3	40.3	2.45	2.49	60.0	60.3	0.99
4	117.6	0.0	117.6	41.3	2.85	2.85	76.3	66.8	1.14
5	131.8	-2.4	134.2	43.8	3.19	3.07	90.5	73.9	1.22
6	141.2	-5.9	147.1	47.2	3.42	3.12	99.9	80.5	1.24
7	147.1	-9.6	156.7	51.0	3.56	3.07	105.7	86.2	1.23
8	150.7	-12.7	163.4	54.1	3.65	3.02	109.4	90.5	1.21
9	152.0	-16.5	168.5	57.9	3.68	2.91	110.6	94.8	1.17
10	151.3	-17.9	169.2	59.3	3.66	2.86	109.9	95.9	1.15
11	149.6	-19.3	168.9	60.6	3.62	2.79	108.3	96.7	1.12

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 636-649 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=248.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 32.6 CC
CELL PRESSURE =317.0 KPA
CONSOLIDATION PRESSURE =248.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.01	10.35	CM
VOID RATIO	= 1.189	0.855	
AREA	= 19.99	18.02	CM2
PERCENT MOISTURE	= 43.44	30.43	PERCENT
WET DENSITY	= 18.05	19.37	KN/M3
DRY DENSITY	= 12.59	14.85	KN/M3
PERCENT SATURATION	=102.64	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.854	0.000
2	0.001228	0.001228	0.0000	0.854	0.037
3	0.006138	0.006138	0.0000	0.854	0.090
4	0.010557	0.010557	0.0000	0.854	0.129
5	0.022341	0.022341	0.0000	0.854	0.213
6	0.045910	0.045910	0.0000	0.854	0.332
7	0.069970	0.069970	0.0000	0.854	0.390
8	0.094030	0.094030	0.0000	0.854	0.425
9	0.118580	0.118580	0.0000	0.854	0.437
10	0.142295	0.142295	0.0000	0.854	0.441
11	0.164736	0.164736	0.0000	0.854	0.442
12	0.183149	0.183149	0.0000	0.854	0.449
13	0.214328	0.214328	0.0000	0.854	0.450

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	248.1	0.0	248.1	248.1	1.00	1.00	0.0	248.1	0.00
2	306.9	2.2	304.7	245.8	1.24	1.24	58.8	265.5	0.22
3	348.6	9.1	339.5	239.0	1.41	1.42	100.5	272.5	0.37
4	365.7	15.2	350.6	232.9	1.47	1.51	117.7	272.1	0.43
5	395.8	31.4	364.4	216.6	1.60	1.68	147.8	265.9	0.56
6	428.3	59.9	368.4	188.1	1.73	1.96	180.3	248.2	0.73
7	453.7	80.3	373.4	167.7	1.83	2.23	205.7	236.3	0.87
8	467.6	93.3	374.3	154.8	1.88	2.42	219.5	227.9	0.96
9	478.3	100.6	377.7	147.5	1.93	2.56	230.2	224.2	1.03
10	483.5	103.8	379.7	144.3	1.95	2.63	235.4	223.8	1.06
11	482.0	103.5	378.5	144.6	1.94	2.62	233.9	222.5	1.05
12	477.7	103.2	374.5	144.8	1.93	2.59	229.7	221.4	1.04
13	470.7	100.3	370.4	147.7	1.90	2.51	222.7	222.0	1.00

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 649-662 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=248.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 29.3 CC
CELL PRESSURE =130.9 KPA
CONSOLIDATION PRESSURE = 62.0 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.84	10.27 CM
VOID RATIO	= 1.192	0.896
AREA	= 19.99	18.24 CM2
PERCENT MOISTURE	= 42.00	31.89 PERCENT
WET DENSITY	= 17.85	19.17 KN/M3
DRY DENSITY	= 12.57	14.53 KN/M3
PERCENT SATURATION	= 98.98	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.895	0.000
2	0.007418	0.007418	0.0000	0.895	0.085
3	0.014094	0.014094	0.0000	0.895	0.155
4	0.025220	0.025220	0.0000	0.895	0.107
5	0.038819	0.038819	0.0000	0.895	0.094
6	0.069232	0.069232	0.0000	0.895	0.059
7	0.105826	0.105826	0.0000	0.895	0.033
8	0.142914	0.142914	0.0000	0.895	0.003
9	0.180002	0.180002	0.0000	0.895	-0.029
10	0.240086	0.240086	0.0000	0.895	-0.053

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	62.0	0.0	62.0	62.0	1.00	1.00	0.0	62.0	0.00
2	78.2	1.4	76.8	60.6	1.26	1.27	16.2	66.0	0.25
3	117.7	8.6	109.1	53.4	1.90	2.04	55.7	72.0	0.77
4	142.3	8.6	133.7	53.4	2.29	2.50	80.3	80.2	1.00
5	156.9	9.0	147.9	53.1	2.53	2.79	94.8	84.7	1.12
6	173.3	6.5	166.7	55.5	2.79	3.01	111.2	92.5	1.20
7	185.5	4.1	181.4	57.9	2.99	3.13	123.5	99.0	1.25
8	192.0	0.3	191.7	61.7	3.10	3.11	130.0	105.0	1.24
9	193.6	-3.8	197.4	65.8	3.12	3.00	131.6	109.7	1.20
10	191.4	-6.9	198.3	68.9	3.09	2.88	129.4	112.0	1.15

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 662-676 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=248.0
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 28.0 CC
CELL PRESSURE = 99.9 KPA
CONSOLIDATION PRESSURE = 31.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	10.25	CM
VOID RATIO	= 1.235	0.946	
AREA	= 20.06	18.38	CM2
PERCENT MOISTURE	= 42.51	33.67	PERCENT
WET DENSITY	= 17.57	18.92	KN/M3
DRY DENSITY	= 12.33	14.16	KN/M3
PERCENT SATURATION	= 96.70	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.946	0.000
2	0.010405	0.010405	0.0000	0.946	-0.013
3	0.021802	0.021802	0.0000	0.946	-0.067
4	0.033446	0.033446	0.0000	0.946	-0.092
5	0.045090	0.045090	0.0000	0.946	-0.113
6	0.069121	0.069121	0.0000	0.946	-0.150
7	0.092905	0.092905	0.0000	0.946	-0.171
8	0.117184	0.117184	0.0000	0.946	-0.194
9	0.141711	0.141711	0.0000	0.946	-0.208
10	0.166486	0.166486	0.0000	0.946	-0.216
11	0.190765	0.190765	0.0000	0.946	-0.225
12	0.215292	0.215292	0.0000	0.946	-0.242

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	31.0	0.0	31.0	31.0	1.00	1.00	0.0	31.0	0.00
2	92.4	-0.8	93.2	31.8	2.98	2.93	61.4	52.3	1.17
3	104.7	-5.0	109.6	36.0	3.38	3.05	73.7	60.5	1.22
4	117.7	-8.0	125.7	39.0	3.80	3.22	86.7	67.9	1.28
5	125.1	-10.6	135.8	41.6	4.04	3.26	94.1	73.0	1.29
6	134.1	-15.4	149.6	46.4	4.33	3.22	103.1	80.8	1.28
7	143.5	-19.3	162.8	50.3	4.63	3.24	112.5	87.8	1.28
8	147.4	-22.6	170.0	53.6	4.75	3.17	116.4	92.4	1.26
9	148.9	-24.5	173.4	55.5	4.80	3.12	117.9	94.8	1.24
10	151.0	-25.9	176.9	56.9	4.87	3.11	120.0	96.9	1.24
11	152.9	-27.4	180.3	58.4	4.93	3.09	121.9	99.1	1.23
12	149.2	-28.7	177.9	59.7	4.81	2.98	119.2	99.1	1.19

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 183-195 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS (NATURAL)
MEASURED VOLUME CHANGE = 7.7 CC
CELL PRESSURE = 92.3 KPA
CONSOLIDATION PRESSURE = 23.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.58	10.45	CM
VOID RATIO	= 1.276	1.194	
AREA	= 20.33	19.85	CM2
PERCENT MOISTURE	= 45.32	42.67	PERCENT
WET DENSITY	= 17.52	17.84	KN/M3
DRY DENSITY	= 12.06	12.51	KN/M3
PERCENT SATURATION	= 99.43	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.194	0.000
2	0.001701	0.001701	0.0000	1.194	0.591
3	0.007290	0.007290	0.0000	1.194	0.732
4	0.011786	0.011786	0.0000	1.194	0.521
5	0.017496	0.017496	0.0000	1.194	0.489
6	0.031105	0.031105	0.0000	1.194	0.401
7	0.060994	0.060994	0.0000	1.194	0.256
8	0.091370	0.091370	0.0000	1.194	0.156
9	0.121867	0.121867	0.0000	1.194	0.105
10	0.152972	0.152972	0.0000	1.194	0.087
11	0.183712	0.183712	0.0000	1.194	0.082
12	0.214452	0.214452	0.0000	1.194	0.079

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	23.4	0.0	23.4	23.4	1.00	1.00	0.0	23.4	0.00
2	26.9	2.1	24.8	21.4	1.15	1.16	3.5	22.5	0.15
3	28.1	3.4	24.6	20.0	1.20	1.23	4.7	21.5	0.22
4	38.3	7.9	30.4	15.5	1.64	1.96	14.9	20.5	0.73
5	44.5	10.3	34.2	13.1	1.90	2.61	21.1	20.1	1.05
6	54.3	12.4	41.9	11.0	2.32	3.80	30.9	21.3	1.45
7	67.7	11.4	56.3	12.1	2.89	4.67	44.3	26.8	1.65
8	76.4	8.3	68.1	15.2	3.26	4.49	53.0	32.3	1.61
9	79.4	5.9	73.5	17.6	3.39	4.18	55.9	36.2	1.54
10	78.9	4.8	74.0	18.6	3.37	3.98	55.4	37.1	1.49
11	77.8	4.5	73.4	18.9	3.32	3.87	54.4	37.1	1.47
12	75.4	4.1	71.3	19.3	3.22	3.69	52.0	36.6	1.42

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 195-207 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 4.2 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.04	10.97	CM
VOID RATIO	= 1.335	1.291	
AREA	= 20.40	20.15	CM2
PERCENT MOISTURE	= 46.88	46.13	PERCENT
WET DENSITY	= 17.27	17.50	KN/M3
DRY DENSITY	= 11.76	11.98	KN/M3
PERCENT SATURATION	= 98.31	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.290	0.000
2	0.007525	0.007525	0.0000	1.290	0.586
3	0.015049	0.015049	0.0000	1.290	0.430
4	0.022574	0.022574	0.0000	1.290	0.338
5	0.037855	0.037855	0.0000	1.290	0.231
6	0.060776	0.060776	0.0000	1.290	0.142
7	0.083813	0.083813	0.0000	1.290	0.067
8	0.114259	0.114259	0.0000	1.290	0.011
9	0.129540	0.129540	0.0000	1.290	-0.003
10	0.159985	0.159985	0.0000	1.290	-0.011
11	0.182559	0.182559	0.0000	1.290	-0.006
12	0.205365	0.205365	0.0000	1.290	-0.006

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	13.8	0.0	13.8	13.8	1.00	1.00	0.0	13.8	0.00
2	17.0	1.9	15.1	11.9	1.24	1.27	3.2	12.9	0.25
3	28.8	6.5	22.3	7.3	2.09	3.06	15.0	12.3	1.22
4	36.1	7.6	28.6	6.2	2.62	4.61	22.4	13.7	1.64
5	44.2	7.0	37.1	6.8	3.21	5.50	30.4	16.9	1.80
6	52.7	5.5	47.1	8.3	3.82	5.70	38.9	21.2	1.83
7	58.7	3.0	55.7	10.7	4.26	5.19	44.9	25.7	1.75
8	63.0	0.6	62.4	13.2	4.57	4.72	49.2	29.6	1.66
9	64.0	-0.1	64.2	13.9	4.65	4.61	50.3	30.7	1.64
10	63.2	-0.6	63.7	14.3	4.59	4.45	49.4	30.8	1.60
11	62.8	-0.3	63.0	14.1	4.55	4.48	49.0	30.4	1.61
12	63.1	-0.3	63.4	14.1	4.58	4.51	49.3	30.5	1.62

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 207-223 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 11.3 CC
CELL PRESSURE =117.1 KPA
CONSOLIDATION PRESSURE = 48.2 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.74	10.55 CM
VOID RATIO	= 1.264	1.146
AREA	= 20.13	19.43 CM2
PERCENT MOISTURE	= 45.22	40.93 PERCENT
WET DENSITY	= 17.60	18.03 KN/M3
DRY DENSITY	= 12.12	12.79 KN/M3
PERCENT SATURATION	=100.13	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.145	0.000
2	0.002890	0.002890	0.0000	1.145	0.858
3	0.004455	0.004455	0.0000	1.145	0.541
4	0.006864	0.006864	0.0000	1.145	0.652
5	0.009152	0.009152	0.0000	1.145	0.704
6	0.022758	0.022758	0.0000	1.145	0.564
7	0.045999	0.045999	0.0000	1.145	0.480
8	0.069359	0.069359	0.0000	1.145	0.408
9	0.100788	0.100788	0.0000	1.145	0.381
10	0.156299	0.156299	0.0000	1.145	0.379
11	0.203863	0.203863	0.0000	1.145	0.394

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	48.2	0.0	48.2	48.2	1.00	1.00	0.0	48.2	0.00
2	50.4	1.9	48.5	46.3	1.05	1.05	2.2	47.0	0.05
3	61.4	7.2	54.3	41.1	1.27	1.32	13.2	45.5	0.29
4	70.2	14.3	55.8	33.9	1.45	1.65	21.9	41.2	0.53
5	75.6	19.3	56.3	28.9	1.57	1.94	27.3	38.1	0.72
6	94.6	26.2	68.4	22.0	1.96	3.10	46.4	37.5	1.24
7	106.2	27.8	78.3	20.4	2.20	3.84	57.9	39.7	1.46
8	114.0	26.9	87.1	21.4	2.36	4.08	65.8	43.3	1.52
9	114.7	25.4	89.4	22.9	2.38	3.91	66.5	45.0	1.48
10	114.4	25.1	89.3	23.2	2.37	3.86	66.1	45.2	1.46
11	113.3	25.6	87.6	22.6	2.35	3.88	65.0	44.3	1.47

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 333-346 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=379.9 KPA
OVERCONSOLIDATON RATIO = 1.00
MEASURED VOLUME CHANGE = 41.7 CC
CELL PRESSURE =447.9 KPA
CONSOLIDATION PRESSURE =379.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.23	10.39	CM
VOID RATIO	= 1.074	0.695	
AREA	= 20.03	17.96	CM2
PERCENT MOISTURE	= 40.38	25.28	PERCENT
WET DENSITY	= 18.21	19.93	KN/M3
DRY DENSITY	= 13.00	15.91	KN/M3
PERCENT SATURATION	=102.64	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.695	0.000
2	0.001711	0.001711	0.0000	0.695	0.235
3	0.004889	0.004889	0.0000	0.695	0.253
4	0.010267	0.010267	0.0000	0.695	0.425
5	0.021267	0.021267	0.0000	0.695	0.676
6	0.043756	0.043756	0.0000	0.695	0.884
7	0.066490	0.066490	0.0000	0.695	0.933
8	0.089957	0.089957	0.0000	0.695	0.977
9	0.125647	0.125647	0.0000	0.695	1.005
10	0.174292	0.174292	0.0000	0.695	1.070
11	0.198492	0.198492	0.0000	0.695	1.075
12	0.225871	0.225871	0.0000	0.695	1.155

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	379.0	0.0	379.0	379.0	1.00	1.00	0.0	379.0	0.00
2	403.0	5.7	397.3	373.3	1.06	1.06	24.0	381.3	0.06
3	481.2	25.9	455.3	353.1	1.27	1.29	102.2	387.1	0.26
4	530.4	64.4	466.1	314.6	1.40	1.48	151.4	365.1	0.41
5	580.1	136.0	444.1	243.0	1.53	1.83	201.1	310.0	0.65
6	613.1	207.0	406.1	172.0	1.62	2.36	234.1	250.0	0.94
7	627.9	232.2	395.7	146.8	1.66	2.70	249.0	229.8	1.08
8	627.6	243.0	384.7	136.0	1.66	2.83	248.7	218.9	1.14
9	628.4	250.8	377.6	128.2	1.66	2.95	249.4	211.3	1.18
10	618.1	256.0	362.1	122.9	1.63	2.95	239.2	202.6	1.18
11	619.0	258.0	361.0	121.0	1.63	2.98	240.0	201.0	1.19
12	604.0	259.9	344.1	119.1	1.59	2.89	225.1	194.1	1.16

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 346-358 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=378.8 KPA
OVERCONSOLIDATON RATIO = 2.00
MEASURED VOLUME CHANGE = 29.6 CC
CELL PRESSURE =258.4 KPA
CONSOLIDATION PRESSURE =189.5 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.78	10.23 CM
VOID RATIO	= 1.100	0.824
AREA	= 20.88	19.09 CM2
PERCENT MOISTURE	= 39.48	29.96 PERCENT
WET DENSITY	= 17.91	19.21 KN/M3
DRY DENSITY	= 12.84	14.78 KN/M3
PERCENT SATURATION	= 98.70	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.823	0.000
2	0.001241	0.001241	0.0000	0.823	0.096
3	0.002482	0.002482	0.0000	0.823	0.189
4	0.007942	0.007942	0.0000	0.823	0.262
5	0.022833	0.022833	0.0000	0.823	0.362
6	0.033754	0.033754	0.0000	0.823	0.407
7	0.052368	0.052368	0.0000	0.823	0.450
8	0.079917	0.079917	0.0000	0.823	0.487
9	0.117394	0.117394	0.0000	0.823	0.507
10	0.155119	0.155119	0.0000	0.823	0.532
11	0.175718	0.175718	0.0000	0.823	0.556

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	189.5	0.0	189.5	189.5	1.00	1.00	0.0	189.5	0.00
2	210.9	2.1	208.8	187.4	1.11	1.11	21.4	194.5	0.11
3	236.7	9.0	227.8	180.5	1.25	1.26	47.3	196.3	0.24
4	290.6	26.5	264.1	163.0	1.53	1.62	101.2	196.7	0.51
5	333.1	52.0	281.0	137.5	1.76	2.04	143.6	185.3	0.77
6	346.1	63.7	282.4	125.7	1.83	2.25	156.6	178.0	0.88
7	356.3	75.1	281.2	114.4	1.88	2.46	166.8	170.0	0.98
8	362.7	84.4	278.3	105.1	1.91	2.65	173.3	162.8	1.06
9	364.0	88.5	275.4	100.9	1.92	2.73	174.5	159.1	1.10
10	359.8	90.6	269.1	98.9	1.90	2.72	170.3	155.6	1.09
11	354.8	92.0	262.8	97.5	1.87	2.70	165.3	152.6	1.08

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 358-373 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=378.8 KPA
OVERCONSOLIDATON RATIO = 3.99
MEASURED VOLUME CHANGE = 29.8 CC
CELL PRESSURE =164.0 KPA
CONSOLIDATION PRESSURE = 95.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.87	10.31	CM
VOID RATIO	= 1.225	0.926	
AREA	= 20.40	18.62	CM2
PERCENT MOISTURE	= 46.00	33.68	PERCENT
WET DENSITY	= 17.69	18.71	KN/M3
DRY DENSITY	= 12.12	14.00	KN/M3
PERCENT SATURATION	=103.27	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.925	0.000
2	0.004928	0.004928	0.0000	0.925	0.107
3	0.007884	0.007884	0.0000	0.925	0.183
4	0.017247	0.017247	0.0000	0.925	0.165
5	0.036219	0.036219	0.0000	0.925	0.113
6	0.055191	0.055191	0.0000	0.925	0.098
7	0.084019	0.084019	0.0000	0.925	0.090
8	0.113339	0.113339	0.0000	0.925	0.087
9	0.142659	0.142659	0.0000	0.925	0.088
10	0.171733	0.171733	0.0000	0.925	0.091

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	95.1	0.0	95.1	95.1	1.00	1.00	0.0	95.1	0.00
2	123.3	3.0	120.2	92.1	1.30	1.31	28.2	101.5	0.28
3	152.4	10.5	141.9	84.6	1.60	1.68	57.3	103.7	0.55
4	193.6	16.3	177.3	78.8	2.04	2.25	98.5	111.7	0.88
5	229.5	15.2	214.3	79.9	2.41	2.68	134.4	124.7	1.08
6	241.2	14.3	226.9	80.8	2.54	2.81	146.2	129.6	1.13
7	251.7	14.1	237.7	81.0	2.65	2.93	156.7	133.3	1.18
8	253.5	13.8	239.7	81.3	2.67	2.95	158.4	134.1	1.18
9	252.9	13.9	239.0	81.1	2.66	2.94	157.8	133.8	1.18
10	250.3	14.2	236.1	80.9	2.63	2.92	155.2	132.6	1.17

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 368-380 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.84
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 15.0 CC
CELL PRESSURE	=168.1 KPA
CONSOLIDATION PRESSURE	= 99.2 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 11.35	11.10 CM
VOID RATIO	= 1.092	0.963
AREA	= 21.36	20.49 CM2
PERCENT MOISTURE	= 36.85	33.90 PERCENT
WET DENSITY	= 18.22	19.00 KN/M3
DRY DENSITY	= 13.31	14.19 KN/M3
PERCENT SATURATION	= 95.83	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.962	0.000
2	0.014982	0.014982	0.0000	0.962	0.726
3	0.022188	0.022188	0.0000	0.962	0.733
4	0.027220	0.027220	0.0000	0.962	0.716
5	0.045062	0.045062	0.0000	0.962	0.624
6	0.057299	0.057299	0.0000	0.962	0.566
7	0.067935	0.067935	0.0000	0.962	0.519
8	0.090695	0.090695	0.0000	0.962	0.450
9	0.113569	0.113569	0.0000	0.962	0.405
10	0.136214	0.136214	0.0000	0.962	0.385
11	0.170639	0.170639	0.0000	0.962	0.378
12	0.181275	0.181275	0.0000	0.962	0.381
13	0.203806	0.203806	0.0000	0.962	0.384

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	99.2	0.0	99.2	99.2	1.00	1.00	0.0	99.2	0.00
2	152.5	38.7	113.8	60.5	1.54	1.88	53.3	78.3	0.68
3	165.3	48.5	116.8	50.7	1.67	2.30	66.1	72.8	0.91
4	172.1	52.2	119.9	47.0	1.73	2.55	72.9	71.3	1.02
5	190.6	57.1	133.6	42.2	1.92	3.17	91.4	72.6	1.26
6	200.2	57.2	143.1	42.0	2.02	3.40	101.0	75.7	1.33
7	207.8	56.4	151.5	42.9	2.09	3.53	108.6	79.1	1.37
8	218.4	53.6	164.8	45.6	2.20	3.61	119.2	85.3	1.40
9	224.6	50.9	173.8	48.4	2.26	3.59	125.4	90.2	1.39
10	225.9	48.8	177.2	50.4	2.28	3.51	126.7	92.7	1.37
11	224.3	47.3	177.1	52.0	2.26	3.41	125.1	93.7	1.34
12	223.6	47.4	176.2	51.8	2.25	3.40	124.4	93.3	1.33
13	222.6	47.4	175.2	51.8	2.24	3.38	123.4	93.0	1.33

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS 79-2679
BORING NUMBER IS ED-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 380-392 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.84
MEASURED VOLUME CHANGE = 9.8 CC
PRECONSOLIDATION STRESS(NATURAL)
CELL PRESSURE =118.5 KPA
CONSOLIDATION PRESSURE = 49.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	10.69	CM
VOID RATIO	= 1.092	1.000	
AREA	= 20.47	19.87	CM2
PERCENT MOISTURE	= 38.20	35.21	PERCENT
WET DENSITY	= 18.39	18.83	KN/M3
DRY DENSITY	= 13.31	13.92	KN/M3
PERCENT SATURATION	= 99.31	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.999	0.000
2	0.006417	0.006417	0.0000	0.999	1.768
3	0.010338	0.010338	0.0000	0.999	0.787
4	0.018538	0.018538	0.0000	0.999	0.680
5	0.027094	0.027094	0.0000	0.999	0.624
6	0.038620	0.038620	0.0000	0.999	0.533
7	0.048959	0.048959	0.0000	0.999	0.455
8	0.070705	0.070705	0.0000	0.999	0.324
9	0.092689	0.092689	0.0000	0.999	0.236
10	0.113029	0.113029	0.0000	0.999	0.174
11	0.149728	0.149728	0.0000	0.999	0.117
12	0.177060	0.177060	0.0000	0.999	0.097
13	0.185140	0.185140	0.0000	0.999	0.100

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	49.6	0.0	49.6	49.6	1.00	1.00	0.0	49.6	0.00
2	52.3	4.8	47.5	44.8	1.05	1.06	2.7	45.7	0.06
3	71.5	17.2	54.2	32.4	1.44	1.67	21.8	39.7	0.55
4	84.0	23.4	60.6	26.2	1.69	2.31	34.4	37.7	0.91
5	92.1	26.5	65.6	23.1	1.86	2.84	42.5	37.2	1.14
6	101.3	27.6	73.7	22.0	2.04	3.34	51.6	39.3	1.32
7	108.6	26.9	81.8	22.7	2.19	3.60	59.0	42.4	1.39
8	123.0	23.8	99.2	25.8	2.48	3.84	73.4	50.3	1.46
9	134.2	20.0	114.2	29.6	2.70	3.85	84.6	57.8	1.46
10	140.6	15.8	124.7	33.8	2.82	3.69	91.0	64.1	1.42
11	144.1	11.0	133.1	38.6	2.90	3.45	94.5	70.1	1.35
12	145.1	9.3	135.8	40.3	2.92	3.37	95.5	72.1	1.32
13	142.8	9.3	133.5	40.3	2.88	3.31	93.1	71.4	1.31

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 392-404

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.84
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 5.6 CC
CELL PRESSURE = 93.7 KPA
CONSOLIDATION PRESSURE = 24.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.01	10.91	CM
VOID RATIO	= 1.102	1.049	
AREA	= 20.40	20.06	CM2
PERCENT MOISTURE	= 38.46	36.95	PERCENT
WET DENSITY	= 18.34	18.61	KN/M3
DRY DENSITY	= 13.25	13.59	KN/M3
PERCENT SATURATION	= 99.14	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.049	0.000
2	0.004539	0.004539	0.0000	1.049	0.566
3	0.006052	0.006052	0.0000	1.049	0.400
4	0.012452	0.012452	0.0000	1.049	0.431
5	0.021762	0.021762	0.0000	1.049	0.391
6	0.030142	0.030142	0.0000	1.049	0.341
7	0.046900	0.046900	0.0000	1.049	0.253
8	0.066335	0.066335	0.0000	1.049	0.161
9	0.107765	0.107765	0.0000	1.049	0.032
10	0.123825	0.123825	0.0000	1.049	0.003
11	0.177940	0.177940	0.0000	1.049	-0.062
12	0.184224	0.184224	0.0000	1.049	-0.068
13	0.202961	0.202961	0.0000	1.049	-0.073
14	0.204823	0.204823	0.0000	1.049	-0.073

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P.
							CAMBRIDGE PARAMETERS		
1	24.8	0.0	24.8	24.8	1.00	1.00	0.0	24.8	0.00
2	29.1	2.5	26.7	22.3	1.17	1.19	4.3	23.8	0.18
3	38.9	5.7	33.2	19.2	1.57	1.73	14.1	23.8	0.59
4	53.9	12.5	41.3	12.3	2.17	3.37	29.0	21.9	1.32
5	64.2	15.4	48.8	9.4	2.59	5.21	39.4	22.5	1.75
6	71.3	15.8	55.4	9.0	2.87	6.19	46.5	24.5	1.90
7	81.9	14.5	67.4	10.3	3.30	6.53	57.1	29.4	1.94
8	96.0	11.4	84.6	13.4	3.87	6.33	71.2	37.1	1.92
9	114.2	2.9	111.3	21.9	4.60	5.08	89.4	51.7	1.73
10	116.4	0.3	116.2	24.5	4.69	4.74	91.6	55.1	1.66
11	116.1	-5.7	121.8	30.5	4.68	4.00	91.3	60.9	1.50
12	114.6	-6.1	120.6	30.9	4.62	3.91	89.8	60.8	1.48
13	115.1	-6.6	121.7	31.4	4.64	3.87	90.3	61.5	1.47
14	115.8	-6.6	122.4	31.4	4.67	3.89	91.0	61.7	1.47

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS JD # 404-418 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.84
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 6.1 CC
CELL PRESSURE = 86.1 KPA
CONSOLIDATION PRESSURE = 17.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.43	10.24	CM
VOID RATIO	= 0.964	0.900	
AREA	= 20.88	20.57	CM2
PERCENT MOISTURE	= 32.46	31.68	PERCENT
WET DENSITY	= 18.78	19.30	KN/M3
DRY DENSITY	= 14.18	14.66	KN/M3
PERCENT SATURATION	= 95.57	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.899	0.000
2	0.002481	0.002481	0.0000	0.899	0.065
3	0.015632	0.015632	0.0000	0.899	0.205
4	0.027542	0.027542	0.0000	0.899	0.170
5	0.039452	0.039452	0.0000	0.899	0.120
6	0.063768	0.063768	0.0000	0.899	0.041
7	0.088084	0.088084	0.0000	0.899	-0.024
8	0.112400	0.112400	0.0000	0.899	-0.065
9	0.149123	0.149123	0.0000	0.899	-0.108
10	0.198004	0.198004	0.0000	0.899	-0.144
11	0.246140	0.246140	0.0000	0.899	-0.154
12	0.319088	0.319088	0.0000	0.899	-0.170

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	33.2	0.0	33.2	17.2	1.93	1.93	16.0	22.5	0.71
2	38.5	1.4	37.1	15.8	2.23	2.34	21.2	22.9	0.93
3	50.8	6.9	43.9	10.1	2.95	4.24	33.5	21.5	1.56
4	58.6	7.0	51.6	10.2	3.40	5.06	41.4	24.0	1.73
5	65.3	5.8	59.5	11.4	3.79	5.20	48.1	27.5	1.75
6	77.0	2.5	74.5	14.7	4.47	5.06	59.8	34.7	1.72
7	85.2	-1.7	86.8	18.9	4.94	4.60	67.9	41.5	1.64
8	89.0	-4.7	93.7	21.9	5.17	4.28	71.8	45.8	1.57
9	89.7	-7.9	97.5	25.1	5.21	3.89	72.3	49.2	1.47
10	88.9	-10.3	99.3	27.6	5.16	3.60	71.7	51.5	1.39
11	88.6	-11.0	99.7	28.3	5.15	3.53	71.4	52.1	1.37
12	86.1	-11.7	97.8	28.9	5.00	3.38	68.9	51.9	1.33

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 452-465 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=578.5 KPA
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 34.5 CC
CELL PRESSURE =358.3 KPA
CONSOLIDATION PRESSURE =289.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.77	10.11	CM
VOID RATIO	= 0.982	0.676	
AREA	= 20.74	18.67	CM2
PERCENT MOISTURE	= 34.01	24.23	PERCENT
WET DENSITY	= 18.50	20.28	KN/M3
DRY DENSITY	= 13.80	16.32	KN/M3
PERCENT SATURATION	= 96.65	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.675	0.000
2	0.001005	0.001005	0.0000	0.675	0.172
3	0.002762	0.002762	0.0000	0.675	0.074
4	0.005023	0.005023	0.0000	0.675	0.102
5	0.011050	0.011050	0.0000	0.675	0.147
6	0.018584	0.018584	0.0000	0.675	0.194
7	0.034908	0.034908	0.0000	0.675	0.267
8	0.061277	0.061277	0.0000	0.675	0.315
9	0.088148	0.088148	0.0000	0.675	0.319
10	0.116777	0.116777	0.0000	0.675	0.307
11	0.147165	0.147165	0.0000	0.675	0.288
12	0.193876	0.193876	0.0000	0.675	0.267
13	0.222254	0.222254	0.0000	0.675	0.268

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	289.4	0.0	289.4	289.4	1.00	1.00	0.0	289.4	0.00
2	305.4	2.8	302.6	286.6	1.06	1.06	16.0	292.0	0.05
3	368.1	5.9	362.2	283.5	1.27	1.28	78.7	309.8	0.25
4	404.0	11.7	392.3	277.7	1.40	1.41	114.6	315.9	0.36
5	460.1	25.1	434.9	264.2	1.59	1.65	170.7	321.1	0.53
6	493.9	39.6	454.3	249.8	1.71	1.82	204.6	318.0	0.64
7	537.3	66.1	471.1	223.2	1.86	2.11	247.9	305.9	0.81
8	574.1	89.6	484.6	199.8	1.98	2.42	284.7	294.7	0.97
9	593.8	97.2	496.6	192.2	2.05	2.58	304.4	293.7	1.04
10	604.3	96.8	507.5	192.6	2.09	2.64	314.9	297.6	1.06
11	610.0	92.3	517.7	197.1	2.11	2.63	320.6	303.9	1.05
12	607.3	84.8	522.5	204.5	2.10	2.55	317.9	310.6	1.02
13	595.7	82.0	513.7	207.4	2.06	2.48	306.3	309.5	0.99

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS JD @ 465-479 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=578.8 KPA
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 35.2 CC
CELL PRESSURE =647.7 KPA
CONSOLIDATION PRESSURE =578.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.01	10.34	CM
VOID RATIO	= 0.958	0.655	
AREA	= 20.67	18.61	CM2
PERCENT MOISTURE	= 34.99	23.49	PERCENT
WET DENSITY	= 18.86	20.41	KN/M3
DRY DENSITY	= 13.97	16.53	KN/M3
PERCENT SATURATION	=101.38	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.655	0.000
2	0.014008	0.014008	0.0000	0.655	0.346
3	0.028508	0.028508	0.0000	0.655	0.720
4	0.046448	0.046448	0.0000	0.655	0.839
5	0.072989	0.072989	0.0000	0.655	0.852
6	0.102972	0.102972	0.0000	0.655	0.814
7	0.133199	0.133199	0.0000	0.655	0.783
8	0.148436	0.148436	0.0000	0.655	0.772
9	0.178664	0.178664	0.0000	0.655	0.755
10	0.217739	0.217739	0.0000	0.655	0.761
11	0.238874	0.238874	0.0000	0.655	0.753

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	578.8	0.0	578.8	578.8	1.00	1.00	0.0	578.8	0.00
2	781.2	70.0	711.2	508.8	1.35	1.40	202.5	576.3	0.35
3	896.3	228.5	667.8	350.3	1.55	1.91	317.5	456.1	0.70
4	947.3	309.5	638.3	269.3	1.64	2.37	369.0	392.3	0.94
5	980.4	342.2	638.2	226.6	1.69	2.70	401.6	370.5	1.08
6	1003.1	345.6	657.5	233.2	1.73	2.82	424.3	374.6	1.13
7	1012.1	339.3	672.8	239.5	1.75	2.81	433.3	383.9	1.13
8	1013.6	335.7	677.9	243.1	1.75	2.79	434.8	388.0	1.12
9	1014.1	328.8	685.3	250.0	1.75	2.74	435.3	395.1	1.10
10	1004.3	324.0	680.3	254.8	1.74	2.67	425.5	396.6	1.07
11	1004.3	320.3	684.0	258.5	1.74	2.65	425.5	400.4	1.06

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 478-492 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=578.5 KPA
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 35.5 CC
CELL PRESSURE =213.6 KPA
CONSOLIDATION PRESSURE =144.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.94	9.26	CM
VOID RATIO	= 0.957	0.626	
AREA	= 21.08	18.79	CM2
PERCENT MOISTURE	= 33.29	22.43	PERCENT
WET DENSITY	= 18.63	20.60	KN/M3
DRY DENSITY	= 13.98	16.83	KN/M3
PERCENT SATURATION	= 97.04	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.625	0.000
2	0.003016	0.003016	0.0000	0.625	0.017
3	0.005209	0.005209	0.0000	0.625	0.020
4	0.010144	0.010144	0.0000	0.625	0.039
5	0.019466	0.019466	0.0000	0.625	0.037
6	0.030707	0.030707	0.0000	0.625	0.034
7	0.035916	0.035916	0.0000	0.625	0.033
8	0.041125	0.041125	0.0000	0.625	0.031
9	0.057575	0.057575	0.0000	0.625	0.025
10	0.084992	0.084992	0.0000	0.625	0.006
11	0.112408	0.112408	0.0000	0.625	-0.014
12	0.140373	0.140373	0.0000	0.625	-0.031
13	0.168613	0.168613	0.0000	0.625	-0.048

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	144.7	0.0	144.7	144.7	1.00	1.00	0.0	144.7	0.00
2	207.8	1.1	206.6	143.6	1.44	1.44	63.1	164.6	0.38
3	252.7	2.2	250.5	142.5	1.75	1.76	108.0	178.5	0.61
4	299.1	6.1	293.1	138.6	2.07	2.11	154.4	190.1	0.81
5	343.1	7.4	335.7	137.3	2.37	2.45	198.4	203.4	0.98
6	369.5	7.7	361.8	137.0	2.55	2.64	224.8	211.9	1.06
7	378.4	7.7	370.7	137.0	2.62	2.71	233.7	214.9	1.09
8	387.3	7.6	379.7	137.1	2.68	2.77	242.6	218.0	1.11
9	408.9	6.5	402.5	138.2	2.83	2.91	264.2	226.3	1.17
10	424.4	1.8	422.6	142.9	2.93	2.96	279.7	236.1	1.18
11	426.3	-4.0	430.3	148.7	2.95	2.89	281.6	242.6	1.16
12	423.8	-8.5	432.3	153.2	2.93	2.82	279.1	246.3	1.13
13	399.7	-12.3	412.0	157.0	2.76	2.62	255.0	242.0	1.05

CD-20 PC-22
387-400 CM

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 387-400 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=599.2 KPA
OVERCONSOLIDATON RATIO = 1.00
MEASURED VOLUME CHANGE = 20.4 CC
CELL PRESSURE =668.4 KPA
CONSOLIDATION PRESSURE =599.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.59	CM
VOID RATIO	= 0.719	0.563	
AREA	= 20.47	19.25	CM2
PERCENT MOISTURE	= 26.72	20.54	PERCENT
WET DENSITY	= 19.80	20.72	KN/M3
DRY DENSITY	= 15.63	17.19	KN/M3
PERCENT SATURATION	=101.81	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.562	0.000
2	0.004077	0.004077	0.0000	0.562	0.143
3	0.006476	0.006476	0.0000	0.562	0.162
4	0.010793	0.010793	0.0000	0.562	0.270
5	0.021825	0.021825	0.0000	0.562	0.472
6	0.037175	0.037175	0.0000	0.562	0.557
7	0.054203	0.054203	0.0000	0.562	0.535
8	0.070992	0.070992	0.0000	0.562	0.489
9	0.096175	0.096175	0.0000	0.562	0.412
10	0.121118	0.121118	0.0000	0.562	0.349
11	0.147260	0.147260	0.0000	0.562	0.305

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	599.5	0.0	599.5	599.5	1.00	1.00	0.0	599.5	0.00
2	674.0	10.7	663.3	588.8	1.12	1.13	74.5	613.6	0.12
3	809.8	34.1	775.7	565.4	1.35	1.37	210.3	635.5	0.33
4	921.0	86.8	834.2	512.6	1.54	1.63	321.5	619.8	0.52
5	1081.0	227.4	853.6	372.1	1.80	2.29	481.6	532.6	0.90
6	1157.8	310.8	847.0	288.7	1.93	2.93	558.3	474.8	1.18
7	1208.9	326.1	882.7	273.2	2.02	3.23	609.5	476.4	1.28
8	1258.0	321.8	936.3	277.7	2.10	3.37	658.6	497.2	1.32
9	1329.3	300.4	928.9	299.0	2.22	3.44	729.8	542.3	1.35
10	1380.5	272.5	908.0	326.9	2.30	3.39	781.1	587.3	1.33
11	1388.0	240.5	947.6	359.0	2.32	3.20	788.6	621.8	1.27

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 400-413 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=599.2 KPA
OVERCONSOLIDATON RATIO = 2.00
MEASURED VOLUME CHANGE = 41.6 CC
CELL PRESSURE =368.6 KPA
CONSOLIDATION PRESSURE =299.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.83	9.98	CM
VOID RATIO	= 0.782	0.444	
AREA	= 20.26	17.81	CM2
PERCENT MOISTURE	= 29.92	16.22	PERCENT
WET DENSITY	= 19.59	21.62	KN/M3
DRY DENSITY	= 15.08	18.60	KN/M3
PERCENT SATURATION	=104.86	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.444	0.000
2	0.000763	0.000763	0.0000	0.444	0.085
3	0.008903	0.008903	0.0000	0.444	0.102
4	0.015517	0.015517	0.0000	0.444	0.167
5	0.025438	0.025438	0.0000	0.444	0.258
6	0.050622	0.050622	0.0000	0.444	0.373
7	0.075806	0.075806	0.0000	0.444	0.383
8	0.100990	0.100990	0.0000	0.444	0.374
9	0.140166	0.140166	0.0000	0.444	0.353
10	0.173490	0.173490	0.0000	0.444	0.343
11	0.223349	0.223349	0.0000	0.444	0.331
12	0.264814	0.264814	0.0000	0.444	0.341

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	299.7	0.0	299.7	299.7	1.00	1.00	0.0	299.7	0.00
2	422.5	10.5	412.0	289.3	1.41	1.42	122.7	330.2	0.37
3	530.1	23.6	506.6	276.2	1.77	1.83	230.4	353.0	0.65
4	580.4	46.9	533.6	252.9	1.94	2.11	280.7	346.4	0.81
5	611.8	80.5	531.3	219.3	2.04	2.42	312.1	323.3	0.97
6	643.3	128.0	515.3	171.7	2.15	3.00	343.6	286.2	1.20
7	665.6	140.2	525.5	159.6	2.22	3.29	365.9	281.5	1.30
8	677.3	141.4	535.9	158.3	2.26	3.38	377.6	284.2	1.33
9	689.2	137.5	551.6	162.2	2.30	3.40	389.4	292.0	1.33
10	691.3	134.5	556.8	165.2	2.31	3.37	391.6	295.8	1.32
11	692.4	129.8	562.6	169.9	2.31	3.31	392.6	300.8	1.31
12	676.6	128.4	548.1	171.3	2.26	3.20	376.8	296.9	1.27

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 413-427 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=599.2 KPA
OVERCONSOLIDATON RATIO = 3.99
MEASURED VOLUME CHANGE = 26.6 CC
CELL PRESSURE =219.1 KPA
CONSOLIDATION PRESSURE =150.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.88	10.38	CM
VOID RATIO	= 0.775	0.561	
AREA	= 20.26	18.67	CM2
PERCENT MOISTURE	= 29.48	20.48	PERCENT
WET DENSITY	= 19.60	20.73	KN/M3
DRY DENSITY	= 15.13	17.21	KN/M3
PERCENT SATURATION	=104.20	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.561	0.000
2	0.003670	0.003670	0.0000	0.561	0.037
3	0.005382	0.005382	0.0000	0.561	0.060
4	0.017125	0.017125	0.0000	0.561	0.080
5	0.037431	0.037431	0.0000	0.561	0.095
6	0.059205	0.059205	0.0000	0.561	0.098
7	0.071926	0.071926	0.0000	0.561	0.098
8	0.086850	0.086850	0.0000	0.561	0.090
9	0.117186	0.117186	0.0000	0.561	0.081
10	0.163914	0.163914	0.0000	0.561	0.072
11	0.211620	0.211620	0.0000	0.561	0.089

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	150.2	0.0	150.2	150.2	1.00	1.00	0.0	150.2	0.00
2	179.1	1.0	177.1	149.2	1.19	1.19	27.9	158.5	0.18
3	236.0	5.2	230.8	145.0	1.57	1.59	85.8	173.6	0.49
4	366.7	17.2	349.5	133.0	2.44	2.63	216.5	205.1	1.06
5	410.4	24.8	385.6	125.4	2.73	3.07	260.2	212.1	1.23
6	430.6	27.6	403.0	122.6	2.87	3.29	280.4	216.1	1.30
7	438.5	28.3	410.3	122.0	2.92	3.36	288.3	218.1	1.32
8	444.3	26.5	417.8	123.7	2.96	3.38	294.1	221.7	1.33
9	448.1	24.1	424.0	126.1	2.98	3.36	297.9	225.4	1.32
10	430.9	20.3	410.6	129.9	2.87	3.16	280.7	223.4	1.26
11	400.6	22.4	378.2	127.8	2.67	2.96	250.4	211.3	1.19

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 580-592 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES
SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 13.5 CC
CELL PRESSURE =151.6 KPA
CONSOLIDATION PRESSURE = 82.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.92	10.69	CM
VOID RATIO	= 0.841	0.732	
AREA	= 20.81	19.99	CM2
PERCENT MOISTURE	= 28.53	26.06	PERCENT
WET DENSITY	= 19.22	20.05	KN/M3
DRY DENSITY	= 14.96	15.90	KN/M3
PERCENT SATURATION	= 95.24	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.731	0.000
2	0.005464	0.005464	0.0000	0.731	0.350
3	0.013541	0.013541	0.0000	0.731	1.214
4	0.016985	0.016985	0.0000	0.731	0.601
5	0.024943	0.024943	0.0000	0.731	0.660
6	0.034565	0.034565	0.0000	0.731	0.660
7	0.053925	0.053925	0.0000	0.731	0.606
8	0.073761	0.073761	0.0000	0.731	0.557
9	0.093597	0.093597	0.0000	0.731	0.527
10	0.124005	0.124005	0.0000	0.731	0.499
11	0.136239	0.136239	0.0000	0.731	0.492
12	0.154412	0.154412	0.0000	0.731	0.492
13	0.181731	0.181731	0.0000	0.731	0.493
14	0.204655	0.204655	0.0000	0.731	0.506
15	0.229955	0.229955	0.0000	0.731	0.519

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	82.7	0.0	82.7	82.7	1.00	1.00	0.0	82.7	0.00
2	84.6	0.7	83.9	82.0	1.02	1.02	1.9	82.6	0.02
3	90.3	9.3	81.0	73.4	1.09	1.10	7.6	75.9	0.10
4	113.0	18.3	94.8	64.4	1.37	1.47	30.4	74.5	0.41
5	144.8	41.0	103.8	41.7	1.75	2.49	62.1	62.4	1.00
6	156.8	48.9	107.8	33.8	1.90	3.19	74.1	58.5	1.27
7	169.7	52.7	116.9	30.0	2.05	3.90	87.0	59.0	1.47
8	176.1	52.0	124.1	30.7	2.13	4.05	93.4	61.8	1.51
9	179.3	51.0	128.4	31.7	2.17	4.06	96.7	63.9	1.51
10	180.8	48.9	131.8	33.8	2.19	3.90	98.1	66.5	1.48
11	180.6	48.2	132.4	34.5	2.18	3.84	98.0	67.1	1.46
12	180.0	47.9	132.1	34.8	2.18	3.80	97.3	67.2	1.45
13	177.6	46.9	130.8	35.8	2.15	3.65	95.0	67.5	1.41
14	175.2	46.9	128.3	35.8	2.12	3.58	92.5	66.7	1.39
15	172.2	46.5	125.7	36.2	2.08	3.48	89.6	66.0	1.36

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 592-604 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 7.7 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.62	10.49 CM
VOID RATIO	= 0.928	0.862
AREA	= 21.01	20.53 CM2
PERCENT MOISTURE	= 31.42	30.67 PERCENT
WET DENSITY	= 18.77	19.33 KN/M3
DRY DENSITY	= 14.29	14.80 KN/M3
PERCENT SATURATION	= 95.11	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.861	0.000
2	0.002300	0.002300	0.0000	0.861	0.518
3	0.010774	0.010774	0.0000	0.861	0.511
4	0.015980	0.015980	0.0000	0.861	0.496
5	0.026270	0.026270	0.0000	0.861	0.452
6	0.045639	0.045639	0.0000	0.861	0.373
7	0.065372	0.065372	0.0000	0.861	0.316
8	0.085347	0.085347	0.0000	0.861	0.281
9	0.105564	0.105564	0.0000	0.861	0.267
10	0.125780	0.125780	0.0000	0.861	0.257
11	0.145875	0.145875	0.0000	0.861	0.250
12	0.165972	0.165972	0.0000	0.861	0.245
13	0.186068	0.186068	0.0000	0.861	0.245
14	0.206043	0.206043	0.0000	0.861	0.243

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	46.6	2.8	43.9	38.6	1.13	1.14	5.3	40.3	0.13
3	76.9	18.2	58.7	23.2	1.86	2.54	35.6	35.0	1.02
4	87.1	22.7	64.4	18.6	2.11	3.46	45.8	33.9	1.35
5	98.0	25.6	72.3	15.7	2.37	4.61	56.6	34.6	1.64
6	109.0	25.2	83.7	16.1	2.64	5.19	67.6	38.7	1.75
7	115.5	23.4	92.0	17.9	2.79	5.14	74.1	42.6	1.74
8	119.7	22.0	97.6	19.3	2.90	5.06	78.3	45.4	1.72
9	120.8	21.2	99.6	20.1	2.92	4.95	79.5	46.6	1.70
10	121.8	20.7	101.1	20.7	2.95	4.89	80.4	47.5	1.69
11	121.7	20.1	101.6	21.2	2.94	4.79	80.4	48.0	1.67
12	121.6	19.7	101.9	21.6	2.94	4.71	80.3	48.4	1.66
13	120.8	19.4	101.1	21.9	2.92	4.61	79.2	48.3	1.64
14	119.4	19.0	100.4	22.3	2.89	4.50	78.1	48.4	1.61

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 635-648 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.81
PRECONSOLIDATION STRESS	=399.0
OVERCONSOLIDATION RATIO	= 4.0
MEASURED VOLUME CHANGE	= 24.9 CC
CELL PRESSURE	=168.8 KPA
CONSOLIDATION PRESSURE	= 99.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.87	10.40	CM
VOID RATIO	= 0.885	0.667	
AREA	= 19.79	18.30	CM2
PERCENT MOISTURE	= 31.68	23.73	PERCENT
WET DENSITY	= 19.25	20.45	KN/M3
DRY DENSITY	= 14.62	16.53	KN/M3
PERCENT SATURATION	=100.64	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.666	0.000
2	0.002932	0.002932	0.0000	0.666	-0.142
3	0.006352	0.006352	0.0000	0.666	0.056
4	0.010993	0.010993	0.0000	0.666	0.052
5	0.019544	0.019544	0.0000	0.666	0.050
6	0.030048	0.030048	0.0000	0.666	0.051
7	0.051302	0.051302	0.0000	0.666	0.046
8	0.073289	0.073289	0.0000	0.666	0.035
9	0.095764	0.095764	0.0000	0.666	0.024
10	0.141936	0.141936	0.0000	0.666	0.008
11	0.189085	0.189085	0.0000	0.666	0.003

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	99.9	0.0	99.9	99.9	1.00	1.00	0.0	99.9	0.00
2	121.7	-3.1	124.8	103.0	1.22	1.21	21.7	110.3	0.20
3	227.9	7.2	220.7	92.7	2.28	2.38	128.0	135.4	0.95
4	258.7	8.3	250.4	91.6	2.59	2.73	158.8	144.6	1.10
5	280.7	9.0	271.7	91.0	2.81	2.99	180.8	151.2	1.20
6	297.5	10.0	287.5	89.9	2.98	3.20	197.5	155.8	1.27
7	315.0	10.0	305.0	89.9	3.15	3.39	215.1	161.6	1.33
8	323.2	7.9	315.3	92.0	3.23	3.43	223.3	166.4	1.34
9	325.8	5.5	320.3	94.4	3.26	3.39	225.9	169.7	1.33
10	316.5	1.7	314.7	98.2	3.17	3.21	216.5	170.4	1.27
11	303.5	0.7	302.8	99.2	3.04	3.05	203.6	167.1	1.22

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 648-661 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=399.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 29.8 CC
CELL PRESSURE =468.5 KPA
CONSOLIDATION PRESSURE =399.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.38	CM
VOID RATIO	= 0.856	0.603	
AREA	= 19.99	18.23	CM2
PERCENT MOISTURE	= 29.52	21.48	PERCENT
WET DENSITY	= 19.23	20.87	KN/M3
DRY DENSITY	= 14.85	17.18	KN/M3
PERCENT SATURATION	= 96.92	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.603	0.000
2	0.002691	0.002691	0.0000	0.603	0.363
3	0.011500	0.011500	0.0000	0.603	0.530
4	0.020553	0.020553	0.0000	0.603	0.814
5	0.032542	0.032542	0.0000	0.603	0.947
6	0.050158	0.050158	0.0000	0.603	1.005
7	0.067775	0.067775	0.0000	0.603	1.008
8	0.104232	0.104232	0.0000	0.603	0.994
9	0.140444	0.140444	0.0000	0.603	0.985
10	0.175677	0.175677	0.0000	0.603	0.992

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	399.6	0.0	399.6	399.6	1.00	1.00	0.0	399.6	0.00
2	428.5	10.5	418.0	389.2	1.07	1.07	28.8	398.8	0.07
3	523.8	65.9	457.9	333.8	1.31	1.37	124.1	375.2	0.33
4	628.2	186.2	442.1	213.5	1.57	2.07	228.6	289.7	0.79
5	656.6	243.5	413.1	156.1	1.64	2.65	257.0	241.8	1.06
6	668.8	270.5	398.3	129.1	1.67	3.08	269.2	218.9	1.23
7	676.3	278.9	397.4	120.7	1.69	3.29	276.6	213.9	1.30
8	683.4	282.0	401.4	117.7	1.71	3.41	283.7	212.3	1.34
9	684.3	280.6	403.8	119.1	1.71	3.39	284.7	214.0	1.33
10	681.8	280.0	401.8	119.6	1.71	3.36	282.2	213.7	1.32

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 661-675 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=399.0
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 21.3 CC
CELL PRESSURE =118.9 KPA
CONSOLIDATION PRESSURE = 50.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.15	9.77	CM
VOID RATIO	= 0.817	0.632	
AREA	= 20.53	19.16	CM2
PERCENT MOISTURE	= 28.24	22.48	PERCENT
WET DENSITY	= 19.44	20.68	KN/M3
DRY DENSITY	= 15.16	16.89	KN/M3
PERCENT SATURATION	= 97.10	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.631	0.000
2	0.001040	0.001040	0.0000	0.631	0.112
3	0.004421	0.004421	0.0000	0.631	0.147
4	0.012483	0.012483	0.0000	0.631	0.033
5	0.028608	0.028608	0.0000	0.631	-0.040
6	0.055395	0.055395	0.0000	0.631	-0.087
7	0.083482	0.083482	0.0000	0.631	-0.110
8	0.112350	0.112350	0.0000	0.631	-0.131
9	0.141478	0.141478	0.0000	0.631	-0.142
10	0.170866	0.170866	0.0000	0.631	-0.143
11	0.210136	0.210136	0.0000	0.631	-0.145

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	50.0	0.0	50.0	50.0	1.00	1.00	0.0	50.0	0.00
2	65.3	1.7	63.6	48.2	1.31	1.32	15.4	53.4	0.29
3	101.6	7.6	94.0	42.4	2.03	2.22	51.6	59.6	0.87
4	143.1	3.1	140.0	46.9	2.87	2.99	93.2	77.9	1.20
5	177.7	-5.2	182.9	55.1	3.56	3.32	127.8	97.7	1.31
6	201.2	-13.1	214.3	63.0	4.03	3.40	151.3	113.5	1.33
7	212.2	-17.9	230.1	67.9	4.25	3.39	162.2	121.9	1.33
8	215.8	-21.7	237.5	71.7	4.32	3.31	165.8	126.9	1.31
9	214.9	-23.4	238.4	73.4	4.30	3.25	165.0	128.4	1.29
10	213.5	-23.4	237.0	73.4	4.27	3.23	163.6	127.9	1.28
11	209.1	-23.1	232.2	73.0	4.19	3.18	159.1	126.1	1.26

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 300-312 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.85
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 6.0 CC
CELL PRESSURE = 86.3 KPA
CONSOLIDATION PRESSURE = 17.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.24	11.14	CM
VOID RATIO	= 1.217	1.160	
AREA	= 20.60	20.25	CM2
PERCENT MOISTURE	= 42.15	40.69	PERCENT
WET DENSITY	= 17.92	18.20	KN/M3
DRY DENSITY	= 12.60	12.94	KN/M3
PERCENT SATURATION	= 98.69	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.159	0.000
2	0.020741	0.020741	0.0000	1.159	0.453
3	0.025983	0.025983	0.0000	1.159	0.428
4	0.033391	0.033391	0.0000	1.159	0.396
5	0.046154	0.046154	0.0000	1.159	0.338
6	0.053220	0.053220	0.0000	1.159	0.300
7	0.080799	0.080799	0.0000	1.159	0.229
8	0.108719	0.108719	0.0000	1.159	0.182
9	0.139603	0.139603	0.0000	1.159	0.164
10	0.165244	0.165244	0.0000	1.159	0.158
11	0.193507	0.193507	0.0000	1.159	0.158
12	0.221769	0.221769	0.0000	1.159	0.161

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	17.9	0.0	17.9	17.9	1.00	1.00	0.0	17.9	0.00
2	46.4	13.0	33.5	5.0	2.59	6.75	28.5	14.5	1.97
3	49.4	13.5	35.9	4.4	2.76	8.15	31.5	14.9	2.11
4	53.4	14.1	39.3	3.9	2.98	10.19	35.4	15.7	2.26
5	59.1	13.9	45.1	4.0	3.30	11.30	41.2	17.7	2.32
6	62.8	13.5	49.3	4.4	3.51	11.19	44.9	19.4	2.32
7	68.5	11.6	56.9	6.3	3.82	8.98	50.6	23.2	2.18
8	71.7	9.8	62.0	8.1	4.00	7.62	53.8	26.1	2.06
9	70.8	8.7	62.1	9.2	3.95	6.70	52.9	26.9	1.97
10	70.1	8.3	61.9	9.6	3.91	6.41	52.2	27.1	1.93
11	69.2	8.1	61.1	9.8	3.86	6.25	51.3	26.9	1.91
12	67.4	8.0	59.4	9.9	3.76	5.99	49.5	26.4	1.87

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 312-324 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.85
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 9.1 CC
CELL PRESSURE =111.1 KPA
CONSOLIDATION PRESSURE = 42.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.98	10.83	CM
VOID RATIO	= 1.161	1.074	
AREA	= 20.60	20.05	CM2
PERCENT MOISTURE	= 39.82	37.67	PERCENT
WET DENSITY	= 18.08	18.55	KN/M3
DRY DENSITY	= 12.93	13.48	KN/M3
PERCENT SATURATION	= 97.79	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.073	0.000
2	0.002463	0.002463	0.0000	1.073	0.351
3	0.010439	0.010439	0.0000	1.073	0.533
4	0.015482	0.015482	0.0000	1.073	0.622
5	0.020056	0.020056	0.0000	1.073	0.686
6	0.046916	0.046916	0.0000	1.073	0.642
7	0.049379	0.049379	0.0000	1.073	0.631
8	0.064626	0.064626	0.0000	1.073	0.540
9	0.075769	0.075769	0.0000	1.073	0.505
10	0.096060	0.096060	0.0000	1.073	0.428
11	0.154470	0.154470	0.0000	1.073	0.397
12	0.173002	0.173002	0.0000	1.073	0.389

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	42.2	0.0	42.2	42.2	1.00	1.00	0.0	42.2	0.00
2	47.0	1.7	45.3	40.4	1.12	1.12	4.9	42.1	0.12
3	51.8	5.2	46.6	37.0	1.23	1.26	9.6	40.2	0.24
4	67.6	15.8	51.8	26.3	1.60	1.97	25.4	34.8	0.73
5	72.3	20.7	51.6	21.5	1.71	2.40	30.1	31.5	0.95
6	87.2	28.9	58.3	13.2	2.07	4.41	45.1	28.2	1.59
7	88.5	29.3	59.2	12.9	2.10	4.60	46.3	28.3	1.64
8	95.7	28.9	66.8	13.2	2.27	5.05	53.6	31.1	1.72
9	99.4	28.9	70.4	13.2	2.36	5.32	57.2	32.3	1.77
10	104.1	26.5	77.5	15.6	2.47	4.96	61.9	36.3	1.71
11	104.6	24.8	79.8	17.4	2.48	4.60	62.4	38.2	1.64
12	103.2	23.8	79.5	18.4	2.45	4.32	61.1	38.8	1.58

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 324-336 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.85
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 11.3 CC
CELL PRESSURE =140.6 KPA
CONSOLIDATION PRESSURE = 71.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.64	10.45	CM
VOID RATIO	= 1.079	0.971	
AREA	= 20.53	19.83	CM2
PERCENT MOISTURE	= 38.51	34.09	PERCENT
WET DENSITY	= 18.62	19.01	KN/M3
DRY DENSITY	= 13.44	14.17	KN/M3
PERCENT SATURATION	=101.73	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.971	0.000
2	0.006563	0.006563	0.0000	0.971	0.764
3	0.014828	0.014828	0.0000	0.971	0.485
4	0.025523	0.025523	0.0000	0.971	0.538
5	0.040108	0.040108	0.0000	0.971	0.501
6	0.053842	0.053842	0.0000	0.971	0.469
7	0.068548	0.068548	0.0000	0.971	0.441
8	0.083255	0.083255	0.0000	0.971	0.423
9	0.112789	0.112789	0.0000	0.971	0.419
10	0.157151	0.157151	0.0000	0.971	0.441
11	0.187657	0.187657	0.0000	0.971	0.464
12	0.222053	0.222053	0.0000	0.971	0.486

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	71.7	0.0	71.7	71.7	1.00	1.00	0.0	71.7	0.00
2	79.2	5.8	73.4	65.9	1.11	1.11	7.5	68.4	0.11
3	123.9	25.4	98.5	46.3	1.73	2.13	52.2	63.7	0.82
4	140.2	36.9	103.3	34.7	1.96	2.97	68.5	57.6	1.19
5	155.8	42.2	113.6	29.5	2.17	3.85	84.1	57.5	1.46
6	163.8	43.3	120.5	28.4	2.29	4.25	92.2	59.1	1.56
7	169.4	43.1	126.3	28.5	2.36	4.43	97.8	61.1	1.60
8	172.9	42.9	130.0	28.8	2.41	4.51	101.2	62.3	1.62
9	171.5	41.9	129.6	29.8	2.39	4.35	99.9	63.1	1.58
10	166.5	41.9	124.6	29.8	2.32	4.19	94.9	61.4	1.55
11	163.1	42.4	120.6	29.2	2.28	4.13	91.4	59.7	1.53
12	158.4	42.2	116.2	29.5	2.21	3.94	86.7	58.4	1.48

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 336-350 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.85
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 8.2 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.84	10.45	CM
VOID RATIO	= 1.561	1.443	
AREA	= 19.99	19.78	CM2
PERCENT MOISTURE	= 46.67	50.63	PERCENT
WET DENSITY	= 16.00	17.23	KN/M3
DRY DENSITY	= 10.91	11.44	KN/M3
PERCENT SATURATION	= 85.21	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.442	0.000
2	0.008506	0.008506	0.0000	1.442	0.142
3	0.020414	0.020414	0.0000	1.442	0.407
4	0.044474	0.044474	0.0000	1.442	0.511
5	0.068777	0.068777	0.0000	1.442	0.515
6	0.092837	0.092837	0.0000	1.442	0.470
7	0.116653	0.116653	0.0000	1.442	0.435
8	0.152622	0.152622	0.0000	1.442	0.378
9	0.188104	0.188104	0.0000	1.442	0.395
10	0.223829	0.223829	0.0000	1.442	0.380

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	28.2	0.0	28.2	13.8	2.05	2.05	14.4	18.6	0.78
2	29.2	2.2	27.0	11.6	2.12	2.33	15.4	16.7	0.92
3	33.4	8.0	25.4	5.8	2.42	4.39	19.6	12.3	1.59
4	35.0	10.9	24.1	2.9	2.54	8.34	21.2	10.0	2.13
5	38.6	12.8	25.8	1.0	2.80	26.75	24.8	9.2	2.69
6	41.0	12.8	28.2	1.0	2.98	29.22	27.2	10.0	2.71
7	42.3	12.4	29.8	1.4	3.07	21.66	28.5	10.9	2.62
8	45.8	12.1	33.7	1.7	3.32	20.36	32.0	12.3	2.60
9	42.7	11.4	31.2	2.3	3.10	13.33	28.9	12.0	2.41
10	43.1	11.2	31.9	2.6	3.13	12.20	29.3	12.4	2.37

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 434-448 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=455.0 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 18.2 CC
CELL PRESSURE =182.6 KPA
CONSOLIDATION PRESSURE =113.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.49	11.18	CM
VOID RATIO	= 1.207	1.041	
AREA	= 21.01	19.97	CM2
PERCENT MOISTURE	= 38.39	37.30	PERCENT
WET DENSITY	= 17.15	18.41	KN/M3
DRY DENSITY	= 12.40	13.41	KN/M3
PERCENT SATURATION	= 88.74	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.040	0.000
2	0.000909	0.000909	0.0000	1.040	0.267
3	0.004772	0.004772	0.0000	1.040	0.187
4	0.009317	0.009317	0.0000	1.040	0.151
5	0.018862	0.018862	0.0000	1.040	0.140
6	0.030906	0.030906	0.0000	1.040	0.139
7	0.045904	0.045904	0.0000	1.040	0.151
8	0.065220	0.065220	0.0000	1.040	0.166
9	0.089763	0.089763	0.0000	1.040	0.176
10	0.115670	0.115670	0.0000	1.040	0.186
11	0.136122	0.136122	0.0000	1.040	0.192
12	0.164756	0.164756	0.0000	1.040	0.200
13	0.190207	0.190207	0.0000	1.040	0.209
14	0.209296	0.209296	0.0000	1.040	0.219

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	113.7	0.0	113.7	113.7	1.00	1.00	0.0	113.7	0.00
2	117.5	1.0	116.5	112.7	1.03	1.03	3.8	113.9	0.03
3	126.5	2.4	124.1	111.3	1.11	1.12	12.8	115.6	0.11
4	191.3	11.7	179.6	102.0	1.68	1.76	77.6	127.9	0.61
5	248.7	18.9	229.8	94.7	2.19	2.43	135.0	139.7	0.97
6	269.3	21.7	247.6	92.0	2.37	2.69	155.6	143.8	1.08
7	280.5	25.1	255.4	88.5	2.47	2.88	166.9	144.2	1.16
8	286.3	28.6	257.7	85.1	2.52	3.03	172.6	142.6	1.21
9	287.4	30.7	256.8	83.0	2.53	3.09	173.8	140.9	1.23
10	287.4	32.4	255.0	81.3	2.53	3.14	173.7	139.2	1.25
11	285.8	33.1	252.7	80.6	2.51	3.14	172.1	138.0	1.25
12	282.1	33.8	248.3	79.9	2.48	3.11	168.4	136.1	1.24
13	278.5	34.5	244.1	79.2	2.45	3.08	164.8	134.2	1.23
14	274.1	35.1	238.9	78.6	2.41	3.04	160.4	132.0	1.21

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 448-462 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=455.0 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 32.5 CC
CELL PRESSURE =523.7 KPA
CONSOLIDATION PRESSURE =454.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.20	9.59	CM
VOID RATIO	= 1.284	0.936	
AREA	= 20.88	18.82	CM2
PERCENT MOISTURE	= 45.88	33.55	PERCENT
WET DENSITY	= 17.47	18.87	KN/M3
DRY DENSITY	= 11.98	14.13	KN/M3
PERCENT SATURATION	= 99.66	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.935	0.000
2	0.002649	0.002649	0.0000	0.935	0.401
3	0.013243	0.013243	0.0000	0.935	0.626
4	0.024631	0.024631	0.0000	0.935	0.793
5	0.037344	0.037344	0.0000	0.935	0.859
6	0.050057	0.050057	0.0000	0.935	0.906
7	0.062770	0.062770	0.0000	0.935	0.968
8	0.088461	0.088461	0.0000	0.935	1.025
9	0.114151	0.114151	0.0000	0.935	1.083
10	0.140372	0.140372	0.0000	0.935	1.154
11	0.163414	0.163414	0.0000	0.935	1.174
12	0.190164	0.190164	0.0000	0.935	1.222
13	0.217444	0.217444	0.0000	0.935	1.267

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	454.8	0.0	454.8	454.8	1.00	1.00	0.0	454.8	0.00
2	514.2	23.8	490.4	430.9	1.13	1.14	59.5	450.7	0.13
3	641.7	117.1	524.6	337.6	1.41	1.55	187.0	400.0	0.47
4	699.8	194.4	505.3	260.3	1.54	1.94	245.0	342.0	0.72
5	726.3	233.2	493.1	221.6	1.60	2.23	271.5	312.1	0.87
6	738.9	257.6	481.3	197.2	1.62	2.44	284.1	291.9	0.97
7	739.1	275.2	463.9	179.6	1.63	2.58	284.3	274.3	1.04
8	743.9	296.4	447.5	158.3	1.64	2.83	289.1	254.7	1.14
9	738.6	307.3	431.3	147.5	1.62	2.92	283.8	242.1	1.17
10	726.5	313.8	412.7	141.0	1.60	2.93	271.8	231.6	1.17
11	725.5	317.8	407.7	137.0	1.60	2.98	270.7	227.2	1.19
12	714.2	317.1	397.1	137.7	1.57	2.88	259.5	224.2	1.16
13	703.8	315.6	388.3	139.2	1.55	2.79	249.1	222.2	1.12

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 462-476 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=455.0 KPA
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 27.9 CC
CELL PRESSURE =125.7 KPA
CONSOLIDATION PRESSURE = 56.8 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 11.37	10.85 CM
VOID RATIO	= 1.385	1.097
AREA	= 20.26	18.67 CM2
PERCENT MOISTURE	= 46.12	39.31 PERCENT
WET DENSITY	= 16.76	18.18 KN/M3
DRY DENSITY	= 11.47	13.05 KN/M3
PERCENT SATURATION	= 92.88	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.096	0.000
2	0.005853	0.005853	0.0000	1.096	0.125
3	0.007258	0.007258	0.0000	1.096	0.123
4	0.022242	0.022242	0.0000	1.096	0.059
5	0.038631	0.038631	0.0000	1.096	0.000
6	0.055488	0.055488	0.0000	1.096	-0.037
7	0.073048	0.073048	0.0000	1.096	-0.062
8	0.090607	0.090607	0.0000	1.096	-0.072
9	0.108167	0.108167	0.0000	1.096	-0.082
10	0.143754	0.143754	0.0000	1.096	-0.083
11	0.179576	0.179576	0.0000	1.096	-0.091

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	56.8	0.0	56.8	56.8	1.00	1.00	0.0	56.8	0.00
2	100.9	5.5	95.4	51.3	1.78	1.86	44.1	66.0	0.67
3	107.3	6.2	101.1	50.6	1.89	2.00	50.4	67.5	0.75
4	150.1	5.5	144.6	51.3	2.64	2.82	93.3	82.4	1.13
5	170.5	0.0	170.5	56.8	3.00	3.00	113.6	94.7	1.20
6	179.2	-4.5	183.7	61.3	3.15	3.00	122.4	102.1	1.20
7	184.1	-7.9	192.0	64.8	3.24	2.96	127.2	107.2	1.19
8	186.6	-9.1	195.9	66.1	3.28	2.96	129.8	109.4	1.19
9	187.4	-10.7	198.1	67.5	3.30	2.93	130.6	111.1	1.18
10	186.0	-10.7	196.7	67.5	3.27	2.91	129.2	110.6	1.17
11	178.4	-11.0	189.4	67.9	3.14	2.79	121.6	108.4	1.12

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 686-699 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=606.0 KPA
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 36.8 CC
CELL PRESSURE =220.5 KPA
CONSOLIDATION PRESSURE =151.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.18	CM
VOID RATIO	= 1.185	0.822	
AREA	= 20.26	18.09	CM2
PERCENT MOISTURE	= 43.87	29.45	PERCENT
WET DENSITY	= 18.01	19.44	KN/M3
DRY DENSITY	= 12.52	15.02	KN/M3
PERCENT SATURATION	=103.26	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.821	0.000
2	0.000998	0.000998	0.0000	0.821	0.029
3	0.004991	0.004991	0.0000	0.821	0.053
4	0.014972	0.014972	0.0000	0.821	0.063
5	0.027448	0.027448	0.0000	0.821	0.081
6	0.049657	0.049657	0.0000	0.821	0.120
7	0.068371	0.068371	0.0000	0.821	0.142
8	0.093574	0.093574	0.0000	0.821	0.173
9	0.136244	0.136244	0.0000	0.821	0.204
10	0.160199	0.160199	0.0000	0.821	0.221
11	0.182906	0.182906	0.0000	0.821	0.239

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	151.6	0.0	151.6	151.6	1.00	1.00	0.0	151.6	0.00
2	187.5	1.0	186.4	150.6	1.24	1.24	35.9	162.5	0.22
3	223.1	3.8	219.3	147.8	1.47	1.48	71.5	171.6	0.42
4	298.3	9.3	289.0	142.3	1.97	2.03	146.7	191.2	0.77
5	325.1	14.1	310.9	137.5	2.14	2.26	173.5	195.3	0.89
6	346.3	23.4	322.9	128.2	2.28	2.52	194.7	193.1	1.01
7	353.6	28.6	325.0	123.0	2.33	2.64	202.0	190.3	1.06
8	360.2	36.2	324.0	115.4	2.38	2.81	208.6	185.0	1.13
9	360.5	42.7	317.7	108.9	2.38	2.92	208.9	178.5	1.17
10	357.6	45.5	312.1	106.1	2.36	2.94	206.0	174.8	1.18
11	350.6	47.5	303.0	104.0	2.31	2.91	199.0	170.4	1.17

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 699-711 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.79
PRECONSOLIDATION STRESS	=606.0 KPA
OVERCONSOLIDATION RATIO	= 1.00
MEASURED VOLUME CHANGE	= 38.7 CC
CELL PRESSURE	=675.3 KPA
CONSOLIDATION PRESSURE	=606.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.99	10.24	CM
VOID RATIO	= 1.143	0.779	
AREA	= 20.74	18.48	CM2
PERCENT MOISTURE	= 40.52	27.93	PERCENT
WET DENSITY	= 17.94	19.67	KN/M3
DRY DENSITY	= 12.77	15.38	KN/M3
PERCENT SATURATION	= 98.92	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.779	0.000
2	0.003720	0.003720	0.0000	0.779	0.217
3	0.010913	0.010913	0.0000	0.779	0.338
4	0.033731	0.033731	0.0000	0.779	0.940
5	0.057046	0.057046	0.0000	0.779	1.124
6	0.093010	0.093010	0.0000	0.779	1.206
7	0.117316	0.117316	0.0000	0.779	1.224
8	0.141871	0.141871	0.0000	0.779	1.246
9	0.166425	0.166425	0.0000	0.779	1.258
10	0.191228	0.191228	0.0000	0.779	1.273
11	0.215782	0.215782	0.0000	0.779	1.303

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	606.4	0.0	606.4	606.4	1.00	1.00	0.0	606.4	0.00
2	660.8	11.9	648.9	594.5	1.09	1.09	54.4	612.7	0.09
3	812.0	69.6	742.4	536.8	1.34	1.38	205.6	605.3	0.34
4	903.5	279.3	624.2	327.0	1.49	1.91	297.1	425.1	0.70
5	925.6	358.9	566.8	247.5	1.53	2.29	319.3	353.9	0.90
6	934.8	396.2	538.6	210.2	1.54	2.56	328.5	319.7	1.03
7	938.3	406.3	532.1	200.1	1.55	2.66	332.0	310.8	1.07
8	937.4	412.5	524.9	193.9	1.55	2.71	331.0	304.2	1.09
9	935.9	414.5	521.4	191.8	1.54	2.72	329.6	301.7	1.09
10	933.9	417.0	516.9	189.3	1.54	2.73	327.6	298.5	1.10
11	927.3	418.4	509.0	188.0	1.53	2.71	321.0	295.0	1.09

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 711-726 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=606.0 KPA
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 38.5 CC
CELL PRESSURE =372.1 KPA
CONSOLIDATION PRESSURE =303.2 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.98	10.24 CM
VOID RATIO	= 1.184	0.815
AREA	= 20.74	18.49 CM2
PERCENT MOISTURE	= 41.81	29.21 PERCENT
WET DENSITY	= 17.76	19.48 KN/M3
DRY DENSITY	= 12.53	15.07 KN/M3
PERCENT SATURATION	= 98.52	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.814	0.000
2	0.003474	0.003474	0.0000	0.814	0.180
3	0.013399	0.013399	0.0000	0.814	0.264
4	0.039203	0.039203	0.0000	0.814	0.426
5	0.066000	0.066000	0.0000	0.814	0.505
6	0.093790	0.093790	0.0000	0.814	0.543
7	0.121579	0.121579	0.0000	0.814	0.568
8	0.149865	0.149865	0.0000	0.814	0.588
9	0.177654	0.177654	0.0000	0.814	0.606
10	0.213880	0.213880	0.0000	0.814	0.635

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	303.2	0.0	303.2	303.2	1.00	1.00	0.0	303.2	0.00
2	425.5	22.0	403.4	281.1	1.40	1.44	122.3	321.9	0.38
3	497.3	51.3	446.0	251.8	1.64	1.77	194.2	316.6	0.61
4	545.1	103.0	442.1	200.2	1.80	2.21	241.9	280.8	0.86
5	559.8	129.5	430.3	173.6	1.85	2.48	256.6	259.2	0.99
6	564.4	141.9	422.5	161.2	1.86	2.62	261.3	248.3	1.05
7	564.5	148.5	416.0	154.7	1.86	2.69	261.3	241.8	1.08
8	562.3	152.3	410.0	150.9	1.85	2.72	259.1	237.3	1.09
9	559.0	155.0	403.9	148.1	1.84	2.73	255.8	233.4	1.10
10	552.3	158.1	394.1	145.0	1.82	2.72	249.1	228.1	1.09

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS TD @ 283-295 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS=165.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 35.9 CC
CELL PRESSURE =234.3 KPA
CONSOLIDATION PRESSURE =165.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.36	10.69	CM
VOID RATIO	= 1.441	1.073	
AREA	= 20.94	18.91	CM2
PERCENT MOISTURE	= 45.69	38.33	PERCENT
WET DENSITY	= 16.39	18.32	KN/M3
DRY DENSITY	= 11.25	13.24	KN/M3
PERCENT SATURATION	= 88.77	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.072	0.000
2	0.000713	0.000713	0.0000	1.072	0.989
3	0.006178	0.006178	0.0000	1.072	0.718
4	0.010692	0.010692	0.0000	1.072	0.866
5	0.033503	0.033503	0.0000	1.072	1.152
6	0.056314	0.056314	0.0000	1.072	1.226
7	0.079362	0.079362	0.0000	1.072	1.286
8	0.102410	0.102410	0.0000	1.072	1.372
9	0.125696	0.125696	0.0000	1.072	1.404
10	0.160625	0.160625	0.0000	1.072	1.598
11	0.206959	0.206959	0.0000	1.072	1.782

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	165.4	0.0	165.4	165.4	1.00	1.00	0.0	165.4	0.00
2	177.0	11.6	165.5	153.8	1.07	1.08	11.7	157.7	0.07
3	224.4	42.4	182.0	122.9	1.36	1.48	59.0	142.6	0.41
4	235.7	60.9	174.8	104.5	1.43	1.67	70.3	127.9	0.55
5	245.4	92.2	153.2	73.2	1.48	2.09	80.0	99.8	0.80
6	247.5	100.7	146.7	64.6	1.50	2.27	82.1	92.0	0.89
7	245.5	103.1	142.4	62.3	1.48	2.29	80.1	89.0	0.90
8	241.6	104.6	137.0	60.8	1.46	2.25	76.2	86.2	0.88
9	240.5	105.6	134.9	59.8	1.45	2.26	75.1	84.9	0.89
10	232.2	106.8	125.4	58.6	1.40	2.14	66.8	80.8	0.83
11	226.8	109.6	117.2	55.8	1.37	2.10	61.4	76.1	0.81

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 295-307 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS=165.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 37.5 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	10.02	CM
VOID RATIO	= 1.255	0.859	
AREA	= 19.79	17.57	CM2
PERCENT MOISTURE	= 43.29	30.69	PERCENT
WET DENSITY	= 17.45	19.30	KN/M3
DRY DENSITY	= 12.17	14.77	KN/M3
PERCENT SATURATION	= 96.59	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.859	0.000
2	0.001267	0.001267	0.0000	0.859	-0.036
3	0.002281	0.002281	0.0000	0.859	0.023
4	0.011406	0.011406	0.0000	0.859	0.143
5	.030417	0.030417	0.0000	0.859	0.128
6	0.049427	0.049427	0.0000	0.859	0.124
7	0.068437	0.068437	0.0000	0.859	0.125
8	0.106965	0.106965	0.0000	0.859	0.129
9	0.126482	0.126482	0.0000	0.859	0.141
10	0.165010	0.165010	0.0000	0.859	0.158
11	0.202777	0.202777	0.0000	0.859	0.183

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	51.0	-0.3	51.3	41.7	1.23	1.23	9.6	44.9	0.21
3	56.0	0.3	55.7	41.0	1.36	1.36	14.7	45.9	0.32
4	91.7	7.2	84.5	34.1	2.22	2.48	50.4	50.9	0.99
5	106.0	8.3	97.8	33.1	2.56	2.96	64.7	54.6	1.18
6	110.8	8.6	102.2	32.7	2.68	3.12	69.4	55.9	1.24
7	112.7	9.0	103.7	32.4	2.73	3.20	71.4	56.2	1.27
8	113.6	9.3	104.3	32.0	2.75	3.26	72.3	56.1	1.29
9	112.2	10.0	102.2	31.4	2.71	3.26	70.9	55.0	1.29
10	108.7	10.7	98.0	30.7	2.63	3.20	67.3	53.1	1.27
11	103.4	11.4	92.1	30.0	2.50	3.07	62.1	50.7	1.23

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 307-323 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS=165.0
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 35.5 CC
CELL PRESSURE = 89.6 KPA
CONSOLIDATION PRESSURE = 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.71	9.99	CM
VOID RATIO	= 1.220	0.847	
AREA	= 19.73	17.60	CM2
PERCENT MOISTURE	= 43.31	30.26	PERCENT
WET DENSITY	= 17.72	19.36	KN/M3
DRY DENSITY	= 12.37	14.86	KN/M3
PERCENT SATURATION	= 99.39	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.847	0.000
2	0.002543	0.002543	0.0000	0.847	-0.495
3	0.005340	0.005340	0.0000	0.847	0.122
4	0.020087	0.020087	0.0000	0.847	-0.024
5	0.036359	0.036359	0.0000	0.847	-0.144
6	0.064074	0.064074	0.0000	0.847	-0.121
7	0.082889	0.082889	0.0000	0.847	-0.113
8	0.113401	0.113401	0.0000	0.847	-0.122
9	0.139336	0.139336	0.0000	0.847	-0.133
10	0.168322	0.168322	0.0000	0.847	-0.154
11	0.181035	0.181035	0.0000	0.847	-0.188
12	0.207478	0.207478	0.0000	0.847	-0.206

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	28.3	-3.8	32.1	24.5	1.37	1.31	7.6	27.0	0.28
3	40.4	2.4	38.0	18.3	1.96	2.08	19.7	24.8	0.79
4	63.3	-1.0	64.3	21.7	3.06	2.96	42.6	35.9	1.19
5	70.9	-7.2	78.2	27.9	3.43	2.80	50.3	44.7	1.13
6	74.7	-6.5	81.3	27.2	3.62	2.99	54.1	45.2	1.20
7	75.5	-6.2	81.7	26.9	3.65	3.04	54.8	45.2	1.21
8	74.4	-6.5	80.9	27.2	3.60	2.97	53.7	45.1	1.19
9	72.4	-6.9	79.3	27.6	3.50	2.88	51.7	44.8	1.15
10	69.8	-7.6	77.4	28.3	3.38	2.74	49.1	44.6	1.10
11	68.2	-9.0	77.1	29.6	3.30	2.60	47.5	45.5	1.05
12	65.9	-9.3	75.2	30.0	3.19	2.51	45.2	45.0	1.00

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 323-334 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 8.1 CC
CELL PRESSURE = 89.6 KPA
CONSOLIDATION PRESSURE = 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.68	10.54	CM
VOID RATIO	= 1.072	0.995	
AREA	= 20.40	19.90	CM2
PERCENT MOISTURE	= 39.37	36.55	PERCENT
WET DENSITY	= 17.96	18.27	KN/M3
DRY DENSITY	= 12.88	13.38	KN/M3
PERCENT SATURATION	=100.00	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.995	0.000
2	0.007110	0.007110	0.0000	0.995	0.814
3	0.019040	0.019040	0.0000	0.995	0.918
4	0.033862	0.033862	0.0000	0.995	0.656
5	0.048925	0.048925	0.0000	0.995	0.593
6	0.064470	0.064470	0.0000	0.995	0.588
7	0.079894	0.079894	0.0000	0.995	0.574
8	0.095439	0.095439	0.0000	0.995	0.582
9	0.110743	0.110743	0.0000	0.995	0.566
10	0.126288	0.126288	0.0000	0.995	0.572
11	0.133880	0.133880	0.0000	0.995	0.565
12	0.149184	0.149184	0.0000	0.995	0.576

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	21.9	1.0	20.9	19.6	1.06	1.06	1.2	20.0	0.06
3	32.3	10.7	21.6	10.0	1.56	2.16	11.6	13.9	0.84
4	43.7	15.2	28.6	5.5	2.12	5.18	23.1	13.2	1.75
5	47.4	15.8	31.5	4.8	2.29	6.53	26.7	13.7	1.95
6	48.8	16.5	32.2	4.1	2.36	7.79	28.1	13.5	2.08
7	49.4	16.5	32.9	4.1	2.39	7.96	28.8	13.7	2.10
8	49.6	16.9	32.7	3.8	2.40	8.64	28.9	13.4	2.15
9	50.4	16.9	33.6	3.8	2.44	8.85	29.8	13.7	2.17
10	50.1	16.9	33.2	3.8	2.43	8.77	29.5	13.6	2.16
11	49.9	16.5	33.3	4.1	2.41	8.06	29.2	13.9	2.11
12	49.4	16.5	32.8	4.1	2.39	7.94	28.7	13.7	2.09

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 334-346 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 13.6 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.72	10.48	CM
VOID RATIO	= 1.130	0.997	
AREA	= 20.20	19.36	CM2
PERCENT MOISTURE	= 41.66	36.60	PERCENT
WET DENSITY	= 17.75	18.27	KN/M3
DRY DENSITY	= 12.53	13.37	KN/M3
PERCENT SATURATION	=100.36	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.996	0.000
2	0.007393	0.007393	0.0000	0.996	0.478
3	0.015512	0.015512	0.0000	0.996	0.565
4	0.031509	0.031509	0.0000	0.996	0.613
5	0.047385	0.047385	0.0000	0.996	0.654
6	0.063382	0.063382	0.0000	0.996	0.674
7	0.079258	0.079258	0.0000	0.996	0.668
8	0.103012	0.103012	0.0000	0.996	0.765
9	0.126765	0.126765	0.0000	0.996	0.795
10	0.150639	0.150639	0.0000	0.996	0.859
11	0.167727	0.167727	0.0000	0.996	0.880

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	63.2	10.5	52.7	30.9	1.53	1.71	21.8	38.2	0.57
3	80.3	22.0	58.3	19.3	1.94	3.02	39.0	32.3	1.21
4	87.2	28.1	59.1	13.2	2.11	4.46	45.8	28.3	1.61
5	87.5	30.2	57.3	11.2	2.12	5.13	46.1	26.5	1.74
6	87.7	31.3	56.4	10.1	2.12	5.61	46.4	25.5	1.82
7	89.0	31.8	57.1	9.5	2.15	6.01	47.6	25.4	1.88
8	83.8	32.5	51.3	8.8	2.03	5.81	42.4	23.0	1.85
9	83.6	33.2	50.4	8.1	2.02	6.20	42.3	22.2	1.90
10	80.6	33.8	46.8	7.6	1.96	6.18	39.1	20.7	1.90
11	78.9	33.1	45.8	8.3	1.91	5.54	37.5	20.8	1.81

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 346-357 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 23.1 CC
CELL PRESSURE =152.3 KPA
CONSOLIDATION PRESSURE = 83.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.24	9.82	CM
VOID RATIO	= 1.157	0.921	
AREA	= 20.60	19.13	CM2
PERCENT MOISTURE	= 42.60	33.84	PERCENT
WET DENSITY	= 17.65	18.60	KN/M3
DRY DENSITY	= 12.38	13.90	KN/M3
PERCENT SATURATION	=100.23	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.921	0.000
2	0.004399	0.004399	0.0000	0.921	1.232
3	0.009573	0.009573	0.0000	0.921	1.378
4	0.017336	0.017336	0.0000	0.921	0.835
5	0.026651	0.026651	0.0000	0.921	1.000
6	0.041399	0.041399	0.0000	0.921	1.062
7	0.061063	0.061063	0.0000	0.921	1.113
8	0.081245	0.081245	0.0000	0.921	1.135
9	0.096252	0.096252	0.0000	0.921	1.162
10	0.114623	0.114623	0.0000	0.921	1.191
11	0.144249	0.144249	0.0000	0.921	1.232
12	0.173875	0.173875	0.0000	0.921	1.304
13	0.217215	0.217215	0.0000	0.921	1.385

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	83.4	0.0	83.4	83.4	1.00	1.00	0.0	83.4	0.00
2	89.2	7.2	82.0	76.1	1.07	1.08	5.8	78.1	0.07
3	91.6	11.4	80.2	72.0	1.10	1.11	8.2	74.7	0.11
4	129.1	38.2	90.9	45.1	1.55	2.01	45.7	60.4	0.76
5	136.7	53.4	83.3	30.0	1.64	2.78	53.4	47.8	1.12
6	139.4	59.6	79.8	23.8	1.67	3.36	56.1	42.5	1.32
7	140.6	63.7	76.8	19.6	1.69	3.91	57.2	38.7	1.48
8	140.7	65.1	75.6	18.3	1.69	4.14	57.3	37.4	1.53
9	140.0	65.8	74.2	17.6	1.68	4.22	56.6	36.4	1.55
10	139.5	66.8	72.6	16.5	1.67	4.39	56.1	35.2	1.59
11	137.6	66.8	70.8	16.5	1.65	4.28	54.2	34.6	1.57
12	135.1	67.5	67.6	15.8	1.62	4.26	51.7	33.1	1.56
13	132.6	68.2	64.4	15.2	1.59	4.25	49.2	31.6	1.56

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS 360-373 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS (NATURAL)
MEASURED VOLUME CHANGE = 4.9 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 8.92	8.79	CM
VOID RATIO	= 1.154	1.089	
AREA	= 19.73	19.41	CM2
PERCENT MOISTURE	= 43.28	40.03	PERCENT
WET DENSITY	= 17.74	17.88	KN/M3
DRY DENSITY	= 12.38	12.77	KN/M3
PERCENT SATURATION	=102.05	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.088	0.000
2	0.007806	0.007806	0.0000	1.088	0.188
3	0.009540	0.009540	0.0000	1.088	0.214
4	0.022550	0.022550	0.0000	1.088	0.187
5	0.036427	0.036427	0.0000	1.088	0.176
6	0.050304	0.050304	0.0000	1.088	0.165
7	0.078058	0.078058	0.0000	1.088	0.179
8	0.106101	0.106101	0.0000	1.088	0.187
9	0.134722	0.134722	0.0000	1.088	0.208
10	0.163632	0.163632	0.0000	1.088	0.202
11	0.189362	0.189362	0.0000	1.088	0.206

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	27.3	0.0	27.3	13.8	1.98	1.98	13.5	18.3	0.74
2	37.3	4.4	32.8	9.4	2.70	3.50	23.5	17.2	1.37
3	39.4	5.5	33.9	8.3	2.86	4.10	25.7	16.8	1.53
4	49.0	6.6	42.4	7.2	3.56	5.92	35.2	18.9	1.86
5	52.9	6.9	46.0	6.9	3.84	6.67	39.1	19.9	1.96
6	55.5	6.9	48.6	6.9	4.03	7.06	41.7	20.8	2.01
7	52.2	6.9	45.3	6.9	3.79	6.58	38.4	19.7	1.95
8	49.0	6.6	42.4	7.2	3.56	5.92	35.2	18.9	1.86
9	48.9	7.3	41.6	6.5	3.55	6.42	35.1	18.2	1.93
10	49.6	7.2	42.3	6.5	3.60	6.47	35.8	18.5	1.94
11	47.2	6.9	40.3	6.9	3.43	5.85	33.4	18.0	1.85

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 566-579 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS=248.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 46.5 CC
CELL PRESSURE =317.0 KPA
CONSOLIDATION PRESSURE =248.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.83	9.87	CM
VOID RATIO	= 1.759	1.182	
AREA	= 20.53	17.81	CM2
PERCENT MOISTURE	= 62.99	42.69	PERCENT
WET DENSITY	= 16.04	17.76	KN/M3
DRY DENSITY	= 9.84	12.45	KN/M3
PERCENT SATURATION	= 99.19	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.182	0.000
2	0.006430	0.006430	0.0000	1.182	0.624
3	0.023149	0.023149	0.0000	1.182	0.644
4	0.039868	0.039868	0.0000	1.182	1.207
5	0.056588	0.056588	0.0000	1.182	1.335
6	0.082309	0.082309	0.0000	1.182	1.455
7	0.107774	0.107774	0.0000	1.182	1.498
8	0.132981	0.132981	0.0000	1.182	1.536
9	0.158445	0.158445	0.0000	1.182	1.612
10	0.183652	0.183652	0.0000	1.182	1.617
11	0.215547	0.215547	0.0000	1.182	1.644

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	248.1	0.0	248.1	248.1	1.00	1.00	0.0	248.1	0.00
2	315.8	42.3	273.5	205.7	1.27	1.33	67.7	228.3	0.30
3	351.7	66.7	285.0	181.4	1.42	1.57	103.6	215.9	0.48
4	369.6	146.8	222.9	101.3	1.49	2.20	121.6	141.8	0.86
5	371.6	165.0	206.6	83.1	1.50	2.49	123.5	124.3	0.99
6	370.2	177.8	192.4	70.3	1.49	2.74	122.2	111.0	1.10
7	369.7	182.3	187.4	65.7	1.49	2.85	121.7	106.3	1.14
8	370.0	187.4	182.6	60.6	1.49	3.01	122.0	101.3	1.20
9	365.5	189.5	176.0	58.6	1.47	3.01	117.5	97.7	1.20
10	365.5	190.0	175.5	58.0	1.47	3.03	117.5	97.2	1.21
11	364.4	191.3	173.1	56.8	1.47	3.05	116.3	95.5	1.22

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS CD # 579-591 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS=248.0 KPA
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 44.5 CC
CELL PRESSURE =192.9 KPA
CONSOLIDATION PRESSURE =124.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.45	9.55	CM
VOID RATIO	= 1.587	1.135	
AREA	= 20.74	18.03	CM2
PERCENT MOISTURE	= 59.69	40.98	PERCENT
WET DENSITY	= 16.14	17.93	KN/M3
DRY DENSITY	= 10.11	12.72	KN/M3
PERCENT SATURATION	= 98.04	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.134	0.000
2	0.008247	0.008247	0.0000	1.134	0.235
3	0.016759	0.016759	0.0000	1.134	0.354
4	0.025272	0.025272	0.0000	1.134	0.418
5	0.042297	0.042297	0.0000	1.134	0.551
6	0.059588	0.059588	0.0000	1.134	0.622
7	0.085126	0.085126	0.0000	1.134	0.679
8	0.128752	0.128752	0.0000	1.134	0.742
9	0.172645	0.172645	0.0000	1.134	0.782
10	0.216272	0.216272	0.0000	1.134	0.837
11	0.268678	0.268678	0.0000	1.134	0.898

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	124.0	0.0	124.0	124.0	1.00	1.00	0.0	124.0	0.00
2	193.1	16.3	176.8	107.8	1.56	1.64	69.1	130.8	0.53
3	216.7	32.8	183.9	91.2	1.75	2.02	92.7	122.1	0.76
4	225.3	44.4	181.0	79.7	1.82	2.27	101.3	113.4	0.89
5	230.7	58.8	171.9	65.2	1.86	2.64	106.7	100.8	1.06
6	230.8	66.4	164.4	57.6	1.86	2.85	106.8	93.2	1.15
7	230.9	72.6	158.3	51.4	1.86	3.08	106.9	87.0	1.23
8	228.6	77.6	151.0	46.4	1.84	3.25	104.6	81.0	1.29
9	226.9	80.5	146.4	43.5	1.83	3.36	102.8	77.8	1.32
10	222.3	82.3	140.0	41.8	1.79	3.35	98.1	74.5	1.32
11	218.1	84.5	133.6	39.6	1.76	3.38	94.0	70.9	1.33

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 584-600 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS=248.0 KPA
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 40.8 CC
CELL PRESSURE =130.9 KPA
CONSOLIDATION PRESSURE = 62.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.30	9.51	CM
VOID RATIO	= 1.701	1.192	
AREA	= 21.01	18.49	CM2
PERCENT MOISTURE	= 61.49	43.05	PERCENT
WET DENSITY	= 16.24	17.72	KN/M3
DRY DENSITY	= 10.05	12.39	KN/M3
PERCENT SATURATION	=100.13	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.192	0.000
2	0.004008	0.004008	0.0000	1.192	0.040
3	0.007748	0.007748	0.0000	1.192	0.107
4	0.016298	0.016298	0.0000	1.192	0.102
5	0.033397	0.033397	0.0000	1.192	0.088
6	0.050496	0.050496	0.0000	1.192	0.102
7	0.076679	0.076679	0.0000	1.192	0.131
8	0.111679	0.111679	0.0000	1.192	0.158
9	0.146947	0.146947	0.0000	1.192	0.175
10	0.190496	0.190496	0.0000	1.192	0.203
11	0.225763	0.225763	0.0000	1.192	0.224

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	62.0	0.0	62.0	62.0	1.00	1.00	0.0	62.0	0.00
2	75.7	0.6	75.2	61.5	1.22	1.22	13.7	66.0	0.21
3	112.4	5.4	107.0	56.6	1.81	1.89	50.4	73.4	0.69
4	143.2	8.3	134.9	53.7	2.31	2.51	81.1	80.8	1.00
5	161.2	8.7	152.5	53.3	2.60	2.86	99.2	86.4	1.15
6	162.4	10.2	152.2	51.8	2.62	2.94	100.4	85.3	1.18
7	162.6	13.2	149.4	48.8	2.62	3.06	100.6	82.3	1.22
8	162.5	15.8	146.7	46.2	2.62	3.18	100.5	79.7	1.26
9	163.1	17.6	145.4	44.4	2.63	3.28	101.0	78.1	1.29
10	157.9	19.4	138.5	42.6	2.55	3.25	95.9	74.5	1.29
11	153.7	20.5	133.2	41.5	2.48	3.21	91.7	72.0	1.27

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-1679
USGS BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 188-200 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 12.6 CC
CELL PRESSURE = 79.2 KPA
CONSOLIDATION PRESSURE = 10.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.74	CM
VOID RATIO	= 1.718	1.562	
AREA	= 20.06	19.30	CM2
PERCENT MOISTURE	= 59.96	56.48	PERCENT
WET DENSITY	= 15.96	16.56	KN/M3
DRY DENSITY	= 9.98	10.58	KN/M3
PERCENT SATURATION	= 96.54	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.562	0.000
2	0.008276	0.008276	0.0000	1.562	0.532
3	0.020334	0.020334	0.0000	1.562	0.477
4	0.038304	0.038304	0.0000	1.562	0.405
5	0.067287	0.067287	0.0000	1.562	0.379
6	0.084885	0.084885	0.0000	1.562	0.286
7	0.096470	0.096470	0.0000	1.562	0.272
8	0.112076	0.112076	0.0000	1.562	0.265
9	0.129337	0.129337	0.0000	1.562	0.267
10	0.164213	0.164213	0.0000	1.562	0.274
11	0.198497	0.198497	0.0000	1.562	0.409
12	0.261865	0.261865	0.0000	1.562	0.439

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	10.3	0.0	10.3	10.3	1.00	1.00	0.0	10.3	0.00
2	18.0	4.3	13.8	6.1	1.74	2.27	7.7	8.6	0.89
3	28.8	8.8	20.0	1.5	2.78	13.17	18.4	7.7	2.41
4	33.8	9.5	24.3	0.8	3.27	29.34	22.4	8.6	2.71
5	37.2	10.2	27.0	0.1	3.60	95.90	25.9	9.1	2.95
6	36.7	10.2	26.5	0.1	3.55	92.25	26.4	8.9	2.95
7	37.4	10.1	27.3	0.3	3.61	99.04	27.0	9.0	2.91
8	37.9	10.1	27.8	0.3	3.66	00.92	27.5	9.5	2.91
9	37.3	9.9	27.4	0.4	3.61	66.32	27.0	9.4	2.87
10	37.2	10.1	27.1	0.3	3.60	98.41	26.8	9.2	2.91
11	35.2	10.2	25.0	0.1	3.41	81.39	24.9	8.4	2.95
12	33.2	10.1	23.2	0.3	3.22	84.06	22.9	7.9	2.90

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 200-212 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 13.0 CC
CELL PRESSURE = 89.6 KPA
CONSOLIDATION PRESSURE = 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.29	11.06	CM
VOID RATIO	= 1.652	1.501	
AREA	= 20.20	19.44	CM2
PERCENT MOISTURE	= 59.60	54.27	PERCENT
WET DENSITY	= 16.32	16.73	KN/M3
DRY DENSITY	= 10.23	10.84	KN/M3
PERCENT SATURATION	= 99.77	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.500	0.000
2	0.000574	0.000574	0.0000	1.500	0.534
3	0.004938	0.004938	0.0000	1.500	0.683
4	0.011140	0.011140	0.0000	1.500	0.389
5	0.021820	0.021820	0.0000	1.500	0.657
6	0.032960	0.032960	0.0000	1.500	0.648
7	0.050990	0.050990	0.0000	1.500	0.627
8	0.068216	0.068216	0.0000	1.500	0.605
9	0.091300	0.091300	0.0000	1.500	0.647
10	0.109330	0.109330	0.0000	1.500	0.652
11	0.132643	0.132643	0.0000	1.500	0.677
12	0.155956	0.155956	0.0000	1.500	0.686
13	0.179499	0.179499	0.0000	1.500	0.708
14	0.193050	0.193050	0.0000	1.500	0.762

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	21.9	0.7	21.2	20.0	1.06	1.06	1.2	20.4	0.06
3	23.1	1.7	21.4	18.9	1.12	1.13	2.5	19.8	0.13
4	24.1	3.1	21.0	17.6	1.17	1.20	3.4	18.7	0.18
5	37.9	11.4	26.6	9.3	1.84	2.86	17.3	15.1	1.15
6	41.3	13.4	27.9	7.2	2.00	3.86	20.7	14.1	1.46
7	44.3	14.8	29.4	5.9	2.14	5.03	23.6	13.7	1.72
8	45.7	15.2	30.5	5.5	2.21	5.54	25.0	13.9	1.81
9	46.2	16.5	29.7	4.1	2.23	7.17	25.5	12.6	2.02
10	45.5	16.2	29.3	4.5	2.20	6.54	24.8	12.7	1.95
11	45.0	16.5	28.5	4.1	2.18	6.89	24.4	12.3	1.99
12	45.2	16.9	28.3	3.8	2.19	7.48	24.5	12.0	2.05
13	44.9	17.2	27.7	3.4	2.17	8.04	24.3	11.5	2.10
14	44.1	17.9	26.2	2.8	2.14	9.52	23.5	10.6	2.22

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 212-224 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 20.7 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.35	10.57	CM
VOID RATIO	= 1.605	1.360	
AREA	= 20.13	18.39	CM2
PERCENT MOISTURE	= 58.15	49.13	PERCENT
WET DENSITY	= 16.47	17.14	KN/M3
DRY DENSITY	= 10.41	11.49	KN/M3
PERCENT SATURATION	=100.23	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.359	0.000
2	0.014179	0.014179	0.0000	1.359	0.645
3	0.023431	0.023431	0.0000	1.359	0.766
4	0.034486	0.034486	0.0000	1.359	0.775
5	0.057436	0.057436	0.0000	1.359	0.843
6	0.080868	0.080868	0.0000	1.359	0.839
7	0.104179	0.104179	0.0000	1.359	0.867
8	0.127850	0.127850	0.0000	1.359	0.909
9	0.157770	0.157770	0.0000	1.359	0.936
10	0.181682	0.181682	0.0000	1.359	0.951
11	0.199466	0.199466	0.0000	1.359	0.953
12	0.207276	0.207276	0.0000	1.359	0.978

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	50.0	5.7	44.4	35.7	1.21	1.24	8.7	38.6	0.23
3	70.5	22.3	48.1	19.0	1.70	2.53	29.1	28.7	1.01
4	76.5	27.3	49.2	14.1	1.85	3.50	35.2	25.8	1.36
5	77.8	30.7	47.0	10.6	1.88	4.43	36.4	22.8	1.60
6	79.9	32.4	47.5	9.0	1.93	5.30	38.6	21.3	1.77
7	79.9	33.5	46.4	7.9	1.93	5.91	38.6	20.7	1.86
8	78.9	34.2	44.7	7.2	1.91	6.24	37.6	19.7	1.91
9	78.5	34.9	43.7	6.5	1.90	6.74	37.2	18.9	1.97
10	78.4	35.3	43.1	6.1	1.90	7.11	37.0	18.4	2.01
11	78.3	35.4	43.0	5.9	1.90	7.26	37.1	18.3	2.03
12	77.2	35.1	42.1	6.2	1.87	6.79	35.9	18.2	1.98

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 224-238 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 18.2 CC
CELL PRESSURE =103.4 KPA
CONSOLIDATION PRESSURE = 34.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.89	10.27	CM
VOID RATIO	= 1.576	1.309	
AREA	= 19.59	18.63	CM2
PERCENT MOISTURE	= 57.54	47.33	PERCENT
WET DENSITY	= 16.59	17.30	KN/M3
DRY DENSITY	= 10.53	11.75	KN/M3
PERCENT SATURATION	=101.00	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.308	0.000
2	0.002598	0.002598	0.0000	1.308	0.344
3	0.011504	0.011504	0.0000	1.308	0.511
4	0.023256	0.023256	0.0000	1.308	0.561
5	0.035131	0.035131	0.0000	1.308	0.602
6	0.055913	0.055913	0.0000	1.308	0.680
7	0.070758	0.070758	0.0000	1.308	0.698
8	0.094756	0.094756	0.0000	1.308	0.773
9	0.131496	0.131496	0.0000	1.308	0.814
10	0.155741	0.155741	0.0000	1.308	0.858

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	69.6	0.0	69.6	34.5	2.02	2.02	35.2	46.2	0.76
2	67.3	11.3	56.0	23.2	1.95	2.42	32.8	34.1	0.96
3	69.2	17.8	51.4	16.7	2.01	3.08	34.8	28.3	1.23
4	71.0	20.5	50.5	13.9	2.06	3.63	36.6	26.1	1.40
5	70.6	21.8	48.8	12.7	2.05	3.85	36.1	24.7	1.46
6	70.9	24.8	46.1	9.6	2.06	4.77	36.4	21.8	1.67
7	71.3	25.8	45.6	8.7	2.07	5.25	36.9	21.0	1.76
8	69.4	27.0	42.3	7.4	2.01	5.69	34.9	19.1	1.83
9	68.9	28.1	40.8	6.3	2.00	6.44	34.5	17.8	1.93
10	68.0	28.8	39.2	5.7	1.97	6.93	33.5	16.8	1.99

CD-22 PC-25
425-438 CM

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 425-438 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
MEASURED VOLUME CHANGE = 38.7 CC
PRECONSOLIDATION STRESS=248.1 KPA
OVERCONSOLIDATION RATIO= 1.0
CELL PRESSURE =317.0 KPA
CONSOLIDATION PRESSURE =248.1 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.78	9.96	CM
VOID RATIO	= 1.199	0.792	
AREA	= 19.39	17.10	CM2
PERCENT MOISTURE	= 42.55	28.19	PERCENT
WET DENSITY	= 17.86	19.71	KN/M3
DRY DENSITY	= 12.53	15.37	KN/M3
PERCENT SATURATION	= 99.71	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.792	0.000
2	0.005609	0.005609	0.0000	0.792	0.509
3	0.011473	0.011473	0.0000	0.792	0.732
4	0.023202	0.023202	0.0000	0.792	0.929
5	0.035185	0.035185	0.0000	0.792	1.026
6	0.059661	0.059661	0.0000	0.792	1.124
7	0.084138	0.084138	0.0000	0.792	1.136
8	0.108614	0.108614	0.0000	0.792	1.180
9	0.134110	0.134110	0.0000	0.792	1.200
10	0.159097	0.159097	0.0000	0.792	1.206
11	0.184083	0.184083	0.0000	0.792	1.262
12	0.209324	0.209324	0.0000	0.792	1.290
13	0.247059	0.247059	0.0000	0.792	1.362

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	248.1	0.0	248.1	248.1	1.00	1.00	0.0	248.1	0.00
2	350.6	52.2	298.4	195.8	1.41	1.52	102.5	230.0	0.45
3	378.3	95.4	282.9	152.7	1.53	1.85	130.2	196.1	0.66
4	396.9	138.4	258.5	109.7	1.60	2.36	148.8	159.3	0.93
5	401.7	157.7	244.1	90.4	1.62	2.70	153.7	141.6	1.08
6	402.1	173.2	228.9	74.8	1.62	3.06	154.1	126.2	1.22
7	405.5	178.9	226.6	69.2	1.63	3.28	157.4	121.6	1.29
8	402.3	182.0	220.2	66.0	1.62	3.34	154.2	117.4	1.31
9	400.8	183.4	217.4	64.6	1.62	3.36	152.8	115.6	1.32
10	401.2	184.8	216.4	63.3	1.62	3.42	153.2	114.3	1.34
11	394.8	185.4	209.5	62.7	1.59	3.34	146.8	111.6	1.31
12	393.0	187.0	206.0	61.0	1.58	3.37	144.9	109.4	1.33
13	386.1	188.1	198.0	59.9	1.56	3.30	138.0	106.0	1.30

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 438-450 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=248.1 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 34.2 CC
CELL PRESSURE =130.9 KPA
CONSOLIDATION PRESSURE = 62.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.97	9.25	CM
VOID RATIO	= 1.202	0.814	
AREA	= 19.46	17.26	CM2
PERCENT MOISTURE	= 41.29	28.97	PERCENT
WET DENSITY	= 17.68	19.59	KN/M3
DRY DENSITY	= 12.51	15.19	KN/M3
PERCENT SATURATION	= 96.53	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.813	0.000
2	0.004940	0.004940	0.0000	0.813	0.189
3	0.013174	0.013174	0.0000	0.813	0.144
4	0.026074	0.026074	0.0000	0.813	0.147
5	0.039797	0.039797	0.0000	0.813	0.145
6	0.060107	0.060107	0.0000	0.813	0.147
7	0.087554	0.087554	0.0000	0.813	0.152
8	0.101277	0.101277	0.0000	0.813	0.157
9	0.115000	0.115000	0.0000	0.813	0.147
10	0.142446	0.142446	0.0000	0.813	0.150
11	0.170167	0.170167	0.0000	0.813	0.143
12	0.210788	0.210788	0.0000	0.813	0.160
13	0.237960	0.237960	0.0000	0.813	0.171

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	62.0	0.0	62.0	62.0	1.00	1.00	0.0	62.0	0.00
2	87.4	4.8	82.6	57.2	1.41	1.44	25.4	65.7	0.39
3	141.2	11.4	129.8	50.6	2.28	2.56	79.2	77.0	1.03
4	153.2	13.4	139.8	48.6	2.47	2.88	91.2	79.0	1.15
5	157.1	13.8	143.4	48.2	2.53	2.97	95.1	79.9	1.19
6	160.5	14.5	146.0	47.5	2.59	3.07	98.4	80.4	1.23
7	164.2	15.5	148.7	46.5	2.65	3.20	102.2	80.6	1.27
8	165.2	16.2	149.0	45.8	2.66	3.25	103.2	80.2	1.29
9	165.0	15.2	149.8	46.9	2.66	3.20	103.0	81.2	1.27
10	165.1	15.5	149.6	46.5	2.66	3.22	103.1	80.9	1.27
11	163.1	14.5	148.6	47.5	2.63	3.13	101.0	81.2	1.24
12	161.0	15.8	145.1	46.2	2.60	3.14	98.9	79.1	1.25
13	160.7	16.9	143.8	45.1	2.59	3.19	98.7	78.0	1.26

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 452-464 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527, CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.81
PRECONSOLIDATION STRESS	= 248.0 KPA
OVERCONSOLIDATION RATIO	= 8.0
MEASURED VOLUME CHANGE	= 28.7 CC
CELL PRESSURE	= 99.9 KPA
CONSOLIDATION PRESSURE	= 31.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.83	9.28	CM
VOID RATIO	= 1.226	0.906	
AREA	= 20.26	18.38	CM2
PERCENT MOISTURE	= 40.71	32.23	PERCENT
WET DENSITY	= 17.41	19.12	KN/M3
DRY DENSITY	= 12.38	14.46	KN/M3
PERCENT SATURATION	= 93.29	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.905	0.000
2	0.001916	0.001916	0.0000	0.905	0.103
3	0.006570	0.006570	0.0000	0.905	0.069
4	0.013688	0.013688	0.0000	0.905	0.069
5	0.024911	0.024911	0.0000	0.905	0.011
6	0.055024	0.055024	0.0000	0.905	-0.046
7	0.086232	0.086232	0.0000	0.905	-0.057
8	0.117439	0.117439	0.0000	0.905	-0.069
9	0.136586	0.136586	0.0000	0.905	-0.065
10	0.192174	0.192174	0.0000	0.905	-0.099
11	0.219001	0.219001	0.0000	0.905	-0.115

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	31.0	0.0	31.0	31.0	1.00	1.00	0.0	31.0	0.00
2	44.4	1.4	43.0	29.6	1.43	1.45	13.4	34.1	0.39
3	66.0	2.4	63.5	28.6	2.13	2.22	34.9	40.2	0.87
4	80.6	3.4	77.2	27.6	2.60	2.80	49.6	44.1	1.12
5	92.4	0.7	91.7	30.3	2.98	3.02	61.4	50.8	1.21
6	105.5	-3.4	108.9	34.5	3.40	3.16	74.5	59.3	1.26
7	109.3	-4.5	113.8	35.5	3.53	3.21	78.3	61.6	1.27
8	110.6	-5.5	116.1	36.5	3.57	3.18	79.6	63.0	1.26
9	110.4	-5.2	115.6	36.2	3.56	3.20	79.4	62.6	1.27
10	107.9	-7.6	115.4	38.6	3.48	2.99	76.9	64.2	1.20
11	105.7	-8.6	114.3	39.6	3.41	2.89	74.7	64.5	1.16

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 581-594 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=392.5 KPA
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 49.9 CC
CELL PRESSURE =461.7 KPA
CONSOLIDATION PRESSURE =392.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	9.74	CM
VOID RATIO	= 1.376	0.841	
AREA	= 20.53	17.62	CM2
PERCENT MOISTURE	= 49.33	30.15	PERCENT
WET DENSITY	= 17.19	19.34	KN/M3
DRY DENSITY	= 11.51	14.86	KN/M3
PERCENT SATURATION	=100.02	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.841	0.000
2	0.002868	0.002868	0.0000	0.841	0.277
3	0.006779	0.006779	0.0000	0.841	0.430
4	0.016166	0.016166	0.0000	0.841	0.860
5	0.028942	0.028942	0.0000	0.841	1.107
6	0.053191	0.053191	0.0000	0.841	1.225
7	0.078743	0.078743	0.0000	0.841	1.300
8	0.104556	0.104556	0.0000	0.841	1.325
9	0.130370	0.130370	0.0000	0.841	1.345
10	0.176260	0.176260	0.0000	0.841	1.383
11	0.201812	0.201812	0.0000	0.841	1.408
12	0.227365	0.227365	0.0000	0.841	1.449
13	0.250831	0.250831	0.0000	0.841	1.459

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	392.8	0.0	392.8	392.8	1.00	1.00	0.0	392.8	0.00
2	469.4	21.2	448.1	371.5	1.20	1.21	76.6	397.1	0.19
3	514.2	52.2	462.0	340.5	1.31	1.36	121.5	381.0	0.32
4	574.8	156.7	418.1	236.1	1.46	1.77	182.1	296.8	0.61
5	597.7	227.0	370.7	165.8	1.52	2.24	204.9	234.1	0.88
6	614.1	271.2	342.9	121.5	1.56	2.82	221.3	195.3	1.13
7	613.1	286.5	326.6	106.2	1.56	3.07	220.3	179.7	1.23
8	613.7	292.8	320.8	99.9	1.56	3.21	220.9	173.6	1.27
9	613.0	296.3	316.7	96.5	1.56	3.28	220.2	169.9	1.30
10	609.4	299.6	309.8	93.2	1.55	3.33	216.6	165.4	1.31
11	606.1	300.4	305.7	92.3	1.54	3.31	213.4	163.4	1.31
12	600.9	301.8	299.1	91.0	1.53	3.29	208.2	160.4	1.30
13	600.3	302.9	297.4	89.9	1.53	3.31	207.5	159.0	1.31

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 594-606 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=192.3 KPA
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 19.4 CC
CELL PRESSURE =265.3 KPA
CONSOLIDATION PRESSURE =196.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.48	9.70	CM
VOID RATIO	= 1.216	0.809	
AREA	= 20.47	18.06	CM2
PERCENT MOISTURE	= 42.72	29.01	PERCENT
WET DENSITY	= 17.62	19.51	KN/M3
DRY DENSITY	= 12.34	15.12	KN/M3
PERCENT SATURATION	= 98.02	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.809	0.000
2	0.001048	0.001048	0.0000	0.809	0.094
3	0.003667	0.003667	0.0000	0.809	0.116
4	0.024362	0.024362	0.0000	0.809	0.256
5	0.052130	0.052130	0.0000	0.809	0.399
6	0.081208	0.081208	0.0000	0.809	0.452
7	0.110548	0.110548	0.0000	0.809	0.470
8	0.139888	0.139888	0.0000	0.809	0.480
9	0.169489	0.169489	0.0000	0.809	0.487
10	0.199353	0.199353	0.0000	0.809	0.503
11	0.228955	0.228955	0.0000	0.809	0.525
12	0.287372	0.287372	0.0000	0.809	0.564

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	196.4	0.0	196.4	196.4	1.00	1.00	0.0	196.4	0.00
2	221.9	2.4	219.4	194.0	1.13	1.13	25.5	202.5	0.13
3	237.9	4.8	233.1	191.6	1.21	1.22	41.5	205.4	0.20
4	373.7	45.5	328.2	150.9	1.90	2.18	177.3	210.0	0.84
5	395.2	79.2	316.9	117.1	2.01	2.70	198.8	183.4	1.08
6	400.8	92.3	308.5	104.0	2.04	2.96	204.4	172.2	1.19
7	403.0	97.2	305.8	99.2	2.05	3.08	206.6	168.1	1.23
8	402.5	98.9	303.6	97.5	2.05	3.11	206.1	166.2	1.24
9	400.7	99.6	301.1	96.8	2.04	3.11	204.3	164.9	1.24
10	396.9	100.9	295.9	95.4	2.02	3.10	200.5	162.3	1.24
11	391.8	102.7	289.1	93.7	1.99	3.08	195.4	158.8	1.23
12	380.8	104.0	276.7	92.3	1.94	3.00	184.4	153.8	1.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 606-620 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.79
PRECONSOLIDATION STRESS=392.5 KPA
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 52.5 CC
CELL PRESSURE =167.4 KPA
CONSOLIDATION PRESSURE = 98.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.04	9.96	CM
VOID RATIO	= 1.469	0.906	
AREA	= 20.88	17.88	CM2
PERCENT MOISTURE	= 51.63	32.50	PERCENT
WET DENSITY	= 16.80	19.01	KN/M3
DRY DENSITY	= 11.08	14.35	KN/M3
PERCENT SATURATION	= 98.08	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.906	0.000
2	0.001021	0.001021	0.0000	0.906	0.077
3	0.004337	0.004337	0.0000	0.906	0.152
4	0.012757	0.012757	0.0000	0.906	0.163
5	0.029085	0.029085	0.0000	0.906	0.165
6	0.052813	0.052813	0.0000	0.906	0.184
7	0.077816	0.077816	0.0000	0.906	0.197
8	0.103074	0.103074	0.0000	0.906	0.204
9	0.128332	0.128332	0.0000	0.906	0.211
10	0.154101	0.154101	0.0000	0.906	0.221
11	0.167113	0.167113	0.0000	0.906	0.224
12	0.180124	0.180124	0.0000	0.906	0.231

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	98.5	0.0	98.5	98.5	1.00	1.00	0.0	98.5	0.00
2	120.9	1.7	119.2	96.8	1.23	1.23	22.3	104.3	0.21
3	161.7	9.6	152.1	88.9	1.64	1.71	63.2	110.0	0.57
4	216.8	19.3	197.5	79.2	2.20	2.49	118.2	118.7	1.00
5	238.6	23.1	215.5	75.4	2.42	2.86	140.1	122.1	1.15
6	248.4	27.6	220.9	71.0	2.52	3.11	149.9	120.9	1.24
7	252.7	30.3	222.3	68.2	2.56	3.26	154.1	119.6	1.29
8	253.8	31.7	222.1	66.8	2.58	3.32	155.3	118.6	1.31
9	253.4	32.7	220.7	65.8	2.57	3.35	154.9	117.4	1.32
10	251.5	33.8	217.7	64.8	2.55	3.36	153.0	115.8	1.32
11	250.6	34.1	216.4	64.4	2.54	3.36	152.0	115.1	1.32
12	246.2	34.1	212.1	64.4	2.50	3.29	147.7	113.7	1.30

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 121-133 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 1.5 CC
CELL PRESSURE =148.1 KPA
CONSOLIDATION PRESSURE = 10.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.06	10.03	CM
VOID RATIO	= 0.854	0.839	
AREA	= 19.46	19.36	CM2
PERCENT MOISTURE	= 32.71	30.89	PERCENT
WET DENSITY	= 19.07	18.96	KN/M3
DRY DENSITY	= 14.37	14.48	KN/M3
PERCENT SATURATION	=104.11	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.839	0.000
2	0.000380	0.000380	0.0000	0.839	0.214
3	0.002405	0.002405	0.0000	0.839	0.229
4	0.008608	0.008608	0.0000	0.839	0.049
5	0.014178	0.014178	0.0000	0.839	-0.029
6	0.022786	0.022786	0.0000	0.839	-0.095
7	0.050382	0.050382	0.0000	0.839	-0.188
8	0.083169	0.083169	0.0000	0.839	-0.224
9	0.132538	0.132538	0.0000	0.839	-0.267
10	0.172540	0.172540	0.0000	0.839	-0.280
11	0.203934	0.203934	0.0000	0.839	-0.296
12	0.235201	0.235201	0.0000	0.839	-0.299
13	0.283938	0.283938	0.0000	0.839	-0.308

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	10.3	0.0	10.3	10.3	1.00	1.00	0.0	10.3	0.00
2	20.5	2.2	18.4	8.1	1.99	2.26	10.3	11.6	0.89
3	32.0	5.0	27.0	5.4	3.09	5.03	21.6	12.6	1.72
4	55.6	2.2	53.4	8.1	5.38	6.57	45.3	23.2	1.95
5	76.7	-1.9	78.7	12.3	7.43	6.41	66.4	34.4	1.93
6	103.0	-8.8	111.8	19.2	9.96	5.83	92.6	50.0	1.85
7	192.5	-34.2	226.7	44.5	18.63	5.09	182.2	105.2	1.73
8	264.7	-59.5	324.3	69.9	25.61	4.64	254.4	154.7	1.64
9	322.3	-83.4	405.7	93.7	31.19	4.33	312.0	197.7	1.58
10	343.9	-93.3	437.2	103.6	33.27	4.22	333.6	214.8	1.55
11	329.4	-94.5	423.9	104.9	31.87	4.04	319.1	211.2	1.51
12	330.8	-92.7	423.6	103.1	32.01	4.11	320.5	209.9	1.53
13	301.4	-89.6	391.0	99.9	29.16	3.91	291.1	196.9	1.48

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 133-145 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 1.9 CC
CELL PRESSURE =158.5 KPA
CONSOLIDATION PRESSURE = 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.73	10.70	CM
VOID RATIO	= 0.835	0.819	
AREA	= 20.60	20.48	CM2
PERCENT MOISTURE	= 30.56	30.15	PERCENT
WET DENSITY	= 18.96	19.06	KN/M3
DRY DENSITY	= 14.52	14.64	KN/M3
PERCENT SATURATION	= 99.46	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.819	0.000
2	0.009974	0.009974	0.0000	0.819	0.697
3	0.017098	0.017098	0.0000	0.819	0.310
4	0.022915	0.022915	0.0000	0.819	0.141
5	0.040132	0.040132	0.0000	0.819	-0.096
6	0.052480	0.052480	0.0000	0.819	-0.163
7	0.060198	0.060198	0.0000	0.819	-0.190
8	0.066490	0.066490	0.0000	0.819	-0.208
9	0.078245	0.078245	0.0000	0.819	-0.233
10	0.104722	0.104722	0.0000	0.819	-0.270
11	0.160171	0.160171	0.0000	0.819	-0.308
12	0.202677	0.202677	0.0000	0.819	-0.327
13	0.246252	0.246252	0.0000	0.819	-0.350
14	0.303125	0.303125	0.0000	0.819	-0.367

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	22.6	1.4	21.2	19.3	1.09	1.10	1.9	19.9	0.10
3	47.3	8.3	39.0	12.4	2.29	3.14	26.6	21.3	1.25
4	64.7	6.2	58.5	14.5	3.13	4.04	44.0	29.2	1.51
5	117.7	-9.3	127.0	30.0	5.70	4.24	97.1	62.3	1.56
6	156.0	-22.0	178.0	42.7	7.55	4.17	135.3	87.8	1.54
7	180.1	-30.3	210.4	51.0	8.71	4.13	159.4	104.1	1.53
8	199.5	-37.2	236.7	57.9	9.65	4.09	178.8	117.5	1.52
9	232.0	-49.3	281.3	69.9	11.22	4.02	211.4	140.4	1.51
10	290.7	-73.0	363.8	93.7	14.07	3.88	270.1	183.7	1.47
11	356.7	-103.4	460.1	124.0	17.26	3.71	336.0	236.0	1.42
12	373.9	-115.4	489.3	136.1	18.09	3.60	353.2	253.3	1.39
13	368.5	-121.6	490.2	142.3	17.83	3.44	347.9	258.2	1.35
14	356.7	-123.3	480.1	144.0	17.26	3.33	336.1	256.0	1.31

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 145-157 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 2.9 CC
CELL PRESSURE =179.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	10.75	CM
VOID RATIO	= 0.767	0.744	
AREA	= 20.40	20.22	CM2
PERCENT MOISTURE	= 26.91	27.38	PERCENT
WET DENSITY	= 19.13	19.46	KN/M3
DRY DENSITY	= 15.08	15.28	KN/M3
PERCENT SATURATION	= 95.31	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.743	0.000
2	0.002836	0.002836	0.0000	0.743	0.304
3	0.005672	0.005672	0.0000	0.743	0.297
4	0.008508	0.008508	0.0000	0.743	0.253
5	0.022689	0.022689	0.0000	0.743	0.091
6	0.039706	0.039706	0.0000	0.743	-0.052
7	0.053887	0.053887	0.0000	0.743	-0.158
8	0.082248	0.082248	0.0000	0.743	-0.187
9	0.110609	0.110609	0.0000	0.743	-0.223
10	0.138971	0.138971	0.0000	0.743	-0.244
11	0.181513	0.181513	0.0000	0.743	-0.269
12	0.209874	0.209874	0.0000	0.743	-0.278
13	0.252416	0.252416	0.0000	0.743	-0.298

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	63.1	6.6	56.5	34.7	1.53	1.63	21.7	42.0	0.52
3	99.8	17.4	82.5	24.0	2.41	3.44	58.5	43.5	1.35
4	108.3	17.0	91.4	24.4	2.62	3.75	67.0	46.7	1.43
5	144.6	9.4	135.2	32.0	3.50	4.23	103.3	66.4	1.56
6	209.8	-8.8	218.6	50.2	5.07	4.36	168.4	106.1	1.58
7	302.1	-41.2	343.3	82.5	7.31	4.16	260.8	169.5	1.54
8	337.3	-55.3	392.5	96.6	8.16	4.06	295.9	195.2	1.52
9	391.1	-78.0	469.1	119.3	9.46	3.93	349.8	235.9	1.48
10	425.0	-93.7	518.7	135.1	10.28	3.84	383.6	262.9	1.46
11	446.1	-108.7	554.9	150.1	10.79	3.70	404.8	285.0	1.42
12	456.2	-115.3	571.6	156.7	11.04	3.65	414.9	295.0	1.41
13	447.7	-121.0	568.7	162.3	10.83	3.50	406.4	297.8	1.36

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 155-171 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 2.6 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.35	10.27	CM
VOID RATIO	= 0.633	0.612	
AREA	= 20.67	20.58	CM2
PERCENT MOISTURE	= 22.42	22.49	PERCENT
WET DENSITY	= 20.00	20.27	KN/M3
DRY DENSITY	= 16.33	16.55	KN/M3
PERCENT SATURATION	= 96.35	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.611	0.000
2	0.001237	0.001237	0.0000	0.611	0.133
3	0.005938	0.005938	0.0000	0.611	0.081
4	0.008164	0.008164	0.0000	0.611	0.042
5	0.018061	0.018061	0.0000	0.611	-0.050
6	0.034142	0.034142	0.0000	0.611	-0.137
7	0.057893	0.057893	0.0000	0.611	-0.186
8	0.077932	0.077932	0.0000	0.611	-0.209
9	0.108363	0.108363	0.0000	0.611	-0.234
10	0.128898	0.128898	0.0000	0.611	-0.249
11	0.148937	0.148937	0.0000	0.611	-0.260
12	0.179616	0.179616	0.0000	0.611	-0.272
13	0.203366	0.203366	0.0000	0.611	-0.279

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	27.8	0.0	27.8	13.8	2.01	2.01	14.0	18.4	0.76
2	39.5	3.4	36.1	10.3	2.87	3.49	25.8	18.9	1.36
3	59.7	3.7	56.0	10.1	4.33	5.57	46.0	25.4	1.81
4	69.2	2.3	66.9	11.4	5.02	5.85	55.4	29.9	1.85
5	106.7	-4.7	111.4	18.5	7.74	6.03	92.9	49.4	1.88
6	163.3	-20.5	183.8	34.3	11.85	5.36	149.5	84.2	1.78
7	224.4	-39.3	263.7	53.1	16.29	4.97	210.7	123.3	1.71
8	261.6	-51.8	313.4	65.6	18.98	4.78	247.8	148.2	1.67
9	286.0	-63.8	349.8	77.6	20.75	4.51	272.2	168.3	1.62
10	290.0	-68.9	358.9	82.7	21.05	4.34	276.3	174.8	1.58
11	292.8	-72.5	365.3	86.3	21.25	4.23	279.1	179.3	1.56
12	293.4	-75.9	369.3	89.7	21.29	4.12	279.6	182.9	1.53
13	293.8	-78.3	372.1	92.1	21.32	4.04	280.0	185.4	1.51

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

ROJECT NAME & NO. ARE W9-2679 USGS
ORING NUMBER IS CD-24 PC-28
AMPLE IDENTIFICATION IS JD @ 271-284 CM

ONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

ROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

PECIFIC GRAVITY	= 2.75
RECONSOLIDATION STRESS	=199.7
VERCONSOLIDATION RATIO	= 1.00
EASURED VOLUME CHANGE	= 12.2 CC
ELL PRESSURE	=268.7 KPA
ONSOLIDATION PRESSURE	=199.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
EIGHT	= 10.01	9.80	CM
OID RATIO	= 0.621	0.525	
REA	= 20.47	19.66	CM2
ERCENT MOISTURE	= 23.13	19.08	PERCENT
ET DENSITY	= 20.48	21.06	KN/M3
RY DENSITY	= 16.63	17.68	KN/M3
ERCENT SATURATION	=102.39	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

EADING UMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.524	0.000
2	0.001815	0.001815	0.0000	0.524	0.163
3	0.009075	0.009075	0.0000	0.524	0.353
4	0.015816	0.015816	0.0000	0.524	0.569
5	0.025150	0.025150	0.0000	0.524	0.654
6	0.039929	0.039929	0.0000	0.524	0.740
7	0.062486	0.062486	0.0000	0.524	0.666
8	0.085562	0.085562	0.0000	0.524	0.563
9	0.108897	0.108897	0.0000	0.524	0.502
10	0.139751	0.139751	0.0000	0.524	0.419
11	0.178902	0.178902	0.0000	0.524	0.366
12	0.210534	0.210534	0.0000	0.524	0.341
13	0.245018	0.245018	0.0000	0.524	0.331

EADING UMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	199.8	0.0	199.8	199.8	1.00	1.00	0.0	199.8	0.00
2	210.4	1.7	208.6	198.1	1.05	1.05	10.5	201.6	0.05
3	221.0	11.7	209.3	188.1	1.11	1.11	21.1	195.2	0.11
4	241.6	23.8	217.8	176.0	1.21	1.24	41.8	190.0	0.22
5	243.5	94.1	249.5	105.8	1.72	2.36	143.7	153.7	0.94
6	366.6	123.3	243.2	76.5	1.83	3.18	166.7	132.1	1.26
7	393.7	129.2	264.5	70.6	1.97	3.74	193.9	135.2	1.43
8	414.7	120.9	293.8	78.9	2.08	3.72	214.9	150.5	1.43
9	435.0	118.2	316.8	81.7	2.18	3.88	235.2	160.0	1.47
10	452.2	105.8	346.4	94.1	2.26	3.68	252.4	178.2	1.42
11	466.5	97.5	369.0	102.3	2.33	3.61	266.7	191.2	1.39
12	470.2	92.3	377.8	107.5	2.35	3.51	270.3	197.6	1.37
13	468.4	88.9	379.5	110.9	2.34	3.42	268.5	200.4	1.34

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 284-296 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.75
PRECONSOLIDATION STRESS	=199.7
OVERCONSOLIDATION RATIO	= 2.00
MEASURED VOLUME CHANGE	= 14.6 CC
CELL PRESSURE	=168.8 KPA
CONSOLIDATION PRESSURE	= 99.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.71	9.46	CM
VOID RATIO	= 0.660	0.541	
AREA	= 21.01	20.02	CM2
PERCENT MOISTURE	= 23.08	19.67	PERCENT
WET DENSITY	= 20.00	20.94	KN/M3
DRY DENSITY	= 16.25	17.50	KN/M3
PERCENT SATURATION	= 96.23	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.540	0.000
2	0.003221	0.003221	0.0000	0.540	0.114
3	0.008322	0.008322	0.0000	0.540	0.160
4	0.021476	0.021476	0.0000	0.540	0.254
5	0.043219	0.043219	0.0000	0.540	0.248
6	0.065232	0.065232	0.0000	0.540	0.204
7	0.087781	0.087781	0.0000	0.540	0.164
8	0.120800	0.120800	0.0000	0.540	0.119
9	0.154355	0.154355	0.0000	0.540	0.090
10	0.187106	0.187106	0.0000	0.540	0.094
11	0.219856	0.219856	0.0000	0.540	0.101
12	0.244284	0.244284	0.0000	0.540	0.106

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	99.9	0.0	99.9	99.9	1.00	1.00	0.0	99.9	0.00
2	116.8	1.9	114.8	98.0	1.17	1.17	16.9	103.6	0.16
3	153.4	8.5	144.9	91.4	1.54	1.59	53.5	109.2	0.49
4	225.1	31.8	193.3	68.1	2.25	2.84	125.2	109.8	1.14
5	256.7	38.9	217.9	61.0	2.57	3.57	156.8	113.3	1.38
6	275.9	35.8	240.0	64.1	2.76	3.75	176.0	122.7	1.43
7	292.8	31.7	261.2	68.2	2.93	3.83	192.9	132.5	1.46
8	307.2	24.7	282.6	75.2	3.08	3.76	207.3	144.4	1.44
9	309.2	18.9	290.3	81.0	3.09	3.58	209.3	150.8	1.39
10	301.1	18.9	282.2	81.0	3.01	3.48	201.2	148.1	1.36
11	293.8	19.6	274.2	80.3	2.94	3.41	193.9	145.0	1.34
12	286.9	19.8	267.1	80.1	2.87	3.34	187.0	142.4	1.31

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 296-311 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=199.7
OVERCONSOLIDATION RATIO= 4.14
MEASURED VOLUME CHANGE = 14.0 CC
CELL PRESSURE =117.1 KPA
CONSOLIDATION PRESSURE = 48.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.20	8.97	CM
VOID RATIO	= 0.668	0.548	
AREA	= 21.15	20.15	CM2
PERCENT MOISTURE	= 25.21	19.94	PERCENT
WET DENSITY	= 20.24	20.89	KN/M3
DRY DENSITY	= 16.16	17.41	KN/M3
PERCENT SATURATION	=103.75	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.548	0.000
2	0.002833	0.002833	0.0000	0.548	0.154
3	0.009066	0.009066	0.0000	0.548	0.221
4	0.019831	0.019831	0.0000	0.548	0.211
5	0.030597	0.030597	0.0000	0.548	0.179
6	0.041929	0.041929	0.0000	0.548	0.152
7	0.064593	0.064593	0.0000	0.548	0.097
8	0.099156	0.099156	0.0000	0.548	0.030
9	0.134286	0.134286	0.0000	0.548	-0.008
10	0.169416	0.169416	0.0000	0.548	-0.041
11	0.204545	0.204545	0.0000	0.548	-0.062
12	0.224660	0.224660	0.0000	0.548	-0.073

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P PARAMETERS
1	48.2	0.0	48.2	48.2	1.00	1.00	0.0	48.2	0.00
2	63.9	2.4	61.4	45.8	1.32	1.34	15.6	51.0	0.31
3	91.7	9.6	82.1	38.6	1.90	2.13	43.5	53.1	0.82
4	112.0	13.4	98.5	34.8	2.32	2.83	63.7	56.0	1.14
5	125.3	13.8	111.5	34.5	2.60	3.24	77.1	60.1	1.28
6	134.4	13.1	121.3	35.1	2.79	3.45	86.2	63.9	1.35
7	148.1	9.6	138.5	38.6	3.07	3.59	99.9	71.9	1.39
8	162.8	3.4	159.4	44.8	3.38	3.56	114.6	83.0	1.38
9	170.5	-1.0	171.5	49.3	3.53	3.48	122.3	90.0	1.36
10	174.8	-5.2	180.0	53.4	3.62	3.37	126.6	96.6	1.32
11	177.0	-7.9	184.9	56.2	3.67	3.29	128.8	99.1	1.30
12	178.6	-9.3	184.9	57.5	3.64	3.21	127.3	100.0	1.27

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 172-184 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 3.8 CC
CELL PRESSURE = 80.6 KPA
CONSOLIDATION PRESSURE = 11.7 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.60	10.54 CM
VOID RATIO	= 1.237	1.197
AREA	= 20.06	19.82 CM2
PERCENT MOISTURE	= 43.57	42.32 PERCENT
WET DENSITY	= 17.80	17.97 KN/M3
DRY DENSITY	= 12.40	12.62 KN/M3
PERCENT SATURATION	= 99.63	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.197	0.000
2	0.001326	0.001326	0.0000	1.197	0.474
3	0.003375	0.003375	0.0000	1.197	0.436
4	0.013741	0.013741	0.0000	1.197	0.258
5	0.028568	0.028568	0.0000	1.197	0.110
6	0.050506	0.050506	0.0000	1.197	-0.007
7	0.072806	0.072806	0.0000	1.197	-0.080
8	0.095708	0.095708	0.0000	1.197	-0.138
9	0.118610	0.118610	0.0000	1.197	-0.168
10	0.165018	0.165018	0.0000	1.197	-0.189
11	0.203349	0.203349	0.0000	1.197	-0.193

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	11.7	0.0	11.7	11.7	1.00	1.00	0.0	11.7	0.00
2	18.2	3.1	15.1	8.6	1.55	1.75	6.5	10.8	0.60
3	21.9	4.5	17.5	7.2	1.87	2.41	10.2	10.6	0.96
4	31.7	5.2	26.5	6.5	2.71	4.05	20.0	13.2	1.51
5	43.1	3.4	39.6	8.3	3.68	4.79	31.4	18.7	1.68
6	60.2	-0.3	60.5	12.1	5.14	5.02	48.5	28.2	1.72
7	72.3	-4.8	77.1	16.5	6.17	4.66	60.6	36.7	1.65
8	76.7	-9.0	85.6	20.7	6.54	4.14	64.9	42.3	1.53
9	77.2	-11.0	88.2	22.7	6.59	3.88	65.5	44.6	1.47
10	73.8	-11.7	85.5	23.4	6.30	3.65	62.1	44.1	1.41
11	70.7	-11.4	82.1	23.1	6.04	3.56	59.0	42.8	1.38

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 184-196 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 4.5 CC
CELL PRESSURE = 91.6 KPA
CONSOLIDATION PRESSURE = 22.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.63	10.55	CM
VOID RATIO	= 1.238	1.192	
AREA	= 20.74	20.46	CM2
PERCENT MOISTURE	= 43.45	42.15	PERCENT
WET DENSITY	= 17.78	17.98	KN/M3
DRY DENSITY	= 12.39	12.65	KN/M3
PERCENT SATURATION	= 99.29	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.192	0.000
2	0.002528	0.002528	0.0000	1.192	0.696
3	0.006740	0.006740	0.0000	1.192	0.583
4	0.011554	0.011554	0.0000	1.192	0.435
5	0.018776	0.018776	0.0000	1.192	0.427
6	0.033098	0.033098	0.0000	1.192	0.301
7	0.047541	0.047541	0.0000	1.192	0.188
8	0.061744	0.061744	0.0000	1.192	0.114
9	0.084732	0.084732	0.0000	1.192	0.034
10	0.107480	0.107480	0.0000	1.192	0.024
11	0.138051	0.138051	0.0000	1.192	0.000
12	0.183907	0.183907	0.0000	1.192	-0.024

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	22.7	0.0	22.7	22.7	1.00	1.00	0.0	22.7	0.00
2	24.7	1.4	23.3	21.4	1.08	1.09	1.9	22.0	0.09
3	26.8	2.4	24.4	20.3	1.18	1.20	4.1	21.7	0.19
4	40.9	7.9	33.0	14.8	1.80	2.23	18.2	20.9	0.87
5	49.3	11.4	38.0	11.4	2.17	3.34	26.6	20.2	1.31
6	62.8	12.1	50.7	10.7	2.76	4.75	40.0	24.0	1.67
7	77.6	10.3	67.3	12.4	3.41	5.42	54.9	30.7	1.79
8	92.0	7.9	84.1	14.8	4.05	5.68	69.1	37.9	1.83
9	93.6	2.4	91.2	20.3	4.12	4.49	70.9	44.0	1.61
10	94.9	1.7	93.2	21.0	4.17	4.43	72.2	45.1	1.60
11	96.0	0.0	96.0	22.7	4.22	4.22	73.2	47.2	1.55
12	95.2	-1.7	97.0	24.5	4.19	3.96	72.5	48.6	1.49

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 196-212 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 5.8 CC
CELL PRESSURE =184.0 KPA
CONSOLIDATION PRESSURE = 46.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.68	10.58	CM
VOID RATIO	= 1.314	1.254	
AREA	= 21.01	20.65	CM2
PERCENT MOISTURE	= 45.40	44.32	PERCENT
WET DENSITY	= 17.43	17.76	KN/M3
DRY DENSITY	= 11.99	12.31	KN/M3
PERCENT SATURATION	= 97.78	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.253	0.000
2	0.000600	0.000600	0.0000	1.253	0.259
3	0.004561	0.004561	0.0000	1.253	0.481
4	0.009361	0.009361	0.0000	1.253	0.497
5	0.019082	0.019082	0.0000	1.253	0.434
6	0.024483	0.024483	0.0000	1.253	0.390
7	0.028683	0.028683	0.0000	1.253	0.362
8	0.048126	0.048126	0.0000	1.253	0.245
9	0.077649	0.077649	0.0000	1.253	0.170
10	0.107173	0.107173	0.0000	1.253	0.148
11	0.126735	0.126735	0.0000	1.253	0.149
12	0.136576	0.136576	0.0000	1.253	0.156

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	46.2	0.0	46.2	46.2	1.00	1.00	0.0	46.2	0.00
2	53.6	1.9	51.6	44.2	1.16	1.17	7.4	46.7	0.16
3	69.3	11.2	58.2	35.0	1.50	1.66	23.2	42.7	0.54
4	84.9	19.3	65.6	26.9	1.84	2.44	38.8	39.8	0.97
5	103.2	24.8	78.4	21.4	2.24	3.67	57.1	40.4	1.41
6	112.2	25.8	86.4	20.4	2.43	4.24	66.0	42.4	1.56
7	118.1	26.0	92.0	20.1	2.56	4.57	71.9	44.1	1.63
8	143.8	24.0	119.8	22.2	3.12	5.40	97.6	54.7	1.78
9	156.4	18.7	137.6	27.4	3.39	5.02	110.2	64.2	1.72
10	156.6	16.4	140.2	29.8	3.39	4.71	110.5	66.6	1.66
11	155.1	16.3	138.9	29.9	3.36	4.64	109.0	66.2	1.65
12	151.2	16.4	134.8	29.8	3.27	4.53	105.0	64.8	1.62

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 235-248 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS=413.4
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 26.2 CC
CELL PRESSURE =482.3 KPA
CONSOLIDATION PRESSURE =413.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.48	CM
VOID RATIO	= 0.957	0.729	
AREA	= 20.47	18.91	CM2
PERCENT MOISTURE	= 36.87	26.79	PERCENT
WET DENSITY	= 18.65	19.56	KN/M3
DRY DENSITY	= 13.63	15.43	KN/M3
PERCENT SATURATION	=104.79	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.728	0.000
2	0.002423	0.002423	0.0000	0.728	0.165
3	0.010905	0.010905	0.0000	0.728	0.461
4	0.034654	0.034654	0.0000	0.728	0.929
5	0.052344	0.052344	0.0000	0.728	1.020
6	0.070034	0.070034	0.0000	0.728	1.071
7	0.087725	0.087725	0.0000	0.728	1.108
8	0.123832	0.123832	0.0000	0.728	1.164
9	0.159697	0.159697	0.0000	0.728	1.214
10	0.195078	0.195078	0.0000	0.728	1.280

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	413.4	0.0	413.4	413.4	1.00	1.00	0.0	413.4	0.00
2	435.1	3.6	431.5	409.8	1.05	1.05	21.7	417.1	0.05
3	571.3	72.8	498.5	340.7	1.38	1.46	157.9	393.3	0.40
4	668.1	236.8	431.4	176.7	1.62	2.44	254.7	261.6	0.97
5	673.7	265.6	408.2	147.9	1.63	2.76	260.3	234.6	1.11
6	673.9	279.1	394.9	134.4	1.63	2.94	260.5	221.2	1.18
7	671.9	286.5	385.4	126.9	1.63	3.04	258.5	213.1	1.21
8	666.5	294.5	372.0	118.9	1.61	3.13	253.0	203.3	1.24
9	659.8	299.0	360.7	114.4	1.60	3.15	246.3	196.5	1.25
10	649.4	302.2	347.2	111.2	1.57	3.12	236.0	189.9	1.24

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 261-275 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS=413.0
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 20.9 CC
CELL PRESSURE =172.3 KPA
CONSOLIDATION PRESSURE =103.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.94	10.57	CM
VOID RATIO	= 1.087	0.894	
AREA	= 20.67	19.42	CM2
PERCENT MOISTURE	= 40.23	32.87	PERCENT
WET DENSITY	= 17.92	18.71	KN/M3
DRY DENSITY	= 12.78	14.08	KN/M3
PERCENT SATURATION	=100.68	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.894	0.000
2	0.001923	0.001923	0.0000	0.894	0.139
3	0.007211	0.007211	0.0000	0.894	0.164
4	0.021151	0.021151	0.0000	0.894	0.107
5	0.038937	0.038937	0.0000	0.894	0.070
6	0.056724	0.056724	0.0000	0.894	0.055
7	0.074750	0.074750	0.0000	0.894	0.048
8	0.110322	0.110322	0.0000	0.894	0.047
9	0.146135	0.146135	0.0000	0.894	0.053
10	0.181227	0.181227	0.0000	0.894	0.061
11	0.216559	0.216559	0.0000	0.894	0.074

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	103.4	0.0	103.4	103.4	1.00	1.00	0.0	103.4	0.00
2	142.0	5.4	136.6	98.0	1.37	1.39	38.6	110.9	0.35
3	198.3	15.6	182.8	87.8	1.92	2.08	95.0	119.4	0.80
4	255.9	16.3	239.7	87.1	2.48	2.75	152.6	138.0	1.11
5	286.2	12.8	273.4	90.5	2.77	3.02	182.9	151.5	1.21
6	300.1	10.7	289.3	92.6	2.90	3.12	196.7	158.2	1.24
7	305.3	9.8	295.5	93.6	2.95	3.16	201.9	160.9	1.26
8	307.1	9.5	297.6	93.8	2.97	3.17	203.7	161.8	1.26
9	307.1	10.7	296.4	92.6	2.97	3.20	203.8	160.5	1.27
10	300.5	12.0	288.5	91.4	2.91	3.16	197.2	157.1	1.26
11	290.3	13.9	276.4	89.4	2.81	3.09	187.0	151.8	1.23

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 248-261 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.72
PRECONSOLIDATION STRESS	=413.0
OVERCONSOLIDATION RATIO	= 2.00
MEASURED VOLUME CHANGE	= 22.4 CC
CELL PRESSURE	=275.6 KPA
CONSOLIDATION PRESSURE	=206.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.90	10.49	CM
VOID RATIO	= 0.920	0.726	
AREA	= 20.33	18.99	CM2
PERCENT MOISTURE	= 36.45	26.69	PERCENT
WET DENSITY	= 18.96	19.58	KN/M3
DRY DENSITY	= 13.89	15.45	KN/M3
PERCENT SATURATION	=107.79	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.725	0.000
2	0.000727	0.000727	0.0000	0.725	0.120
3	0.003633	0.003633	0.0000	0.725	0.160
4	0.011382	0.011382	0.0000	0.725	0.229
5	0.034631	0.034631	0.0000	0.725	0.368
6	0.057154	0.057154	0.0000	0.725	0.430
7	0.079918	0.079918	0.0000	0.725	0.486
8	0.102683	0.102683	0.0000	0.725	0.514
9	0.148696	0.148696	0.0000	0.725	0.596
10	0.194952	0.194952	0.0000	0.725	0.674
11	0.217959	0.217959	0.0000	0.725	0.709

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	206.7	0.0	206.7	206.7	1.00	1.00	0.0	206.7	0.00
2	244.0	4.5	239.5	202.2	1.18	1.18	37.3	314.7	0.12
3	314.5	17.2	297.2	189.5	1.52	1.57	107.8	225.4	0.48
4	368.8	37.2	331.6	169.5	1.78	1.96	162.1	223.5	0.73
5	408.6	74.4	334.2	132.3	1.98	2.53	201.9	199.6	1.01
6	412.5	88.5	324.0	118.2	2.00	2.74	205.8	186.8	1.10
7	412.1	99.9	312.2	106.8	1.99	2.92	205.4	175.3	1.17
8	407.2	103.0	304.2	103.7	1.97	2.93	200.5	170.5	1.18
9	396.3	113.0	283.3	93.7	1.92	3.02	189.6	156.9	1.21
10	383.0	118.9	264.2	87.9	1.85	3.01	176.3	146.6	1.20
11	375.9	119.9	256.0	86.8	1.82	2.95	169.2	143.2	1.18

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 300-312 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 3.8 CC
CELL PRESSURE = 86.1 KPA
CONSOLIDATION PRESSURE = 17.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.09	10.94	CM
VOID RATIO	= 1.531	1.430	
AREA	= 19.99	19.47	CM2
PERCENT MOISTURE	= 55.56	51.75	PERCENT
WET DENSITY	= 16.66	16.92	KN/M3
DRY DENSITY	= 10.71	11.15	KN/M3
PERCENT SATURATION	=100.32	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.430	0.000
2	0.004876	0.004876	0.0000	1.430	0.454
3	0.010217	0.010217	0.0000	1.430	0.480
4	0.020898	0.020898	0.0000	1.430	0.442
5	0.031696	0.031696	0.0000	1.430	0.417
6	0.042842	0.042842	0.0000	1.430	0.378
7	0.065482	0.065482	0.0000	1.430	0.305
8	0.091837	0.091837	0.0000	1.430	0.328
9	0.114825	0.114825	0.0000	1.430	0.329
10	0.138162	0.138162	0.0000	1.430	0.337
11	0.161266	0.161266	0.0000	1.430	0.365
12	0.184719	0.184719	0.0000	1.430	0.380

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	17.2	0.0	17.2	17.2	1.00	1.00	0.0	17.2	0.00
2	23.9	3.0	20.8	14.2	1.39	1.47	6.6	16.4	0.40
3	31.5	6.9	24.6	10.3	1.83	2.38	14.3	15.1	0.95
4	39.0	9.6	29.3	7.6	2.26	3.87	21.8	14.8	1.47
5	42.0	10.3	31.6	6.9	2.44	4.59	24.8	15.1	1.63
6	44.9	10.5	34.4	6.8	2.61	5.10	27.7	16.0	1.73
7	51.5	10.5	41.0	6.8	2.99	6.08	34.3	18.2	1.89
8	49.5	10.6	38.9	6.6	2.88	5.88	32.3	17.4	1.86
9	50.7	11.0	39.7	6.2	2.94	6.39	33.4	17.4	1.93
10	50.8	11.3	39.5	6.9	2.95	6.66	33.5	17.1	1.96
11	48.9	11.6	37.3	6.7	2.84	6.61	31.7	16.2	1.95
12	48.0	11.7	36.3	6.5	2.79	6.59	30.8	15.3	1.95

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 312-324 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 14.4 CC
CELL PRESSURE =103.4 KPA
CONSOLIDATION PRESSURE = 34.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.92	10.66	CM
VOID RATIO	= 1.504	1.338	
AREA	= 19.93	19.06	CM2
PERCENT MOISTURE	= 53.64	48.41	PERCENT
WET DENSITY	= 16.63	17.20	KN/M3
DRY DENSITY	= 10.83	11.59	KN/M3
PERCENT SATURATION	= 98.60	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.337	0.000
2	0.005479	0.005479	0.0000	1.337	1.106
3	0.016077	0.016077	0.0000	1.337	0.634
4	0.027748	0.027748	0.0000	1.337	0.634
5	0.045493	0.045493	0.0000	1.337	0.619
6	0.063475	0.063475	0.0000	1.337	0.585
7	0.081458	0.081458	0.0000	1.337	0.581
8	0.099798	0.099798	0.0000	1.337	0.600
9	0.124092	0.124092	0.0000	1.337	0.622
10	0.142432	0.142432	0.0000	1.337	0.654
11	0.166607	0.166607	0.0000	1.337	0.678
12	0.184947	0.184947	0.0000	1.337	0.693

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	34.5	0.0	34.5	34.5	1.00	1.00	0.0	34.5	0.00
2	37.2	3.1	34.1	31.4	1.08	1.09	2.8	32.3	0.09
3	57.8	14.8	42.9	19.6	1.68	2.19	23.3	27.4	0.85
4	64.8	19.3	45.5	15.2	1.88	3.00	30.4	25.3	1.20
5	70.0	22.0	48.0	12.4	2.03	3.87	35.6	24.3	1.47
6	72.7	22.4	50.3	12.1	2.11	4.17	38.2	24.8	1.54
7	73.6	22.7	50.8	11.7	2.14	4.34	39.1	24.7	1.58
8	73.5	23.4	50.0	11.0	2.13	4.54	39.0	24.0	1.62
9	72.6	23.8	48.9	10.7	2.11	4.57	38.2	23.4	1.63
10	71.8	24.5	47.4	10.0	2.08	4.74	37.4	22.4	1.66
11	71.0	24.8	46.2	9.6	2.06	4.79	36.8	21.8	1.67
12	70.2	24.8	45.4	9.6	2.04	4.70	35.7	22.6	1.66

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 324-336 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 20.0 CC
CELL PRESSURE =137.8 KPA
CONSOLIDATION PRESSURE = 68.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	10.49	CM
VOID RATIO	= 1.530	1.301	
AREA	= 20.40	19.19	CM2
PERCENT MOISTURE	= 53.51	47.08	PERCENT
WET DENSITY	= 16.45	17.32	KN/M3
DRY DENSITY	= 10.71	11.78	KN/M3
PERCENT SATURATION	= 96.68	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.300	0.000
2	0.011626	0.011626	0.0000	1.300	0.543
3	0.023252	0.023252	0.0000	1.300	0.655
4	0.034879	0.034879	0.0000	1.300	0.675
5	0.046505	0.046505	0.0000	1.300	0.690
6	0.058010	0.058010	0.0000	1.300	0.706
7	0.073754	0.073754	0.0000	1.300	0.719
8	0.100639	0.100639	0.0000	1.300	0.738
9	0.124134	0.124134	0.0000	1.300	0.787
10	0.147992	0.147992	0.0000	1.300	0.810
11	0.172334	0.172334	0.0000	1.300	0.848
12	0.196313	0.196313	0.0000	1.300	0.862
13	0.214358	0.214358	0.0000	1.300	0.920
14	0.228891	0.228891	0.0000	1.300	0.949

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	68.9	0.0	68.9	68.9	1.00	1.00	0.0	68.9	0.00
2	90.4	11.7	78.7	57.2	1.31	1.38	21.5	64.4	0.33
3	118.9	32.8	86.1	36.1	1.73	2.39	50.0	52.8	0.95
4	123.6	36.9	86.6	32.0	1.79	2.71	54.7	50.2	1.09
5	129.1	41.6	87.5	27.3	1.87	3.21	60.2	47.4	1.27
6	131.5	44.2	87.3	24.7	1.91	3.54	62.6	45.5	1.37
7	133.5	46.4	87.0	22.5	1.94	3.87	64.6	44.0	1.47
8	134.5	48.5	86.0	20.4	1.95	4.22	65.6	42.3	1.55
9	131.9	49.6	82.3	19.3	1.91	4.26	63.0	40.3	1.56
10	131.1	50.4	80.7	18.5	1.90	4.37	62.2	39.2	1.59
11	129.3	51.3	78.0	17.6	1.88	4.42	60.4	37.8	1.60
12	129.3	52.1	77.2	16.8	1.88	4.59	60.4	36.9	1.63
13	126.2	52.8	73.5	16.1	1.83	4.56	57.3	35.2	1.63
14	124.3	52.6	71.7	16.3	1.80	4.41	55.4	34.7	1.60

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 338-350 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 5.9 CC
CELL PRESSURE = 79.2 KPA
CONSOLIDATION PRESSURE = 10.3 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.06	9.82 CM
VOID RATIO	= 1.326	1.250
AREA	= 20.20	20.01 CM2
PERCENT MOISTURE	= 50.57	45.30 PERCENT
WET DENSITY	= 17.52	17.47 KN/M3
DRY DENSITY	= 11.64	12.03 KN/M3
PERCENT SATURATION	=105.28	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.250	0.000
2	0.003362	0.003362	0.0000	1.250	0.318
3	0.008535	0.008535	0.0000	1.250	0.361
4	0.015001	0.015001	0.0000	1.250	0.352
5	0.034398	0.034398	0.0000	1.250	0.264
6	0.048105	0.048105	0.0000	1.250	0.236
7	0.073192	0.073192	0.0000	1.250	0.194
8	0.111469	0.111469	0.0000	1.250	0.213
9	0.149229	0.149229	0.0000	1.250	0.223
10	0.200179	0.200179	0.0000	1.250	0.249
11	0.275182	0.275182	0.0000	1.250	0.272

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.2	0.0	20.2	10.3	1.96	1.96	9.9	13.6	0.73
2	24.6	4.5	20.0	5.8	2.38	3.46	14.1	10.5	1.35
3	26.7	5.9	20.8	4.4	2.58	4.71	16.4	9.9	1.66
4	29.8	6.9	23.0	3.4	2.89	6.66	19.5	9.9	1.96
5	38.0	7.3	30.7	3.0	3.67	10.11	27.6	12.2	2.26
6	40.7	7.2	33.5	3.2	3.94	10.58	30.4	13.3	2.28
7	43.0	6.3	36.6	4.0	4.16	9.17	32.6	14.9	2.19
8	40.6	6.5	34.2	3.9	3.93	8.85	30.3	14.0	2.17
9	41.2	6.9	34.3	3.4	3.99	9.97	30.9	13.7	2.25
10	38.5	7.0	31.5	3.3	3.72	9.51	28.2	12.7	2.22
11	36.7	7.2	29.5	3.2	3.55	9.30	26.3	11.9	2.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 360-372 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.65
PRECONSOLIDATION STRESS=137.6 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 38.5 CC
CELL PRESSURE =206.7 KPA
CONSOLIDATION PRESSURE =137.8 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.30	9.52 CM
VOID RATIO	= 1.952	1.409
AREA	= 20.33	17.94 CM2
PERCENT MOISTURE	= 71.51	53.19 PERCENT
WET DENSITY	= 15.10	16.52 KN/M3
DRY DENSITY	= 8.80	10.78 KN/M3
PERCENT SATURATION	= 97.07	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.409	0.000
2	0.001067	0.001067	0.0000	1.409	0.986
3	0.006402	0.006402	0.0000	1.409	0.869
4	0.012537	0.012537	0.0000	1.409	0.893
5	0.025874	0.025874	0.0000	1.409	1.144
6	0.052014	0.052014	0.0000	1.409	1.430
7	0.078422	0.078422	0.0000	1.409	1.585
8	0.104829	0.104829	0.0000	1.409	1.670
9	0.137638	0.137638	0.0000	1.409	1.850
10	0.190986	0.190986	0.0000	1.409	1.964
11	0.212859	0.212859	0.0000	1.409	2.088

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	137.8	0.0	137.8	137.8	1.00	1.00	0.0	137.8	0.00
2	145.5	7.6	137.9	130.2	1.06	1.06	7.6	132.8	0.06
3	154.1	14.2	139.9	123.6	1.12	1.13	16.3	129.0	0.13
4	183.1	40.5	142.6	97.3	1.33	1.47	45.3	112.4	0.40
5	199.6	70.7	128.9	67.1	1.45	1.92	61.8	87.7	0.70
6	206.2	97.8	108.3	40.0	1.50	2.71	68.4	62.8	1.09
7	204.3	105.4	98.9	32.4	1.48	3.05	66.5	54.5	1.22
8	203.4	109.6	93.8	28.3	1.48	3.32	65.6	50.1	1.31
9	199.1	113.4	85.7	24.4	1.44	3.51	61.3	44.8	1.37
10	197.1	116.4	80.6	21.4	1.43	3.77	59.2	41.1	1.44
11	193.7	116.9	76.9	20.9	1.41	3.67	55.9	39.6	1.41

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 372-384 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.65
PRECONSOLIDATION STRESS=136.0 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 31.6 CC
CELL PRESSURE =103.4 KPA
CONSOLIDATION PRESSURE = 34.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.75	10.14	CM
VOID RATIO	= 1.782	1.378	
AREA	= 20.26	18.36	CM2
PERCENT MOISTURE	= 65.41	52.02	PERCENT
WET DENSITY	= 15.45	16.61	KN/M3
DRY DENSITY	= 9.34	10.93	KN/M3
PERCENT SATURATION	= 97.30	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.378	0.000
2	0.001753	0.001753	0.0000	1.378	0.087
3	0.007010	0.007010	0.0000	1.378	0.182
4	0.015773	0.015773	0.0000	1.378	0.190
5	0.029794	0.029794	0.0000	1.378	0.214
6	0.044316	0.044316	0.0000	1.378	0.245
7	0.064846	0.064846	0.0000	1.378	0.283
8	0.087379	0.087379	0.0000	1.378	0.316
9	0.115922	0.115922	0.0000	1.378	0.347
10	0.144714	0.144714	0.0000	1.378	0.393
11	0.166496	0.166496	0.0000	1.378	0.414

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	34.5	0.0	34.5	34.5	1.00	1.00	0.0	34.5	0.00
2	54.2	1.7	52.5	32.7	1.57	1.60	19.8	39.3	0.50
3	76.0	7.6	68.4	26.9	2.21	2.55	41.6	40.7	1.02
4	87.1	10.0	77.1	24.5	2.53	3.15	52.7	42.0	1.25
5	94.1	12.7	81.3	21.7	2.73	3.75	59.6	42.6	1.40
6	96.2	15.2	81.1	19.3	2.79	4.20	61.8	39.9	1.55
7	96.5	17.6	79.0	16.9	2.80	4.68	62.1	37.6	1.65
8	95.5	19.3	76.2	15.2	2.77	5.03	61.0	35.5	1.72
9	94.0	20.7	73.4	13.8	2.73	5.32	59.6	33.6	1.77
10	92.3	22.7	69.6	11.7	2.68	5.94	57.8	31.0	1.87
11	91.0	23.4	67.6	11.0	2.64	6.13	56.6	29.9	1.89

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 384-400 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.65
PRECONSOLIDATION STRESS	=137.6 KPA
OVERCONSOLIDATION RATIO	= 8.0
MEASURED VOLUME CHANGE	= 28.3 CC
CELL PRESSURE	= 86.1 KPA
CONSOLIDATION PRESSURE	= 17.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.37	9.83	CM
VOID RATIO	= 1.369	1.222	
AREA	= 20.20	18.43	CM2
PERCENT MOISTURE	= 61.64	46.12	PERCENT
WET DENSITY	= 16.35	17.09	KN/M3
DRY DENSITY	= 10.11	11.69	KN/M3
PERCENT SATURATION	=104.11	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.221	0.000
2	0.003358	0.003358	0.0000	1.221	0.072
3	0.007234	0.007234	0.0000	1.221	0.055
4	0.021184	0.021184	0.0000	1.221	0.076
5	0.030485	0.030485	0.0000	1.221	0.077
6	0.047018	0.047018	0.0000	1.221	0.085
7	0.069494	0.069494	0.0000	1.221	0.115
8	0.098946	0.098946	0.0000	1.221	0.147
9	0.138730	0.138730	0.0000	1.221	0.191
10	0.164306	0.164306	0.0000	1.221	0.219

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	17.2	0.0	17.2	17.2	1.00	1.00	0.0	17.2	0.00
2	21.9	0.3	21.6	16.9	1.27	1.28	4.7	18.5	0.26
3	36.0	1.0	34.9	16.2	2.09	2.16	18.8	22.4	0.84
4	53.5	2.8	50.7	14.5	3.10	3.51	36.3	26.6	1.37
5	57.2	3.1	54.1	14.1	3.32	3.83	40.0	27.5	1.46
6	61.5	3.8	57.7	13.4	3.57	4.30	44.3	28.2	1.57
7	62.1	5.2	56.9	12.1	3.60	4.72	44.9	27.0	1.66
8	61.8	6.5	55.3	10.7	3.59	5.17	44.6	25.5	1.75
9	60.5	8.3	52.2	9.0	3.51	5.83	43.2	23.4	1.85
10	59.6	9.3	50.3	7.9	3.46	6.35	42.4	22.1	1.92

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 511-524 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS=179.0
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 42.2 CC
CELL PRESSURE =248.1 KPA
CONSOLIDATION PRESSURE =179.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.07	CM
VOID RATIO	= 1.883	1.339	
AREA	= 20.47	18.00	CM2
PERCENT MOISTURE	= 70.88	49.23	PERCENT
WET DENSITY	= 15.81	17.02	KN/M3
DRY DENSITY	= 9.25	11.40	KN/M3
PERCENT SATURATION	=102.37	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.338	0.000
2	0.002271	0.002271	0.0000	1.338	1.209
3	0.004794	0.004794	0.0000	1.338	0.935
4	0.008327	0.008327	0.0000	1.338	0.957
5	0.023989	0.023989	0.0000	1.338	1.198
6	0.044913	0.044913	0.0000	1.338	1.366
7	0.063585	0.063585	0.0000	1.338	1.449
8	0.082509	0.082509	0.0000	1.338	1.526
9	0.111526	0.111526	0.0000	1.338	1.674
10	0.134487	0.134487	0.0000	1.338	1.778

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	179.2	0.0	179.2	179.2	1.00	1.00	0.0	179.2	0.00
2	196.8	21.4	175.4	157.8	1.10	1.11	17.6	163.7	0.11
3	224.1	42.0	182.0	137.1	1.25	1.33	44.9	152.1	0.30
4	240.7	58.9	181.8	120.2	1.34	1.51	61.6	140.8	0.44
5	264.0	101.6	162.3	77.5	1.47	2.09	84.8	105.8	0.80
6	268.9	122.6	146.2	56.5	1.50	2.59	89.7	86.4	1.04
7	269.2	130.6	138.6	48.6	1.50	2.85	90.0	78.6	1.15
8	267.8	135.4	132.4	43.8	1.49	3.03	88.7	72.3	1.21
9	263.7	141.6	122.1	37.6	1.47	3.25	84.6	65.7	1.29
10	260.5	144.7	115.8	34.5	1.45	3.36	81.3	61.6	1.32

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 524-537 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS=179.0
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 41.6 CC
CELL PRESSURE =158.5 KPA
CONSOLIDATION PRESSURE = 89.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.89	10.04	CM
VOID RATIO	= 1.814	1.282	
AREA	= 20.20	17.76	CM2
PERCENT MOISTURE	= 68.82	47.15	PERCENT
WET DENSITY	= 16.00	17.20	KN/M3
DRY DENSITY	= 9.48	11.69	KN/M3
PERCENT SATURATION	=103.16	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.282	0.000
2	0.002782	0.002782	0.0000	1.282	0.251
3	0.009612	0.009612	0.0000	1.282	0.312
4	0.019477	0.019477	0.0000	1.282	0.399
5	0.029341	0.029341	0.0000	1.282	0.463
6	0.039206	0.039206	0.0000	1.282	0.513
7	0.058936	0.058936	0.0000	1.282	0.586
8	0.079171	0.079171	0.0000	1.282	0.621
9	0.109272	0.109272	0.0000	1.282	0.673
10	0.148984	0.148984	0.0000	1.282	0.720
11	0.208678	0.208678	0.0000	1.282	0.766

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	89.6	0.0	89.6	89.6	1.00	1.00	0.0	89.6	0.00
2	120.3	7.7	112.6	81.9	1.34	1.38	30.7	92.1	0.33
3	157.1	21.1	136.1	68.5	1.75	1.99	67.6	91.0	0.74
4	168.3	31.4	136.9	58.2	1.88	2.35	78.8	84.4	0.93
5	172.9	38.6	134.3	51.0	1.93	2.63	83.3	78.8	1.06
6	174.1	43.4	130.7	46.2	1.94	2.83	84.6	74.4	1.14
7	174.5	49.7	124.7	39.8	1.95	3.13	84.9	68.1	1.25
8	175.7	53.5	122.2	36.1	1.96	3.39	86.1	64.8	1.33
9	173.9	56.8	117.1	32.8	1.94	3.57	84.3	60.9	1.38
10	172.0	59.4	112.6	30.2	1.92	3.73	82.4	57.6	1.43
11	167.1	59.4	107.7	30.2	1.87	3.57	77.5	56.0	1.38

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS CD @ 537-551 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.72
PRECONSOLIDATION STRESS=179.0
OVERCONSOLIDATION RATIO=4.00
MEASURED VOLUME CHANGE = 37.9 CC
CELL PRESSURE =113.7 KPA
CONSOLIDATION PRESSURE = 44.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 9.79	9.06	CM
VOID RATIO	= 1.358	1.335	
AREA	21.15	18.67	CM2
PERCENT MOISTURE	= 56.95	49.08	PERCENT
WET DENSITY	= 15.58	17.03	KN/M3
DRY DENSITY	= 9.93	11.42	KN/M3
PERCENT SATURATION	= 98.03	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.334	0.000
2	0.002805	0.002805	0.0000	1.334	0.038
3	0.010096	0.010096	0.0000	1.334	0.270
4	0.022997	0.022997	0.0000	1.334	0.228
5	0.037020	0.037020	0.0000	1.334	0.236
6	0.057493	0.057493	0.0000	1.334	0.254
7	0.071797	0.071797	0.0000	1.334	0.271
8	0.100123	0.100123	0.0000	1.334	0.292
9	0.127888	0.127888	0.0000	1.334	0.316
10	0.156494	0.156494	0.0000	1.334	0.339
11	0.191832	0.191832	0.0000	1.334	0.365
12	0.229693	0.229693	0.0000	1.334	0.389

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	44.8	0.0	44.8	44.8	1.00	1.00	0.0	44.8	0.00
2	62.1	5.9	56.2	38.9	1.39	1.44	17.3	44.7	0.39
3	83.1	10.3	72.8	34.5	1.86	2.11	38.3	47.2	0.81
4	96.0	11.7	84.3	33.1	2.14	2.55	51.2	50.2	1.02
5	100.1	13.1	87.0	31.7	2.24	2.75	55.3	50.1	1.10
6	103.2	14.8	88.4	30.0	2.30	2.95	58.4	49.4	1.18
7	103.2	15.8	87.3	28.9	2.30	3.02	58.4	48.4	1.21
8	103.7	17.2	86.5	27.6	2.32	3.14	59.0	47.2	1.25
9	103.6	18.6	85.0	26.2	2.31	3.25	58.8	45.8	1.28
10	102.6	19.6	83.0	25.1	2.29	3.30	57.9	44.4	1.30
11	101.4	20.7	80.7	24.1	2.26	3.35	56.6	43.0	1.32
12	99.6	21.4	78.3	23.4	2.22	3.34	54.9	42.7	1.32

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 121-133 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 2.3 CC
CELL PRESSURE = 75.8 KPA
CONSOLIDATION PRESSURE = 6.9 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 11.00	10.96 CM
VOID RATIO	= 1.554	1.528
AREA	= 20.47	20.33 CM2
PERCENT MOISTURE	= 53.65	54.18 PERCENT
WET DENSITY	= 16.63	16.36 KN/M3
DRY DENSITY	= 10.83	10.94 KN/M3
PERCENT SATURATION	= 97.35	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.527	0.000
2	0.005214	0.005214	0.0000	1.527	0.246
3	0.016570	0.016570	0.0000	1.527	0.207
4	0.035225	0.035225	0.0000	1.527	0.149
5	0.046581	0.046581	0.0000	1.527	0.091
6	0.057009	0.057009	0.0000	1.527	0.027
7	0.075433	0.075433	0.0000	1.527	0.013
8	0.092234	0.092234	0.0000	1.527	0.000
9	0.114482	0.114482	0.0000	1.527	-0.022
10	0.133485	0.133485	0.0000	1.527	-0.054
11	0.150981	0.150981	0.0000	1.527	-0.064
12	0.182730	0.182730	0.0000	1.527	-0.062
13	0.190378	0.190378	0.0000	1.527	-0.072

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	6.9	0.0	6.9	6.9	1.00	1.00	0.0	6.9	0.00
2	11.0	1.0	10.0	5.9	1.60	1.71	4.1	7.2	0.57
3	20.2	2.8	17.4	4.1	2.93	4.21	13.3	8.6	1.55
4	27.7	3.1	24.6	3.8	4.02	6.50	20.8	10.7	1.94
5	29.6	2.1	27.5	4.8	4.29	5.70	22.7	12.4	1.83
6	32.3	0.7	31.6	6.2	4.69	5.10	25.4	14.7	1.73
7	33.4	0.3	33.1	6.5	4.85	5.05	26.5	15.4	1.72
8	35.8	0.0	35.8	6.9	5.20	5.20	28.9	16.5	1.75
9	37.5	-0.7	38.2	7.6	5.44	5.04	30.6	17.8	1.72
10	38.6	-1.7	40.3	8.6	5.60	4.68	31.7	19.2	1.65
11	39.2	-2.1	41.2	9.0	5.68	4.60	32.3	19.7	1.64
12	40.2	-2.1	42.2	9.0	5.83	4.72	33.3	20.1	1.66
13	40.3	-2.4	42.7	9.3	5.84	4.59	33.4	20.4	1.63

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 133-145 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.82
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 2.9 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.84	10.79	CM
VOID RATIO	= 1.488	1.456	
AREA	= 20.33	20.15	CM2
PERCENT MOISTURE	= 51.76	51.61	PERCENT
WET DENSITY	= 16.86	17.07	KN/M3
DRY DENSITY	= 11.11	11.26	KN/M3
PERCENT SATURATION	= 98.09	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.455	0.000
2	0.005415	0.005415	0.0000	1.455	0.471
3	0.013419	0.013419	0.0000	1.455	0.390
4	0.029545	0.029545	0.0000	1.455	0.304
5	0.043671	0.043671	0.0000	1.455	0.253
6	0.059091	0.059091	0.0000	1.455	0.213
7	0.082280	0.082280	0.0000	1.455	0.176
8	0.105822	0.105822	0.0000	1.455	0.158
9	0.129246	0.129246	0.0000	1.455	0.145
10	0.151494	0.151494	0.0000	1.455	0.133
11	0.175742	0.175742	0.0000	1.455	0.126
12	0.198813	0.198813	0.0000	1.455	0.141
13	0.222002	0.222002	0.0000	1.455	0.142
14	0.242366	0.242366	0.0000	1.455	0.150

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	13.8	0.0	13.8	13.8	1.00	1.00	0.0	13.8	0.00
2	25.7	5.7	20.1	8.1	1.87	2.47	12.0	12.1	0.99
3	32.1	7.2	24.9	6.6	2.33	3.77	18.3	12.7	1.44
4	38.2	7.4	30.7	6.3	2.77	4.85	24.4	14.6	1.69
5	39.9	6.6	33.3	7.2	2.90	4.65	26.1	15.9	1.65
6	41.5	5.9	35.6	7.9	3.01	4.53	27.8	17.1	1.62
7	45.9	5.7	40.2	8.1	3.33	4.95	32.1	18.8	1.70
8	46.0	5.1	40.9	8.7	3.34	4.71	32.3	19.4	1.66
9	47.1	4.8	42.3	9.0	3.42	4.72	33.3	20.1	1.66
10	49.0	4.7	44.3	9.1	3.56	4.87	35.2	20.8	1.69
11	47.1	4.5	42.6	9.2	3.42	4.61	33.3	20.3	1.64
12	47.1	4.7	42.4	9.1	3.41	4.66	33.3	20.2	1.65
13	47.8	4.8	43.0	9.0	3.47	4.80	34.0	20.3	1.68
14	46.9	5.0	41.9	8.8	3.40	4.76	33.1	19.9	1.67

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 145-157 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.82
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 7.3 CC
CELL PRESSURE	= 96.5 KPA
CONSOLIDATION PRESSURE	= 27.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.77	10.65	CM
VOID RATIO	= 1.601	1.516	
AREA	= 20.94	20.50	CM2
PERCENT MOISTURE	= 55.47	53.78	PERCENT
WET DENSITY	= 16.53	16.90	KN/M3
DRY DENSITY	= 10.63	10.99	KN/M3
PERCENT SATURATION	= 97.73	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.516	0.000
2	0.002266	0.002266	0.0000	1.516	1.050
3	0.011448	0.011448	0.0000	1.516	0.659
4	0.031125	0.031125	0.0000	1.516	0.502
5	0.040665	0.040665	0.0000	1.516	0.427
6	0.064874	0.064874	0.0000	1.516	0.384
7	0.088844	0.088844	0.0000	1.516	0.352
8	0.112695	0.112695	0.0000	1.516	0.335
9	0.137141	0.137141	0.0000	1.516	0.317
10	0.167432	0.167432	0.0000	1.516	0.335
11	0.177449	0.177449	0.0000	1.516	0.331

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	27.6	0.0	27.6	27.6	1.00	1.00	0.0	27.6	0.00
2	32.1	4.8	27.3	22.7	1.16	1.20	4.5	24.3	0.19
3	45.8	12.1	33.7	15.5	1.66	2.18	18.2	21.6	0.85
4	55.7	14.1	41.5	13.4	2.02	3.09	28.1	22.8	1.23
5	58.1	13.1	45.1	14.5	2.11	3.11	30.6	24.7	1.24
6	60.7	12.7	48.0	14.8	2.20	3.24	33.2	25.9	1.28
7	62.7	12.4	50.3	15.2	2.28	3.32	35.2	26.9	1.31
8	63.5	12.1	51.4	15.5	2.30	3.32	35.9	27.5	1.31
9	63.3	11.4	52.0	16.2	2.30	3.21	35.8	28.1	1.27
10	63.5	12.1	51.4	15.5	2.30	3.32	35.9	27.5	1.31
11	62.9	11.7	51.1	15.8	2.28	3.23	35.3	27.6	1.28

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 157-171 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.82
PRECONSOLIDATION STRESS(NATURAL)	
ANISOTROPIC CONSOLIDATION	
MEASURED VOLUME CHANGE	= 2.1 CC
CELL PRESSURE	= 75.8 KPA
CONSOLIDATION PRESSURE	= 6.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.01	10.89	CM
VOID RATIO	= 1.222	1.198	
AREA	= 20.33	20.34	CM2
PERCENT MOISTURE	= 40.61	42.48	PERCENT
WET DENSITY	= 17.50	17.92	KN/M3
DRY DENSITY	= 12.45	12.58	KN/M3
PERCENT SATURATION	= 93.73	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.197	0.000
2	0.003033	0.003033	0.0000	1.197	0.281
3	0.011200	0.011200	0.0000	1.197	0.254
4	0.022400	0.022400	0.0000	1.197	0.193
5	0.033834	0.033834	0.0000	1.197	0.154
6	0.049234	0.049234	0.0000	1.197	0.128
7	0.067668	0.067668	0.0000	1.197	0.083
8	0.084701	0.084701	0.0000	1.197	0.058
9	0.107801	0.107801	0.0000	1.197	0.047
10	0.130668	0.130668	0.0000	1.197	0.032

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	13.4	0.0	13.4	6.9	1.95	1.95	6.6	9.1	0.72
2	21.1	4.0	17.1	2.9	3.06	5.89	14.2	7.6	1.86
3	28.5	5.5	23.0	1.4	4.14	16.68	21.6	8.6	2.52
4	32.5	5.0	27.6	1.9	4.72	14.29	25.6	10.5	2.45
5	35.4	4.4	31.0	2.5	5.14	12.49	28.5	12.0	2.38
6	38.1	4.0	34.1	2.9	5.52	11.77	31.2	13.3	2.35
7	41.5	2.9	38.6	4.0	6.03	9.67	34.6	15.5	2.23
8	44.9	3.2	42.7	4.7	6.52	9.11	38.0	17.4	2.19
9	44.9	1.8	43.1	5.1	6.52	8.46	38.0	17.8	2.14
10	45.8	1.2	44.6	5.7	6.65	7.89	39.0	18.6	2.09

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 365-377 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=248.0 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 26.3 CC
CELL PRESSURE =130.9 KPA
CONSOLIDATION PRESSURE = 62.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.94	10.45	CM
VOID RATIO	= 1.162	0.908	
AREA	= 20.47	18.90	CM2
PERCENT MOISTURE	= 43.22	32.90	PERCENT
WET DENSITY	= 17.93	18.85	KN/M3
DRY DENSITY	= 12.52	14.18	KN/M3
PERCENT SATURATION	=102.67	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.907	0.000
2	0.002187	0.002187	0.0000	0.907	0.103
3	0.006074	0.006074	0.0000	0.907	0.163
4	0.013607	0.013607	0.0000	0.907	0.136
5	0.037904	0.037904	0.0000	0.907	0.096
6	0.058071	0.058071	0.0000	0.907	0.095
7	0.075808	0.075808	0.0000	0.907	0.100
8	0.103021	0.103021	0.0000	0.907	0.105
9	0.130720	0.130720	0.0000	0.907	0.115
10	0.167166	0.167166	0.0000	0.907	0.119

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	62.0	0.0	62.0	62.0	1.00	1.00	0.0	62.0	0.00
2	95.5	3.4	92.1	58.6	1.54	1.57	33.5	69.7	0.48
3	123.2	10.0	113.2	52.0	1.99	2.18	61.2	72.4	0.84
4	150.8	12.1	138.8	50.0	2.43	2.78	88.8	79.6	1.12
5	176.5	11.0	165.4	51.0	2.85	3.24	114.5	89.1	1.28
6	181.7	11.4	170.3	50.6	2.93	3.36	119.7	90.5	1.32
7	185.6	12.4	173.2	49.6	2.99	3.49	123.6	90.8	1.36
8	186.8	13.1	173.7	48.9	3.01	3.55	124.8	90.5	1.38
9	184.4	14.1	170.3	47.9	2.97	3.56	122.4	88.7	1.38
10	180.5	14.1	166.4	47.9	2.91	3.47	118.5	87.4	1.36

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 377-389 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=248.0 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 26.3 CC
CELL PRESSURE =317.0 KPA
CONSOLIDATION PRESSURE =248.1 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.54	10.06 CM
VOID RATIO	= 1.169	0.906
AREA	= 20.53	18.91 CM2
PERCENT MOISTURE	= 42.34	32.81 PERCENT
WET DENSITY	= 17.76	18.86 KN/M3
DRY DENSITY	= 12.48	14.20 KN/M3
PERCENT SATURATION	= 99.98	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.905	0.000
2	0.012125	0.012125	0.0000	0.905	0.684
3	0.024250	0.024250	0.0000	0.905	0.968
4	0.036375	0.036375	0.0000	0.905	1.003
5	0.060878	0.060878	0.0000	0.905	1.069
6	0.097758	0.097758	0.0000	0.905	1.133
7	0.122766	0.122766	0.0000	0.905	1.161
8	0.160151	0.160151	0.0000	0.905	1.227
9	0.185159	0.185159	0.0000	0.905	1.281
10	0.247047	0.247047	0.0000	0.905	1.444

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	248.1	0.0	248.1	248.1	1.00	1.00	0.0	248.1	0.00
2	372.1	84.9	287.2	163.2	1.50	1.76	124.0	204.5	0.61
3	396.9	144.1	252.8	103.9	1.60	2.43	148.9	153.5	0.97
4	406.6	159.0	247.5	89.0	1.64	2.78	158.5	141.9	1.12
5	411.7	175.0	236.7	73.0	1.66	3.24	163.6	127.6	1.28
6	410.1	183.7	226.4	64.4	1.65	3.52	162.1	118.4	1.37
7	408.5	186.3	222.2	61.7	1.65	3.60	160.4	115.2	1.39
8	402.6	189.6	212.9	58.4	1.62	3.64	154.5	109.9	1.41
9	397.1	191.0	206.1	57.1	1.60	3.61	149.0	106.7	1.40
10	382.5	194.2	188.3	53.9	1.54	3.50	134.4	98.7	1.36

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 392-405 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=248.0 KPA
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 22.0 CC
CELL PRESSURE = 99.9 KPA
CONSOLIDATION PRESSURE = 31.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.51	CM
VOID RATIO	= 1.206	0.985	
AREA	= 20.06	18.74	CM2
PERCENT MOISTURE	= 43.25	35.67	RCENT
WET DENSITY	= 17.57	18.50	KN/M3
DRY DENSITY	= 12.27	13.64	KN/M3
PERCENT SATURATION	= 98.97	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.984	0.000
2	0.005318	0.005318	0.0000	0.984	0.129
3	0.011120	0.011120	0.0000	0.984	0.100
4	0.020064	0.020064	0.0000	0.984	0.060
5	0.045446	0.045446	0.0000	0.984	0.011
6	0.072279	0.072279	0.0000	0.984	-0.018
7	0.099353	0.099353	0.0000	0.984	-0.029
8	0.126670	0.126670	0.0000	0.984	-0.026
9	0.163655	0.163655	0.0000	0.984	-0.023
10	0.209343	0.209343	0.0000	0.984	-0.012

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	31.0	0.0	31.0	31.0	1.00	1.00	0.0	31.0	0.00
2	71.1	5.2	65.9	25.8	2.29	2.55	40.1	39.2	1.02
3	89.4	5.9	83.6	25.1	2.88	3.32	58.4	44.6	1.31
4	105.8	4.5	101.3	26.5	3.41	3.82	74.8	51.5	1.45
5	121.5	1.0	120.5	30.0	3.92	4.02	90.5	60.2	1.51
6	125.3	-1.7	127.0	32.7	4.04	3.88	94.3	64.1	1.47
7	125.7	-2.8	128.4	33.8	4.05	3.80	94.7	65.3	1.45
8	124.3	-2.4	126.7	33.4	4.01	3.79	93.3	64.5	1.45
9	120.6	-2.1	122.7	33.1	3.89	3.71	89.6	62.9	1.42
10	115.7	-1.0	116.7	32.0	3.73	3.64	84.7	60.3	1.41

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 510-523 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=551.0
OVERCONSOLIDATION RATIO=1.00
MEASURED VOLUME CHANGE = 44.1 CC
CELL PRESSURE =620.1 KPA
CONSOLIDATION PRESSURE =551.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	9.97	CM
VOID RATIO	= 1.276	0.829	
AREA	= 20.67	18.08	CM2
PERCENT MOISTURE	= 46.51	30.03	PERCENT
WET DENSITY	= 17.42	19.24	KN/M3
DRY DENSITY	= 11.89	14.80	KN/M3
PERCENT SATURATION	=100.62	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.829	0.000
2	0.003822	0.003822	0.0000	0.828	0.201
3	0.008153	0.008153	0.0000	0.828	0.437
4	0.014267	0.014267	0.0000	0.828	0.636
5	0.023949	0.023949	0.0000	0.828	1.028
6	0.036178	0.036178	0.0000	0.828	1.185
7	0.060636	0.060636	0.0000	0.828	1.330
8	0.085604	0.085604	0.0000	0.828	1.406
9	0.123311	0.123311	0.0000	0.828	1.476
10	0.161017	0.161017	0.0000	0.828	1.530
11	0.198469	0.198469	0.0000	0.828	1.602
12	0.223692	0.223692	0.0000	0.828	1.655
13	0.285857	0.285857	0.0000	0.828	1.833
14	0.369932	0.369932	0.0000	0.828	2.100

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	551.2	0.0	551.2	551.2	1.00	1.00	0.0	551.2	0.00
2	562.6	22.4	540.2	528.8	1.20	1.21	111.4	566.0	0.20
3	734.6	80.2	654.4	471.0	1.33	1.39	183.4	532.2	0.34
4	762.1	134.1	628.0	417.1	1.38	1.51	210.9	487.4	0.43
5	810.4	266.5	543.9	284.7	1.47	1.91	259.2	371.2	0.70
6	826.8	326.6	500.2	224.6	1.50	2.23	275.6	316.5	0.87
7	834.0	376.2	457.8	175.0	1.51	2.62	282.8	269.0	1.05
8	834.3	398.1	436.2	152.1	1.51	2.85	283.1	247.5	1.14
9	830.2	411.9	418.3	139.3	1.51	3.00	279.0	232.3	1.20
10	824.5	418.2	406.3	133.0	1.50	3.06	273.3	224.1	1.22
11	814.9	422.5	392.4	128.7	1.48	3.05	263.7	216.6	1.22
12	808.3	425.4	382.9	125.8	1.47	3.04	257.0	211.5	1.22
13	786.2	430.6	355.5	120.6	1.43	2.95	234.9	198.9	1.18
14	758.5	435.2	323.2	115.9	1.38	2.79	207.3	185.3	1.12

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 523-536 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=551.0
OVERCONSOLIDATION RATIO=2.00
MEASURED VOLUME CHANGE = 43.9 CC
CELL PRESSURE =344.5 KPA
CONSOLIDATION PRESSURE =275.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.94	10.05	CM
VOID RATIO	= 1.263	0.821	
AREA	= 20.53	17.98	CM2
PERCENT MOISTURE	= 46.63	29.74	PERCENT
WET DENSITY	= 17.54	19.28	KN/M3
DRY DENSITY	= 11.96	14.86	KN/M3
PERCENT SATURATION	=101.93	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING	STRAIN STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME RATIO (CC/CC)	VOID FACTOR	A NUMBER
1	0.000000	0.000000	0.0000	0.820	0.000
2	0.002021	0.002021	0.0000	0.820	0.034
3	0.006821	0.006821	0.0000	0.820	0.076
4	0.025012	0.025012	0.0000	0.820	0.181
5	0.037139	0.037139	0.0000	0.820	0.248
6	0.061645	0.061645	0.0000	0.820	0.347
7	0.086910	0.086910	0.0000	0.820	0.409
8	0.112174	0.112174	0.0000	0.820	0.449
9	0.137186	0.137186	0.0000	0.820	0.475
10	0.162197	0.162197	0.0000	0.820	0.499
11	0.196304	0.196304	0.0000	0.820	0.536

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	275.6	0.0	275.6	275.6	1.00	1.00	0.0	275.6	0.00
2	359.9	2.9	357.0	272.7	1.31	1.31	84.2	300.8	0.28
3	463.7	14.3	449.4	261.3	1.68	1.72	188.1	324.0	0.58
4	537.3	47.4	489.9	228.2	1.95	2.15	261.7	315.4	0.83
5	550.7	68.2	482.5	207.4	2.00	2.33	275.1	299.1	0.92
6	563.0	99.8	463.2	175.8	2.04	2.63	287.4	271.6	1.06
7	564.1	118.0	446.2	157.7	2.05	2.83	288.5	253.8	1.14
8	561.9	128.4	433.5	147.2	2.04	2.95	286.3	242.6	1.18
9	559.5	134.9	424.5	140.7	2.03	3.02	283.8	235.3	1.21
10	554.0	139.0	414.9	136.6	2.01	3.04	278.3	229.3	1.21
11	543.5	143.7	399.8	131.9	1.97	3.03	267.9	221.2	1.21

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS CD @ 536-550 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=551.0
OVERCONSOLIDATION RATIO=4.00
MEASURED VOLUME CHANGE = 42.0 CC
CELL PRESSURE =206.7 KPA
CONSOLIDATION PRESSURE =137.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.06	CM
VOID RATIO	= 1.220	0.800	
AREA	= 20.33	17.87	CM2
PERCENT MOISTURE	= 45.73	29.00	PERCENT
WET DENSITY	= 17.76	19.39	KN/M3
DRY DENSITY	= 12.19	15.03	KN/M3
PERCENT SATURATION	=103.45	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STR IN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.800	0.000
2	0.005300	0.005300	0.0000	0.800	0.028
3	0.011104	0.011104	0.0000	0.800	0.023
4	0.018675	0.018675	0.0000	0.800	0.025
5	0.027004	0.027004	0.0000	0.800	0.037
6	0.044922	0.044922	0.0000	0.800	0.054
7	0.072178	0.072178	0.0000	0.800	0.089
8	0.099938	0.099938	0.0000	0.800	0.104
9	0.127952	0.127952	0.0000	0.800	0.103
10	0.155965	0.155965	0.0000	0.800	0.102
11	0.193820	0.193820	0.0000	0.800	0.102
12	0.222085	0.222085	0.0000	0.800	0.096
13	0.243537	0.243537	0.0000	0.800	0.100

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	137.8	0.0	137.8	137.8	1.00	1.00	0.0	137.8	0.00
2	210.8	2.1	208.7	135.7	1.53	1.54	72.9	160.1	0.46
3	274.8	3.1	271.7	134.7	1.99	2.02	137.0	180.4	0.76
4	304.5	4.1	300.4	133.7	2.21	2.25	166.7	189.2	0.88
5	322.1	6.9	315.2	130.9	2.34	2.41	184.3	192.3	0.96
6	341.3	11.0	330.3	126.8	2.48	2.61	203.5	194.6	1.05
7	357.3	19.6	337.7	118.2	2.59	2.86	219.5	191.3	1.15
8	365.6	23.8	341.8	114.0	2.65	3.00	227.8	190.0	1.20
9	369.1	23.8	345.3	114.0	2.68	3.03	231.3	191.1	1.21
10	370.0	23.8	346.2	114.0	2.68	3.04	232.2	191.4	1.21
11	368.1	23.4	344.7	114.4	2.67	3.01	230.3	191.2	1.20
12	363.5	21.7	341.8	116.1	2.64	2.94	225.7	191.3	1.18
13	358.8	22.0	336.7	115.8	2.60	2.91	221.0	189.4	1.17

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 296-308 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 11.3 CC
CELL PRESSURE = 86.1 KPA
CONSOLIDATION PRESSURE = 17.2 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.54	10.35 CM
VOID RATIO	= 1.431	1.304
AREA	= 20.60	19.89 CM2
PERCENT MOISTURE	= 49.20	47.12 PERCENT
WET DENSITY	= 16.66	17.33 KN/M3
DRY DENSITY	= 11.17	11.78 KN/M3
PERCENT SATURATION	= 95.18	100.00 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.304	0.000
2	0.006014	0.006014	0.0000	1.304	0.380
3	0.014973	0.014973	0.0000	1.304	0.631
4	0.025282	0.025282	0.0000	1.304	0.619
5	0.074127	0.074127	0.0000	1.304	0.533
6	0.098549	0.098549	0.0000	1.304	0.548
7	0.123340	0.123340	0.0000	1.304	0.576
8	0.148131	0.148131	0.0000	1.304	0.587
9	0.171694	0.171694	0.0000	1.304	0.648
10	0.195994	0.195994	0.0000	1.304	0.634
11	0.244103	0.244103	0.0000	1.304	0.675
12	0.266562	0.266562	0.0000	1.304	0.702

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	17.2	0.0	17.2	17.2	1.00	1.00	0.0	17.2	0.00
2	20.4	1.2	19.2	16.0	1.19	1.20	3.2	17.1	0.19
3	26.8	6.1	20.7	11.2	1.56	1.86	9.6	14.3	0.67
4	33.0	9.8	23.2	7.4	1.92	3.12	15.8	12.7	1.24
5	40.2	12.3	27.9	5.0	2.33	5.63	23.0	12.6	1.82
6	40.6	12.8	27.7	4.4	2.35	6.29	23.3	12.2	1.91
7	39.9	13.1	26.8	4.1	2.32	6.49	22.7	11.7	1.94
8	40.2	13.5	26.7	3.7	2.33	7.17	23.0	11.4	2.02
9	38.7	13.9	24.7	3.3	2.24	7.48	21.4	10.5	2.05
10	39.8	14.3	25.4	2.9	2.31	8.79	22.5	10.4	2.17
11	39.2	14.9	24.4	2.3	2.28	10.40	22.0	9.7	2.27
12	38.6	15.0	23.6	2.2	2.24	10.69	21.4	9.3	2.29

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 308-320 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 20.7 CC
CELL PRESSURE =103.4 KPA
CONSOLIDATION PRESSURE = 34.5 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.74	10.37 CM
VOID RATIO	= 1.477	1.242
AREA	= 20.26	19.00 CM2
PERCENT MOISTURE	= 52.15	44.85 PERCENT
WET DENSITY	= 16.67	17.54 KN/M3
DRY DENSITY	= 10.96	12.11 KN/M3
PERCENT SATURATION	= 97.73	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.241	0.000
2	0.001592	0.001592	0.0000	1.241	1.515
3	0.005512	0.005512	0.0000	1.241	1.145
4	0.011024	0.011024	0.0000	1.241	0.625
5	0.023028	0.023028	0.0000	1.241	0.384
6	0.047527	0.047527	0.0000	1.241	0.388
7	0.072515	0.072515	0.0000	1.241	0.342
8	0.097503	0.097503	0.0000	1.241	0.388
9	0.122614	0.122614	0.0000	1.241	1.045
10	0.141477	0.141477	0.0000	1.241	1.097
11	0.162178	0.162178	0.0000	1.241	1.134

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	34.5	0.0	34.5	34.5	1.00	1.00	0.0	34.5	0.00
2	36.7	3.4	33.2	31.0	1.06	1.07	2.2	31.7	0.07
3	40.1	6.5	33.6	27.9	1.16	1.20	6.7	29.8	0.19
4	50.4	10.0	40.4	24.5	1.46	1.65	15.9	29.8	0.53
5	56.2	19.3	36.9	15.2	1.63	2.44	21.8	22.4	0.97
6	59.2	22.0	37.2	12.4	1.72	3.00	24.8	20.7	1.20
7	59.3	23.4	35.8	11.0	1.72	3.25	24.8	19.3	1.29
8	58.8	24.1	34.7	10.3	1.71	3.36	24.4	18.5	1.32
9	58.1	24.8	33.3	9.6	1.69	3.46	23.7	17.6	1.35
10	57.6	25.5	32.1	9.0	1.67	3.59	23.2	16.7	1.39
11	57.6	26.2	31.3	8.3	1.67	3.79	23.0	15.9	1.44

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 320-332 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 39.7 CC
CELL PRESSURE =137.8 KPA
CONSOLIDATION PRESSURE = 68.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.63	9.84	CM
VOID RATIO	= 1.413	0.974	
AREA	= 20.53	18.14	CM2
PERCENT MOISTURE	= 49.84	35.21	PERCENT
WET DENSITY	= 16.85	18.59	KN/M3
DRY DENSITY	= 11.25	13.75	KN/M3
PERCENT SATURATION	= 97.60	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.974	0.000
2	0.004260	0.004260	0.0000	0.974	0.874
3	0.014974	0.014974	0.0000	0.974	1.015
4	0.020396	0.020396	0.0000	0.974	1.077
5	0.045310	0.045310	0.0000	0.974	1.106
6	0.070611	0.070611	0.0000	0.974	1.219
7	0.096170	0.096170	0.0000	0.974	1.263
8	0.147547	0.147547	0.0000	0.974	1.333
9	0.198924	0.198924	0.0000	0.974	1.494
10	0.249268	0.249268	0.0000	0.974	1.558
11	0.326333	0.326333	0.0000	0.974	1.743
12	0.382615	0.382615	0.0000	0.974	2.031

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	68.9	0.0	68.9	68.9	1.00	1.00	0.0	68.9	0.00
2	96.9	24.5	72.4	44.4	1.41	1.63	28.0	53.7	0.52
3	107.3	39.0	68.3	29.9	1.56	2.28	38.4	42.7	0.90
4	108.1	42.3	65.8	26.6	1.57	2.47	39.2	39.7	0.99
5	113.3	49.2	64.1	19.7	1.64	3.25	44.4	34.5	1.29
6	111.1	51.5	59.6	17.4	1.61	3.43	42.2	31.4	1.34
7	111.0	53.2	57.8	15.7	1.61	3.68	42.1	29.7	1.41
8	110.4	55.4	55.0	13.5	1.60	4.07	41.5	27.3	1.52
9	107.0	57.1	50.0	11.9	1.55	4.22	38.1	24.6	1.55
10	106.3	58.3	48.0	10.6	1.54	4.52	37.4	23.1	1.62
11	103.2	59.8	43.4	9.1	1.50	4.77	34.3	20.5	1.67
12	98.3	59.8	38.5	9.1	1.43	4.23	29.4	18.9	1.56

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 334-346 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.77
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 5.5 CC
CELL PRESSURE = 79.2 KPA
CONSOLIDATION PRESSURE = 10.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.10	10.86	CM
VOID RATIO	= 1.387	1.323	
AREA	= 20.26	20.15	CM2
PERCENT MOISTURE	= 48.17	47.76	PERCENT
WET DENSITY	= 16.86	17.28	KN/M3
DRY DENSITY	= 11.38	11.69	KN/M3
PERCENT SATURATION	= 96.21	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.322	0.000
2	0.010988	0.010988	0.0000	1.322	0.296
3	0.023612	0.023612	0.0000	1.322	0.306
4	0.042314	0.042314	0.0000	1.322	0.315
5	0.068264	0.068264	0.0000	1.322	0.336
6	0.091408	0.091408	0.0000	1.322	0.358
7	0.114319	0.114319	0.0000	1.322	0.369
8	0.149620	0.149620	0.0000	1.322	0.381
9	0.178375	0.178375	0.0000	1.322	0.372

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	30.2	0.0	30.2	10.3	1.95	1.95	9.9	13.6	0.72
2	29.9	5.8	24.1	4.5	2.89	5.29	19.5	11.1	1.77
3	32.8	6.9	25.9	3.4	3.18	7.53	22.5	10.9	2.06
4	33.4	7.3	26.1	3.0	3.24	8.62	23.1	10.7	2.15
5	32.8	7.6	25.2	2.8	3.17	9.16	22.5	10.2	2.19
6	32.3	7.9	24.4	2.5	3.12	9.84	21.9	9.8	2.24
7	32.7	8.3	24.4	2.1	3.16	11.81	22.3	9.5	2.35
8	32.7	8.5	24.2	1.8	3.17	13.49	22.4	9.3	2.42
9	32.9	8.4	24.5	1.9	3.18	12.68	22.5	9.4	2.39

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 498-511 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.78
PRECONSOLIDATION STRESS=165.4 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 41.1 CC
CELL PRESSURE =234.3 KPA
CONSOLIDATION PRESSURE =165.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.90	10.06	CM
VOID RATIO	= 1.517	1.044	
AREA	= 20.06	17.65	CM2
PERCENT MOISTURE	= 53.93	37.57	PERCENT
WET DENSITY	= 16.67	18.34	KN/M3
DRY DENSITY	= 10.83	13.33	KN/M3
PERCENT SATURATION	= 98.79	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.044	0.000
2	0.002778	0.002778	0.0000	1.044	0.996
3	0.012124	0.012124	0.0000	1.044	0.992
4	0.027784	0.027784	0.0000	1.044	1.229
5	0.042434	0.042434	0.0000	1.044	1.350
6	0.070724	0.070724	0.0000	1.044	1.485
7	0.099519	0.099519	0.0000	1.044	1.575
8	0.128313	0.128313	0.0000	1.044	1.667
9	0.156856	0.156856	0.0000	1.044	1.750
10	0.185903	0.185903	0.0000	1.044	1.826
11	0.224296	0.224296	0.0000	1.044	1.946

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	165.4	0.0	165.4	165.4	1.00	1.00	0.0	165.4	0.00
2	175.4	10.0	165.4	155.4	1.06	1.06	10.0	158.7	0.06
3	230.6	64.8	165.9	100.6	1.39	1.65	65.3	122.4	0.53
4	246.6	99.9	146.7	65.5	1.49	2.24	81.3	92.5	0.88
5	248.3	112.0	136.3	53.4	1.50	2.55	82.9	81.0	1.02
6	248.4	123.3	125.1	42.0	1.50	2.98	83.0	69.7	1.19
7	246.0	127.1	118.9	38.2	1.49	3.11	80.7	65.1	1.24
8	243.5	130.2	113.2	35.1	1.47	3.22	78.1	61.2	1.28
9	241.3	133.0	108.3	32.4	1.46	3.35	76.0	57.7	1.32
10	238.9	134.4	104.6	31.0	1.44	3.37	73.5	55.5	1.32
11	235.1	135.7	99.3	29.6	1.42	3.35	69.7	52.9	1.32

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 49-2579 USGS
BORING NUMBER IS DO-32 PC-32
SAMPLE IDENTIFICATION IS JD @ 511-524 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.73
OVERCONSOLIDATION RATIO= 4.0
PRECONSOLIDATION STRESS=166.6 KPA
MEASURED VOLUME CHANGE = 46.2 CC
CELL PRESSURE =110.2 KPA
CONSOLIDATION PRESSURE = 41.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	9.94	CM
VOID RATIO	= 1.606	1.057	
AREA	= 19.66	17.03	CM2
PERCENT MOISTURE	= 58.25	38.03	PERCENT
WET DENSITY	= 16.56	18.29	KN/M3
DRY DENSITY	= 10.46	13.25	KN/M3
PERCENT SATURATION	=100.86	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

OUTPUT DATA

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.056	0.000
2	0.004343	0.004343	0.0000	1.056	0.243
3	0.013648	0.013648	0.0000	1.056	0.254
4	0.033209	0.033209	0.0000	1.056	0.303
5	0.047514	0.047514	0.0000	1.056	0.342
6	0.062075	0.062075	0.0000	1.056	0.365
7	0.078424	0.078424	0.0000	1.056	0.402
8	0.105502	0.105502	0.0000	1.056	0.432
9	0.134112	0.134112	0.0000	1.056	0.475
10	0.205128	0.205128	0.0000	1.056	0.551

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	D/P PARAMETERS
1	41.3	0.0	41.3	41.3	1.00	1.00	0.0	41.3	0.00
2	66.3	6.2	60.6	35.1	1.61	1.72	25.4	43.6	0.58
3	80.4	10.3	70.1	31.0	1.95	2.26	39.1	44.0	0.89
4	84.5	13.1	71.3	28.3	2.05	2.53	43.2	42.7	1.01
5	85.6	15.2	70.5	26.2	2.07	2.69	44.3	40.9	1.08
6	86.6	16.5	70.1	24.8	2.09	2.82	45.3	39.9	1.13
7	85.8	17.9	67.9	23.4	2.08	2.90	44.5	38.3	1.16
8	85.2	18.9	66.2	22.4	2.06	2.96	43.9	37.0	1.18
9	84.0	20.3	63.7	21.0	2.03	3.03	42.7	35.2	1.21
10	80.7	21.7	59.0	19.6	1.95	3.01	39.4	32.8	1.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 524-538 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.78
PRECONSOLIDATION STRESS=165.6 KPA
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 38.0 CC
CELL PRESSURE = 89.6 KPA
CONSOLIDATION PRESSURE = 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 11.34	10.59 CM
VOID RATIO	= 1.449	1.045
AREA	= 20.33	18.18 CM2
PERCENT MOISTURE	= 52.29	37.61 PERCENT
WET DENSITY	= 16.95	18.34 KN/M3
DRY DENSITY	= 11.13	13.33 KN/M3
PERCENT SATURATION	=100.33	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.045	0.000
2	0.004557	0.004557	0.0000	1.045	0.062
3	0.016548	0.016548	0.0000	1.045	0.127
4	0.029498	0.029498	0.0000	1.045	0.084
5	0.042928	0.042928	0.0000	1.045	0.051
6	0.069788	0.069788	0.0000	1.045	0.012
7	0.096648	0.096648	0.0000	1.045	0.000
8	0.121589	0.121589	0.0000	1.045	0.012
9	0.146531	0.146531	0.0000	1.045	0.037
10	0.182024	0.182024	0.0000	1.045	0.057
11	0.228789	0.228789	0.0000	1.045	0.066

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	31.7	0.7	31.0	20.0	1.54	1.55	11.1	23.7	0.47
3	58.6	4.8	53.7	15.8	2.83	3.39	37.9	28.5	1.33
4	69.8	4.1	65.7	16.5	3.38	3.97	49.1	32.9	1.49
5	74.6	2.8	71.8	17.9	3.61	4.01	53.9	35.9	1.50
6	78.3	0.7	77.6	20.0	3.79	3.89	57.7	39.2	1.47
7	79.1	0.0	79.1	20.7	3.83	3.83	58.4	40.2	1.46
8	78.6	0.7	77.9	20.0	3.80	3.90	57.9	39.3	1.47
9	76.3	2.1	74.2	18.6	3.69	3.99	55.6	37.1	1.50
10	75.2	3.1	72.1	17.6	3.64	4.10	54.5	35.7	1.53
11	72.7	3.4	69.2	17.2	3.52	4.02	52.0	34.6	1.50

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 751-764 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=179.1
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 38.5 CC
CELL PRESSURE =248.1 KPA
CONSOLIDATION PRESSURE =179.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.80	10.04	CM
VOID RATIO	= 1.475	1.043	
AREA	= 20.40	18.11	CM2
PERCENT MOISTURE	= 55.18	38.07	PERCENT
WET DENSITY	= 16.84	18.16	KN/M3
DRY DENSITY	= 10.85	13.15	KN/M3
PERCENT SATURATION	=102.49	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.042	0.000
2	0.004300	0.004300	0.0000	1.042	0.830
3	0.010624	0.010624	0.0000	1.042	0.795
4	0.016948	0.016948	0.0000	1.042	0.930
5	0.029089	0.029089	0.0000	1.042	1.083
6	0.053372	0.053372	0.0000	1.042	1.241
7	0.077908	0.077908	0.0000	1.042	1.295
8	0.108768	0.108768	0.0000	1.042	1.340
9	0.140387	0.140387	0.0000	1.042	1.345
10	0.165176	0.165176	0.0000	1.042	1.385
11	0.218042	0.218042	0.0000	1.042	1.402

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	179.2	0.0	179.2	179.2	1.00	1.00	0.0	179.2	0.00
2	203.0	19.8	183.2	159.3	1.13	1.15	23.9	167.3	0.14
3	242.7	50.6	192.2	128.6	1.35	1.49	63.6	149.8	0.42
4	263.8	78.7	185.1	100.5	1.47	1.84	84.6	128.7	0.66
5	276.5	105.4	171.0	73.7	1.54	2.32	97.3	106.2	0.92
6	279.2	124.2	155.0	55.0	1.56	2.82	100.0	88.3	1.13
7	280.6	131.5	149.1	47.7	1.57	3.13	101.5	81.5	1.24
8	277.2	131.5	145.7	47.7	1.55	3.06	98.1	80.4	1.22
9	276.5	131.1	145.5	48.1	1.54	3.02	97.4	80.6	1.21
10	272.8	129.8	143.0	49.3	1.52	2.90	93.7	80.6	1.16
11	267.7	126.9	140.8	52.2	1.49	2.70	88.6	81.8	1.08

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 764-777 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=179.1
OVERCONSOLIDATION RATIO= 2.00
MEASURED VOLUME CHANGE = 40.1 CC
CELL PRESSURE =158.5 KPA
CONSOLIDATION PRESSURE = 89.6 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 11.35	10.58 CM
VOID RATIO	= 1.620	1.180
AREA	= 21.01	18.74 CM2
PERCENT MOISTURE	= 57.60	43.06 PERCENT
WET DENSITY	= 16.16	17.63 KN/M3
DRY DENSITY	= 10.25	12.33 KN/M3
PERCENT SATURATION	= 97.40	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.179	0.000
2	0.004321	0.004321	0.0000	1.179	0.301
3	0.012003	0.012003	0.0000	1.179	0.417
4	0.021605	0.021605	0.0000	1.179	0.507
5	0.031927	0.031927	0.0000	1.179	0.564
6	0.060733	0.060733	0.0000	1.179	0.677
7	0.084259	0.084259	0.0000	1.179	0.720
8	0.108504	0.108504	0.0000	1.179	0.760
9	0.144272	0.144272	0.0000	1.179	0.828
10	0.168517	0.168517	0.0000	1.179	0.892
11	0.193003	0.193003	0.0000	1.179	0.915

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	89.6	0.0	89.6	89.6	1.00	1.00	0.0	89.6	0.00
2	137.6	14.5	123.2	75.1	1.54	1.64	48.1	91.1	0.53
3	157.3	28.3	129.1	61.3	1.76	2.10	67.7	83.9	0.81
4	163.0	37.2	125.8	52.4	1.82	2.40	73.4	76.8	0.96
5	165.9	43.1	122.8	46.5	1.85	2.64	76.3	72.0	1.06
6	167.4	52.7	114.7	36.9	1.87	3.11	77.9	62.8	1.24
7	166.6	55.5	111.1	34.1	1.86	3.26	77.0	59.8	1.29
8	165.2	57.5	107.7	32.0	1.84	3.36	75.6	57.2	1.32
9	164.0	61.7	102.3	27.9	1.83	3.67	74.4	52.7	1.41
10	163.3	65.8	97.5	23.8	1.82	4.10	73.7	48.3	1.52
11	160.3	64.8	95.6	24.8	1.79	3.85	70.8	48.4	1.46

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 777-791 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=179.1
OVERCONSOLIDATION RATIO= 4.00
MEASURED VOLUME CHANGE = 32.1 CC
CELL PRESSURE =113.7 KPA
CONSOLIDATION PRESSURE = 44.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.32	9.73	CM
VOID RATIO	= 1.452	1.091	
AREA	= 21.15	19.14	CM2
PERCENT MOISTURE	= 52.93	39.84	PERCENT
WET DENSITY	= 16.76	17.96	KN/M3
DRY DENSITY	= 10.96	12.85	KN/M3
PERCENT SATURATION	= 99.89	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.091	0.000
2	0.002089	0.002089	0.0000	1.091	0.254
3	0.005744	0.005744	0.0000	1.091	0.221
4	0.017755	0.017755	0.0000	1.091	0.133
5	0.030027	0.030027	0.0000	1.091	0.125
6	0.055092	0.055092	0.0000	1.091	0.134
7	0.086685	0.086685	0.0000	1.091	0.161
8	0.112012	0.112012	0.0000	1.091	0.184
9	0.137861	0.137861	0.0000	1.091	0.208
10	0.163710	0.163710	0.0000	1.091	0.235
11	0.213669	0.213669	0.0000	1.091	0.269

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	44.8	0.0	44.8	44.8	1.00	1.00	0.0	44.8	0.00
2	61.6	4.3	57.3	40.5	1.37	1.41	16.8	46.1	0.36
3	77.2	7.2	70.0	37.6	1.72	1.86	32.4	48.4	0.67
4	95.4	6.8	88.6	38.0	2.13	2.33	50.6	54.9	0.92
5	99.8	6.9	92.9	37.9	2.23	2.45	55.0	56.2	0.98
6	105.3	8.1	97.2	36.7	2.35	2.65	60.6	56.8	1.07
7	106.2	9.9	96.3	34.9	2.37	2.76	61.4	55.3	1.11
8	105.4	11.2	94.3	33.6	2.35	2.80	60.6	53.8	1.13
9	103.7	12.3	91.4	32.5	2.31	2.81	58.9	52.1	1.13
10	102.8	13.6	89.1	31.1	2.29	2.86	58.0	50.5	1.15
11	101.6	15.3	86.3	29.5	2.27	2.93	56.9	48.4	1.17

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 371-383 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 10.0 CC
CELL PRESSURE = 84.8 KPA
CONSOLIDATION PRESSURE = 15.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.50	10.32	CM
VOID RATIO	= 2.043	1.898	
AREA	= 19.99	19.36	CM2
PERCENT MOISTURE	= 67.03	67.70	PERCENT
WET DENSITY	= 15.09	15.91	KN/M3
DRY DENSITY	= 9.03	9.49	KN/M3
PERCENT SATURATION	= 91.99	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.897	0.000
2	0.001353	0.001353	0.0000	1.897	0.352
3	0.004945	0.004945	0.0000	1.897	0.573
4	0.009718	0.009718	0.0000	1.897	0.512
5	0.019314	0.019314	0.0000	1.897	0.538
6	0.052406	0.052406	0.0000	1.897	0.511
7	0.061263	0.061263	0.0000	1.897	0.539
8	0.078362	0.078362	0.0000	1.897	0.525
9	0.150943	0.150943	0.0000	1.897	0.577
10	0.198551	0.198551	0.0000	1.897	0.604
11	0.223278	0.223278	0.0000	1.897	0.597
12	0.227706	0.227706	0.0000	1.897	0.592

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	15.8	0.0	15.8	15.8	1.00	1.00	0.0	15.8	0.00
2	17.0	1.1	15.9	14.7	1.07	1.08	1.1	15.1	0.07
3	19.2	1.9	17.2	13.9	1.21	1.24	3.3	15.0	0.22
4	25.8	5.1	20.7	10.7	1.63	1.92	9.9	14.1	0.70
5	32.2	8.8	23.4	7.0	2.03	3.33	16.3	12.5	1.31
6	40.1	12.4	27.7	3.4	2.53	8.03	24.2	11.5	2.10
7	38.8	12.4	26.4	3.4	2.45	7.66	23.0	11.1	2.07
8	39.4	12.4	27.0	3.4	2.49	7.84	23.6	11.3	2.09
9	38.5	13.1	25.4	2.8	2.43	9.22	22.6	10.3	2.20
10	36.3	12.4	23.9	3.4	2.29	6.95	20.5	10.3	1.99
11	36.6	12.4	24.2	3.4	2.31	7.01	20.7	10.4	2.00
12	35.6	11.7	23.9	4.1	2.25	5.78	19.7	10.7	1.84

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 383-395 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 17.7 CC
CELL PRESSURE =100.6 KPA
CONSOLIDATION PRESSURE = 31.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.57	10.26	CM
VOID RATIO	= 2.055	1.805	
AREA	= 20.40	19.30	CM2
PERCENT MOISTURE	= 66.12	64.37	PERCENT
WET DENSITY	= 14.95	16.11	KN/M3
DRY DENSITY	= 9.00	9.80	KN/M3
PERCENT SATURATION	= 90.20	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.804	0.000
2	0.000619	0.000619	0.0000	1.804	4.045
3	0.003713	0.003713	0.0000	1.804	1.045
4	0.009284	0.009284	0.0000	1.804	0.907
5	0.013616	0.013616	0.0000	1.804	0.846
6	0.024880	0.024880	0.0000	1.804	0.851
7	0.038744	0.038744	0.0000	1.804	0.831
8	0.052979	0.052979	0.0000	1.804	0.860
9	0.081449	0.081449	0.0000	1.804	0.928
10	0.110538	0.110538	0.0000	1.804	0.977
11	0.138389	0.138389	0.0000	1.804	1.019
12	0.180846	0.180846	0.0000	1.804	1.099
13	0.223304	0.223304	0.0000	1.804	1.150
14	0.262172	0.262172	0.0000	1.804	1.059

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	31.7	0.0	31.7	31.7	1.00	1.00	0.0	31.7	0.00
2	32.9	5.2	27.8	26.5	1.04	1.05	1.2	26.9	0.05
3	37.6	6.2	31.4	25.5	1.19	1.23	5.9	27.5	0.21
4	46.1	13.1	33.0	18.6	1.45	1.77	14.4	23.4	0.61
5	50.4	15.8	34.5	15.8	1.59	2.18	18.7	22.1	0.85
6	54.7	19.6	35.1	12.1	1.73	2.91	23.0	19.7	1.17
7	58.2	22.0	36.1	9.6	1.84	3.75	26.5	18.5	1.43
8	58.5	23.1	35.4	8.6	1.85	4.11	26.8	17.5	1.53
9	58.4	24.8	33.6	6.9	1.84	4.87	26.7	15.8	1.69
10	57.7	25.5	32.3	6.2	1.82	5.20	26.0	14.9	1.75
11	57.4	26.2	31.2	5.5	1.81	5.65	25.7	14.1	1.82
12	56.1	26.9	29.2	4.8	1.77	6.06	24.4	13.0	1.88
13	55.0	26.9	28.1	4.8	1.74	5.83	23.3	12.6	1.85
14	53.1	22.7	30.4	9.0	1.68	3.39	21.4	16.1	1.33

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 395-407 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 33.0 CC
CELL PRESSURE =130.9 KPA
CONSOLIDATION PRESSURE = 62.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.47	9.85	CM
VOID RATIO	= 1.964	1.514	
AREA	= 20.74	18.71	CM2
PERCENT MOISTURE	= 65.43	53.98	PERCENT
WET DENSITY	= 15.35	16.84	KN/M3
DRY DENSITY	= 9.28	10.94	KN/M3
PERCENT SATURATION	= 93.43	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.513	0.000
2	0.005158	0.005158	0.0000	1.513	1.231
3	0.006448	0.006448	0.0000	1.513	0.602
4	0.008511	0.008511	0.0000	1.513	0.730
5	0.013670	0.013670	0.0000	1.513	0.848
6	0.021794	0.021794	0.0000	1.513	0.956
7	0.031595	0.031595	0.0000	1.513	1.044
8	0.048359	0.048359	0.0000	1.513	1.114
9	0.081631	0.081631	0.0000	1.513	1.314
10	0.115933	0.115933	0.0000	1.513	1.382
11	0.150107	0.150107	0.0000	1.513	1.511
12	0.192921	0.192921	0.0000	1.513	1.634
13	0.235220	0.235220	0.0000	1.513	1.772
14	0.260624	0.260624	0.0000	1.513	1.910
15	0.283450	0.283450	0.0000	1.513	1.971

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	62.0	0.0	62.0	62.0	1.00	1.00	0.0	62.0	0.00
2	65.2	4.0	61.2	58.0	1.05	1.06	3.2	59.1	0.05
3	78.0	9.6	68.3	52.4	1.26	1.30	16.0	57.7	0.28
4	85.4	17.1	68.3	44.9	1.38	1.52	23.4	52.7	0.44
5	94.8	27.8	66.9	34.2	1.53	1.96	32.8	45.1	0.73
6	99.7	36.1	63.6	25.9	1.61	2.46	37.7	38.5	0.98
7	101.4	41.2	60.2	20.8	1.64	2.89	39.4	34.0	1.16
8	102.8	45.5	57.3	16.5	1.66	3.47	40.8	30.1	1.35
9	99.4	49.2	50.2	12.8	1.60	3.92	37.4	25.3	1.48
10	99.0	51.1	47.8	10.9	1.60	4.39	36.9	23.2	1.59
11	96.6	52.4	44.3	9.6	1.56	4.59	34.6	21.2	1.63
12	94.0	52.4	41.6	9.6	1.52	4.32	32.0	20.3	1.58
13	91.5	52.4	39.1	9.6	1.48	4.06	29.5	19.5	1.51
14	89.7	53.1	36.7	9.0	1.45	4.10	27.7	18.2	1.52
15	88.9	53.1	35.8	9.0	1.43	4.00	26.9	17.9	1.50

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 409-421 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 10.0 CC
CELL PRESSURE = 82.7 KPA
CONSOLIDATION PRESSURE = 13.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.28	9.95	CM
VOID RATIO	= 1.767	1.620	
AREA	= 20.60	20.15	CM2
PERCENT MOISTURE	= 60.01	57.85	PERCENT
WET DENSITY	= 15.88	16.34	KN/M3
DRY DENSITY	= 9.92	10.48	KN/M3
PERCENT SATURATION	= 95.09	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.619	0.000
2	0.006383	0.006383	0.0000	1.619	0.363
3	0.012765	0.012765	0.0000	1.619	0.413
4	0.025275	0.025275	0.0000	1.619	0.470
5	0.050551	0.050551	0.0000	1.619	0.520
6	0.076082	0.076082	0.0000	1.619	0.530
7	0.101102	0.101102	0.0000	1.619	0.550
8	0.126377	0.126377	0.0000	1.619	0.577
9	0.157270	0.157270	0.0000	1.619	0.598
10	0.189438	0.189438	0.0000	1.619	0.606

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	26.7	0.0	26.7	13.8	1.94	1.94	12.9	18.1	0.72
2	33.1	7.0	26.0	6.8	2.40	3.86	19.3	13.2	1.46
3	35.1	8.8	26.3	5.0	2.55	5.29	21.3	12.1	1.77
4	36.9	10.9	26.0	2.9	2.68	9.99	23.1	10.6	2.18
5	38.4	12.8	25.5	1.0	2.78	26.48	24.6	9.2	2.68
6	38.7	13.2	25.5	0.6	2.81	46.20	24.9	8.9	2.81
7	37.0	12.8	24.2	1.0	2.69	25.12	23.3	8.7	2.67
8	35.5	12.5	22.9	1.2	2.57	18.47	21.7	8.5	2.56
9	33.8	12.0	21.8	1.8	2.45	12.16	20.0	8.5	2.36
10	32.1	11.2	21.0	2.6	2.33	8.01	18.4	8.7	2.10

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 513-525 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=303.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 49.6 CC
CELL PRESSURE =144.7 KPA
CONSOLIDATION PRESSURE = 75.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.97	9.97	CM
VOID RATIO	= 1.465	0.935	
AREA	= 21.01	18.15	CM2
PERCENT MOISTURE	= 52.89	34.14	PERCENT
WET DENSITY	= 16.66	18.62	KN/M3
DRY DENSITY	= 10.90	13.88	KN/M3
PERCENT SATURATION	= 98.89	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.935	0.000
2	0.002038	0.002038	0.0000	0.935	0.149
3	0.003566	0.003566	0.0000	0.935	0.142
4	0.004840	0.004840	0.0000	0.935	0.174
5	0.015284	0.015284	0.0000	0.935	0.185
6	0.046618	0.046618	0.0000	0.935	0.192
7	0.108520	0.108520	0.0000	0.935	0.218
8	0.139598	0.139598	0.0000	0.935	0.227
9	0.201501	0.201501	0.0000	0.935	0.255
10	0.234362	0.234362	0.0000	0.935	0.284

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	75.8	0.0	75.8	75.8	1.00	1.00	0.0	75.8	0.00
2	90.6	2.2	88.4	73.6	1.19	1.20	14.8	78.5	0.19
3	110.6	5.0	105.6	70.8	1.46	1.49	34.8	82.4	0.42
4	126.3	8.8	117.5	67.0	1.67	1.75	50.5	83.8	0.60
5	165.4	16.5	148.8	59.3	2.18	2.51	89.6	89.1	1.01
6	185.7	21.1	164.6	54.7	2.45	3.01	109.9	91.3	1.20
7	192.7	25.5	167.2	50.3	2.54	3.32	116.9	89.3	1.31
8	195.0	27.0	168.0	48.8	2.57	3.44	119.2	88.5	1.35
9	191.5	29.5	162.0	46.3	2.53	3.50	115.7	84.9	1.36
10	186.7	31.6	155.2	44.2	2.46	3.51	110.9	81.2	1.37

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 525-540 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=303.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 47.1 CC
CELL PRESSURE =372.1 KPA
CONSOLIDATION PRESSURE =303.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.33	9.38	CM
VOID RATIO	= 1.498	0.958	
AREA	= 21.08	18.20	CM2
PERCENT MOISTURE	= 53.32	34.98	PERCENT
WET DENSITY	= 16.49	18.52	KN/M3
DRY DENSITY	= 10.75	13.72	KN/M3
PERCENT SATURATION	= 97.51	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.958	0.000
2	0.002166	0.002166	0.0000	0.958	0.337
3	0.005416	0.005416	0.0000	0.958	0.672
4	0.013144	0.013144	0.0000	0.958	1.145
5	0.037370	0.037370	0.0000	0.958	1.379
6	0.063638	0.063638	0.0000	0.958	1.585
7	0.089635	0.089635	0.0000	0.958	1.161
8	0.122672	0.122672	0.0000	0.958	0.660
9	0.149482	0.149482	0.0000	0.958	0.322
10	0.182790	0.182790	0.0000	0.958	0.061
11	0.216369	0.216369	0.0000	0.958	0.008

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	303.2	0.0	303.2	303.2	1.00	1.00	0.0	303.2	0.00
2	345.2	14.2	331.1	289.0	1.14	1.15	42.1	303.0	0.14
3	382.9	53.6	329.2	249.6	1.26	1.32	79.7	276.1	0.29
4	415.0	128.0	286.9	175.2	1.37	1.64	111.8	212.4	0.53
5	423.9	166.6	257.3	136.6	1.40	1.88	120.7	176.8	0.68
6	436.4	211.3	225.2	91.9	1.44	2.45	133.2	136.3	0.98
7	458.6	180.5	278.1	122.6	1.51	2.27	155.5	174.5	0.89
8	501.1	130.6	370.4	172.5	1.65	2.15	197.9	238.5	0.83
9	546.1	78.3	467.9	224.9	1.80	2.08	242.9	305.9	0.79
10	610.7	18.7	591.9	284.4	2.01	2.08	307.5	386.9	0.79
11	666.6	3.0	663.6	300.1	2.20	2.21	363.4	421.3	0.86

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 540-553 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=303.0
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 44.2 CC
CELL PRESSURE =220.5 KPA
CONSOLIDATION PRESSURE =151.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.08	9.20	CM
VOID RATIO	= 1.575	1.041	
AREA	= 21.15	18.37	CM2
PERCENT MOISTURE	= 54.93	37.99	PERCENT
WET DENSITY	= 16.17	18.17	KN/M3
DRY DENSITY	= 10.43	13.16	KN/M3
PERCENT SATURATION	= 95.58	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.040	0.000
2	0.001105	0.001105	0.0000	1.040	0.116
3	0.008285	0.008285	0.0000	1.040	0.309
4	0.026513	0.026513	0.0000	1.040	0.535
5	0.059655	0.059655	0.0000	1.040	0.709
6	0.086996	0.086996	0.0000	1.040	0.761
7	0.128147	0.128147	0.0000	1.040	0.801
8	0.169850	0.169850	0.0000	1.040	0.823
9	0.204649	0.204649	0.0000	1.040	0.849
10	0.246628	0.246628	0.0000	1.040	0.912
11	0.288883	0.288883	0.0000	1.040	1.000
12	0.303797	0.303797	0.0000	1.040	1.038

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	151.6	0.0	151.6	151.6	1.00	1.00	0.0	151.6	0.00
2	178.4	3.1	175.3	148.5	1.18	1.18	26.8	157.4	0.17
3	217.3	20.3	196.9	131.3	1.43	1.50	65.7	153.2	0.43
4	239.2	46.9	192.3	104.7	1.58	1.84	87.6	133.9	0.65
5	248.7	68.9	179.8	82.7	1.64	2.17	97.1	115.0	0.84
6	250.6	75.4	175.2	76.1	1.65	2.30	99.0	109.2	0.91
7	252.6	81.0	171.6	70.6	1.67	2.43	101.0	104.3	0.97
8	252.9	83.4	169.5	68.2	1.67	2.48	101.3	102.0	0.99
9	252.6	85.8	166.8	65.8	1.67	2.53	101.0	99.5	1.02
10	250.5	90.3	160.2	61.3	1.65	2.61	98.9	94.3	1.05
11	244.6	93.0	151.6	58.6	1.61	2.59	93.0	89.6	1.04
12	242.5	94.4	148.1	57.2	1.60	2.59	90.9	87.5	1.04

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS CD 3 765-780 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.78
PRECONSOLIDATION STRESS	=151.6
OVERCONSOLIDATION RATIO	= 1.0
MEASURED VOLUME CHANGE	= 48.0 CC
CELL PRESSURE	=220.6 KPA
CONSOLIDATION PRESSURE	=151.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.03	10.09	CM
VOID RATIO	= 2.032	1.412	
AREA	= 21.29	18.53	CM2
PERCENT MOISTURE	= 72.72	50.81	PERCENT
WET DENSITY	= 15.53	17.04	KN/M3
DRY DENSITY	= 8.99	11.30	KN/M3
PERCENT SATURATION	= 99.50	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.412	0.000
2	0.002770	0.002770	0.0000	1.412	0.588
3	0.013345	0.013345	0.0000	1.412	1.097
4	0.031221	0.031221	0.0000	1.412	1.322
5	0.056148	0.056148	0.0000	1.412	1.478
6	0.081327	0.081327	0.0000	1.412	1.594
7	0.106757	0.106757	0.0000	1.412	1.680
8	0.132187	0.132187	0.0000	1.412	1.728
9	0.157618	0.157618	0.0000	1.412	1.738
10	0.194126	0.194126	0.0000	1.412	1.838

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	151.6	0.0	151.6	151.6	1.00	1.00	0.0	151.6	0.00
2	169.7	10.7	159.0	140.9	1.12	1.13	18.1	146.9	0.12
3	206.5	60.3	146.2	91.3	1.36	1.60	54.9	109.6	0.50
4	218.8	88.9	129.9	62.7	1.44	2.07	67.2	85.1	0.79
5	221.7	103.7	118.0	47.9	1.46	2.46	70.1	71.3	0.98
6	220.7	110.2	110.4	41.3	1.46	2.67	69.1	64.4	1.07
7	219.4	114.0	105.4	37.6	1.45	2.81	67.8	60.2	1.13
8	219.1	116.8	102.3	34.8	1.45	2.94	67.5	57.3	1.18
9	219.5	118.2	101.4	33.4	1.45	3.03	67.9	56.1	1.21
10	217.5	121.3	96.3	30.3	1.44	3.18	65.9	52.3	1.26

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 780-794 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.78
PRECONSOLIDATION STRESS=151.5
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 42.1 CC
CELL PRESSURE =144.7 KPA
CONSOLIDATION PRESSURE = 75.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.82	10.01	CM
VOID RATIO	= 2.087	1.523	
AREA	= 21.29	18.80	CM2
PERCENT MOISTURE	= 72.34	54.78	PERCENT
WET DENSITY	= 15.22	16.72	KN/M3
DRY DENSITY	= 8.83	10.81	KN/M3
PERCENT SATURATION	= 96.38	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.522	0.000
2	0.005834	0.005834	0.0000	1.522	0.158
3	0.015726	0.015726	0.0000	1.522	0.434
4	0.029422	0.029422	0.0000	1.522	0.668
5	0.049206	0.049206	0.0000	1.522	0.832
6	0.074063	0.074063	0.0000	1.522	0.933
7	0.099173	0.099173	0.0000	1.522	1.022
8	0.124283	0.124283	0.0000	1.522	1.032
9	0.173743	0.173743	0.0000	1.522	1.051
10	0.215086	0.215086	0.0000	1.522	1.125

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	75.8	0.0	75.8	75.8	1.00	1.00	0.0	75.8	0.00
2	113.2	5.9	107.2	69.9	1.49	1.53	37.4	82.3	0.45
3	118.9	18.7	100.2	57.1	1.57	1.76	43.2	71.4	0.60
4	122.4	31.1	91.3	44.6	1.61	2.04	46.6	60.2	0.77
5	121.4	38.0	83.4	37.8	1.60	2.21	45.7	53.0	0.86
6	121.2	42.4	78.8	33.3	1.60	2.36	45.4	48.5	0.94
7	120.0	45.2	74.8	30.6	1.58	2.44	44.2	45.3	0.98
8	119.7	45.3	74.3	30.5	1.58	2.44	43.9	45.1	0.97
9	117.2	43.5	73.6	32.2	1.55	2.28	41.4	46.0	0.90
10	115.9	45.2	70.7	30.6	1.53	2.31	40.1	44.0	0.91

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 794-806 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.78
PRECONSOLIDATION STRESS	=151.5
OVERCONSOLIDATION RATIO	= 1.0
MEASURED VOLUME CHANGE	= 47.3 CC
CELL PRESSURE	=220.5 KPA
CONSOLIDATION PRESSURE	=151.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.18	10.24	CM
VOID RATIO	= 2.015	1.412	
AREA	= 21.15	18.46	CM2
PERCENT MOISTURE	= 71.23	50.78	PERCENT
WET DENSITY	= 15.48	17.04	KN/M3
DRY DENSITY	= 9.04	11.30	KN/M3
PERCENT SATURATION	= 98.30	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.411	0.000
2	0.000992	0.000992	0.0000	1.411	0.634
3	0.004959	0.004959	0.0000	1.411	0.437
4	0.013141	0.013141	0.0000	1.411	0.717
5	0.030744	0.030744	0.0000	1.411	1.027
6	0.058761	0.058761	0.0000	1.411	1.249
7	0.077604	0.077604	0.0000	1.411	1.361
8	0.096447	0.096447	0.0000	1.411	1.452
9	0.124960	0.124960	0.0000	1.411	1.584
10	0.153224	0.153224	0.0000	1.411	1.740

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	151.6	0.0	151.6	151.6	1.00	1.00	0.0	151.6	0.00
2	157.5	3.8	153.7	147.8	1.04	1.04	5.9	149.8	0.04
3	194.1	18.6	175.5	133.0	1.28	1.32	42.5	147.2	0.29
4	217.9	47.5	170.3	104.0	1.44	1.64	66.3	126.1	0.53
5	230.0	80.6	149.4	71.0	1.52	2.11	78.4	97.1	0.81
6	230.5	98.5	131.9	53.1	1.52	2.49	78.9	79.3	0.99
7	228.2	104.4	123.8	47.2	1.51	2.62	76.6	72.7	1.05
8	225.6	107.5	118.1	44.1	1.49	2.68	74.0	68.8	1.08
9	221.4	110.6	110.8	41.0	1.46	2.70	69.8	64.3	1.09
10	215.7	111.6	104.1	40.0	1.42	2.60	64.1	61.3	1.05

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 378-390 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 8.0 CC
CELL PRESSURE = 84.1 KPA
CONSOLIDATION PRESSURE = 15.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.28	10.14	CM
VOID RATIO	= 2.497	2.363	
AREA	= 20.33	19.82	CM2
PERCENT MOISTURE	= 85.54	84.15	PERCENT
WET DENSITY	= 14.61	15.08	KN/M3
DRY DENSITY	= 7.87	8.19	KN/M3
PERCENT SATURATION	= 96.21	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	2.362	0.000
2	0.009642	0.009642	0.0000	2.362	0.033
3	0.012021	0.012021	0.0000	2.362	0.104
4	0.016654	0.016654	0.0000	2.362	0.166
5	0.021287	0.021287	0.0000	2.362	0.203
6	0.040195	0.040195	0.0000	2.362	0.260
7	0.059980	0.059980	0.0000	2.362	0.280
8	0.084273	0.084273	0.0000	2.362	0.318
9	0.108440	0.108440	0.0000	2.362	0.349
10	0.132232	0.132232	0.0000	2.362	0.401
11	0.164538	0.164538	0.0000	2.362	0.450
12	0.196594	0.196594	0.0000	2.362	0.504
13	0.220386	0.220386	0.0000	2.362	0.546
14	0.233659	0.233659	0.0000	2.362	0.548

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	15.2	0.0	15.2	15.2	1.00	1.00	0.0	15.2	0.00
2	25.7	0.3	25.3	14.8	1.69	1.71	10.5	18.3	0.57
3	28.3	1.4	27.0	13.8	1.87	1.96	13.2	18.2	0.72
4	31.7	2.8	28.9	12.4	2.09	2.33	16.5	17.9	0.92
5	33.8	3.8	30.0	11.4	2.23	2.64	18.6	17.6	1.06
6	37.9	5.9	32.0	9.2	2.50	3.46	22.8	16.8	1.35
7	39.8	6.9	32.9	8.3	2.62	3.98	24.6	16.5	1.49
8	40.0	7.9	32.1	7.2	2.64	4.44	24.9	15.5	1.60
9	39.8	8.6	31.2	6.5	2.63	4.77	24.7	14.8	1.67
10	39.2	9.6	29.5	5.5	2.58	5.35	24.0	13.5	1.78
11	38.1	10.3	27.7	4.8	2.51	5.75	22.9	12.5	1.84
12	37.0	11.0	26.0	4.1	2.44	6.28	21.8	11.4	1.91
13	35.9	11.4	24.6	3.8	2.37	6.49	20.8	10.7	1.94
14	35.2	11.0	24.2	4.1	2.32	5.85	20.1	10.8	1.85

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS CD @ 390-402 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 21.2 CC
CELL PRESSURE = 98.5 KPA
CONSOLIDATION PRESSURE = 29.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.92	10.54	CM
VOID RATIO	= 2.422	2.096	
AREA	= 20.33	19.06	CM2
PERCENT MOISTURE	= 85.75	74.63	PERCENT
WET DENSITY	= 14.95	15.53	KN/M3
DRY DENSITY	= 8.05	8.89	KN/M3
PERCENT SATURATION	= 99.42	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	2.095	0.000
2	0.002651	0.002651	0.0000	2.095	0.418
3	0.006146	0.006146	0.0000	2.095	0.361
4	0.021332	0.021332	0.0000	2.095	0.360
5	0.050256	0.050256	0.0000	2.095	0.509
6	0.108466	0.108466	0.0000	2.095	0.915
7	0.153057	0.153057	0.0000	2.095	1.159
8	0.197528	0.197528	0.0000	2.095	1.313
9	0.242240	0.242240	0.0000	2.095	1.501
10	0.286831	0.286831	0.0000	2.095	1.587
11	0.346125	0.346125	0.0000	2.095	1.757
12	0.418918	0.418918	0.0000	2.095	2.086
13	0.426631	0.426631	0.0000	2.095	2.125

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	29.6	0.0	29.6	29.6	1.00	1.00	0.0	29.6	0.00
2	36.2	2.3	33.4	26.9	1.22	1.24	6.5	29.1	0.23
3	44.8	5.5	39.3	24.1	1.51	1.63	15.2	29.2	0.52
4	56.4	9.6	46.7	20.0	1.90	2.34	26.7	28.9	0.93
5	67.7	17.1	40.6	12.5	1.95	3.23	28.0	21.9	1.28
6	55.9	24.1	31.8	5.5	1.89	5.77	26.3	14.3	1.84
7	52.8	26.9	25.9	2.8	1.78	9.40	23.1	10.5	2.21
8	50.7	27.7	23.0	1.9	1.71	11.91	21.1	8.9	2.35
9	47.8	27.4	20.4	2.2	1.61	9.26	18.2	8.3	2.20
10	46.8	27.3	19.5	2.3	1.58	8.32	17.1	8.1	2.13
11	44.5	26.3	18.2	3.2	1.51	5.74	15.0	8.2	1.84
12	42.3	26.6	15.7	3.0	1.43	5.19	12.7	7.3	1.75
13	42.2	26.7	15.4	2.9	1.42	5.33	12.5	7.1	1.77

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 402-414 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 32.6 CC
CELL PRESSURE =128.9 KPA
CONSOLIDATION PRESSURE = 59.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.49	9.86	CM
VOID RATIO	= 2.293	1.793	
AREA	= 20.47	18.46	CM2
PERCENT MOISTURE	= 80.39	63.86	PERCENT
WET DENSITY	= 15.08	16.15	KN/M3
DRY DENSITY	= 8.36	9.86	KN/M3
PERCENT SATURATION	= 98.45	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.792	0.000
2	0.000644	0.000644	0.0000	1.792	0.227
3	0.002060	0.002060	0.0000	1.792	0.276
4	0.003219	0.003219	0.0000	1.792	0.458
5	0.003734	0.003734	0.0000	1.792	0.492
6	0.010686	0.010686	0.0000	1.792	0.755
7	0.027165	0.027165	0.0000	1.792	0.822
8	0.045447	0.045447	0.0000	1.792	1.044
9	0.093855	0.093855	0.0000	1.792	1.218
10	0.132993	0.132993	0.0000	1.792	1.325
11	0.162218	0.162218	0.0000	1.792	1.348
12	0.201099	0.201099	0.0000	1.792	1.430
13	0.250150	0.250150	0.0000	1.792	1.521
14	0.275384	0.275384	0.0000	1.792	1.567

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	59.9	0.0	59.9	59.9	1.00	1.00	0.0	59.9	0.00
2	61.4	0.3	61.1	59.6	1.02	1.02	1.5	60.1	0.02
3	62.4	0.7	61.7	59.3	1.04	1.04	2.4	60.1	0.04
4	71.2	5.2	66.0	54.8	1.19	1.21	11.2	58.5	0.19
5	74.6	7.2	67.4	52.7	1.24	1.28	14.7	57.6	0.25
6	89.6	22.4	67.2	37.6	1.49	1.79	29.6	47.4	0.62
7	93.8	27.9	65.9	32.0	1.57	2.06	33.9	43.3	0.78
8	95.5	37.2	58.3	22.7	1.69	2.57	35.6	34.6	1.03
9	94.4	42.0	52.4	17.9	1.67	2.92	34.5	29.4	1.17
10	92.9	43.8	49.2	16.2	1.65	3.04	33.0	27.2	1.21
11	92.6	44.1	48.5	15.8	1.65	3.06	32.7	26.7	1.22
12	91.7	45.5	46.2	14.5	1.63	3.19	31.7	25.1	1.27
13	90.5	46.5	44.0	13.4	1.61	3.27	30.5	23.6	1.29
14	89.8	46.9	43.0	13.1	1.60	3.28	29.9	23.0	1.30

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 414-428 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 5.7 CC
CELL PRESSURE = 79.2 KPA
CONSOLIDATION PRESSURE = 10.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.00	10.82	CM
VOID RATIO	= 1.861	1.775	
AREA	= 19.93	19.64	CM2
PERCENT MOISTURE	= 67.25	63.18	PERCENT
WET DENSITY	= 16.10	16.20	KN/M3
DRY DENSITY	= 9.63	9.93	KN/M3
PERCENT SATURATION	=101.53	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.774	0.000
2	0.003755	0.003755	0.0000	1.774	0.237
3	0.014787	0.014787	0.0000	1.774	0.391
4	0.025819	0.025819	0.0000	1.774	0.386
5	0.037320	0.037320	0.0000	1.774	0.349
6	0.060087	0.060087	0.0000	1.774	0.328
7	0.082855	0.082855	0.0000	1.774	0.323
8	0.129328	0.129328	0.0000	1.774	0.319
9	0.175802	0.175802	0.0000	1.774	0.391
10	0.244808	0.244808	0.0000	1.774	0.405

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	20.4	0.0	20.4	10.3	1.97	1.97	10.0	13.7	0.73
2	23.7	3.2	20.5	7.2	2.29	2.86	13.3	11.6	1.15
3	27.9	6.9	21.0	3.4	2.70	6.10	17.6	9.3	1.89
4	31.0	8.0	23.0	2.3	3.00	9.81	20.6	9.2	2.24
5	34.0	8.3	25.7	2.1	3.29	12.43	23.6	9.9	2.38
6	35.5	8.3	27.2	2.1	3.43	13.17	25.2	10.5	2.41
7	35.9	8.3	27.6	2.1	3.47	13.37	25.6	10.6	2.41
8	37.5	8.7	28.8	1.7	3.63	17.44	27.2	10.7	2.54
9	34.2	9.4	24.9	1.0	3.31	25.77	23.9	8.9	2.68
10	33.1	9.2	23.8	1.1	3.20	21.62	22.7	8.7	2.62

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 528-542 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.71
PRECONSOLIDATION STRESS=385.7
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 50.3 CC
CELL PRESSURE =454.8 KPA
CONSOLIDATION PRESSURE =385.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.46	10.47	CM
VOID RATIO	= 1.584	1.055	
AREA	= 21.43	18.64	CM2
PERCENT MOISTURE	= 59.61	38.93	PERCENT
WET DENSITY	= 16.41	17.97	KN/M3
DRY DENSITY	= 10.28	12.93	KN/M3
PERCENT SATURATION	=101.98	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.054	0.000
2	0.001940	0.001940	0.0000	1.054	0.576
3	0.011400	0.011400	0.0000	1.054	0.581
4	0.034928	0.034928	0.0000	1.054	0.946
5	0.058456	0.058456	0.0000	1.054	1.179
6	0.082469	0.082469	0.0000	1.054	1.418
7	0.106240	0.106240	0.0000	1.054	1.503
8	0.130010	0.130010	0.0000	1.054	1.526
9	0.154023	0.154023	0.0000	1.054	1.609
10	0.189437	0.189437	0.0000	1.054	1.638
11	0.212965	0.212965	0.0000	1.054	1.782

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	385.9	0.0	385.9	385.9	1.00	1.00	0.0	385.9	0.00
2	410.7	14.3	396.4	371.5	1.06	1.07	24.8	379.8	0.07
3	516.1	75.7	440.4	310.2	1.34	1.42	130.2	353.6	0.37
4	555.0	160.1	394.9	225.7	1.44	1.75	169.1	282.1	0.60
5	566.5	213.1	353.4	172.8	1.47	2.05	180.6	233.0	0.78
6	565.7	255.1	310.6	130.8	1.47	2.38	179.8	190.7	0.94
7	565.7	270.4	295.3	115.5	1.47	2.56	179.8	175.4	1.03
8	566.3	275.5	290.8	110.4	1.47	2.63	180.4	170.5	1.06
9	558.7	278.1	280.6	107.8	1.45	2.60	172.8	165.4	1.05
10	559.0	283.7	275.3	102.1	1.45	2.70	173.2	159.8	1.08
11	546.7	286.6	260.0	99.2	1.42	2.62	160.8	152.8	1.05

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 542-555 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.71
PRECONSOLIDATION STRESS=385.7
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 44.1 CC
CELL PRESSURE =261.8 KPA
CONSOLIDATION PRESSURE =192.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.10	9.24	CM
VOID RATIO	= 1.748	1.188	
AREA	= 21.43	18.65	CM2
PERCENT MOISTURE	= 62.56	43.86	PERCENT
WET DENSITY	= 15.72	17.47	KN/M3
DRY DENSITY	= 9.67	12.14	KN/M3
PERCENT SATURATION	= 96.98	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.188	0.000
2	0.016494	0.016494	0.0000	1.188	0.257
3	0.031064	0.031064	0.0000	1.188	0.387
4	0.045909	0.045909	0.0000	1.188	0.477
5	0.027215	0.027215	0.0000	1.188	0.550
6	0.107762	0.107762	0.0000	1.188	0.636
7	0.139101	0.139101	0.0000	1.188	0.681
8	0.170440	0.170440	0.0000	1.188	0.733
9	0.201504	0.201504	0.0000	1.188	0.798
10	0.249062	0.249062	0.0000	1.188	0.934

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	192.9	0.0	192.9	192.9	1.00	1.00	0.0	192.9	0.00
2	320.1	32.7	287.4	160.2	1.66	1.79	127.2	202.6	0.63
3	335.5	55.1	280.4	137.8	1.74	2.03	142.6	185.3	0.77
4	342.5	71.3	271.2	121.6	1.78	2.23	149.5	171.5	0.87
5	355.9	89.6	266.3	103.4	1.84	2.58	163.0	157.7	1.03
6	347.8	98.5	249.3	94.4	1.80	2.64	154.9	146.0	1.06
7	346.2	104.4	241.8	88.5	1.79	2.73	153.3	139.6	1.10
8	341.8	109.2	232.6	83.7	1.77	2.78	148.9	133.3	1.12
9	333.6	112.3	221.3	80.6	1.73	2.75	140.7	127.5	1.10
10	316.4	115.4	201.0	77.5	1.64	2.59	123.5	118.7	1.04

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 555-568 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.71
PRECONSOLIDATION STRESS=385.7
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 41.8 CC
CELL PRESSURE =165.4 KPA
CONSOLIDATION PRESSURE = 96.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.83	9.98	CM
VOID RATIO	= 1.[illegible]12	1.116	
AREA	= 20.[illegible]3	17.87	CM2
PERCENT MOISTURE	= 60.63	41.19	PERCENT
WET DENSITY	= 16.34	17.73	KN/M3
DRY DENSITY	= 10.17	12.56	KN/M3
PERCENT SATURATION	=101.95	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.115	0.000
2	0.002290	0.002290	0.0000	1.115	0.433
3	0.011703	0.011703	0.0000	1.115	0.245
4	0.023407	0.023407	0.0000	1.115	0.181
5	0.035110	0.035110	0.0000	1.115	0.167
6	0.059535	0.059535	0.0000	1.115	0.180
7	0.084214	0.084214	0.0000	1.115	0.193
8	0.108893	0.108893	0.0000	1.115	0.203
9	0.134081	0.134081	0.0000	1.115	0.220
10	0.159269	0.159269	0.0000	1.115	0.232
11	0.184202	0.184202	0.0000	1.115	0.249
12	0.209390	0.209390	0.0000	1.115	0.267
13	0.247045	0.247045	0.0000	1.115	0.296

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P CAMBRIDGE PARAMETERS
1	96.5	0.0	96.5	96.5	1.00	1.00	0.0	96.5	0.00
2	106.3	4.3	102.0	92.2	1.10	1.11	9.8	95.5	0.10
3	167.8	17.5	150.3	79.0	1.74	1.90	71.3	102.7	0.69
4	204.3	19.6	184.7	76.9	2.12	2.40	107.8	112.8	0.96
5	218.8	20.4	198.4	76.1	2.27	2.61	122.3	116.8	1.05
6	228.0	23.7	204.3	72.8	2.36	2.81	131.6	116.6	1.13
7	234.6	26.7	207.9	69.7	2.43	2.98	138.1	115.8	1.19
8	235.7	28.3	207.5	68.2	2.44	3.04	139.3	114.6	1.21
9	232.8	30.0	202.7	66.4	2.41	3.05	136.3	111.9	1.22
10	232.5	31.6	200.9	64.9	2.41	3.10	136.0	110.2	1.23
11	228.4	32.9	195.5	63.5	2.37	3.08	132.0	107.5	1.23
12	226.1	34.6	191.5	61.9	2.34	3.09	129.6	105.1	1.23
13	219.9	36.5	183.4	59.9	2.28	3.06	123.4	101.1	1.22

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 264-277 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.76
PRECONSOLIDATION STRESS	=179.2 KPA
OVERCONSOLIDATION RATIO	= 1.0
MEASURED VOLUME CHANGE	= 37.3 CC
CELL PRESSURE	=248.1 KPA
CONSOLIDATION PRESSURE	=179.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.16	CM
VOID RATIO	= 1.586	1.147	
AREA	= 20.13	17.93	CM2
PERCENT MOISTURE	= 57.25	41.56	PERCENT
WET DENSITY	= 16.45	17.84	KN/M3
DRY DENSITY	= 10.46	12.61	KN/M3
PERCENT SATURATION	= 99.61	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.146	0.000
2	0.001000	0.001000	0.0000	1.146	0.612
3	0.009249	0.009249	0.0000	1.146	0.778
4	0.017998	0.017998	0.0000	1.146	0.873
5	0.035995	0.035995	0.0000	1.146	1.002
6	0.060492	0.060492	0.0000	1.146	1.071
7	0.085239	0.085239	0.0000	1.146	1.031
8	0.110236	0.110236	0.0000	1.146	1.051
9	0.134733	0.134733	0.0000	1.146	1.043
10	0.171728	0.171728	0.0000	1.146	1.069
11	0.235470	0.235470	0.0000	1.146	1.168

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	179.2	0.0	179.2	179.2	1.00	1.00	0.0	179.2	0.00
2	203.4	14.9	188.5	164.3	1.14	1.15	24.3	172.4	0.14
3	252.4	57.1	195.4	122.1	1.41	1.60	73.3	146.5	0.50
4	270.2	79.5	190.7	99.6	1.51	1.91	91.1	130.0	0.70
5	281.3	102.4	178.9	76.8	1.57	2.33	102.2	110.8	0.92
6	287.0	115.6	171.4	63.5	1.60	2.70	107.9	99.5	1.08
7	296.3	120.9	175.4	58.3	1.65	3.01	117.1	97.3	1.20
8	296.0	122.9	173.1	56.2	1.65	3.08	116.9	95.2	1.23
9	297.6	123.6	174.0	55.5	1.66	3.13	118.5	95.0	1.25
10	295.3	124.2	171.1	55.0	1.65	3.11	116.1	93.7	1.24
11	286.3	125.3	161.1	53.9	1.60	2.99	107.2	89.6	1.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 277-290 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=179.2 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 32.8 CC
CELL PRESSURE =113.7 KPA
CONSOLIDATION PRESSURE = 44.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.89	10.25	CM
VOID RATIO	= 1.724	1.318	
AREA	= 20.20	18.25	CM2
PERCENT MOISTURE	= 61.12	47.76	PERCENT
WET DENSITY	= 16.01	17.25	KN/M3
DRY DENSITY	= 9.93	11.67	KN/M3
PERCENT SATURATION	= 97.85	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.317	0.000
2	0.000991	0.000991	0.0000	1.317	0.231
3	0.010406	0.010406	0.0000	1.317	0.106
4	0.027253	0.027253	0.0000	1.317	0.136
5	0.046082	0.046082	0.0000	1.317	0.153
6	0.064168	0.064168	0.0000	1.317	0.169
7	0.088943	0.088943	0.0000	1.317	0.180
8	0.114214	0.114214	0.0000	1.317	0.195
9	0.151377	0.151377	0.0000	1.317	0.190
10	0.189035	0.189035	0.0000	1.317	0.232
11	0.203652	0.203652	0.0000	1.317	0.237

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	44.8	0.0	44.8	44.8	1.00	1.00	0.0	44.8	0.00
2	61.2	3.8	57.4	41.0	1.37	1.40	16.4	46.5	0.35
3	83.7	4.1	79.5	40.7	1.87	1.96	38.9	53.6	0.73
4	98.0	7.2	90.8	37.6	2.19	2.42	53.2	55.3	0.96
5	103.4	9.0	94.4	35.8	2.31	2.63	58.6	55.4	1.06
6	106.0	10.3	95.6	34.5	2.37	2.78	61.2	54.8	1.12
7	108.0	11.4	96.6	33.4	2.41	2.89	63.2	54.5	1.16
8	108.4	12.4	96.0	32.4	2.42	2.96	63.6	53.6	1.19
9	108.3	12.1	96.2	32.7	2.42	2.94	63.5	53.9	1.18
10	107.1	14.5	92.6	30.3	2.39	3.05	62.3	51.1	1.22
11	105.8	14.5	91.3	30.3	2.36	3.01	61.0	50.6	1.20

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 290-304 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=179.2 KPA
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 38.6 CC
CELL PRESSURE = 91.3 KPA
CONSOLIDATION PRESSURE = 22.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 18.91	18.14	CM
VOID RATIO	= 1.306	1.312	
AREA	= 20.06	17.79	CM2
PERCENT MOISTURE	= 55.64	47.54	PERCENT
WET DENSITY	= 15.97	17.27	KN/M3
DRY DENSITY	= 9.64	11.71	KN/M3
PERCENT SATURATION	=100.00	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME RATIO (CC/CC)	VOID FACTOR	A NUMBER
1	0.000000	0.000000	0.0000	1.311	0.000
3	0.011277	0.011277	0.0000	1.311	0.225
4	0.017292	0.017292	0.0000	1.311	0.130
5	0.029321	0.029321	0.0000	1.311	0.393
6	0.041601	0.041601	0.0000	1.311	0.351
7	0.066412	0.066412	0.0000	1.311	0.020
8	0.091222	0.091222	0.0000	1.311	0.009
9	0.116782	0.116782	0.0000	1.311	0.009
10	0.140592	0.140592	0.0000	1.311	0.011
11	0.171668	0.171668	0.0000	1.311	0.025
12	0.204247	0.204247	0.0000	1.311	0.035

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	22.4	0.0	22.4	22.4	1.00	1.00	0.0	22.4	0.00
3	39.9	4.1	35.8	18.3	1.78	1.96	17.5	24.1	0.73
4	50.7	5.1	45.6	17.3	2.26	2.64	28.3	26.7	1.06
5	65.4	4.0	61.4	18.4	2.92	3.34	43.0	32.7	1.31
6	73.4	2.6	70.7	19.8	3.28	3.58	51.0	36.8	1.39
7	78.2	1.1	77.1	21.3	3.49	3.62	55.8	39.9	1.40
8	81.8	0.6	81.2	21.8	3.65	3.72	59.4	41.6	1.43
9	83.1	0.6	82.5	21.8	3.71	3.78	60.7	42.1	1.44
10	83.3	0.7	82.6	21.7	3.72	3.81	60.9	42.3	1.45
11	83.9	1.5	82.4	18.9	3.75	3.94	61.5	41.4	1.49
12	85.9	2.2	83.7	18.2	3.83	4.14	63.5	41.3	1.54

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 510-522 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.63
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 8.1 CC
CELL PRESSURE = 93.7 KPA
CONSOLIDATION PRESSURE = 24.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.91	10.77	CM
VOID RATIO	= 1.622	1.526	
AREA	= 20.20	19.70	CM2
PERCENT MOISTURE	= 63.06	58.09	PERCENT
WET DENSITY	= 16.01	16.12	KN/M3
DRY DENSITY	= 9.82	10.20	KN/M3
PERCENT SATURATION	=102.10	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.525	0.000
2	0.014969	0.014969	0.0000	1.525	0.401
3	0.020980	0.020980	0.0000	1.525	0.375
4	0.042904	0.042904	0.0000	1.525	0.344
5	0.072017	0.072017	0.0000	1.525	0.309
6	0.086751	0.086751	0.0000	1.525	0.317
7	0.130597	0.130597	0.0000	1.525	0.355
8	0.159946	0.159946	0.0000	1.525	0.377
9	0.177391	0.177391	0.0000	1.525	0.400
10	0.188824	0.188824	0.0000	1.525	0.404
11	0.215933	0.215933	0.0000	1.525	0.428

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	24.8	0.0	24.8	24.8	1.00	1.00	0.0	24.8	0.00
2	51.9	10.9	41.0	13.9	2.09	2.95	27.1	23.0	1.18
3	59.3	13.0	46.3	11.9	2.39	3.91	34.5	23.3	1.48
4	68.0	14.9	53.1	9.9	2.74	5.35	43.2	24.3	1.78
5	73.8	15.2	58.7	9.6	2.98	6.08	49.0	26.0	1.89
6	73.0	15.3	57.7	9.5	2.94	6.07	48.2	25.6	1.89
7	69.8	16.0	53.8	8.8	2.81	6.10	45.0	23.8	1.89
8	68.2	16.4	51.8	8.4	2.75	6.17	43.4	22.9	1.90
9	66.4	16.7	49.8	8.1	2.68	6.12	41.6	22.0	1.89
10	66.8	17.0	49.8	7.9	2.69	6.34	41.9	21.8	1.92
11	65.4	17.4	48.0	7.4	2.63	6.45	40.5	21.0	1.93

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS CD @ 522-534 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.63
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 13.0 CC
CELL PRESSURE	=118.5 KPA
CONSOLIDATION PRESSURE	= 49.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.93	10.70	CM
VOID RATIO	= 1.500	1.353	
AREA	= 20.13	19.34	CM2
PERCENT MOISTURE	= 59.37	51.51	PERCENT
WET DENSITY	= 16.41	16.58	KN/M3
DRY DENSITY	= 10.30	10.94	KN/M3
PERCENT SATURATION	=103.92	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.352	0.000
2	0.019581	0.019581	0.0000	1.352	0.585
3	0.030143	0.030143	0.0000	1.352	0.580
4	0.063846	0.063846	0.0000	1.352	0.588
5	0.109060	0.109060	0.0000	1.352	0.643
6	0.131345	0.131345	0.0000	1.352	0.684
7	0.200081	0.200081	0.0000	1.352	0.793
8	0.267843	0.267843	0.0000	1.352	0.891
9	0.289916	0.289916	0.0000	1.352	0.941
10	0.311989	0.311989	0.0000	1.352	0.985
11	0.331451	0.331451	0.0000	1.352	0.966

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	49.6	0.0	49.6	49.6	1.00	1.00	0.0	49.6	0.00
2	86.0	21.4	64.7	28.3	1.73	2.29	36.4	40.4	0.90
3	92.9	25.1	67.8	24.5	1.87	2.77	43.3	38.9	1.11
4	100.5	30.0	70.5	19.6	2.03	3.59	50.9	36.6	1.39
5	99.4	32.0	67.3	17.6	2.00	3.83	49.8	34.2	1.46
6	97.9	33.1	64.8	16.5	1.97	3.92	48.3	32.5	1.48
7	93.9	35.1	58.8	14.5	1.89	4.06	44.3	29.2	1.52
8	89.8	35.8	54.0	13.8	1.81	3.92	40.2	27.2	1.48
9	88.8	36.9	51.9	12.7	1.79	4.07	39.1	25.8	1.52
10	87.7	37.6	50.2	12.1	1.77	4.16	38.1	24.8	1.54
11	86.3	35.5	50.8	14.1	1.74	3.60	36.7	26.4	1.39

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 534-546 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.63
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 20.5 CC
CELL PRESSURE =168.1 KPA
CONSOLIDATION PRESSURE = 99.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.69	10.32	CM
VOID RATIO	= 1.483	1.248	
AREA	= 20.20	18.94	CM2
PERCENT MOISTURE	= 59.03	47.52	PERCENT
WET DENSITY	= 16.49	16.90	KN/M3
DRY DENSITY	= 10.37	11.46	KN/M3
PERCENT SATURATION	=104.50	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.247	0.000
2	0.001108	0.001108	0.0000	1.247	1.497
3	0.004923	0.004923	0.0000	1.247	0.876
4	0.009968	0.009968	0.0000	1.247	0.674
5	0.015629	0.015629	0.0000	1.247	0.752
6	0.021167	0.021167	0.0000	1.247	0.801
7	0.026951	0.026951	0.0000	1.247	0.839
8	0.039258	0.039258	0.0000	1.247	0.875
9	0.051687	0.051687	0.0000	1.247	0.925
10	0.063994	0.063994	0.0000	1.247	0.988
11	0.095129	0.095129	0.0000	1.247	1.051
12	0.158508	0.158508	0.0000	1.247	1.245
13	0.196289	0.196289	0.0000	1.247	1.402
14	0.202442	0.202442	0.0000	1.247	1.433
15	0.203796	0.203796	0.0000	1.247	1.434

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	99.2	0.0	99.2	99.2	1.00	1.00	0.0	99.2	0.00
2	101.7	3.8	97.9	95.4	1.03	1.03	2.5	96.3	0.03
3	106.6	6.5	100.1	92.7	1.07	1.08	7.4	95.1	0.08
4	133.4	23.1	110.3	76.1	1.34	1.45	34.2	87.5	0.39
5	145.0	34.5	110.5	64.8	1.46	1.71	45.8	80.0	0.57
6	152.5	42.7	109.8	56.5	1.54	1.94	53.3	74.3	0.72
7	157.5	48.9	108.6	50.3	1.59	2.16	58.3	69.7	0.84
8	161.8	54.8	107.0	44.4	1.63	2.41	62.6	65.3	0.96
9	162.9	58.9	104.0	40.3	1.64	2.58	63.6	61.5	1.03
10	165.1	65.1	100.0	34.1	1.66	2.93	65.8	56.1	1.17
11	163.1	67.2	95.9	32.0	1.64	2.99	63.9	53.3	1.20
12	153.4	67.5	85.9	31.7	1.55	2.71	54.2	49.8	1.09
13	148.6	69.2	79.3	30.0	1.50	2.65	49.3	46.4	1.06
14	148.0	69.9	78.1	29.3	1.49	2.67	48.8	45.5	1.07
15	147.7	69.6	78.1	29.6	1.49	2.64	48.5	45.8	1.06

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 546-560 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.63
PRECONSOLIDATION STRESS(NATURAL)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 6.5 CC
CELL PRESSURE = 86.1 KPA
CONSOLIDATION PRESSURE = 17.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.07	9.83	CM
VOID RATIO	= 1.515	1.418	
AREA	= 19.66	19.37	CM2
PERCENT MOISTURE	= 59.60	53.92	PERCENT
WET DENSITY	= 16.37	16.41	KN/M3
DRY DENSITY	= 10.25	10.66	KN/M3
PERCENT SATURATION	=103.49	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.417	0.000
2	0.004911	0.004911	0.0000	1.417	0.156
3	0.016027	0.016027	0.0000	1.417	0.214
4	0.036965	0.036965	0.0000	1.417	0.191
5	0.062557	0.062557	0.0000	1.417	0.176
6	0.083495	0.083495	0.0000	1.417	0.170
7	0.126147	0.126147	0.0000	1.417	0.194
8	0.189221	0.189221	0.0000	1.417	0.238
9	0.214295	0.214295	0.0000	1.417	0.251

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	34.2	0.0	34.2	17.2	1.98	1.98	17.0	22.9	0.74
2	42.0	3.9	38.1	13.4	2.44	2.85	24.7	21.6	1.14
3	50.6	7.2	43.4	10.1	2.94	4.32	33.4	21.2	1.58
4	61.9	8.5	53.3	8.7	3.59	6.14	44.6	23.6	1.89
5	64.9	8.4	56.5	8.8	3.77	6.41	47.7	24.7	1.93
6	65.9	8.3	57.6	9.0	3.83	6.44	48.7	25.2	1.93
7	62.7	8.8	53.8	8.4	3.64	6.40	45.4	23.6	1.93
8	59.4	10.1	49.3	7.2	3.45	6.88	42.2	21.2	1.99
9	57.2	10.1	47.1	7.2	3.32	6.58	40.0	20.5	1.95

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 670-682 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=241.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 40.5 CC
CELL PRESSURE =310.1 KPA
CONSOLIDATION PRESSURE =241.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.17	10.40	CM
VOID RATIO	= 1.688	1.228	
AREA	= 21.22	18.89	CM2
PERCENT MOISTURE	= 59.47	44.68	PERCENT
WET DENSITY	= 16.00	17.51	KN/M3
DRY DENSITY	= 10.03	12.10	KN/M3
PERCENT SATURATION	= 96.90	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.228	0.000
2	0.004152	0.004152	0.0000	1.228	0.752
3	0.009769	0.009769	0.0000	1.228	0.975
4	0.016607	0.016607	0.0000	1.228	1.205
5	0.033702	0.033702	0.0000	1.228	1.456
6	0.060077	0.060077	0.0000	1.228	1.549
7	0.087185	0.087185	0.0000	1.228	1.595
8	0.114538	0.114538	0.0000	1.228	1.638
9	0.141890	0.141890	0.0000	1.228	1.680
10	0.169731	0.169731	0.0000	1.228	1.730
11	0.197571	0.197571	0.0000	1.228	1.787
12	0.225412	0.225412	0.0000	1.228	1.855
13	0.281582	0.281582	0.0000	1.228	2.022

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	241.2	0.0	241.2	241.2	1.00	1.00	0.0	241.2	0.00
2	288.3	35.5	252.8	205.7	1.20	1.23	47.1	221.4	0.21
3	315.7	72.7	243.0	168.5	1.31	1.44	74.5	193.3	0.39
4	331.2	108.5	222.7	132.6	1.37	1.68	90.0	162.7	0.55
5	343.4	148.8	194.5	92.3	1.42	2.11	102.2	126.4	0.81
6	348.6	166.4	182.2	74.8	1.45	2.44	107.4	110.6	0.97
7	350.0	173.6	176.4	67.5	1.45	2.61	108.8	103.8	1.05
8	349.3	177.1	172.2	64.1	1.45	2.69	108.1	100.1	1.08
9	347.7	179.2	168.6	62.0	1.44	2.72	106.6	97.5	1.09
10	345.7	180.9	164.8	60.3	1.43	2.73	104.5	95.1	1.10
11	343.5	182.9	160.5	58.2	1.42	2.76	102.3	92.3	1.11
12	340.7	184.7	156.0	56.5	1.41	2.76	99.5	89.7	1.11
13	333.5	186.7	146.7	54.4	1.38	2.70	92.3	85.2	1.08

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 682-695 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=241.0
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 47.3 CC
CELL PRESSURE =189.5 KPA
CONSOLIDATION PRESSURE =120.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	9.96	CM
VOID RATIO	= 1.650	1.082	
AREA	= 20.13	17.40	CM2
PERCENT MOISTURE	= 58.41	39.36	PERCENT
WET DENSITY	= 16.12	18.05	KN/M3
DRY DENSITY	= 10.17	12.95	KN/M3
PERCENT SATURATION	= 97.33	100.02	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.082	0.000
2	0.003571	0.003571	0.0000	1.082	0.129
3	0.010457	0.010457	0.0000	1.082	0.194
4	0.021678	0.021678	0.0000	1.082	0.228
5	0.033410	0.033410	0.0000	1.082	0.268
6	0.056874	0.056874	0.0000	1.082	0.335
7	0.081358	0.081358	0.0000	1.082	0.364
8	0.105842	0.105842	0.0000	1.082	0.396
9	0.130580	0.130580	0.0000	1.082	0.424
10	0.155829	0.155829	0.0000	1.082	0.432
11	0.181078	0.181078	0.0000	1.082	0.462
12	0.219079	0.219079	0.0000	1.082	0.492

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	120.6	0.0	120.6	120.6	1.00	1.00	0.0	120.6	0.00
2	159.1	5.0	154.1	115.6	1.32	1.33	38.5	129.5	0.30
3	215.6	18.5	197.2	102.1	1.79	1.93	95.0	133.8	0.71
4	245.9	28.5	217.3	92.1	2.04	2.36	125.3	133.8	0.94
5	256.1	36.4	219.7	84.2	2.12	2.61	135.5	129.4	1.05
6	260.1	46.7	213.4	73.9	2.16	2.89	139.5	120.4	1.16
7	264.6	52.4	212.2	68.2	2.19	3.11	144.0	116.2	1.24
8	260.8	55.5	205.2	65.0	2.16	3.16	140.2	111.8	1.25
9	257.8	58.2	199.7	62.4	2.14	3.20	137.3	108.1	1.27
10	256.6	58.8	197.8	61.7	2.13	3.20	136.1	107.1	1.27
11	250.8	60.2	190.5	60.4	2.08	3.16	130.2	103.8	1.25
12	247.3	62.4	184.9	58.2	2.05	3.18	126.7	100.4	1.26

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 695-710 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=241.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 33.9 CC
CELL PRESSURE =129.2 KPA
CONSOLIDATION PRESSURE = 60.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.66	10.02	CM
VOID RATIO	= 1.656	1.249	
AREA	= 20.74	18.69	CM2
PERCENT MOISTURE	= 58.64	45.41	PERCENT
WET DENSITY	= 16.11	17.44	KN/M3
DRY DENSITY	= 10.15	11.99	KN/M3
PERCENT SATURATION	= 97.40	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.248	0.000
2	0.003297	0.003297	0.0000	1.248	0.140
3	0.015722	0.015722	0.0000	1.248	0.089
4	0.029416	0.029416	0.0000	1.248	0.092
5	0.043110	0.043110	0.0000	1.248	0.100
6	0.071258	0.071258	0.0000	1.248	0.141
7	0.099913	0.099913	0.0000	1.248	0.164
8	0.128568	0.128568	0.0000	1.248	0.187
9	0.157477	0.157477	0.0000	1.248	0.208
10	0.181822	0.181822	0.0000	1.248	0.222
11	0.258912	0.258912	0.0000	1.248	0.258

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	60.3	0.0	60.3	60.3	1.00	1.00	0.0	60.3	0.00
2	87.3	3.8	83.5	56.5	1.45	1.48	27.0	65.5	0.41
3	110.6	4.5	106.1	55.8	1.83	1.90	50.3	72.6	0.69
4	120.2	5.5	114.7	54.8	1.99	2.09	59.9	74.7	0.80
5	125.6	6.5	119.1	53.7	2.08	2.22	65.3	75.5	0.86
6	131.1	10.0	121.1	50.3	2.17	2.41	70.8	73.9	0.96
7	131.5	11.7	119.8	48.6	2.18	2.47	71.2	72.3	0.99
8	130.1	13.1	117.0	47.2	2.16	2.48	69.8	70.5	0.99
9	128.2	14.1	114.1	46.2	2.13	2.47	67.9	68.8	0.99
10	126.8	14.8	112.0	45.5	2.10	2.46	66.5	67.7	0.98
11	121.6	15.8	105.8	44.4	2.02	2.38	61.4	64.9	0.95

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-36 CP-36
SAMPLE IDENTIFICATION IS UD @ 381-393 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 3.0 CC
CELL PRESSURE = 89.6 KPA
CONSOLIDATION PRESSURE = 20.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.58	10.45	CM
VOID RATIO	= 2.668	2.630	
AREA	= 20.13	19.63	CM2
PERCENT MOISTURE	= 95.78	90.17	PERCENT
WET DENSITY	= 14.65	14.80	KN/M3
DRY DENSITY	= 7.48	7.78	KN/M3
PERCENT SATURATION	=100.31	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	2.629	0.000
2	0.011185	0.011185	0.0000	2.629	0.501
3	0.017021	0.017021	0.0000	2.629	0.744
4	0.023100	0.023100	0.0000	2.629	0.628
5	0.035015	0.035015	0.0000	2.629	0.577
6	0.053252	0.053252	0.0000	2.629	0.672
7	0.077325	0.077325	0.0000	2.629	0.825
8	0.131307	0.131307	0.0000	2.629	1.079
9	0.172888	0.172888	0.0000	2.629	1.183
10	0.197933	0.197933	0.0000	2.629	1.240

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.7	0.0	20.7	20.7	1.00	1.00	0.0	20.7	0.00
2	26.1	2.8	23.4	17.9	1.26	1.30	5.5	19.7	0.28
3	30.4	7.3	23.1	13.4	1.47	1.73	9.8	16.6	0.59
4	35.8	9.5	26.3	11.2	1.73	2.35	15.1	16.2	0.93
5	40.9	11.7	29.2	9.0	1.98	3.26	20.2	15.7	1.29
6	40.5	13.4	27.2	7.3	1.96	3.72	19.9	13.9	1.43
7	38.0	14.3	23.7	6.3	1.84	3.73	17.3	12.1	1.43
8	35.1	15.6	19.5	5.1	1.70	3.82	14.4	9.9	1.45
9	34.4	16.3	18.1	4.4	1.66	4.11	13.7	9.0	1.53
10	33.1	16.7	16.4	4.0	1.60	4.10	12.4	8.1	1.53

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 393-405 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 16.3 CC
CELL PRESSURE = 98.5 KPA
CONSOLIDATION PRESSURE = 29.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.74	10.46	CM
VOID RATIO	= 2.625	2.354	
AREA	= 20.33	19.33	CM2
PERCENT MOISTURE	= 91.63	84.09	PERCENT
WET DENSITY	= 14.51	15.07	KN/M3
DRY DENSITY	= 7.57	8.18	KN/M3
PERCENT SATURATION	= 97.75	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	2.353	0.000
2	0.002186	0.002186	0.0000	2.353	1.369
3	0.011175	0.011175	0.0000	2.353	0.703
4	0.033525	0.033525	0.0000	2.353	0.693
5	0.056361	0.056361	0.0000	2.353	0.751
6	0.064134	0.064134	0.0000	2.353	0.790
7	0.118552	0.118552	0.0000	2.353	0.985
8	0.149647	0.149647	0.0000	2.353	1.071
9	0.211352	0.211352	0.0000	2.353	1.209
10	0.236617	0.236617	0.0000	2.353	1.249

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	29.6	0.0	29.6	29.6	1.00	1.00	0.0	29.6	0.00
2	31.8	3.1	28.7	26.5	1.07	1.08	2.2	27.3	0.08
3	43.8	10.0	33.8	19.6	1.48	1.72	14.2	24.4	0.58
4	54.9	17.6	37.4	12.1	1.85	3.10	25.3	20.5	1.23
5	56.2	20.0	36.2	9.6	1.90	3.75	26.6	18.5	1.44
6	55.7	20.7	35.1	9.0	1.88	3.92	26.1	17.7	1.48
7	53.4	23.4	29.9	6.2	1.80	4.83	23.7	14.1	1.68
8	52.1	24.1	28.0	5.5	1.76	5.08	22.5	13.0	1.73
9	50.7	25.5	25.2	4.1	1.71	6.09	21.0	11.1	1.89
10	50.0	25.5	24.5	4.1	1.69	5.92	20.4	10.9	1.86

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-8679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS CD @ 405-417 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY	= 2.80
PRECONSOLIDATION STRESS	(NATURAL)
MEASURED VOLUME CHANGE	= 32.9 CC
CELL PRESSURE	=133.7 KPA
CONSOLIDATION PRESSURE	= 64.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.45	9.30	CM
VOID RATIO	= 2.348	1.824	
AREA	= 20.13	18.10	CM2
PERCENT MOISTURE	= 83.10	65.15	PERCENT
WET DENSITY	= 15.02	16.06	KN/M3
DRY DENSITY	= 8.20	9.72	KN/M3
PERCENT SATURATION	= 99.11	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.823	0.000
2	0.007774	0.007774	0.0000	1.823	1.204
3	0.015806	0.015806	0.0000	1.823	1.029
4	0.032131	0.032131	0.0000	1.823	1.077
5	0.056489	0.056489	0.0000	1.823	1.285
6	0.073073	0.073073	0.0000	1.823	1.373
7	0.123342	0.123342	0.0000	1.823	1.564
8	0.234765	0.234765	0.0000	1.823	1.805

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	64.8	0.0	64.8	64.8	1.00	1.00	0.0	64.8	0.00
2	73.5	10.6	62.9	54.2	1.14	1.16	8.8	57.1	0.15
3	90.3	26.9	64.0	37.9	1.40	1.69	25.1	46.6	0.56
4	100.0	38.0	62.0	25.7	1.54	2.02	35.3	38.5	0.92
5	99.1	44.2	54.9	20.5	1.53	2.67	34.4	32.0	1.07
6	98.5	46.4	52.1	18.3	1.52	2.84	33.8	29.6	1.14
7	96.7	50.0	46.7	14.7	1.49	3.17	31.9	25.4	1.26
8	94.3	53.5	40.9	11.3	1.46	3.62	29.6	21.2	1.40

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2579 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS JD @ 417-431 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.80
PRECONSOLIDATION (natural)
ANISOTROPIC CONSOLIDATION
MEASURED VOLUME CHANGE = 10.2 CC
CELL PRESSURE = 79.2 KPA
CONSOLIDATION PRESSURE = 10.3 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	10.43	CM
VOID RATIO	= 2.348	2.163	
AREA	= 19.73	19.28	CM2
PERCENT MOISTURE	= 83.20	77.24	PERCENT
WET DENSITY	= 15.02	15.39	KN/M3
DRY DENSITY	= 8.20	8.68	KN/M3
PERCENT SATURATION	= 99.21	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	2.162	0.000
2	0.011685	0.011685	0.0000	2.162	0.132
3	0.018988	0.018988	0.0000	2.162	0.270
4	0.035056	0.035056	0.0000	2.162	0.367
5	0.058669	0.058669	0.0000	2.162	0.420
6	0.082527	0.082527	0.0000	2.162	0.446
7	0.106871	0.106871	0.0000	2.162	0.458
8	0.130972	0.130972	0.0000	2.162	0.539
9	0.155803	0.155803	0.0000	2.162	0.532

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	20.5	0.0	20.5	10.3	1.98	1.98	10.1	13.7	0.74
2	27.0	2.2	24.8	8.1	2.62	3.05	16.7	13.7	1.22
3	30.2	5.4	24.9	5.0	2.92	5.01	19.9	11.6	1.72
4	32.1	8.0	24.1	2.3	3.10	10.28	21.7	9.6	2.27
5	32.6	9.4	23.2	1.0	3.15	24.08	22.3	8.4	2.66
6	31.0	9.2	21.8	1.1	3.00	19.75	20.7	8.0	2.59
7	30.5	9.2	21.2	1.1	2.95	19.25	20.1	7.8	2.58
8	28.9	10.1	18.9	0.3	2.80	68.48	18.6	6.6	2.87
9	28.4	9.6	18.8	0.7	2.75	27.22	18.1	6.7	2.69

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 535-548 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=413.6 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 36.0 CC
CELL PRESSURE =482.3 KPA
CONSOLIDATION PRESSURE =413.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.87	10.17	CM
VOID RATIO	= 1.358	0.974	
AREA	= 20.33	18.20	CM2
PERCENT MOISTURE	= 46.77	35.30	PERCENT
WET DENSITY	= 16.84	18.55	KN/M3
DRY DENSITY	= 11.48	13.71	KN/M3
PERCENT SATURATION	= 95.05	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.974	0.000
2	0.004247	0.004247	0.0000	0.974	0.156
3	0.011743	0.011743	0.0000	0.974	0.410
4	0.023985	0.023985	0.0000	0.974	0.673
5	0.036227	0.036227	0.0000	0.974	0.770
6	0.060711	0.060711	0.0000	0.974	0.832
7	0.085445	0.085445	0.0000	0.974	0.878
8	0.110180	0.110180	0.0000	0.974	0.877
9	0.134914	0.134914	0.0000	0.974	0.888
10	0.159398	0.159398	0.0000	0.974	0.896
11	0.183883	0.183883	0.0000	0.974	0.907
12	0.215862	0.215862	0.0000	0.974	0.934

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	413.4	0.0	413.4	413.4	1.00	1.00	0.0	413.4	0.00
2	488.5	11.7	476.8	401.7	1.18	1.19	75.1	426.7	0.18
3	578.7	67.8	510.9	343.6	1.40	1.48	165.3	400.7	0.41
4	634.2	148.7	485.6	264.7	1.53	1.83	220.8	338.3	0.65
5	663.1	192.4	470.7	221.0	1.60	2.13	249.7	304.3	0.82
6	690.6	230.7	459.9	182.7	1.67	2.52	277.2	275.1	1.01
7	692.3	245.0	447.3	168.4	1.67	2.66	278.9	261.4	1.07
8	698.4	250.0	448.4	163.4	1.69	2.74	285.0	258.4	1.10
9	699.0	253.6	445.4	159.9	1.69	2.79	285.6	255.0	1.12
10	699.2	256.0	443.1	157.4	1.69	2.82	285.7	252.6	1.13
11	696.2	256.6	439.6	156.8	1.68	2.80	282.8	251.1	1.13
12	689.4	257.7	431.7	155.7	1.67	2.77	276.0	247.7	1.11

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 548-560 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS=413.6 KPA
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 30.4 CC
CELL PRESSURE =172.3 KPA
CONSOLIDATION PRESSURE =103.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.46	9.88	CM
VOID RATIO	= 0.961	0.682	
AREA	= 20.40	18.52	CM2
PERCENT MOISTURE	= 35.67	24.70	PERCENT
WET DENSITY	= 18.72	20.07	KN/M3
DRY DENSITY	= 13.80	16.09	KN/M3
PERCENT SATURATION	=102.44	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.681	0.000
4	0.008743	0.008743	0.0000	0.681	0.014
5	0.012858	0.012858	0.0000	0.681	0.049
6	0.021858	0.021858	0.0000	0.681	0.052
7	0.033173	0.033173	0.0000	0.681	0.034
8	0.049888	0.049888	0.0000	0.681	0.014
9	0.074061	0.074061	0.0000	0.681	-0.015
10	0.099005	0.099005	0.0000	0.681	-0.034
11	0.124463	0.124463	0.0000	0.681	-0.052
12	0.149922	0.149922	0.0000	0.681	-0.064
13	0.175894	0.175894	0.0000	0.681	-0.073
14	0.215239	0.215239	0.0000	0.681	-0.082

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	103.4	0.0	103.4	103.4	1.00	1.00	0.0	103.4	0.00
4	153.9	0.7	153.2	102.7	1.49	1.49	50.5	119.5	0.42
5	187.9	4.1	183.8	99.2	1.82	1.85	84.5	127.4	0.66
6	236.2	6.9	229.3	96.5	2.29	2.38	132.9	140.8	0.94
7	267.5	5.5	262.0	97.8	2.59	2.68	164.2	152.6	1.08
8	301.2	2.8	298.4	100.6	2.91	2.97	197.8	166.5	1.19
9	325.8	-3.4	329.2	106.8	3.15	3.08	222.4	180.9	1.23
10	338.0	-7.9	345.9	111.3	3.27	3.11	234.6	189.5	1.24
11	340.2	-12.4	352.6	115.8	3.29	3.05	236.8	194.7	1.22
12	336.2	-14.8	351.0	118.2	3.25	2.97	232.9	195.8	1.19
13	329.1	-16.5	345.6	119.9	3.18	2.88	225.7	195.1	1.16
14	317.9	-17.6	335.5	120.9	3.08	2.77	214.6	192.5	1.11

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 560-575 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.75
PRECONSOLIDATION STRESS=413.6 KPA
OVERCONSOLIDATION RATIO= 8.0
MEASURED VOLUME CHANGE = 16.5 CC
CELL PRESSURE =120.6 KPA
CONSOLIDATION PRESSURE = 51.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.67	CM
VOID RATIO	= 1.103	0.949	
AREA	= 20.47	19.48	CM2
PERCENT MOISTURE	= 39.60	34.37	PERCENT
WET DENSITY	= 17.96	18.66	KN/M3
DRY DENSITY	= 12.87	13.89	KN/M3
PERCENT SATURATION	= 99.06	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.948	0.000
2	0.006425	0.006425	0.0000	0.948	0.051
3	0.014991	0.014991	0.0000	0.948	-0.019
4	0.032599	0.032599	0.0000	0.948	-0.086
5	0.057584	0.057584	0.0000	0.948	-0.137
6	0.083997	0.083997	0.0000	0.948	-0.173
7	0.110648	0.110648	0.0000	0.948	-0.198
8	0.137536	0.137536	0.0000	0.948	-0.214
9	0.178702	0.178702	0.0000	0.948	-0.229
10	0.219154	0.219154	0.0000	0.948	-0.240

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	51.7	0.0	51.7	51.7	1.00	1.00	0.0	51.7	0.00
2	99.2	2.4	96.8	49.3	1.92	1.96	47.5	65.1	0.73
3	122.5	-1.4	123.8	53.1	2.37	2.33	70.8	76.7	0.92
4	159.2	-9.3	168.5	61.0	3.08	2.76	107.5	96.8	1.11
5	190.1	-18.9	209.1	70.6	3.68	2.96	138.5	116.8	1.19
6	202.7	-26.2	228.9	77.9	3.92	2.94	151.0	128.2	1.18
7	206.1	-30.7	236.8	82.3	3.99	2.88	154.5	133.8	1.15
8	204.8	-32.7	237.6	84.4	3.96	2.81	153.2	135.5	1.13
9	199.3	-33.8	233.1	85.4	3.86	2.73	147.7	134.7	1.10
10	190.7	-33.4	224.2	85.1	3.69	2.63	139.1	131.4	1.06

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 663-676 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=537.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 23.0 CC
CELL PRESSURE =606.4 KPA
CONSOLIDATION PRESSURE =537.5 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.06	10.63	CM
VOID RATIO	= 0.950	0.748	
AREA	= 20.13	18.77	CM2
PERCENT MOISTURE	= 35.73	27.31	PERCENT
WET DENSITY	= 18.70	19.56	KN/M3
DRY DENSITY	= 13.78	15.37	KN/M3
PERCENT SATURATION	=103.10	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.748	0.000
2	0.000717	0.000717	0.0000	0.748	0.117
3	0.017199	0.017199	0.0000	0.748	0.691
4	0.034877	0.034877	0.0000	0.748	0.786
5	0.052554	0.052554	0.0000	0.748	0.851
6	0.069992	0.069992	0.0000	0.748	0.892
7	0.105586	0.105586	0.0000	0.748	0.966
8	0.140462	0.140462	0.0000	0.748	1.054
9	0.173667	0.173667	0.0000	0.748	1.122
10	0.210455	0.210455	0.0000	0.748	1.186

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	537.5	0.0	537.5	537.5	1.00	1.00	0.0	537.5	0.00
2	555.1	2.1	553.0	535.4	1.03	1.03	17.7	541.3	0.03
3	826.1	199.4	626.7	338.0	1.54	1.85	288.6	434.2	0.66
4	889.1	276.4	612.6	261.0	1.65	2.35	351.6	378.2	0.93
5	905.6	313.2	592.4	224.2	1.69	2.64	368.2	346.9	1.06
6	905.0	328.0	577.0	209.5	1.68	2.75	367.6	332.0	1.11
7	896.9	347.4	549.5	190.0	1.67	2.89	359.4	309.8	1.16
8	879.1	360.0	519.1	177.5	1.64	2.92	341.6	291.4	1.17
9	864.0	366.6	497.5	170.9	1.61	2.91	326.6	279.7	1.17
10	845.1	364.9	480.2	172.5	1.57	2.78	307.7	275.1	1.12

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 676-688 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=537.0
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 13.4 CC
CELL PRESSURE =337.6 KPA
CONSOLIDATION PRESSURE =268.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.36	10.96	CM
VOID RATIO	= 1.018	0.823	
AREA	= 21.22	19.87	CM2
PERCENT MOISTURE	= 37.57	30.02	PERCENT
WET DENSITY	= .31	19.17	KN/M3
DRY DENSITY	= 13.31	14.74	KN/M3
PERCENT SATURATION	=101.09	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.822	0.000
2	0.000927	0.000927	0.0000	0.822	0.291
3	0.003941	0.003941	0.0000	0.822	0.244
4	0.016229	0.016229	0.0000	0.822	0.259
5	0.039183	0.039183	0.0000	0.822	0.318
6	0.055876	0.055876	0.0000	0.822	0.346
7	0.081611	0.081611	0.0000	0.822	0.382
8	0.107578	0.107578	0.0000	0.822	0.413
9	0.124967	0.124967	0.0000	0.822	0.431
10	0.151166	0.151166	0.0000	0.822	0.459
11	0.186639	0.186639	0.0000	0.822	0.500
12	0.224431	0.224431	0.0000	0.822	0.556

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	268.7	0.0	268.7	268.7	1.00	1.00	0.0	268.7	0.00
2	282.9	4.1	278.8	264.6	1.05	1.05	14.2	269.3	0.05
3	373.4	25.5	347.9	243.2	1.39	1.43	104.6	278.1	0.38
4	461.9	50.0	411.9	218.8	1.72	1.88	193.2	283.2	0.68
5	510.6	76.8	433.8	191.9	1.90	2.26	241.9	272.5	0.89
6	520.9	87.2	433.7	181.6	1.94	2.39	252.2	265.6	0.95
7	524.0	97.5	426.5	171.2	1.95	2.49	255.3	256.3	1.00
8	521.9	104.4	417.5	164.3	1.94	2.54	253.1	248.7	1.02
9	518.8	107.8	411.0	160.9	1.93	2.55	250.1	244.3	1.02
10	512.7	112.0	400.8	156.8	1.91	2.56	244.0	238.1	1.02
11	503.9	117.5	386.4	151.2	1.88	2.55	235.1	229.6	1.02
12	491.1	123.7	367.4	145.0	1.83	2.53	222.4	219.2	1.01

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 688-703 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.74
PRECONSOLIDATION STRESS=537.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 19.7 CC
CELL PRESSURE =203.3 KPA
CONSOLIDATION PRESSURE =134.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 11.01	10.65	CM
VOID RATIO	= 1.037	0.856	
AREA	= 20.13	18.96	CM2
PERCENT MOISTURE	= 37.80	31.24	PERCENT
WET DENSITY	= 18.18	19.00	KN/M3
DRY DENSITY	= 13.19	14.48	KN/M3
PERCENT SATURATION	= 99.88	100.01	PERCENT

NOTE--< CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.855	0.000
2	0.001670	0.001670	0.0000	0.855	0.053
3	0.004055	0.004055	0.0000	0.855	0.155
4	0.009064	0.009064	0.0000	0.855	0.129
5	0.032201	0.032201	0.0000	0.855	0.118
6	0.052237	0.052237	0.0000	0.855	0.086
7	0.073466	0.073466	0.0000	0.855	0.061
8	0.095649	0.095649	0.0000	0.855	0.044
9	0.117832	0.117832	0.0000	0.855	0.038
10	0.140492	0.140492	0.0000	0.855	0.040
11	0.163151	0.163151	0.0000	0.855	0.045
12	0.186050	0.186050	0.0000	0.855	0.054
13	0.208948	0.208948	0.0000	0.855	0.065

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	134.4	0.0	134.4	134.4	1.00	1.00	0.0	134.4	0.00
2	140.8	0.3	140.5	134.0	1.05	1.05	6.5	136.2	0.05
3	163.2	4.5	158.7	129.9	1.21	1.22	28.8	139.5	0.21
4	225.1	11.7	213.4	122.6	1.68	1.74	90.7	152.9	0.59
5	335.4	23.8	311.7	110.6	2.50	2.82	201.1	177.6	1.13
6	375.7	20.7	355.0	113.7	2.80	3.12	241.3	194.1	1.24
7	394.1	15.8	378.3	118.5	2.93	3.19	259.7	205.1	1.27
8	398.0	11.7	386.3	122.6	2.96	3.15	263.7	210.5	1.25
9	395.5	10.0	385.5	124.4	2.94	3.10	261.2	211.4	1.24
10	391.6	10.3	381.3	124.0	2.91	3.07	257.2	209.8	1.23
11	385.9	11.4	374.5	123.0	2.87	3.04	251.5	206.8	1.22
12	379.0	13.1	365.9	121.3	2.82	3.02	244.6	202.8	1.21
13	369.1	15.2	354.0	119.2	2.75	2.97	234.8	197.5	1.19

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE V9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 80-92 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.84
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 1.8 CC
CELL PRESSURE = 75.8 KPA
CONSOLIDATION PRESSURE = 6.9 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	10.82	CM
VOID RATIO	= 1.390	1.371	
AREA	= 20.81	20.70	CM2
PERCENT MOISTURE	= 48.18	48.21	PERCENT
WET DENSITY	= 17.29	17.43	KN/M3
DRY DENSITY	= 11.67	11.76	KN/M3
PERCENT SATURATION	= 98.57	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.371	0.000
2	0.003992	0.003992	0.0000	1.371	0.422
3	0.009393	0.009393	0.0000	1.371	0.336
4	0.020899	0.020899	0.0000	1.371	0.268
5	0.035223	0.035223	0.0000	1.371	0.179
6	0.057179	0.057179	0.0000	1.371	0.095
7	0.116354	0.116354	0.0000	1.371	-0.010
8	0.153573	0.153573	0.0000	1.371	-0.039
9	0.153573	0.153573	0.0000	1.371	-0.039
10	0.183513	0.183513	0.0000	1.371	-0.047
11	0.220967	0.220967	0.0000	1.371	-0.069

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	6.9	0.0	6.9	6.9	1.00	1.00	0.0	6.9	0.00
2	9.3	1.0	8.3	5.9	1.35	1.41	2.4	6.7	0.36
3	18.1	3.8	14.3	3.1	2.63	4.62	11.2	6.8	1.64
4	24.8	4.8	20.0	2.1	3.61	9.69	18.0	8.1	2.23
5	29.9	4.1	25.8	2.8	4.34	9.36	23.0	10.4	2.21
6	35.8	2.8	33.0	4.1	5.19	7.99	28.9	13.8	2.10
7	42.3	-0.3	42.6	7.2	6.14	5.89	35.4	19.0	1.86
8	42.6	-1.4	44.0	8.3	6.19	5.32	35.7	20.2	1.77
9	42.6	-1.4	44.0	8.3	6.19	5.32	35.7	20.2	1.77
10	43.1	-1.7	44.9	8.6	6.26	5.21	36.2	20.7	1.75
11	42.0	-2.4	44.5	9.3	6.10	4.78	35.1	21.0	1.67

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 92-106 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.84
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 4.9 CC
CELL PRESSURE = 81.3 KPA
CONSOLIDATION PRESSURE = 12.4 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.74	10.66	CM
VOID RATIO	= 1.454	1.400	
AREA	= 20.60	20.30	CM2
PERCENT MOISTURE	= 50.04	49.21	PERCENT
WET DENSITY	= 17.05	17.34	KN/M3
DRY DENSITY	= 11.37	11.62	KN/M3
PERCENT SATURATION	= 97.88	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.399	0.000
2	0.003930	0.003930	0.0000	1.399	0.325
3	0.015602	0.015602	0.0000	1.399	0.297
4	0.030133	0.030133	0.0000	1.399	0.230
5	0.061218	0.061218	0.0000	1.399	0.127
6	0.100403	0.100403	0.0000	1.399	0.060
7	0.148734	0.148734	0.0000	1.399	0.031
8	0.202115	0.202115	0.0000	1.399	0.029

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	12.4	0.0	12.4	12.4	1.00	1.00	0.0	12.4	0.00
2	24.2	3.9	20.4	8.5	1.95	2.38	11.8	12.5	0.95
3	37.9	7.6	30.3	4.8	3.05	6.28	25.5	13.3	1.91
4	45.9	7.7	38.2	4.7	3.70	8.14	33.5	15.8	2.11
5	57.0	5.7	51.3	6.8	4.59	7.60	44.6	21.6	2.06
6	62.9	3.0	59.8	9.4	5.07	6.38	50.5	26.2	1.93
7	62.0	1.5	60.5	10.9	5.00	5.55	49.6	27.4	1.81
8	60.6	1.4	59.2	11.0	4.89	5.37	48.2	27.1	1.78

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 106-120 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.84
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = 6.1 CC
CELL PRESSURE = 91.0 KPA
CONSOLIDATION PRESSURE = 22.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	10.69	CM
VOID RATIO	= 1.430	1.364	
AREA	= 20.67	20.30	CM2
PERCENT MOISTURE	= 48.52	47.94	PERCENT
WET DENSITY	= 17.05	17.46	KN/M3
DRY DENSITY	= 11.48	11.80	KN/M3
PERCENT SATURATION	= 96.52	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.363	0.000
2	0.002496	0.002496	0.0000	1.363	0.309
3	0.013193	0.013193	0.0000	1.363	0.365
4	0.026267	0.026267	0.0000	1.363	0.313
5	0.048136	0.048136	0.0000	1.363	0.227
6	0.070123	0.070123	0.0000	1.363	0.172
7	0.092349	0.092349	0.0000	1.363	0.133
8	0.122300	0.122300	0.0000	1.363	0.107
9	0.152726	0.152726	0.0000	1.363	0.096
10	0.182678	0.182678	0.0000	1.363	0.092
11	0.213104	0.213104	0.0000	1.363	0.094

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	22.0	0.0	22.0	22.0	1.00	1.00	0.0	22.0	0.00
2	35.4	4.1	31.2	17.9	1.60	1.74	13.3	22.4	0.60
3	50.3	10.3	40.0	11.7	2.28	3.41	28.3	21.1	1.34
4	39.4	11.7	47.7	10.3	2.69	4.62	37.4	22.8	1.64
5	69.0	10.7	58.3	11.4	3.13	5.13	46.9	27.0	1.74
6	74.0	9.0	65.0	13.1	3.36	4.97	51.9	30.4	1.71
7	76.5	7.2	69.3	14.8	3.47	4.68	54.4	33.0	1.65
8	76.6	5.9	70.8	16.2	3.47	4.37	54.6	34.4	1.59
9	76.0	5.2	70.8	16.9	3.45	4.19	53.9	34.9	1.55
10	74.7	4.8	69.8	17.2	3.39	4.05	52.6	34.8	1.51
11	73.5	4.8	68.6	17.2	3.33	3.98	51.4	34.4	1.50

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 344-356 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=523.0
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 34.1 CC
CELL PRESSURE =592.6 KPA
CONSOLIDATION PRESSURE =523.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.96	10.30	CM
VOID RATIO	= 1.063	0.750	
AREA	= 20.53	18.53	CM2
PERCENT MOISTURE	= 37.37	26.71	PERCENT
WET DENSITY	= 18.35	19.95	KN/M3
DRY DENSITY	= 13.36	15.74	KN/M3
PERCENT SATURATION	= 98.80	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.750	0.000
2	0.000493	0.000493	0.0000	0.750	0.311
3	0.007149	0.007149	0.0000	0.750	0.610
4	0.014298	0.014298	0.0000	0.750	0.771
5	0.021693	0.021693	0.0000	0.750	0.861
6	0.037223	0.037223	0.0000	0.750	0.949
7	0.060642	0.060642	0.0000	0.750	0.977
8	0.084554	0.084554	0.0000	0.750	0.965
9	0.108465	0.108465	0.0000	0.750	0.950
10	0.132623	0.132623	0.0000	0.750	0.932
11	0.157028	0.157028	0.0000	0.750	0.920
12	0.181433	0.181433	0.0000	0.750	0.910
13	0.205591	0.205591	0.0000	0.750	0.925
14	0.224326	0.224326	0.0000	0.750	0.937

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	523.7	0.0	523.7	523.7	1.00	1.00	0.0	523.7	0.00
2	535.6	3.7	531.8	519.9	1.02	1.02	11.9	523.9	0.02
3	737.5	130.5	607.0	393.2	1.41	1.54	213.8	464.4	0.46
4	805.3	217.2	588.1	306.5	1.54	1.92	281.6	400.4	0.70
5	836.0	269.0	567.0	254.7	1.60	2.23	312.3	358.8	0.87
6	861.2	320.5	540.7	203.1	1.64	2.66	337.6	315.7	1.07
7	878.4	346.6	531.9	177.1	1.68	3.00	354.8	295.3	1.20
8	889.2	352.9	536.3	170.7	1.70	3.14	365.6	292.6	1.25
9	895.1	352.8	542.3	170.9	1.71	3.17	371.4	294.7	1.26
10	900.1	350.7	549.3	172.9	1.72	3.18	376.4	298.4	1.26
11	902.2	348.4	553.9	175.3	1.72	3.16	378.6	301.5	1.26
12	904.6	346.6	558.0	177.1	1.73	3.15	380.9	304.1	1.25
13	896.8	345.1	551.7	178.6	1.71	3.09	373.1	303.0	1.23
14	891.3	344.5	546.8	179.2	1.70	3.05	367.7	301.7	1.22

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 356-369 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=523.0
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 35.9 CC
CELL PRESSURE =330.7 KPA
CONSOLIDATION PRESSURE =261.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.90	10.17	CM
VOID RATIO	= 1.071	0.726	
AREA	= 19.79	17.68	CM2
PERCENT MOISTURE	= 38.15	25.86	PERCENT
WET DENSITY	= 18.38	20.09	KN/M3
DRY DENSITY	= 13.30	15.96	KN/M3
PERCENT SATURATION	=100.09	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.726	0.000
2	0.012985	0.012985	0.0000	0.726	0.051
3	0.021475	0.021475	0.0000	0.726	0.219
4	0.033462	0.033462	0.0000	0.726	0.342
5	0.045198	0.045198	0.0000	0.726	0.400
6	0.069420	0.069420	0.0000	0.726	0.440
7	0.093643	0.093643	0.0000	0.726	0.429
8	0.118364	0.118364	0.0000	0.726	0.416
9	0.143086	0.143086	0.0000	0.726	0.406
10	0.180293	0.180293	0.0000	0.726	0.389
11	0.229487	0.229487	0.0000	0.726	0.385
12	0.294662	0.294662	0.0000	0.726	0.397

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	261.8	0.0	261.8	261.8	1.00	1.00	0.0	261.8	0.00
2	305.1	2.2	302.8	259.6	1.17	1.17	43.2	274.0	0.16
3	458.5	43.0	415.5	218.8	1.75	1.90	196.6	284.4	0.69
4	500.6	81.7	418.8	180.1	1.91	2.33	238.7	259.7	0.92
5	519.1	102.9	416.2	158.9	1.98	2.62	257.3	244.6	1.05
6	535.6	120.6	415.0	141.3	2.05	2.94	273.7	232.5	1.18
7	548.8	123.2	425.6	138.6	2.10	3.07	286.9	234.3	1.22
8	554.8	121.8	433.0	140.0	2.12	3.09	293.0	237.7	1.23
9	556.2	119.5	436.7	142.4	2.12	3.07	294.4	240.5	1.22
10	560.0	116.0	444.0	145.8	2.14	3.05	298.2	245.2	1.22
11	555.1	113.0	442.1	148.8	2.12	2.97	293.3	246.6	1.19
12	542.2	111.3	430.8	150.5	2.07	2.86	280.3	243.9	1.15

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 372-384 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.81
PRECONSOLIDATION STRESS=523.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 30.2 CC
CELL PRESSURE =199.8 KPA
CONSOLIDATION PRESSURE =130.9 KPA

PROPERTY	INITIAL	CONSOLIDATED
HEIGHT	= 10.85	10.28 CM
VOID RATIO	= 1.050	0.772
AREA	= 20.53	18.73 CM2
PERCENT MOISTURE	= 35.13	27.49 PERCENT
WET DENSITY	= 18.16	19.82 KN/M3
DRY DENSITY	= 13.44	15.55 KN/M3
PERCENT SATURATION	= 93.99	100.01 PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.772	0.000
2	0.000988	0.000988	0.0000	0.772	0.056
3	0.003459	0.003459	0.0000	0.772	0.086
4	0.010131	0.010131	0.0000	0.772	0.095
5	0.026193	0.026193	0.0000	0.772	0.095
6	0.043244	0.043244	0.0000	0.772	0.104
7	0.061283	0.061283	0.0000	0.772	0.104
8	0.078827	0.078827	0.0000	0.772	0.097
9	0.115399	0.115399	0.0000	0.772	0.083
10	0.152218	0.152218	0.0000	0.772	0.069
11	0.189037	0.189037	0.0000	0.772	0.061
12	0.225856	0.225856	0.0000	0.772	0.057
13	0.259463	0.259463	0.0000	0.772	0.060

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	130.9	0.0	130.9	130.9	1.00	1.00	0.0	130.9	0.00
2	143.1	0.7	142.4	130.2	1.09	1.09	12.2	134.3	0.09
3	203.3	6.2	197.1	124.7	1.55	1.58	72.4	148.8	0.49
4	276.4	13.8	262.6	117.1	2.11	2.24	145.4	165.6	0.88
5	318.8	17.9	300.8	113.0	2.43	2.66	187.8	175.6	1.07
6	339.6	21.7	317.9	109.2	2.59	2.91	208.6	178.8	1.17
7	353.5	23.1	330.4	107.8	2.70	3.06	222.6	182.0	1.22
8	362.4	22.4	340.0	108.5	2.77	3.13	231.5	185.7	1.25
9	372.7	20.0	352.7	110.9	2.85	3.18	241.8	191.5	1.26
10	376.7	16.9	359.9	114.0	2.88	3.16	245.8	196.0	1.25
11	375.4	14.8	360.6	116.1	2.87	3.11	244.5	197.6	1.24
12	371.5	13.8	357.7	117.1	2.84	3.05	240.6	197.3	1.22
13	366.5	14.1	352.3	116.8	2.80	3.02	235.5	195.3	1.21

CD-38 PC-38
180-192 CM

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE 79-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 180-192 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS= 46.2 KPA
OVERCONSOLIDATION RATIO= 4.20
MEASURED VOLUME CHANGE = 3.1 CC
CELL PRESSURE = 79.9 KPA
CONSOLIDATION PRESSURE = 11.0 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	10.81	CM
VOID RATIO	= 1.266	1.245	
AREA	= 20.53	20.41	CM2
PERCENT MOISTURE	= 44.83	45.09	PERCENT
WET DENSITY	= 17.30	17.49	KN/M3
DRY DENSITY	= 11.94	12.06	KN/M3
PERCENT SATURATION	= 97.73	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.244	0.000
2	0.001410	0.001410	0.0000	1.244	0.044
3	0.003289	0.003289	0.0000	1.244	0.050
4	0.022202	0.022202	0.0000	1.244	0.079
5	0.043463	0.043463	0.0000	1.244	0.058
6	0.073065	0.073065	0.0000	1.244	0.058
7	0.102550	0.102550	0.0000	1.244	0.089
8	0.147658	0.147658	0.0000	1.244	0.064
9	0.162577	0.162577	0.0000	1.244	0.042
10	0.181959	0.181959	0.0000	1.244	0.041

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA)	Q/P PARAMETERS
1	11.0	0.0	11.0	11.0	1.00	1.00	0.0	11.0	0.00
2	13.0	0.7	12.3	10.3	1.18	1.19	2.0	11.0	0.18
3	15.9	1.7	14.2	9.3	1.44	1.52	4.9	10.9	0.45
4	28.2	6.5	21.7	4.5	2.56	4.84	17.2	10.2	1.68
5	33.7	5.9	27.9	5.2	3.06	5.39	22.7	12.7	1.78
6	39.4	4.5	34.9	6.5	3.57	5.33	28.3	16.0	1.77
7	42.0	2.8	39.2	8.3	3.81	4.74	30.9	18.6	1.66
8	43.3	2.1	41.3	9.0	3.93	4.61	32.3	19.7	1.64
9	44.0	1.4	42.6	9.6	3.99	4.42	33.0	20.6	1.60
10	44.2	1.4	42.8	9.6	4.01	4.44	33.2	20.7	1.60

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 192-204 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY	= 2.76
PRECONSOLIDATION STRESS	= 46.2 KPA
OVERCONSOLIDATION RATIO	= 2.04
MEASURED VOLUME CHANGE	= 7.5 CC
CELL PRESSURE	= 91.6 KPA
CONSOLIDATION PRESSURE	= 22.7 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.54	10.41	CM
VOID RATIO	= 1.203	1.126	
AREA	= 20.20	19.72	CM2
PERCENT MOISTURE	= 43.46	40.79	PERCENT
WET DENSITY	= 17.62	17.92	KN/M3
DRY DENSITY	= 12.28	12.73	KN/M3
PERCENT SATURATION	= 99.69	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.125	0.000
2	0.007074	0.007074	0.0000	1.125	0.614
3	0.010977	0.010977	0.0000	1.125	0.559
4	0.027564	0.027564	0.0000	1.125	0.535
5	0.043908	0.043908	0.0000	1.125	0.444
6	0.056592	0.056592	0.0000	1.125	0.376
7	0.089767	0.089767	0.0000	1.125	0.263
8	0.120746	0.120746	0.0000	1.125	0.199
9	0.167093	0.167093	0.0000	1.125	0.158
10	0.184656	0.184656	0.0000	1.125	0.152

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	22.7	0.0	22.7	22.7	1.00	1.00	0.0	22.7	0.00
2	27.2	2.8	24.4	20.0	1.20	1.22	4.4	21.5	0.21
3	36.3	7.6	28.7	15.2	1.59	1.89	13.5	19.7	0.69
4	49.1	14.1	35.0	8.6	2.16	4.06	26.3	17.4	1.51
5	55.3	14.5	40.8	8.3	2.43	4.94	32.6	19.1	1.70
6	59.3	13.8	45.5	9.0	2.61	5.08	36.6	21.2	1.73
7	66.0	11.4	54.6	11.4	2.90	4.80	43.2	25.8	1.68
8	69.5	9.3	60.2	13.4	3.06	4.48	46.8	29.0	1.61
9	70.6	7.6	63.0	15.2	3.10	4.16	47.8	31.1	1.54
10	70.4	7.2	63.1	15.5	3.09	4.07	47.6	31.4	1.52

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS CD @ 204-216 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 3527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS= 46.2 KPA
OVERCONSOLIDATION RATIO= 1.00
MEASURED VOLUME CHANGE = 12.3 CC
CELL PRESSURE =115.1 KPA
CONSOLIDATION PRESSURE = 46.2 KPA

PROPERTY		INITIAL	CONSOLIDATED	
HEIGHT	=	10.59	10.37	CM
VOID RATIO	=	1.241	1.112	
AREA	=	20.06	19.30	CM2
PERCENT MOISTURE	=	44.96	40.28	PERCENT
WET DENSITY	=	17.50	17.98	KN/M3
DRY DENSITY	=	12.07	12.82	KN/M3
PERCENT SATURATION	=	99.95	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.111	0.000
2	0.000979	0.000979	0.0000	1.111	0.505
3	0.003183	0.003183	0.0000	1.111	0.717
4	0.003917	0.003917	0.0000	1.111	0.649
5	0.010894	0.010894	0.0000	1.111	0.751
6	0.033418	0.033418	0.0000	1.111	0.671
7	0.056431	0.056431	0.0000	1.111	0.554
8	0.079567	0.079567	0.0000	1.111	0.472
9	0.133182	0.133182	0.0000	1.111	0.383
10	0.192673	0.192673	0.0000	1.111	0.284
11	0.211402	0.211402	0.0000	1.111	0.297

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	46.2	0.0	46.2	46.2	1.00	1.00	0.0	46.2	0.00
2	48.2	1.0	47.1	45.1	1.04	1.04	2.0	45.8	0.04
3	51.4	3.8	47.6	42.4	1.11	1.12	5.2	44.1	0.12
4	55.1	5.9	49.3	40.3	1.19	1.22	9.0	43.3	0.21
5	70.4	18.3	52.2	27.9	1.53	1.87	24.3	36.0	0.67
6	84.6	25.8	58.8	20.3	1.83	2.89	38.5	33.1	1.16
7	93.4	26.2	67.2	20.0	2.02	3.36	47.2	35.7	1.32
8	98.7	24.8	73.9	21.4	2.14	3.46	52.6	38.9	1.35
9	103.6	22.0	81.6	24.1	2.25	3.38	57.5	43.3	1.33
10	103.1	16.2	86.9	30.0	2.23	2.90	57.0	49.0	1.16
11	103.0	16.9	86.1	29.1	2.23	2.94	56.8	48.2	1.18

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 216-230 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.76
PRECONSOLIDATION STRESS(NATURAL)
MEASURED VOLUME CHANGE = -3.0 CC
CELL PRESSURE = 76.5 KPA
CONSOLIDATION PRESSURE = 7.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.30	10.21	CM
VOID RATIO	= 1.197	1.157	
AREA	= 20.40	20.22	CM2
PERCENT MOISTURE	= 43.11	41.93	PERCENT
WET DENSITY	= 17.63	17.80	KN/M3
DRY DENSITY	= 12.32	12.54	KN/M3
PERCENT SATURATION	= 99.39	100.00	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	1.157	0.000
2	0.005724	0.005724	0.0000	1.157	0.190
3	0.013190	0.013190	0.0000	1.157	0.192
4	0.018168	0.018168	0.0000	1.157	0.183
5	0.030363	0.030363	0.0000	1.157	0.136
6	0.038078	0.038078	0.0000	1.157	0.100
7	0.048282	0.048282	0.0000	1.157	0.055
8	0.064458	0.064458	0.0000	1.157	0.012
9	0.074413	0.074413	0.0000	1.157	-0.004
10	0.099052	0.099052	0.0000	1.157	-0.051
11	0.154302	0.154302	0.0000	1.157	-0.110

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE	PARAMETERS	
1	15.2	0.0	15.2	7.6	2.01	2.01	7.6	10.1	0.75
2	20.6	2.5	18.1	5.1	2.71	3.55	13.0	9.4	1.38
3	24.8	3.3	21.5	4.3	3.27	5.03	17.2	10.0	1.72
4	27.9	3.7	24.2	3.9	3.68	6.27	20.3	10.6	1.91
5	29.8	3.0	26.7	4.5	3.93	5.88	22.2	11.9	1.86
6	33.8	2.6	31.2	5.0	4.46	6.28	26.2	13.7	1.91
7	37.6	1.7	36.0	5.9	4.97	6.07	30.1	15.9	1.89
8	42.2	0.4	41.8	7.2	5.57	5.84	34.7	18.7	1.85
9	43.9	-0.1	44.0	7.7	5.79	5.70	36.3	19.8	1.83
10	47.8	-2.1	49.9	9.6	6.31	5.17	40.2	23.1	1.75
11	50.0	-4.7	54.6	12.3	6.59	4.46	42.4	26.4	1.61

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 238-251 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS=179.0 KPA
OVERCONSOLIDATION RATIO= 1.0
MEASURED VOLUME CHANGE = 24.1 CC
CELL PRESSURE =248.1 KPA
CONSOLIDATION PRESSURE =179.2 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.85	10.40	CM
VOID RATIO	= 1.051	0.821	
AREA	= 19.86	18.41	CM2
PERCENT MOISTURE	= 35.42	29.03	PERCENT
WET DENSITY	= 18.32	19.66	KN/M3
DRY DENSITY	= 13.53	15.23	KN/M3
PERCENT SATURATION	= 95.42	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.821	0.000
2	0.001954	0.001954	0.0000	0.821	0.438
3	0.006839	0.006839	0.0000	0.821	0.541
4	0.014167	0.014167	0.0000	0.821	0.632
5	0.021983	0.021983	0.0000	0.821	0.669
6	0.045187	0.045187	0.0000	0.821	0.661
7	0.068635	0.068635	0.0000	0.821	0.620
8	0.092327	0.092327	0.0000	0.821	0.565
9	0.116264	0.116264	0.0000	0.821	0.523
10	0.140201	0.140201	0.0000	0.821	0.496
11	0.164382	0.164382	0.0000	0.821	0.446
12	0.188319	0.188319	0.0000	0.821	0.455
13	0.221293	0.221293	0.0000	0.821	0.452

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	179.2	0.0	179.2	179.2	1.00	1.00	0.0	179.2	0.00
2	233.9	24.0	209.9	155.2	1.31	1.35	54.7	173.4	0.32
3	266.9	47.5	219.4	131.6	1.49	1.67	87.8	160.9	0.55
4	290.6	70.4	220.1	108.7	1.62	2.02	111.4	145.9	0.76
5	303.9	83.5	220.4	95.6	1.70	2.30	124.3	137.2	0.91
6	328.7	98.9	229.8	80.2	1.83	2.86	149.6	130.1	1.15
7	342.8	101.4	241.3	77.7	1.91	3.11	163.6	132.3	1.24
8	354.8	99.4	255.5	79.8	1.98	3.20	175.7	138.4	1.27
9	362.1	95.8	266.3	83.4	2.02	3.19	182.9	144.4	1.27
10	364.8	92.1	272.8	87.1	2.04	3.13	185.7	149.0	1.25
11	371.8	86.0	285.8	93.2	2.08	3.07	192.6	157.4	1.22
12	368.1	86.0	282.1	93.2	2.05	3.03	188.9	156.1	1.21
13	364.7	83.9	280.8	95.2	2.04	2.95	185.6	157.1	1.18

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 251-264 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 8527. CALIBRATED 1 / 1980

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS=179.0
OVERCONSOLIDATION RATIO= 2.0
MEASURED VOLUME CHANGE = 25.8 CC
CELL PRESSURE =158.5 KPA
CONSOLIDATION PRESSURE = 89.6 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.86	10.38	CM
VOID RATIO	= 1.169	0.913	
AREA	= 20.13	18.58	CM2
PERCENT MOISTURE	= 39.23	32.26	PERCENT
WET DENSITY	= 17.82	19.19	KN/M3
DRY DENSITY	= 12.80	14.51	KN/M3
PERCENT SATURATION	= 95.00	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.912	0.000
2	0.001468	0.001468	0.0000	0.912	0.551
3	0.003671	0.003671	0.0000	0.912	0.371
4	0.007342	0.007342	0.0000	0.912	0.358
5	0.019089	0.019089	0.0000	0.912	0.412
6	0.044542	0.044542	0.0000	0.912	0.415
7	0.066079	0.066079	0.0000	0.912	0.365
8	0.088105	0.088105	0.0000	0.912	0.311
9	0.115026	0.115026	0.0000	0.912	0.254
10	0.137786	0.137786	0.0000	0.912	0.210
11	0.157120	0.157120	0.0000	0.912	0.192

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA)	P (KPA)	Q/P
							CAMBRIDGE PARAMETERS		
1	89.6	0.0	89.6	89.6	1.00	1.00	0.0	89.6	0.00
2	102.0	6.9	95.1	82.7	1.14	1.15	12.5	86.8	0.14
3	117.4	10.3	107.1	79.2	1.31	1.35	27.8	88.5	0.31
4	129.9	14.5	115.5	75.1	1.45	1.54	40.4	88.6	0.46
5	149.8	24.8	125.0	64.8	1.67	1.93	60.2	84.8	0.71
6	169.2	33.1	136.1	56.5	1.89	2.41	79.6	83.0	0.96
7	180.2	33.1	147.1	56.5	2.01	2.60	90.6	86.7	1.05
8	189.2	31.0	158.2	58.6	2.11	2.70	99.6	91.8	1.09
9	198.0	27.6	170.4	62.0	2.21	2.75	108.4	98.1	1.10
10	202.5	23.8	178.7	65.8	2.26	2.72	112.9	103.4	1.09
11	204.1	22.0	182.1	67.5	2.28	2.70	114.6	105.7	1.08

LAW ENGINEERING TESTING COMPANY
TRIAXIAL SHEAR TEST

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 264-278 CM

CONSOLIDATED UNDRAINED COMPRESSION TEST WITH STRAIN CONTROL

PROVING RING 1433. CALIBRATED 10 / 1979

PROPERTIES

SPECIFIC GRAVITY = 2.83
PRECONSOLIDATION STRESS=175.0
OVERCONSOLIDATION RATIO= 4.0
MEASURED VOLUME CHANGE = 20.9 CC
CELL PRESSURE =113.7 KPA
CONSOLIDATION PRESSURE = 44.8 KPA

PROPERTY	INITIAL	CONSOLIDATED	
HEIGHT	= 10.79	10.41	CM
VOID RATIO	= 1.107	0.904	
AREA	= 20.06	18.79	CM2
PERCENT MOISTURE	= 36.62	31.94	PERCENT
WET DENSITY	= 17.99	19.23	KN/M3
DRY DENSITY	= 13.17	14.58	KN/M3
PERCENT SATURATION	= 93.61	100.01	PERCENT

NOTE - CONSOLIDATED PROPERTIES CALCULATED FROM MEASURED VOLUME CHANGE

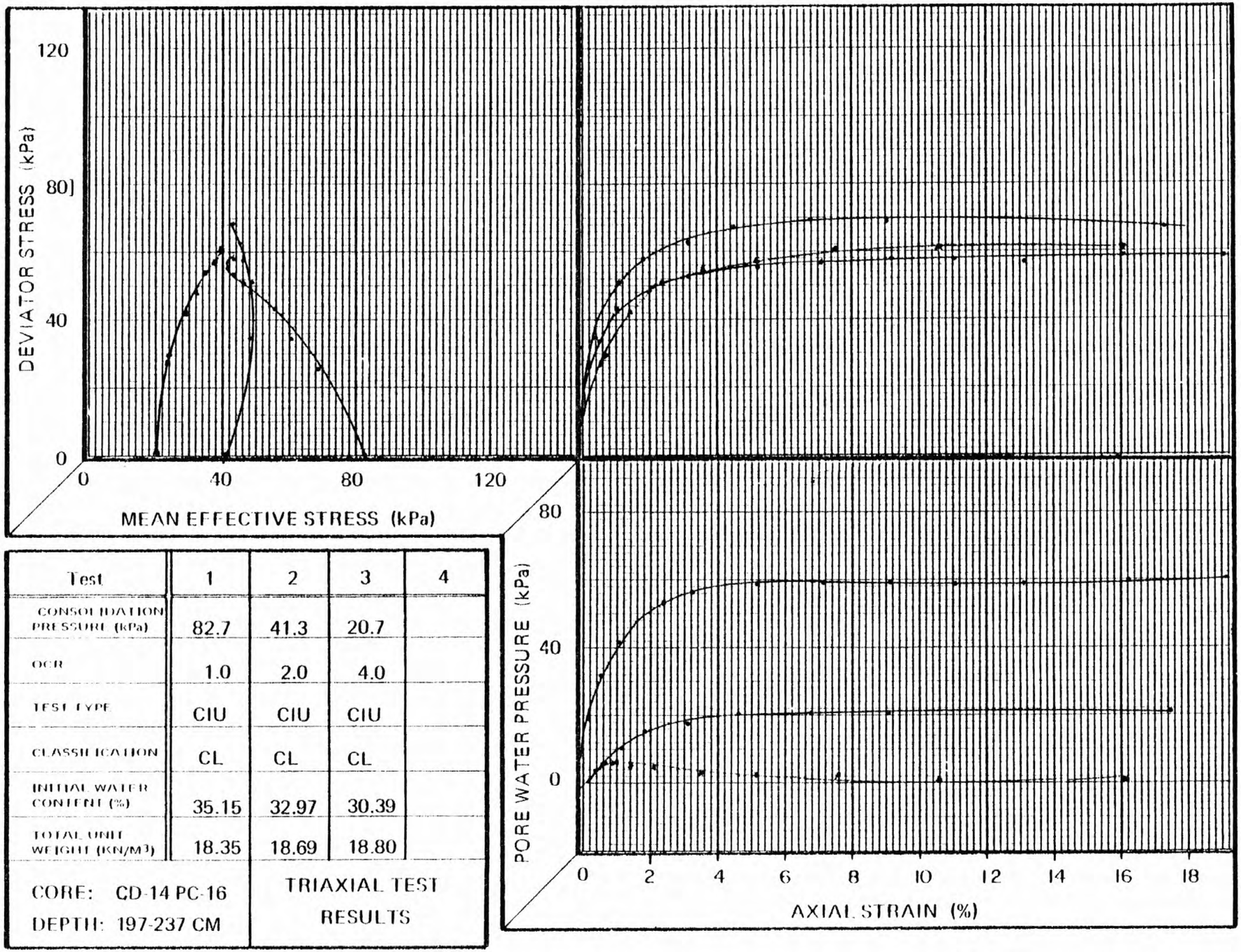
O U T P U T D A T A

READING NUMBER	STRAIN (CM/CM)	SHEAR STRAIN (CM/CM)	VOLUME STRAIN (CC/CC)	VOID RATIO	A FACTOR
1	0.000000	0.000000	0.0000	0.903	0.000
2	0.001708	0.001708	0.0000	0.903	-0.072
3	0.008051	0.008051	0.0000	0.903	0.072
4	0.014639	0.014639	0.0000	0.903	0.054
5	0.032449	0.032449	0.0000	0.903	0.043
6	0.050747	0.050747	0.0000	0.903	0.037
7	0.068802	0.068802	0.0000	0.903	0.025
8	0.086856	0.086856	0.0000	0.903	0.008
9	0.104910	0.104910	0.0000	0.903	-0.009
10	0.122964	0.122964	0.0000	0.903	-0.027
11	0.158585	0.158585	0.0000	0.903	-0.062
12	0.194206	0.194206	0.0000	0.903	-0.088
13	0.229826	0.229826	0.0000	0.903	-0.107

READING NUMBER	SIG1 (KPA)	PWP (KPA)	EFF SIG1 (KPA)	EFF SIG3 (KPA)	TOTAL STRESS RATIO	EFF STRESS RATIO	Q (KPA) CAMBRIDGE	P (KPA) PARAMETERS	Q/P
1	44.8	0.0	44.8	44.8	1.00	1.00	0.0	44.8	0.00
2	58.1	-1.0	59.0	45.8	1.30	1.29	13.3	50.2	0.26
3	96.4	3.7	92.7	41.1	2.15	2.26	51.6	58.3	0.89
4	113.6	3.7	109.8	41.1	2.54	2.67	68.8	64.0	1.07
5	133.7	3.9	129.9	40.9	2.99	3.17	89.0	70.6	1.26
6	145.7	3.7	142.0	41.1	3.25	3.46	100.9	74.7	1.35
7	158.3	2.9	155.4	41.9	3.53	3.71	113.5	79.7	1.42
8	167.2	1.0	166.1	43.8	3.73	3.80	122.4	84.6	1.45
9	177.6	-1.2	178.9	46.0	3.97	3.89	132.9	90.3	1.47
10	184.7	-3.7	188.4	48.5	4.12	3.88	139.9	95.1	1.47
11	182.7	-8.5	191.3	53.3	4.08	3.59	137.9	99.3	1.39
12	184.0	-12.1	196.3	57.1	4.11	3.44	139.2	103.5	1.35
13	182.1	-14.7	196.9	59.5	4.07	3.31	137.4	105.3	1.30

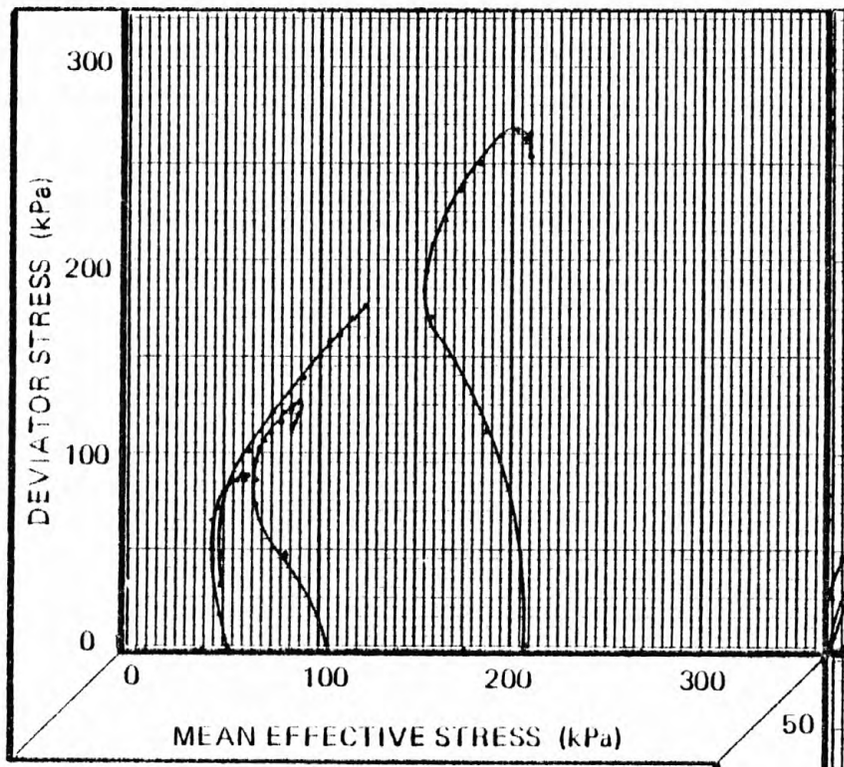
APPENDIX A2

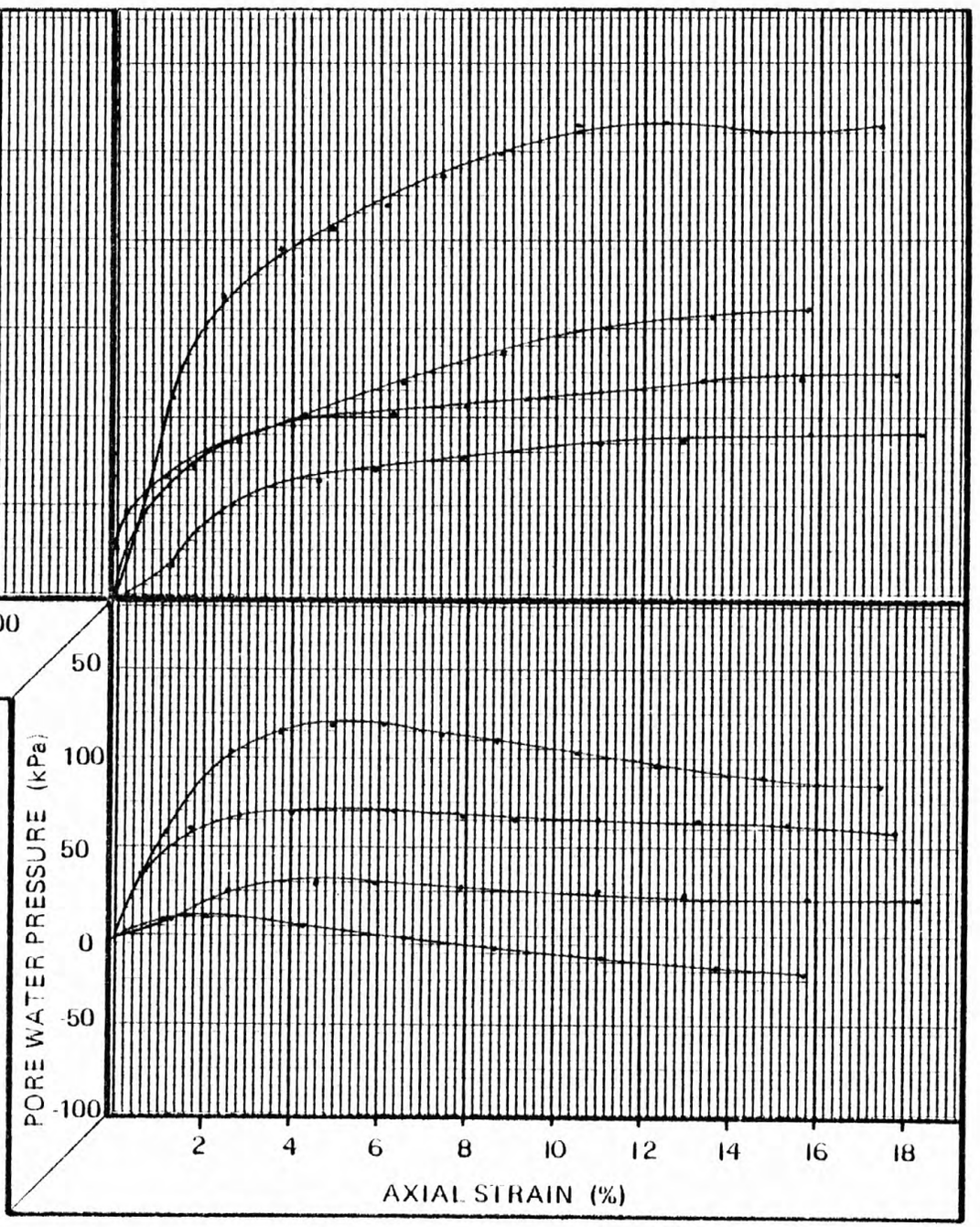
STRESS PATHS FOR TRIAXIAL SHEAR TESTS



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	82.7	41.3	20.7	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	35.15	32.97	30.39	
TOTAL UNIT WEIGHT (KN/M3)	18.35	18.69	18.80	
CORE: CD-14 PC-16 DEPTH: 197-237 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING



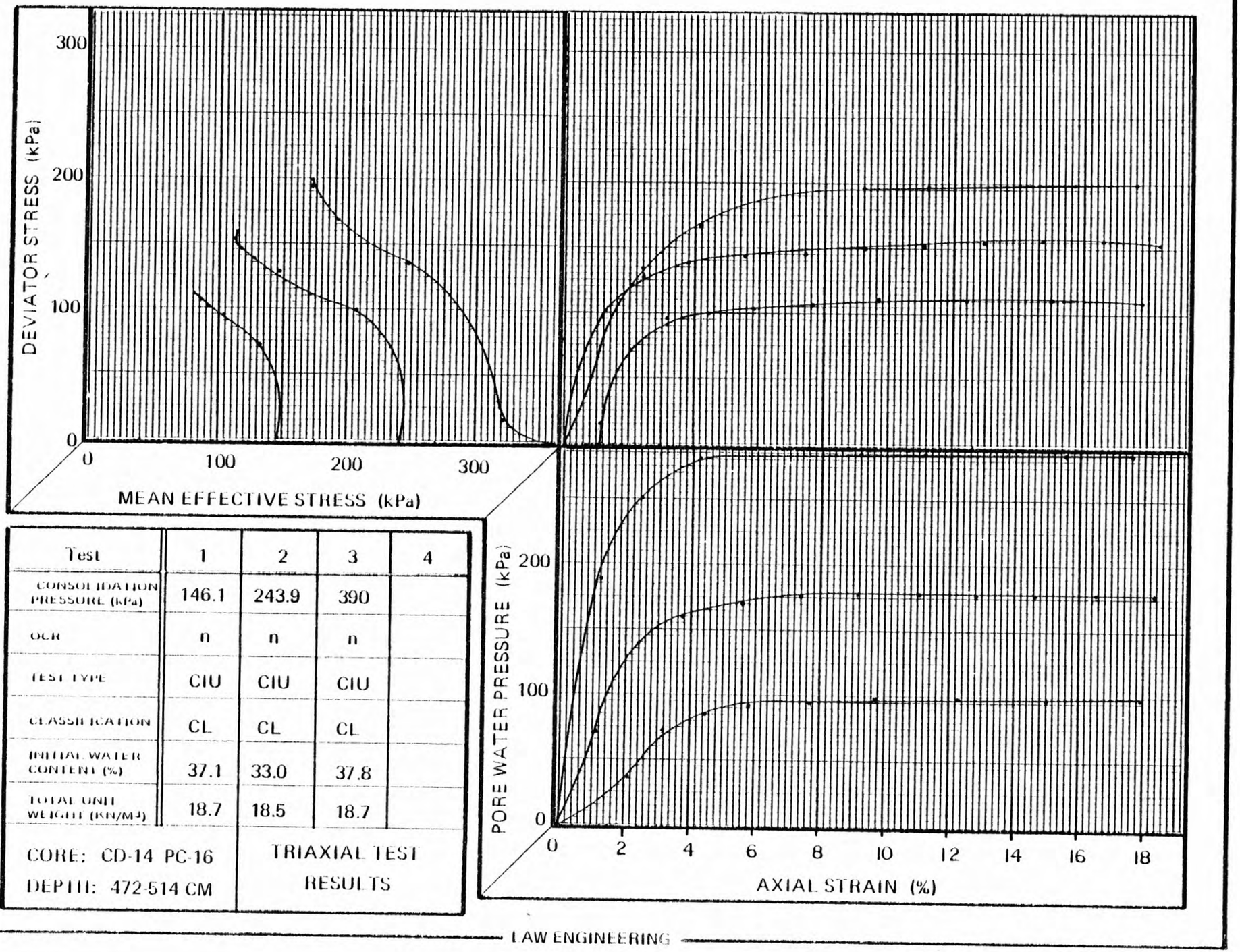


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	52.4	104.0	34.7	208.1
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CAU	CIU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	30.6	25.5	13.4	20.0
TOTAL UNIT WEIGHT (KN/M³)	19.8	20.2	21.0	20.7

CORE: CD-14 PC-16
DEPTH: 295-339 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

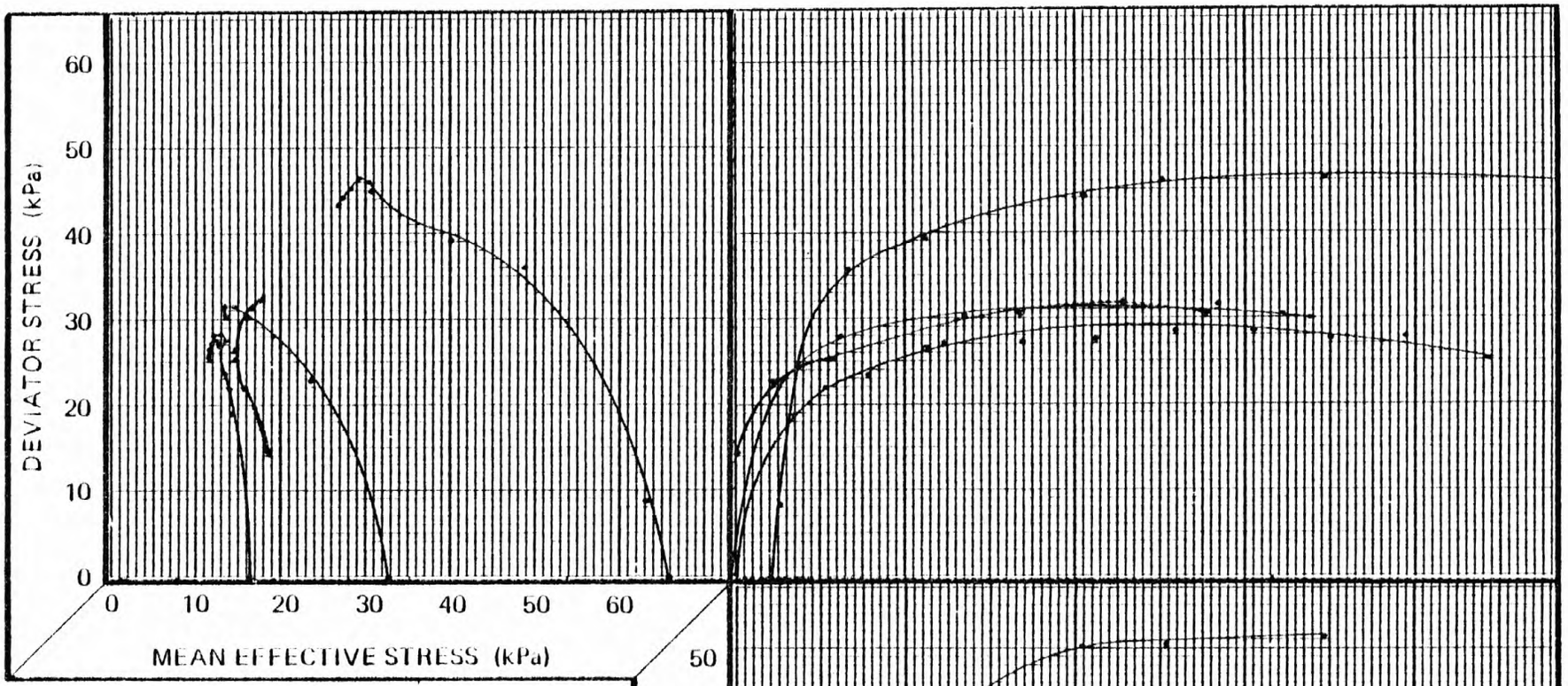


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	146.1	243.9	390	
OCR	n	n	n	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	37.1	33.0	37.8	
TOTAL UNIT WEIGHT (KN/M3)	18.7	18.5	18.7	

CORE: CD-14 PC-16
DEPTH: 472-514 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

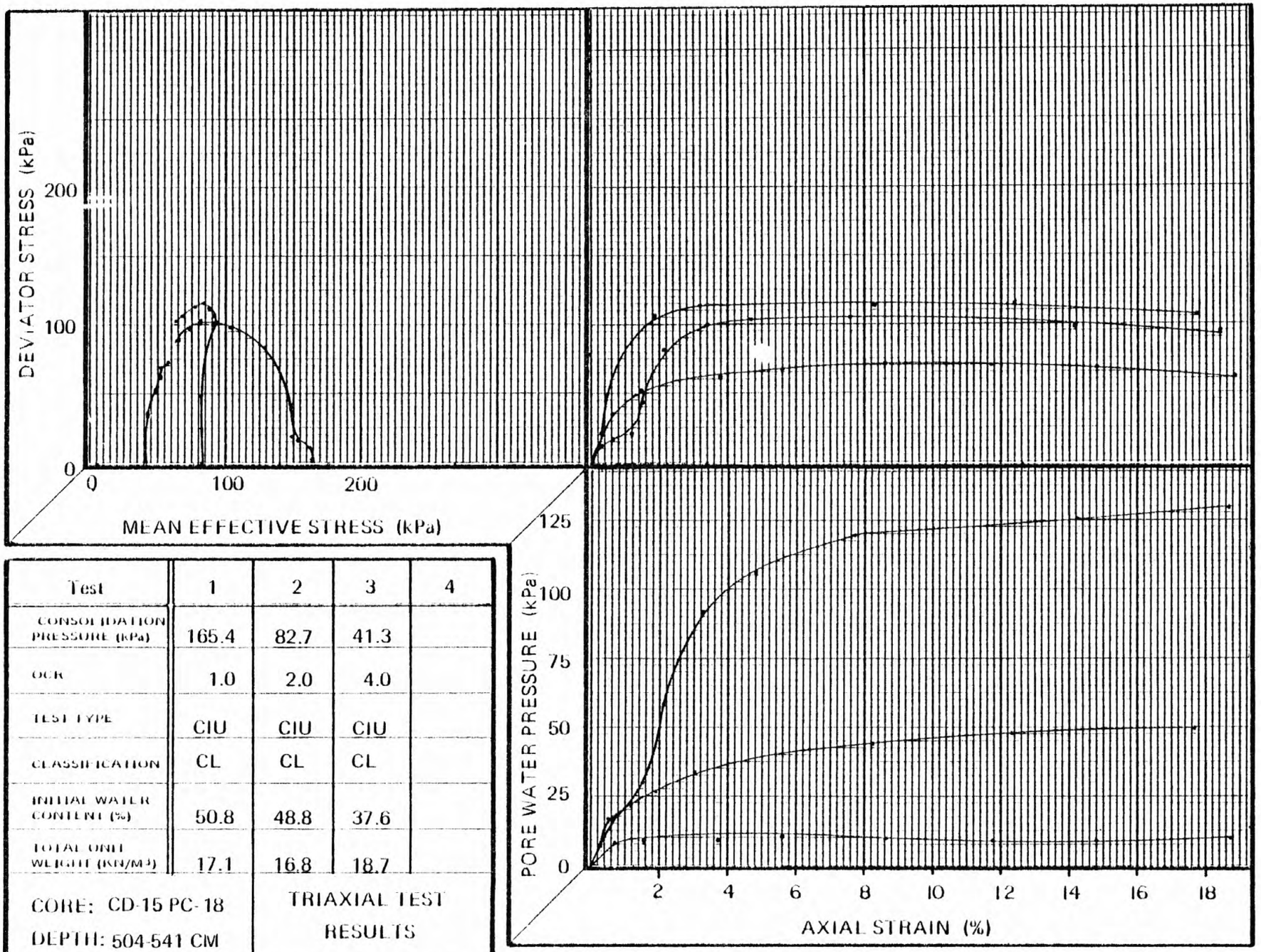


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	66.1	33.0	16.5	13.8
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	59.4	69.8	62.7	49.9
TOTAL UNIT WEIGHT (kN/M³)	16.7	16.0	15.8	16.9

CORE: CD-15 PC-18
DEPTH: 294-341 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

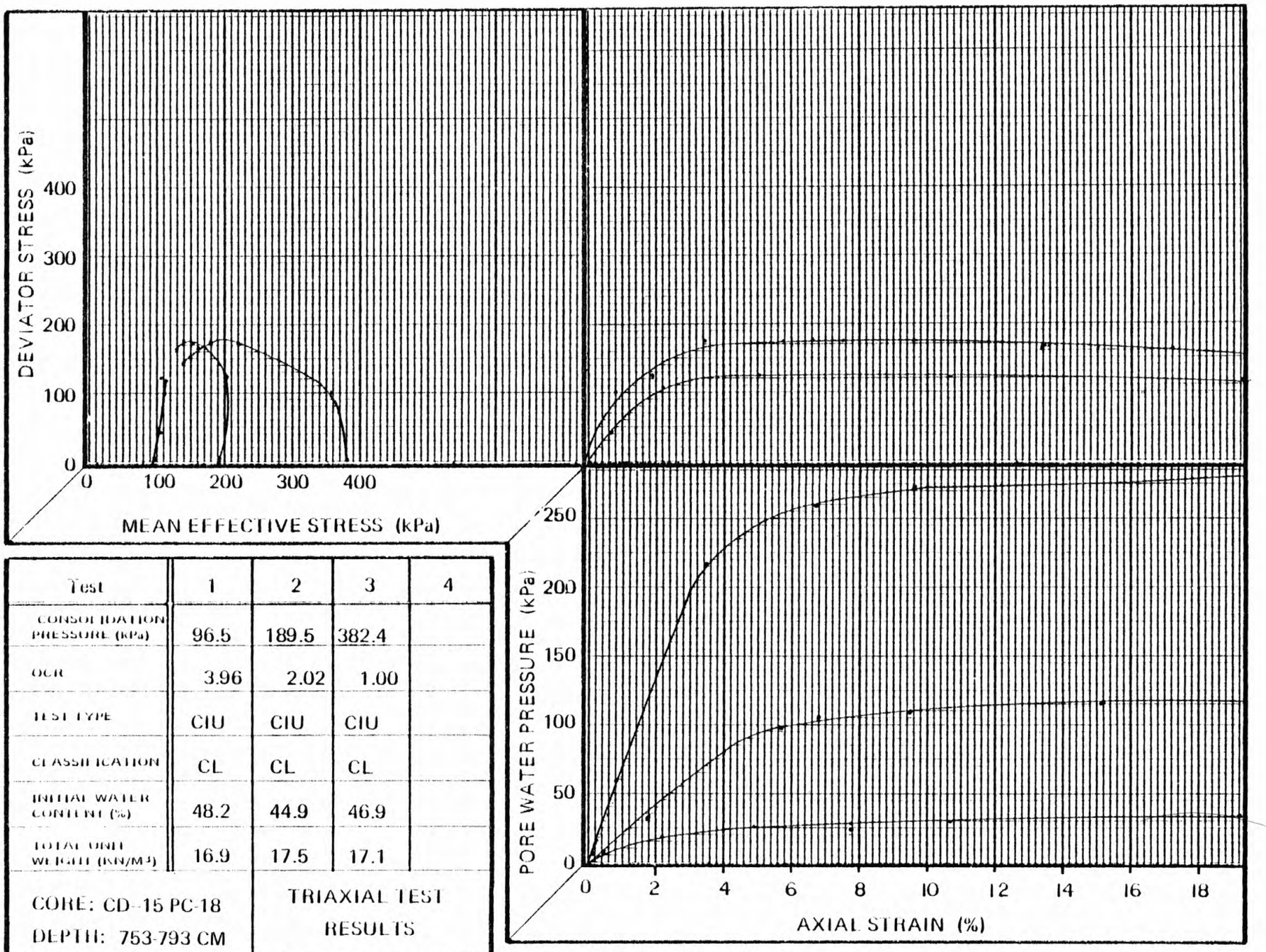


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	165.4	82.7	41.3	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	50.8	48.8	37.6	
TOTAL UNIT WEIGHT (KN/M³)	17.1	16.8	18.7	

CORE: CD-15 PC-18
DEPTH: 504-541 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

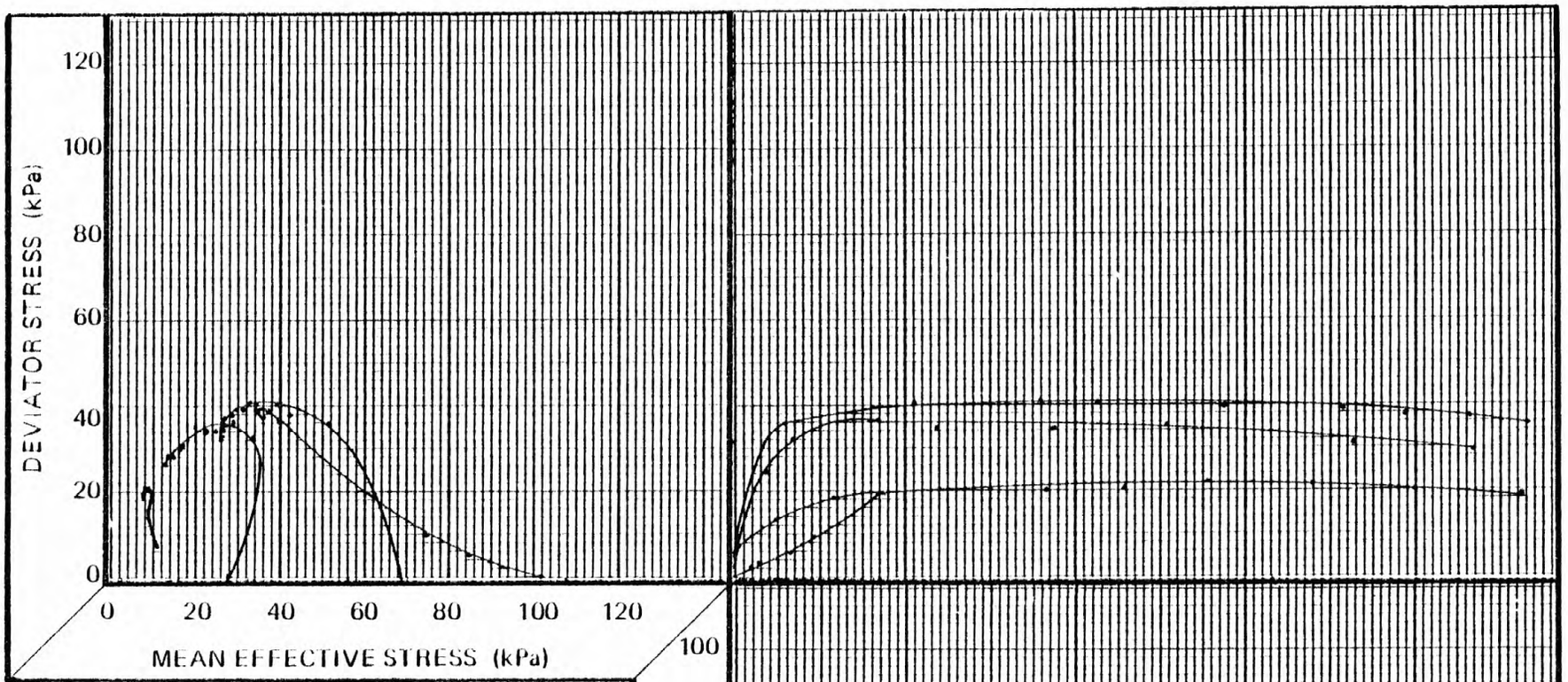


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	96.5	189.5	382.4	
OCR	3.96	2.02	1.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	48.2	44.9	46.9	
TOTAL UNIT WEIGHT (kN/M³)	16.9	17.5	17.1	

CORE: CD-15 PC-18
DEPTH: 753-793 CM

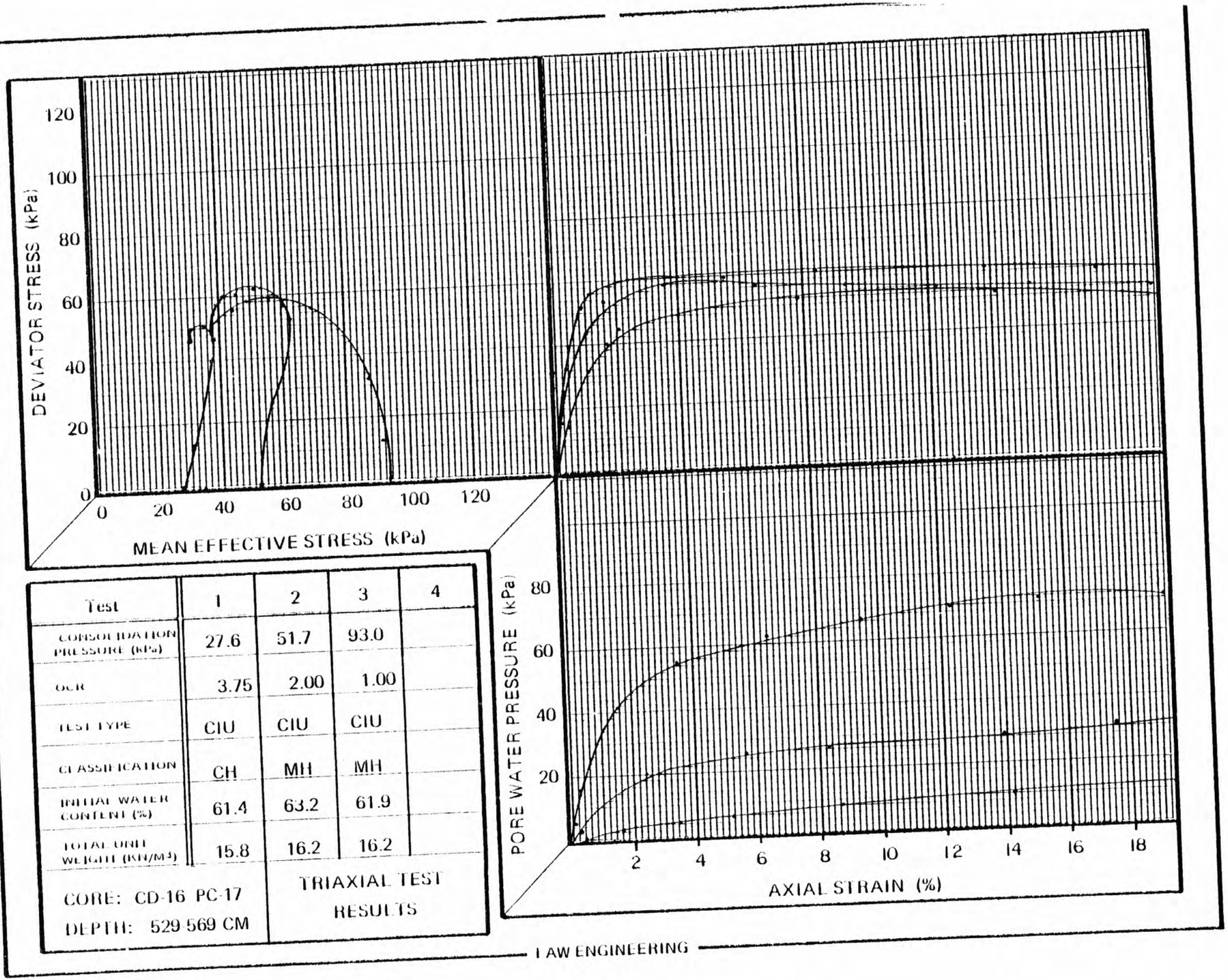
TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	28.3	68.9	111.9	8.3
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	CH	CH	CH
INITIAL WATER CONTENT (%)	76.2	75.8	75.3	71.9
TOTAL UNIT WEIGHT (KN/M3)	14.3	15.3	15.2	15.9
CORE: CD-16 PC-17 DEPTH: 225-275 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING

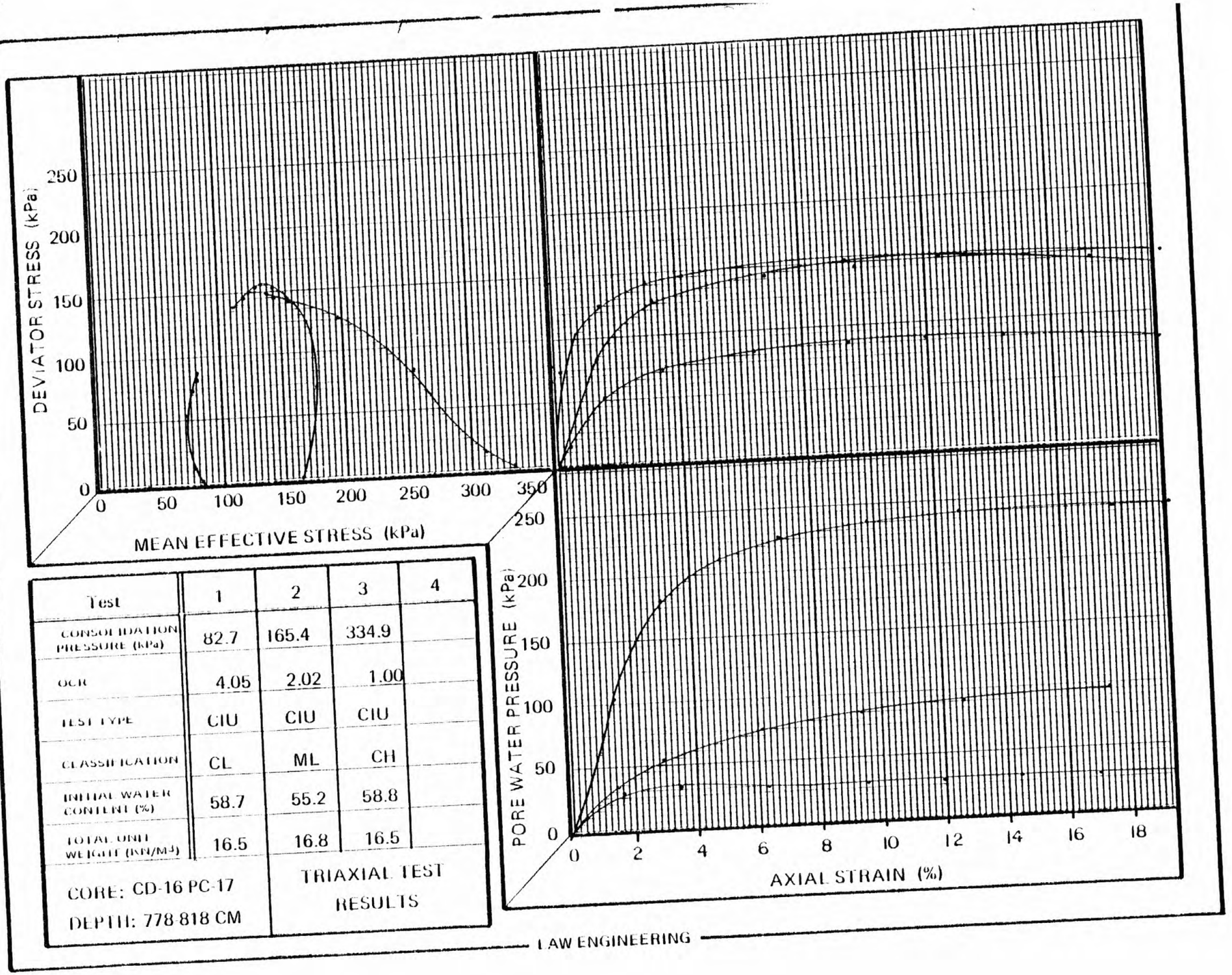


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	27.6	51.7	93.0	
OCR	3.75	2.00	1.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	MH	MH	
INITIAL WATER CONTENT (%)	61.4	63.2	61.9	
TOTAL UNIT WEIGHT (KN/M³)	15.8	16.2	16.2	

CORE: CD-16 PC-17
DEPTH: 529-569 CM

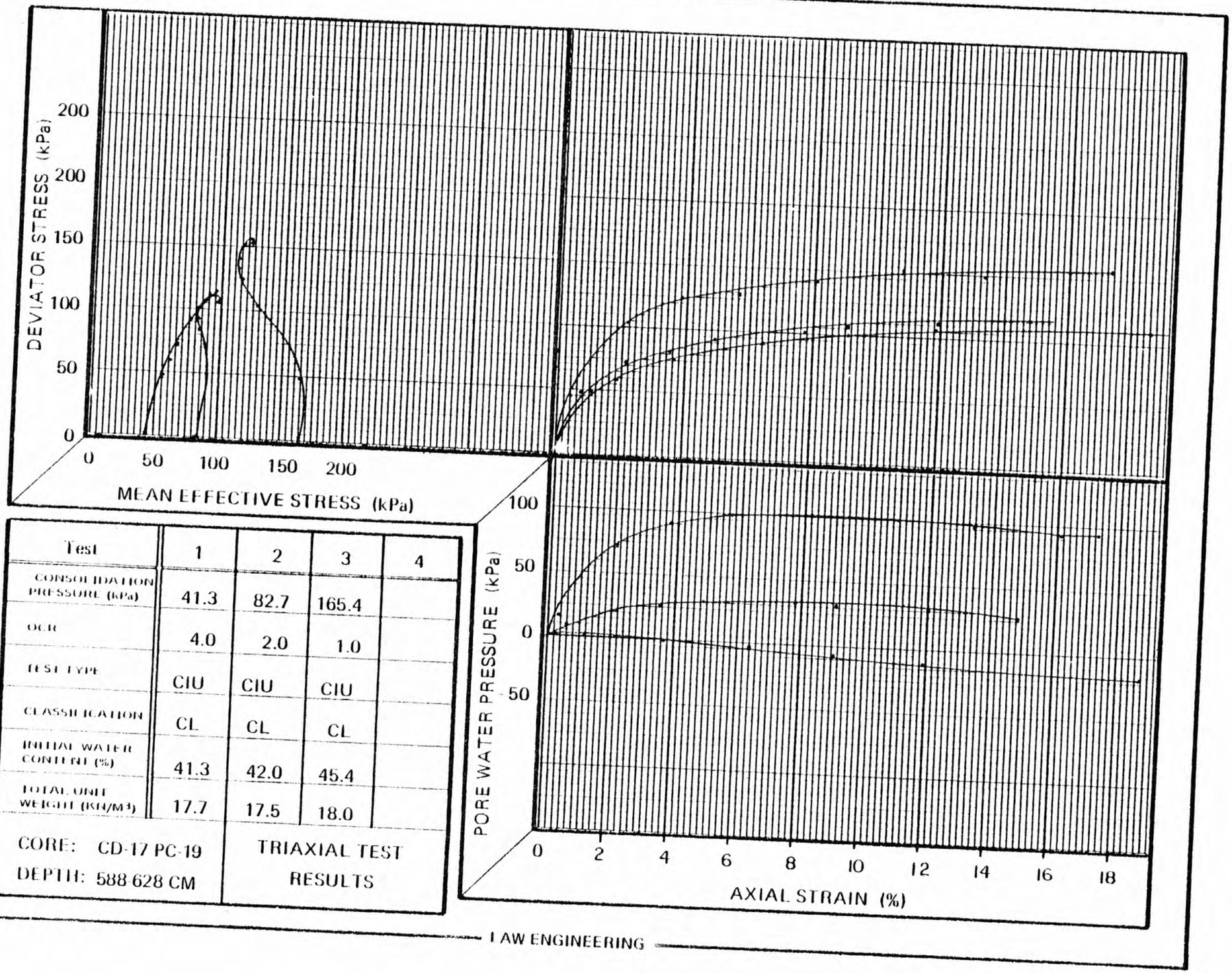
TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	82.7	165.4	334.9	
OCR	4.05	2.02	1.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	ML	CH	
INITIAL WATER CONTENT (%)	58.7	55.2	58.8	
TOTAL UNIT WEIGHT (kN/M3)	16.5	16.8	16.5	
CORE: CD-16 PC-17 DEPTH: 778-818 CM	TRIAXIAL TEST RESULTS			

LAW ENGINEERING

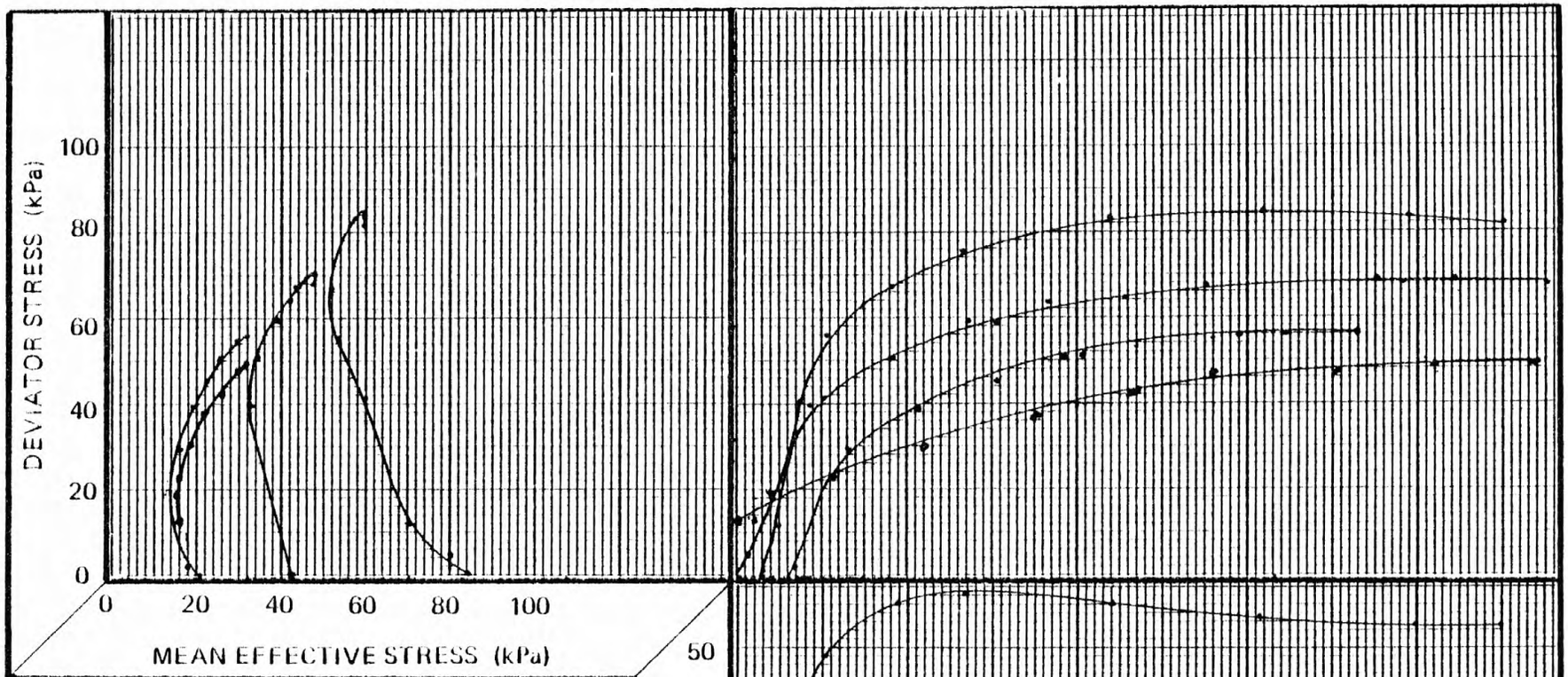


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	41.3	82.7	165.4	
OCR	4.0	2.0	1.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	41.3	42.0	45.4	
TOTAL UNIT WEIGHT (KN/M3)	17.7	17.5	18.0	

CORE: CD-17 PC-19
DEPTH: 588-628 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

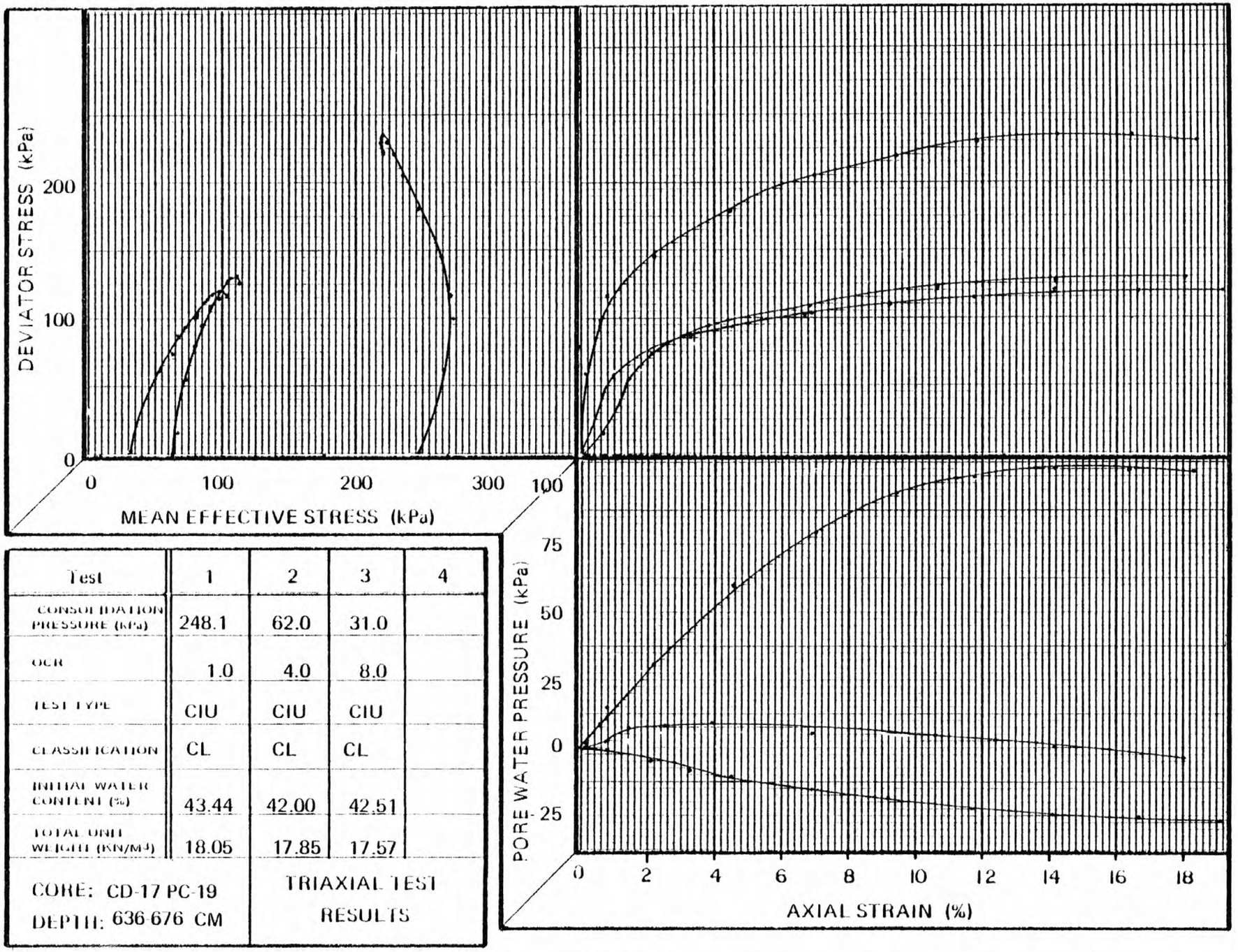


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	21.1	42.2	24.3	27.7
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	CH	CH	CH
INITIAL WATER CONTENT (%)	46.85	41.88	41.02	40.64
TOTAL UNIT WEIGHT (kN/M³)	17.32	17.62	17.73	17.38

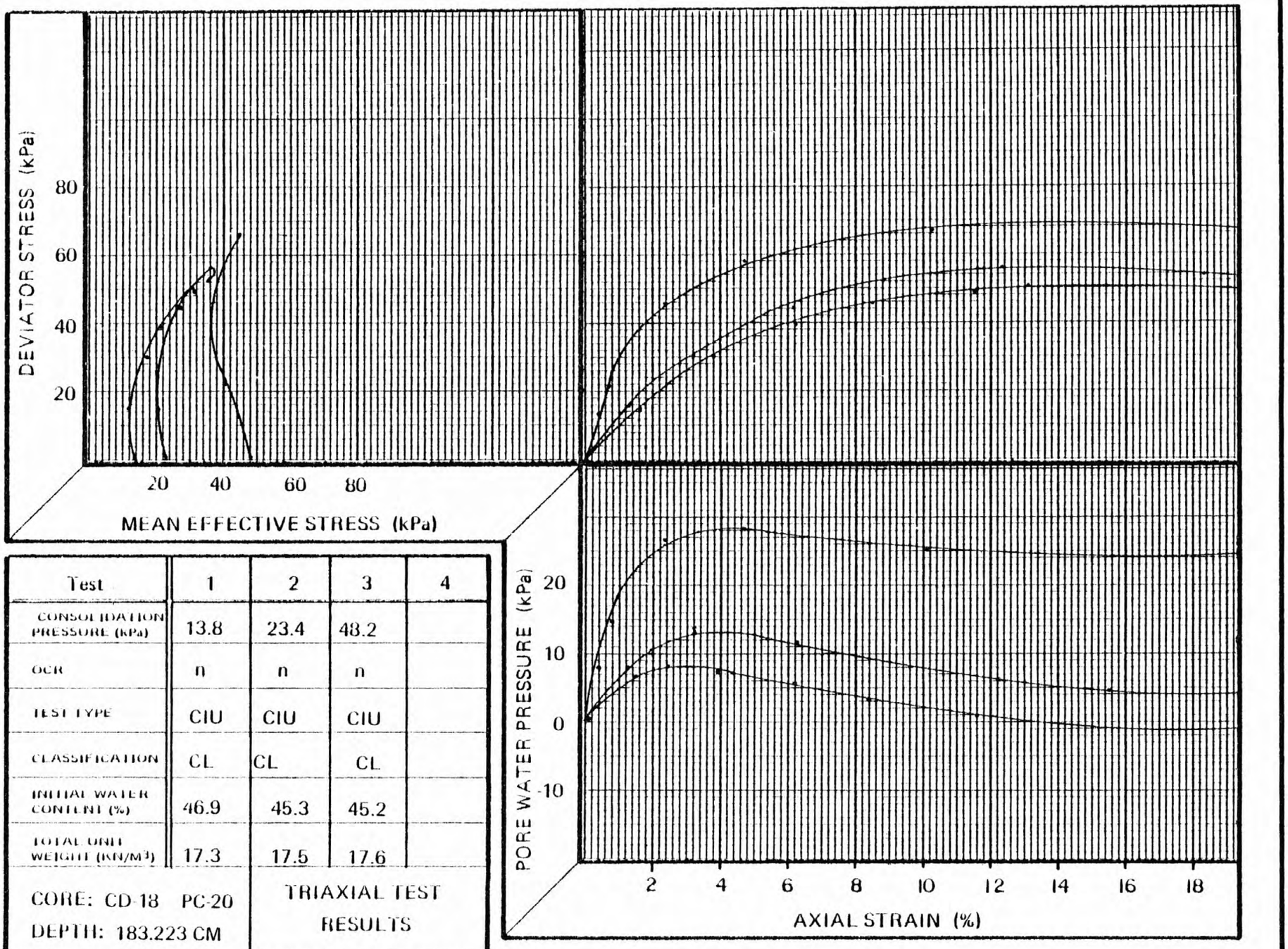
CORE: CD-17 PC-19
DEPTH: 350-400 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	248.1	62.0	31.0	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	43.44	42.00	42.51	
TOTAL UNIT WEIGHT (KN/M3)	18.05	17.85	17.57	
CORE: CD-17 PC-19 DEPTH: 636-676 CM		TRIAXIAL TEST RESULTS		

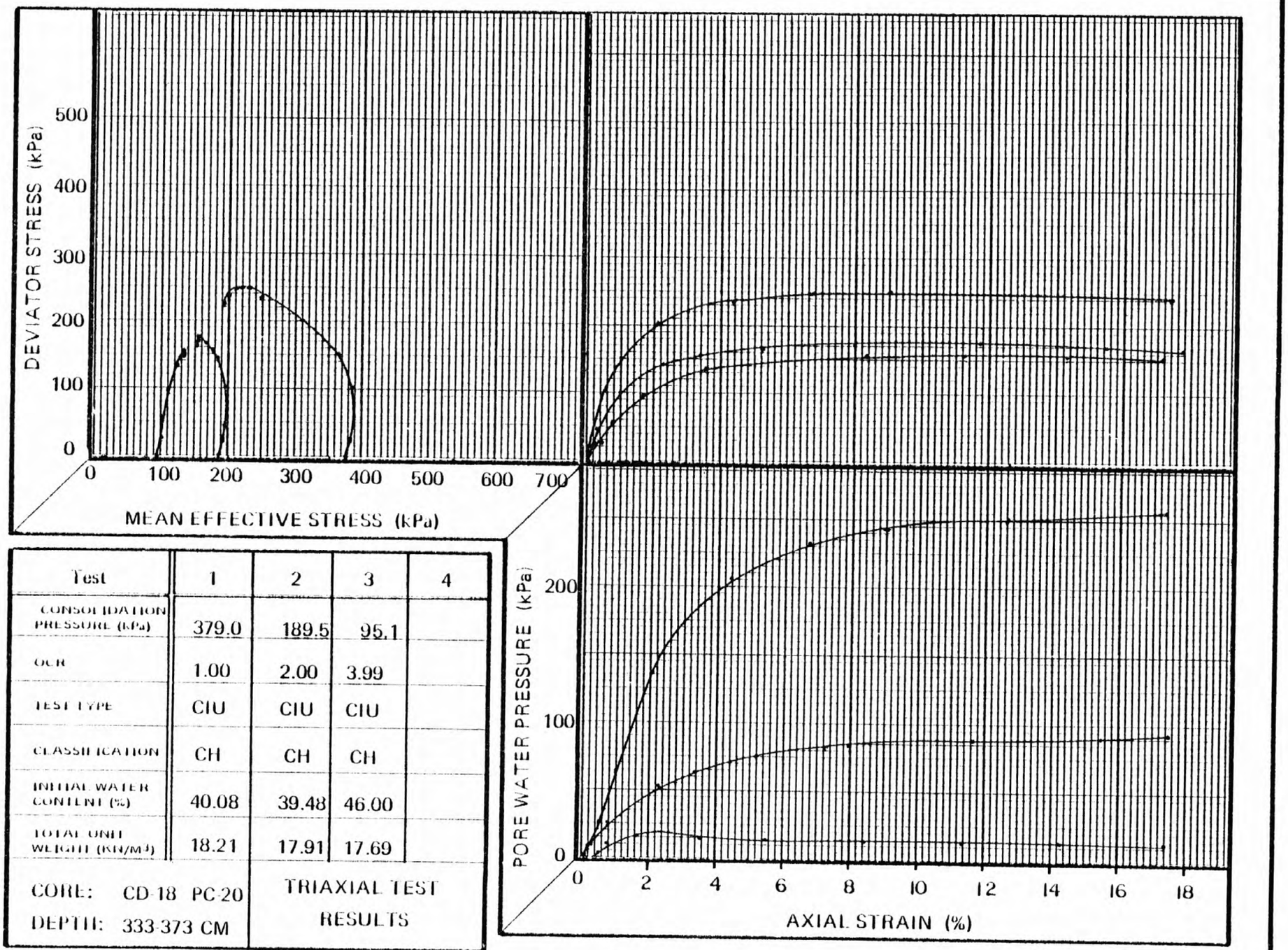


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	13.8	23.4	48.2	
OCR	n	n	n	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	46.9	45.3	45.2	
TOTAL UNIT WEIGHT (KN/M³)	17.3	17.5	17.6	

CORE: CD-18 PC-20
DEPTH: 183.223 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

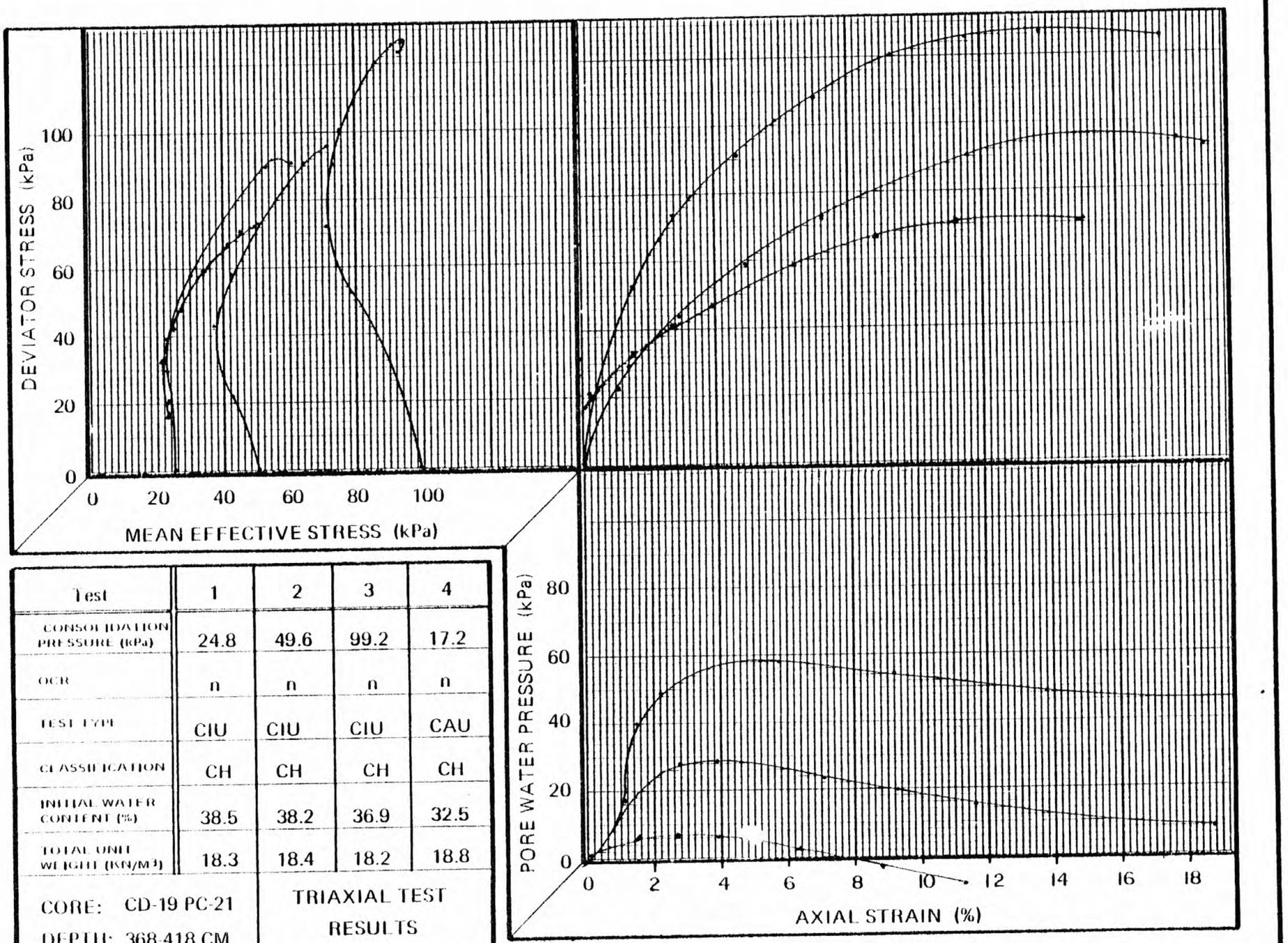


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	379.0	189.5	95.1	
OCR	1.00	2.00	3.99	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	40.08	39.48	46.00	
TOTAL UNIT WEIGHT (KN/M3)	18.21	17.91	17.69	

CORE: CD-18 PC-20
DEPTH: 333-373 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



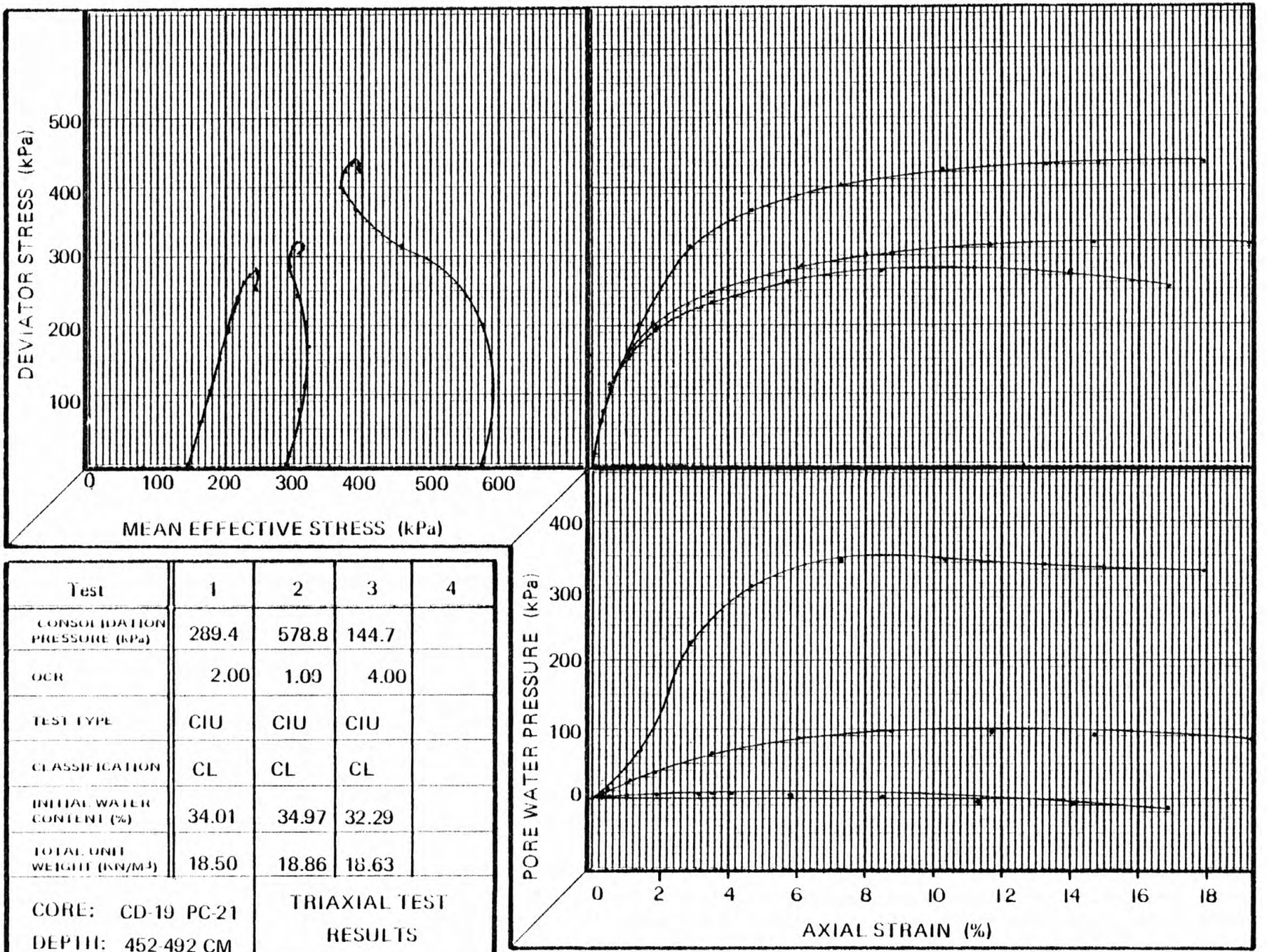
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	24.8	49.6	99.2	17.2
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	CH	CH	CH
INITIAL WATER CONTENT (%)	38.5	38.2	36.9	32.5
TOTAL UNIT WEIGHT (KN/M³)	18.3	18.4	18.2	18.8

CORE: CD-19 PC-21

DEPTH: 368-418 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

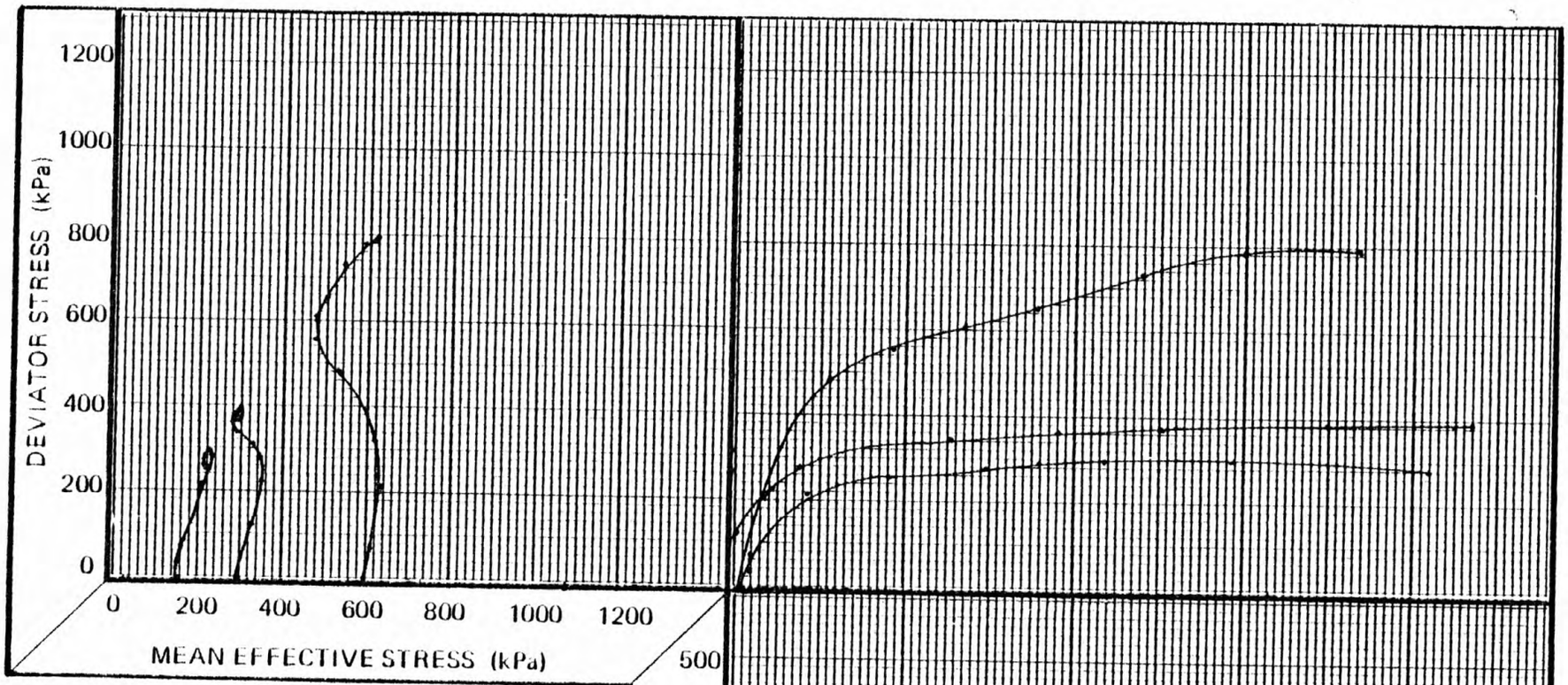


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	289.4	578.8	144.7	
OCR	2.00	1.09	4.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	34.01	34.97	32.29	
TOTAL UNIT WEIGHT (kN/M3)	18.50	18.86	18.63	

CORE: CD-19 PC-21
DEPTH: 452-492 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

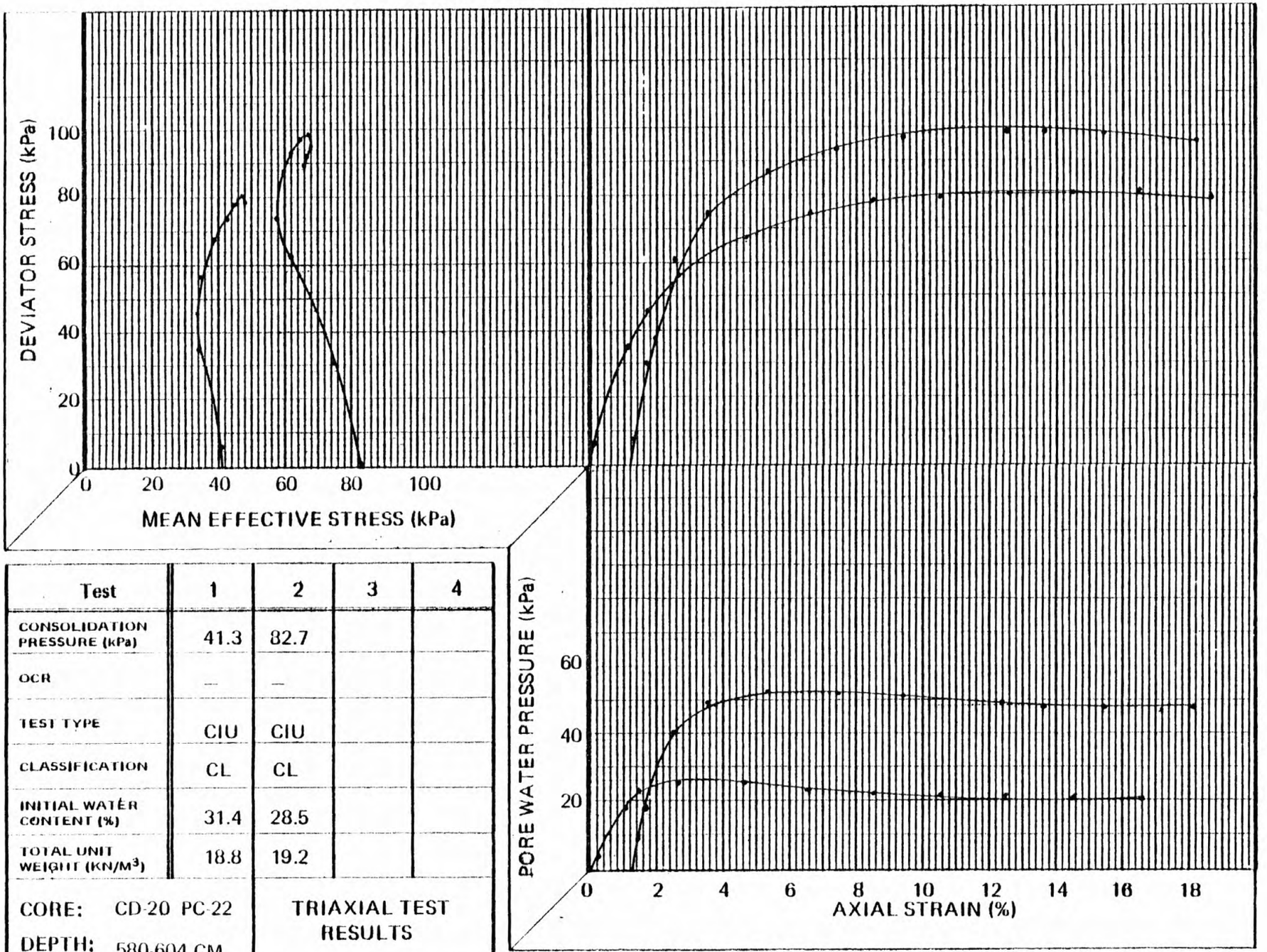


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	599.5	299.7	150.2	
OCR	1.00	2.00	3.99	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	26.72	29.92	29.48	
TOTAL UNIT WEIGHT (kN/M3)	19.80	19.59	19.60	

CORE: CD-20 PC-22
DEPTH: 387-427 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



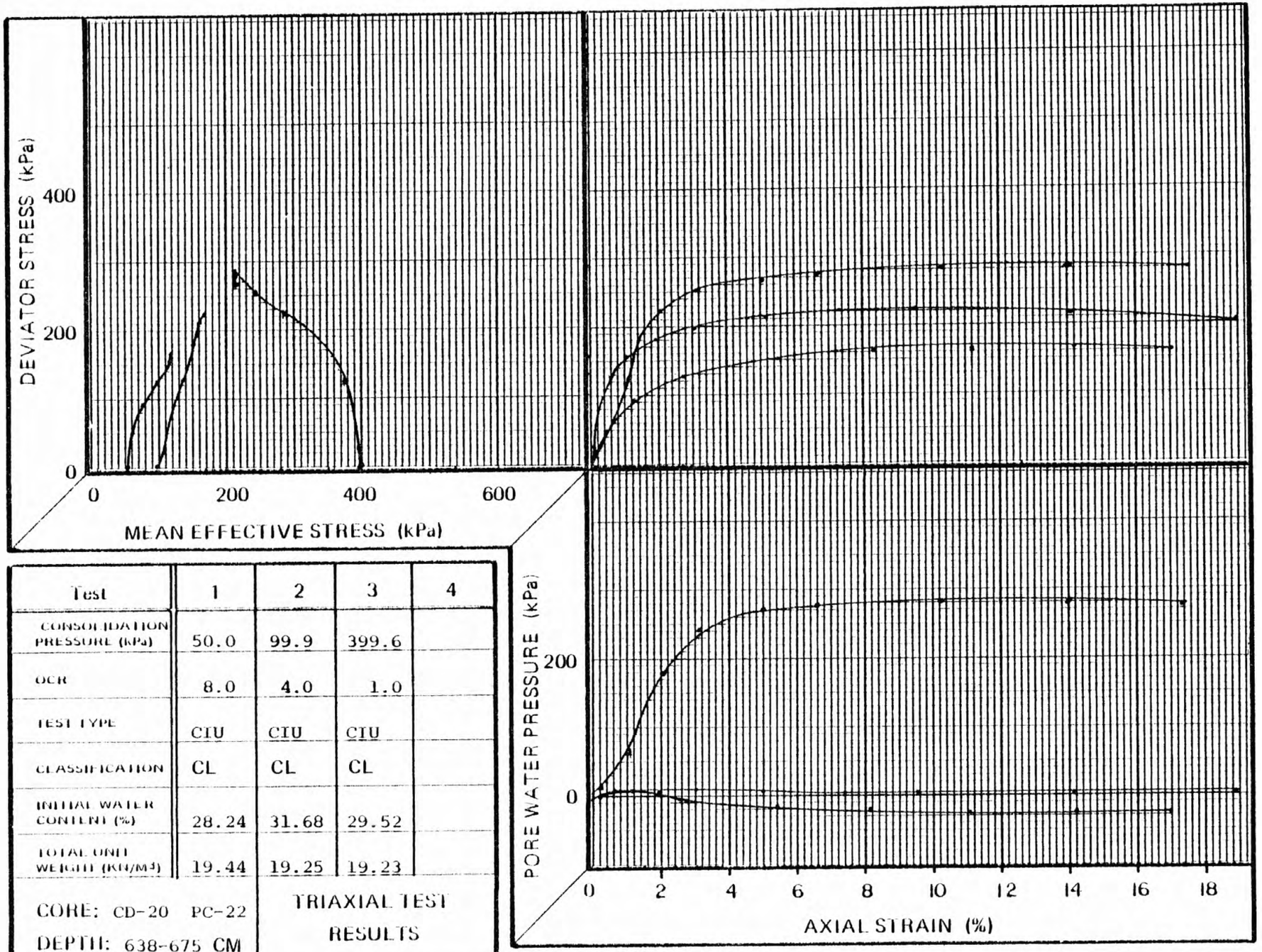
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	41.3	82.7		
OCR	—	—		
TEST TYPE	CIU	CIU		
CLASSIFICATION	CL	CL		
INITIAL WATER CONTENT (%)	31.4	28.5		
TOTAL UNIT WEIGHT (KN/M^3)	18.8	19.2		

CORE: CD-20 PC-22

DEPTH: 580-604 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



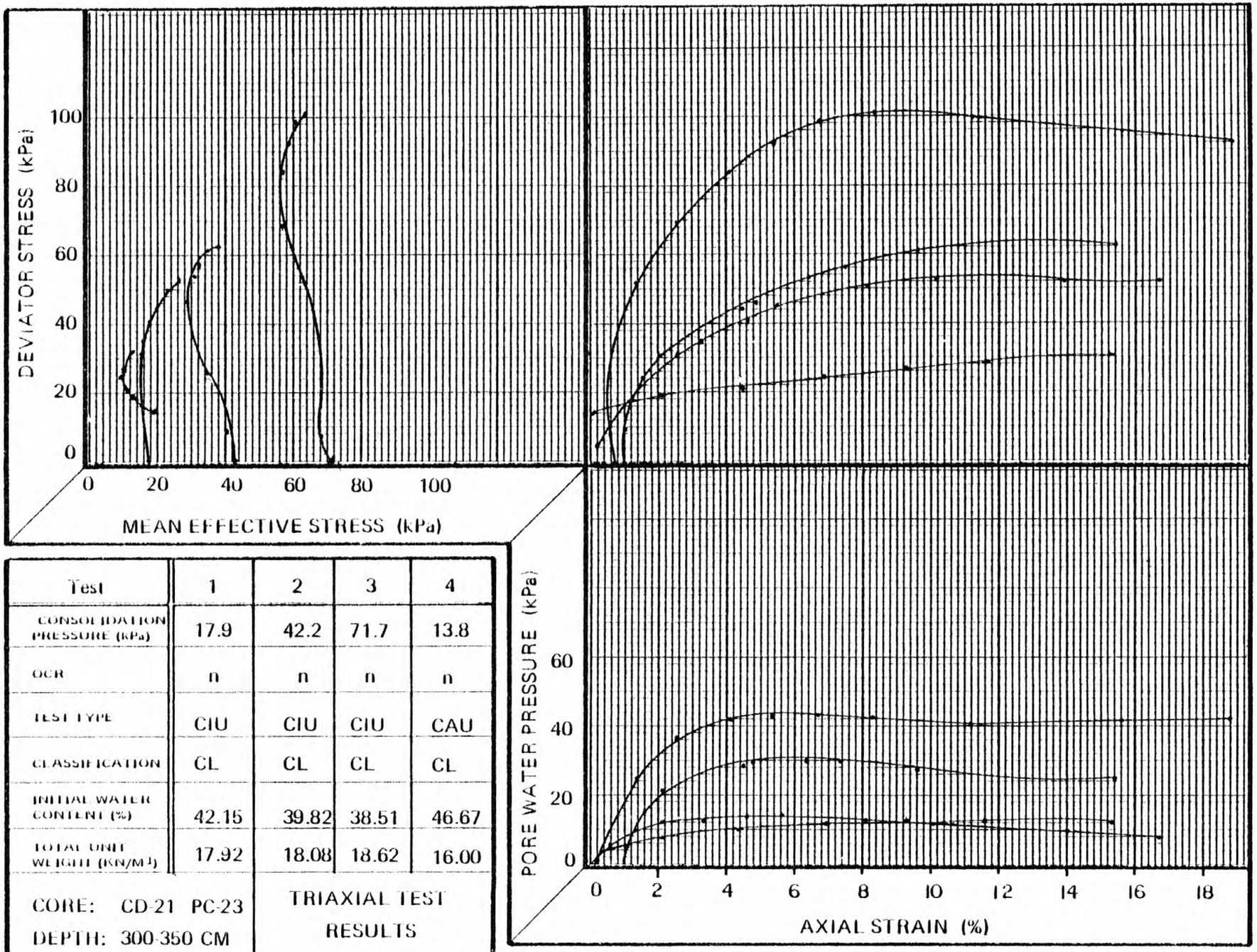
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	50.0	99.9	399.6	
OCR	8.0	4.0	1.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	28.24	31.68	29.52	
TOTAL UNIT WEIGHT (KN/M³)	19.44	19.25	19.23	

CORE: CD-20 PC-22

DEPTH: 638-675 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

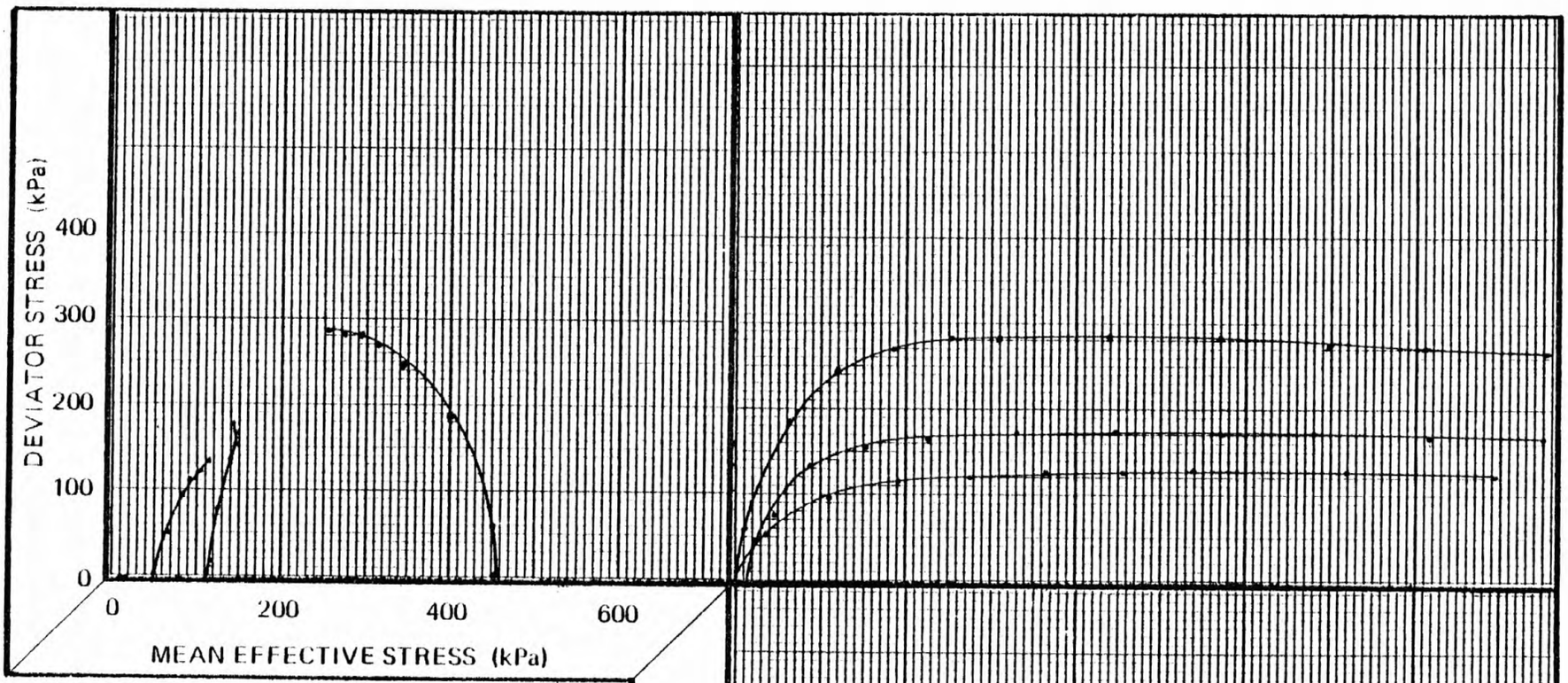


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	17.9	42.2	71.7	13.8
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	42.15	39.82	38.51	46.67
TOTAL UNIT WEIGHT (KN/M³)	17.92	18.08	18.62	16.00

CORE: CD-21 PC-23
DEPTH: 300-350 CM

TRIAXIAL TEST RESULTS

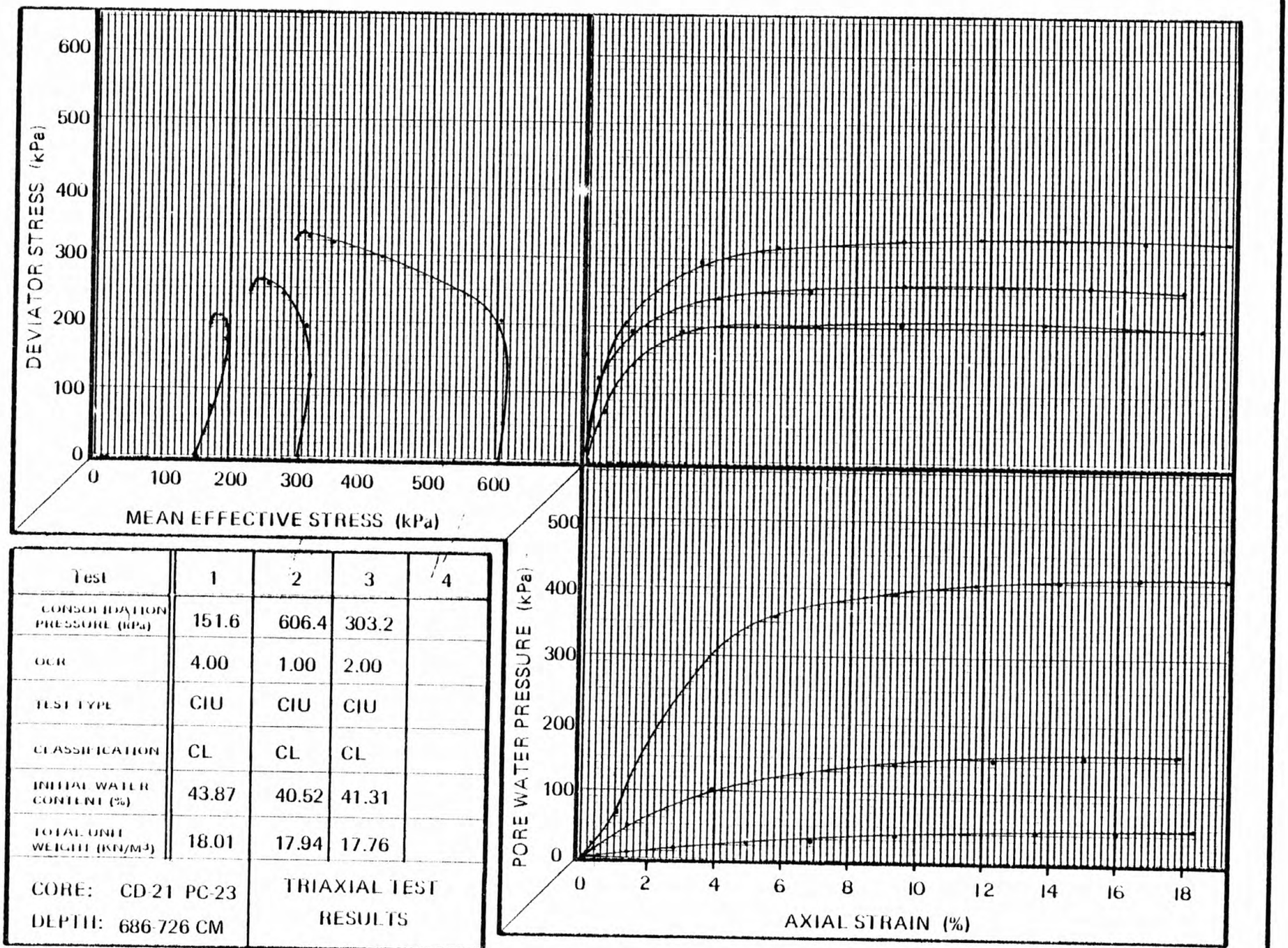
LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	56.8	113.7	454.8	
OCR	8.0	4.0	1.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	46.12	38.39	45.88	
TOTAL UNIT WEIGHT (KN/M³)	16.76	17.15	17.47	

CORE: CD-21 PC-23
DEPTH: 434-476 CM

TRIAXIAL TEST RESULTS

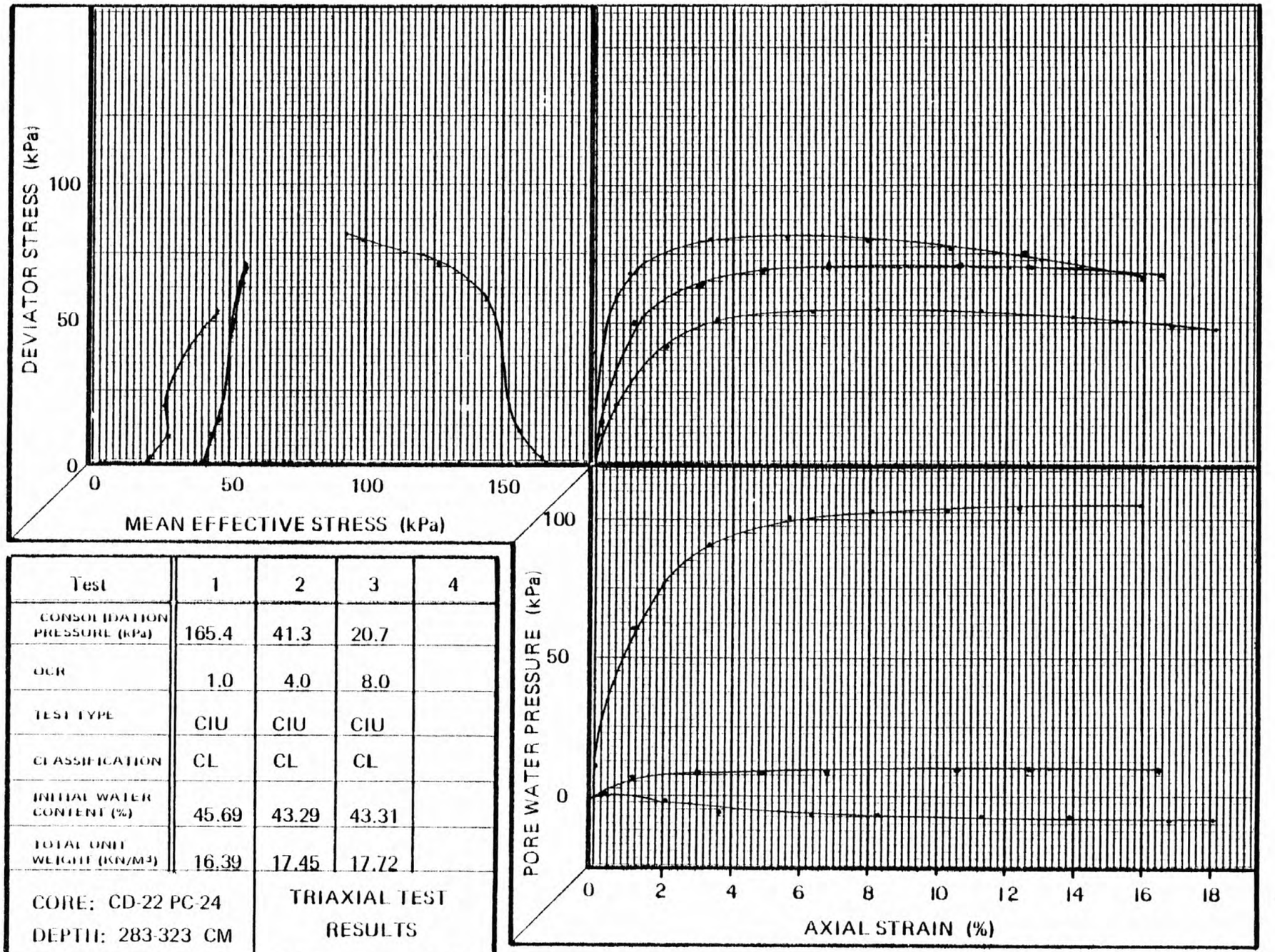


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	151.6	606.4	303.2	
OCR	4.00	1.00	2.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	43.87	40.52	41.31	
TOTAL UNIT WEIGHT (kN/M3)	18.01	17.94	17.76	

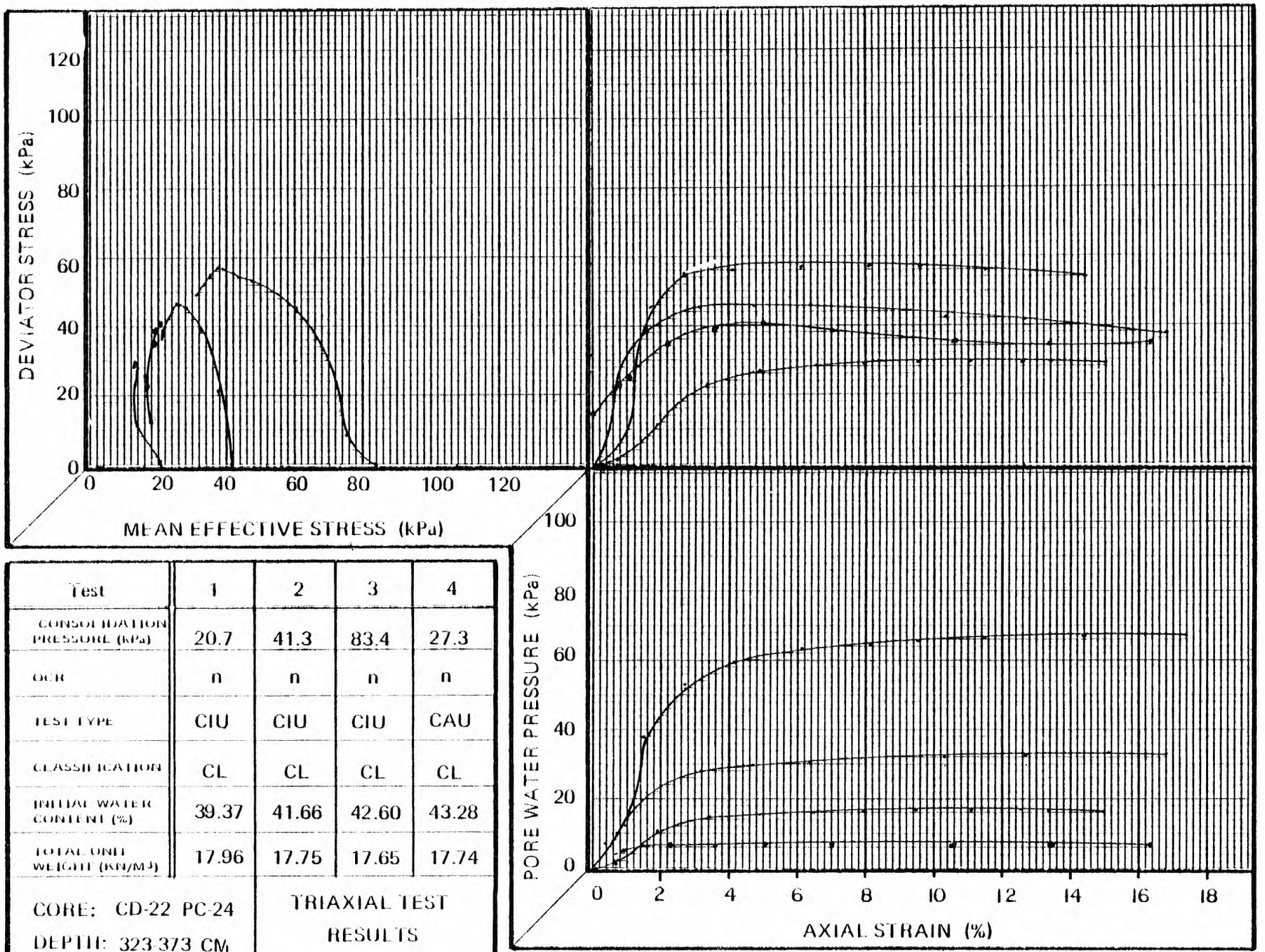
CORE: CD-21 PC-23
DEPTH: 686-726 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	165.4	41.3	20.7	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	45.69	43.29	43.31	
TOTAL UNIT WEIGHT (KN/M3)	16.39	17.45	17.72	
CORE: CD-22 PC-24 DEPTH: 283-323 CM		TRIAXIAL TEST RESULTS		

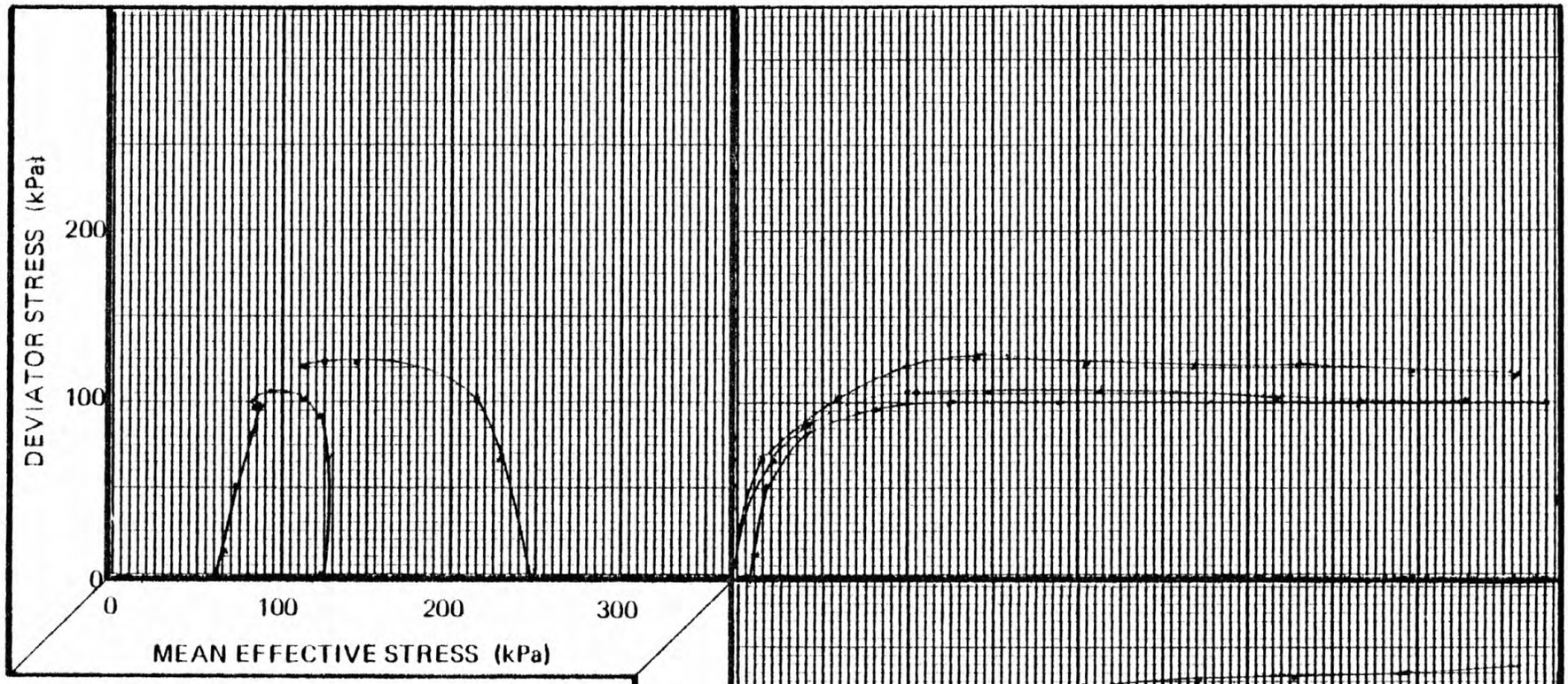


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	20.7	41.3	83.4	27.3
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	39.37	41.66	42.60	43.28
TOTAL UNIT WEIGHT (KN/M³)	17.96	17.75	17.65	17.74

CORE: CD-22 PC-24

DEPTH: 323-373 CM

TRIAXIAL TEST RESULTS

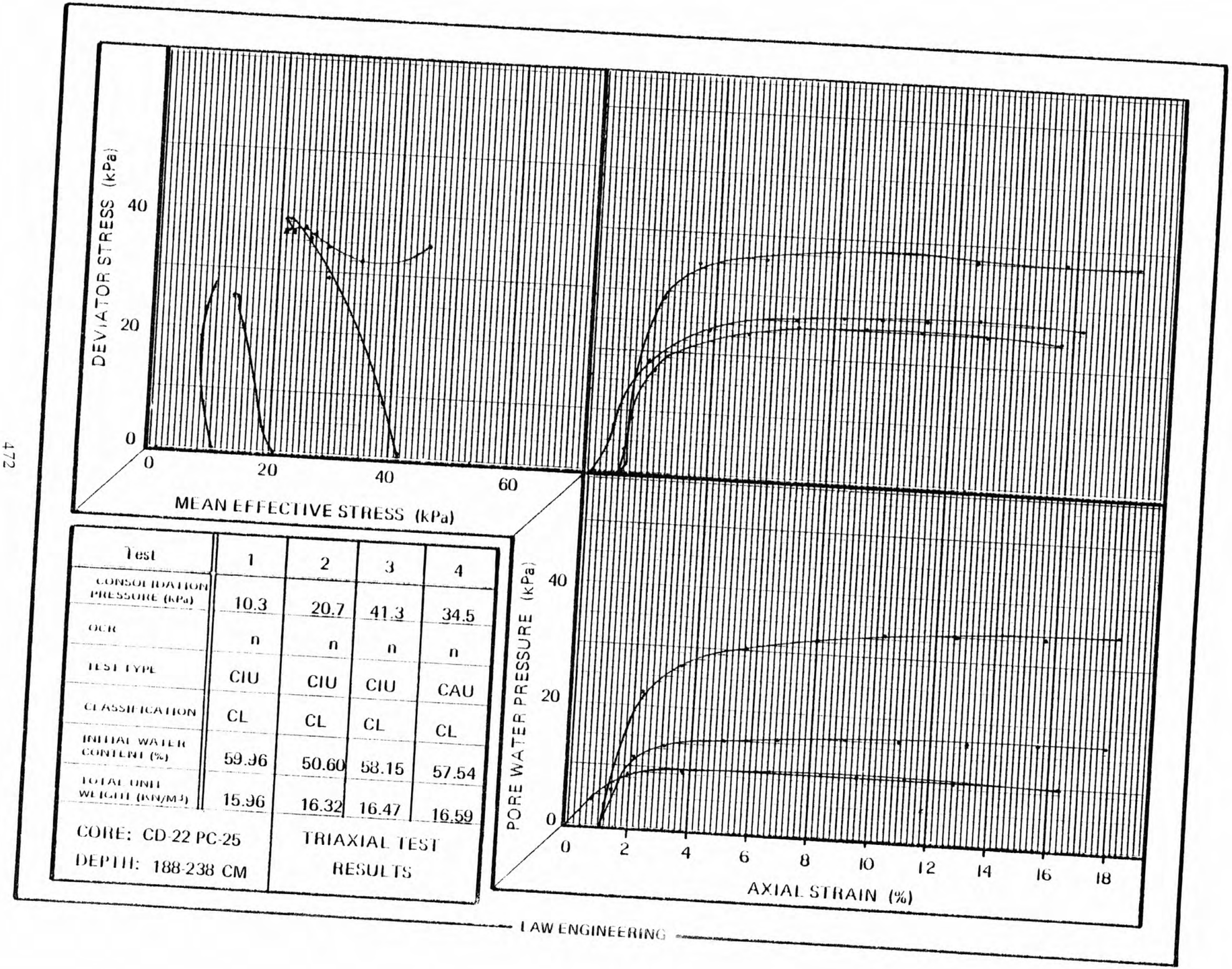


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	248.1	124.0	62.0	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION				
INITIAL WATER CONTENT (%)	63.0	59.7	61.5	
TOTAL UNIT WEIGHT (KN/M³)	16.0	16.1	16.2	

CORE: CD-22 PC-24
DEPTH: 566-600 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



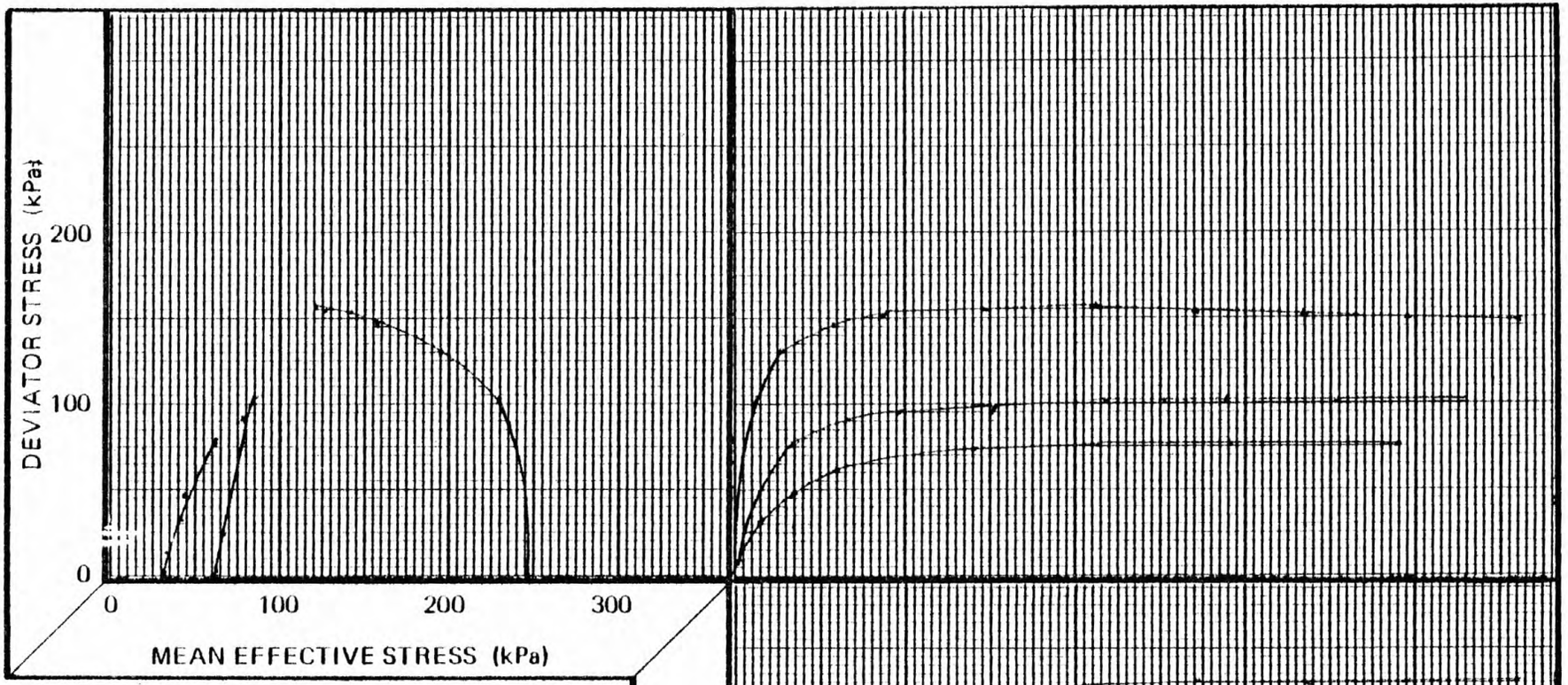
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	10.3	20.7	41.3	34.5
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	59.96	50.60	58.15	57.54
TOTAL UNIT WEIGHT (kN/M3)	15.96	16.32	16.47	16.59

CORE: CD-22 PC-25

DEPTH: 188-238 CM

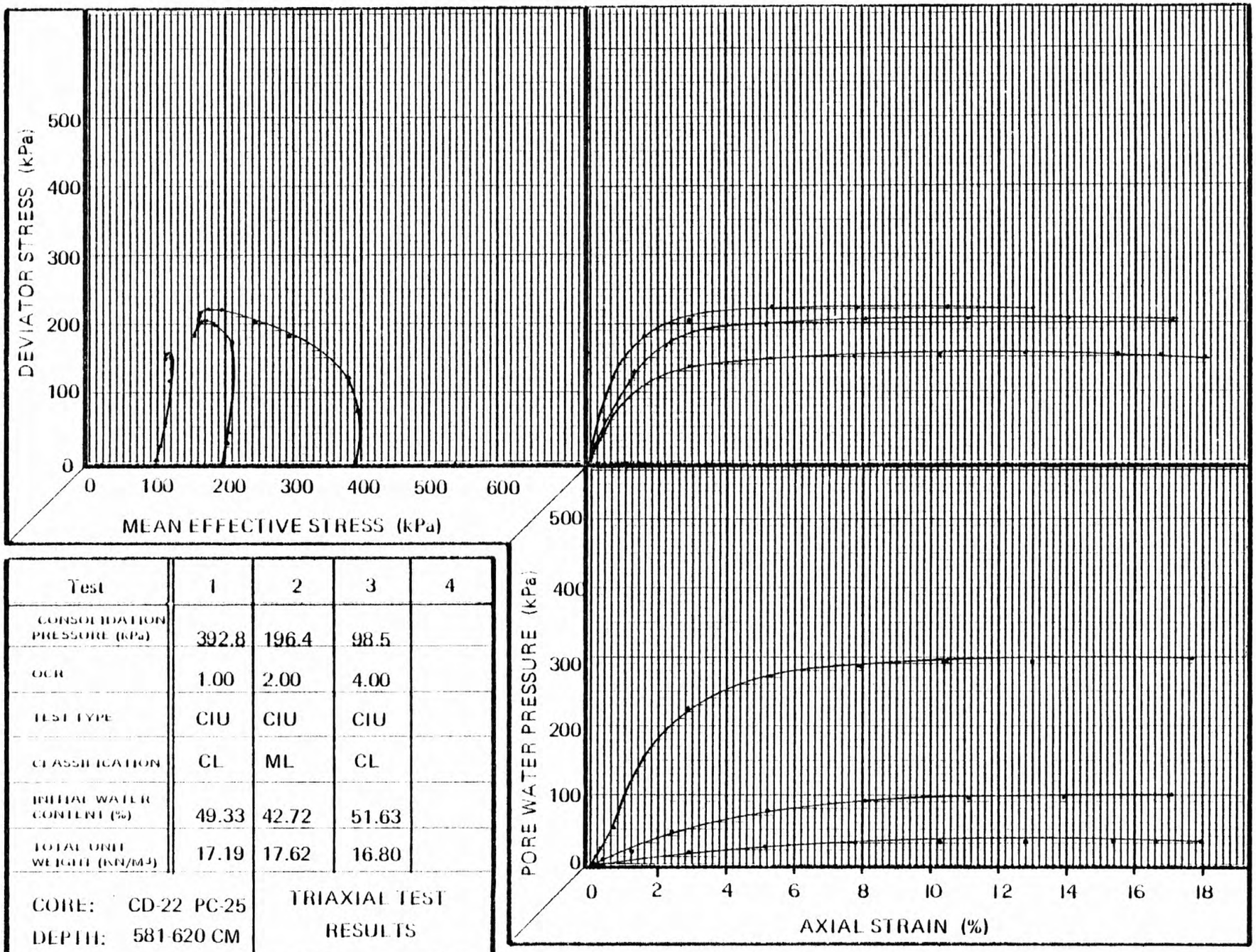
TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	248.1	62.0	31.0	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	42.6	41.3	40.7	
TOTAL UNIT WEIGHT (KN/M³)	17.9	17.7	17.4	
CORE: CD-22 PC-25 DEPTH: 425-464 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING

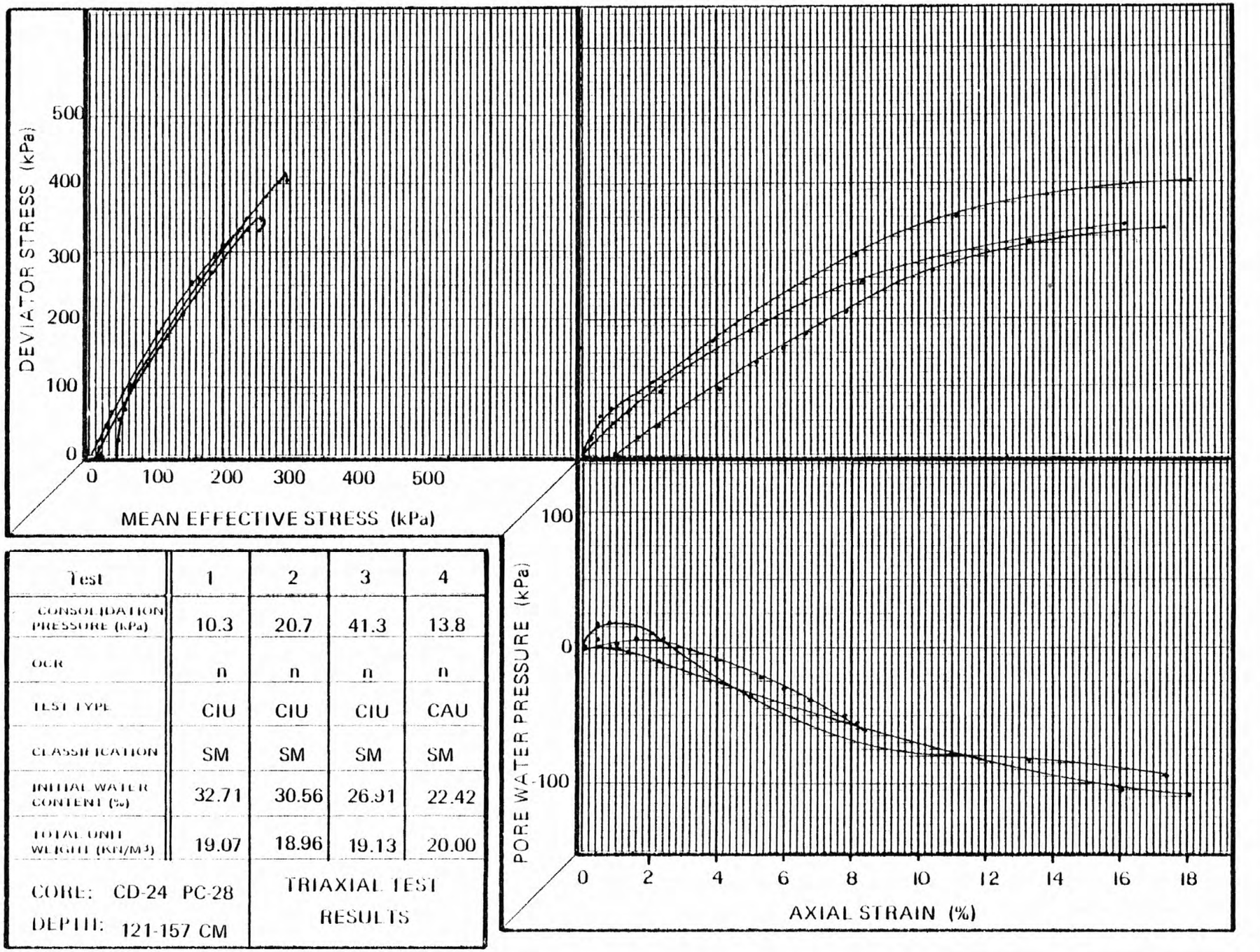


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	392.8	196.4	98.5	
OCR	1.00	2.00	4.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	ML	CL	
INITIAL WATER CONTENT (%)	49.33	42.72	51.63	
TOTAL UNIT WEIGHT (kN/M3)	17.19	17.62	16.80	

CORE: CD-22 PC-25
DEPTH: 581-620 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

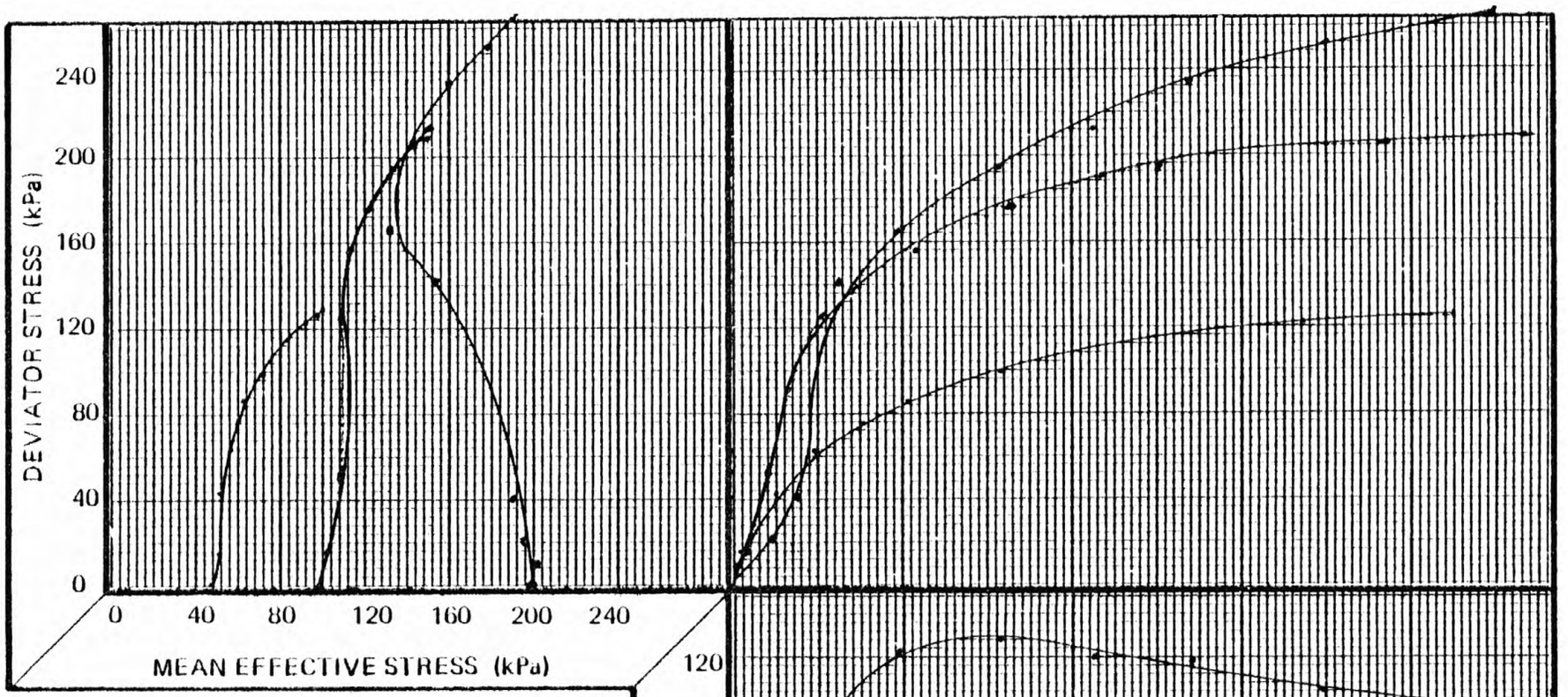


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	10.3	20.7	41.3	13.8
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	SM	SM	SM	SM
INITIAL WATER CONTENT (%)	32.71	30.56	26.91	22.42
TOTAL UNIT WEIGHT (KN/M3)	19.07	18.96	19.13	20.00

CORE: CD-24 PC-28
DEPTH: 121-157 CM

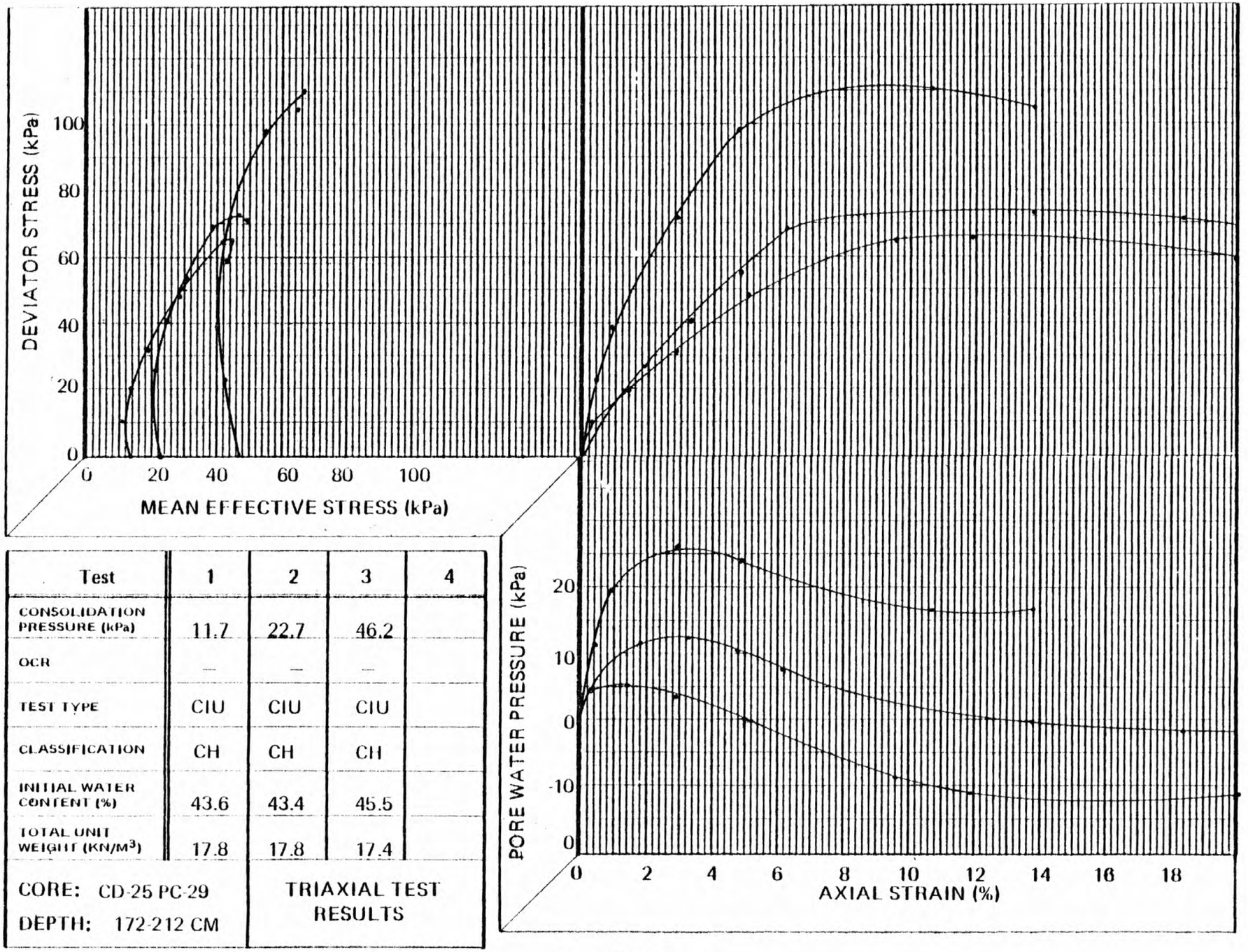
TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	199.8	99.9	48.2	
OCR	1.00	2.00	4.14	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	ML	CL-ML	CL-ML	
INITIAL WATER CONTENT (%)	23.1	23.8	25.2	
TOTAL UNIT WEIGHT (KN/M3)	20.5	20.0	20.2	
CORE: CD-24 PC-28 DEPTH: 271-311 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING



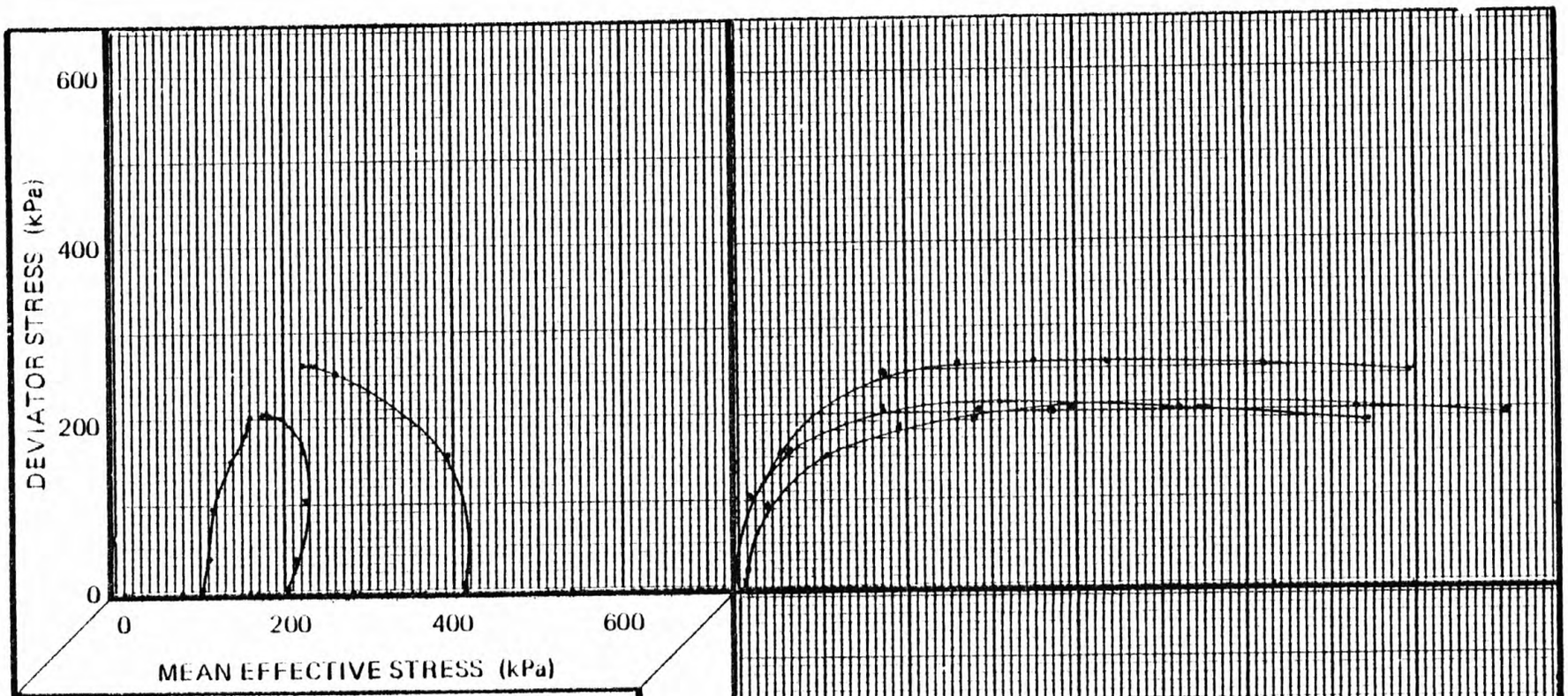
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	11.7	22.7	46.2	
OCR	—	—	—	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	43.6	43.4	45.5	
TOTAL UNIT WEIGHT (KN/M^3)	17.8	17.8	17.4	

CORE: CD-25 PC-29

DEPTH: 172-212 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



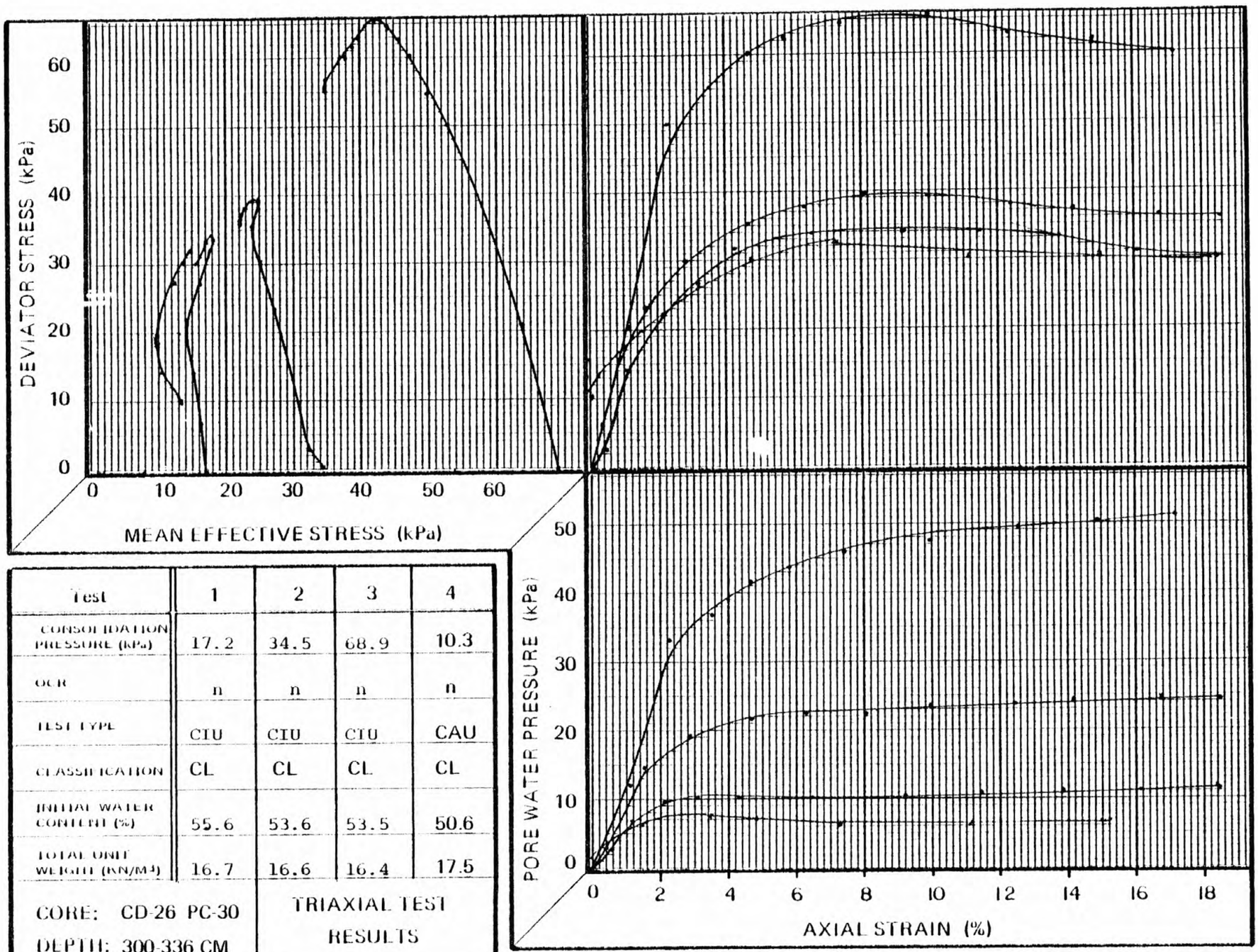
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	413.4	206.7	103.4	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	36.9	36.5	40.2	
TOTAL UNIT WEIGHT (KN/M3)	18.7	19.0	17.9	

CORE: CD-25 PC-29

DEPTH: 235-275 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

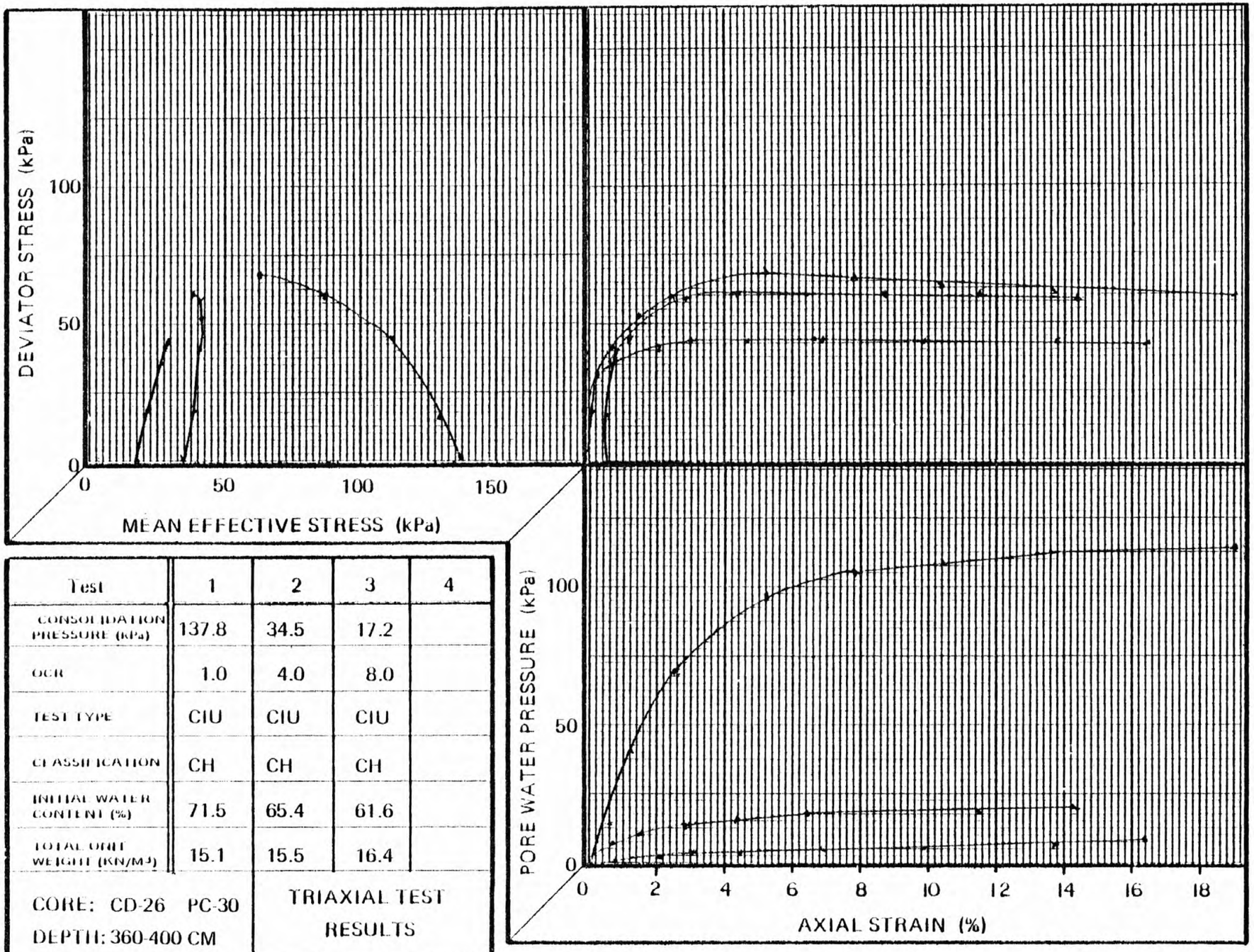


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	17.2	34.5	68.9	10.3
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	55.6	53.6	53.5	50.6
TOTAL UNIT WEIGHT (KN/M3)	16.7	16.6	16.4	17.5

CORE: CD-26 PC-30
DEPTH: 300-336 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

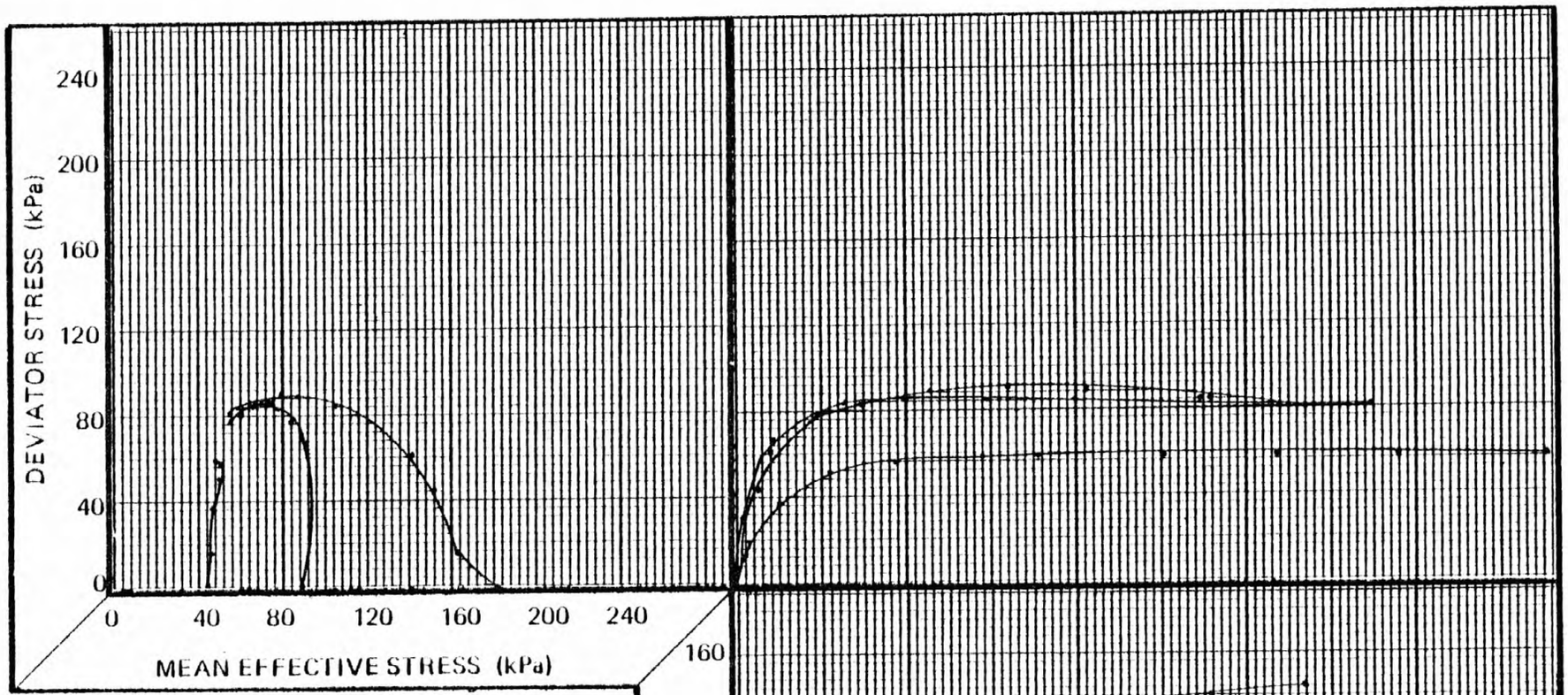


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	137.8	34.5	17.2	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	71.5	65.4	61.6	
TOTAL UNIT WEIGHT (KN/M3)	15.1	15.5	16.4	

CORE: CD-26 PC-30
DEPTH: 360-400 CM

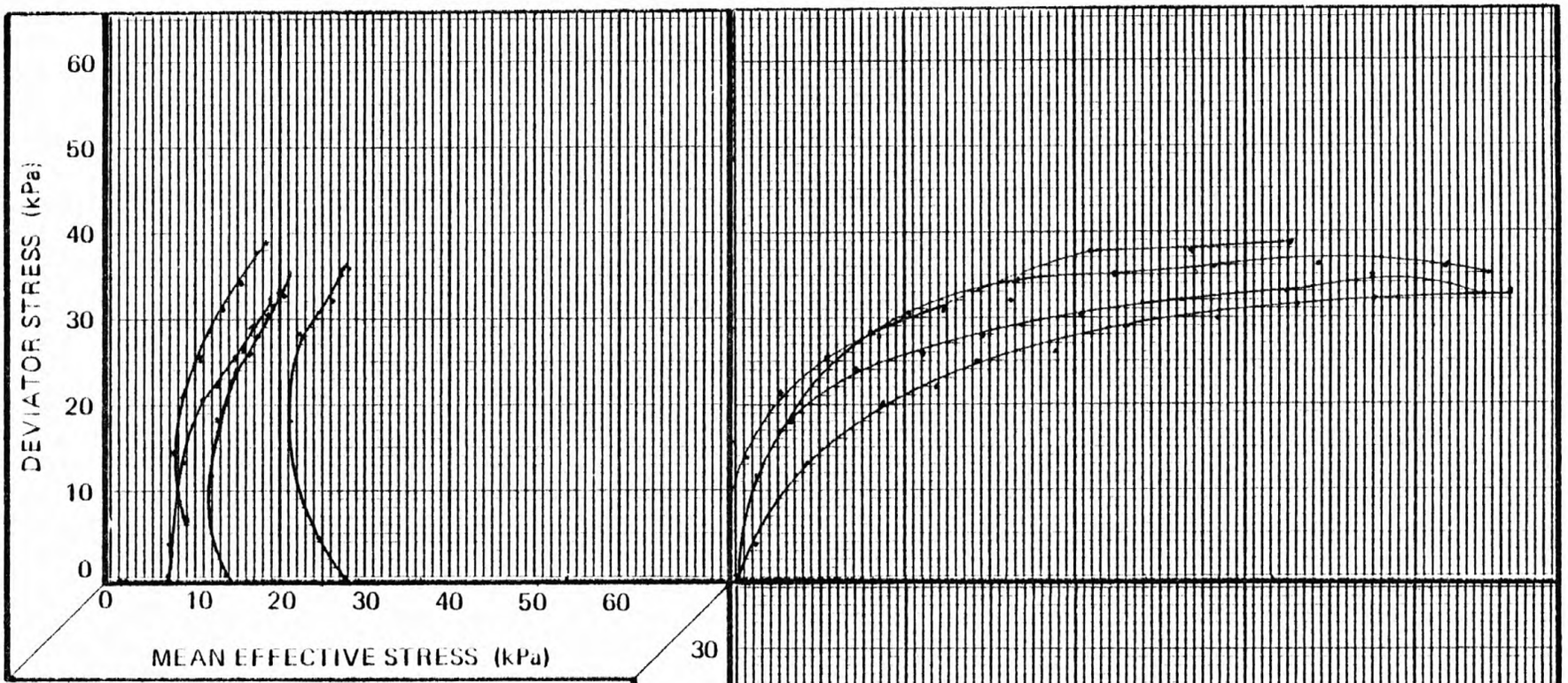
TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	179.0	89.6	44.8	
OCR	1.00	2.00	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	70.9	69.8	67.0	
TOTAL UNIT WEIGHT (KN/M3)	15.8	16.0	15.6	
CORE: CD-26 PC-30 DEPTH: 511 551 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING

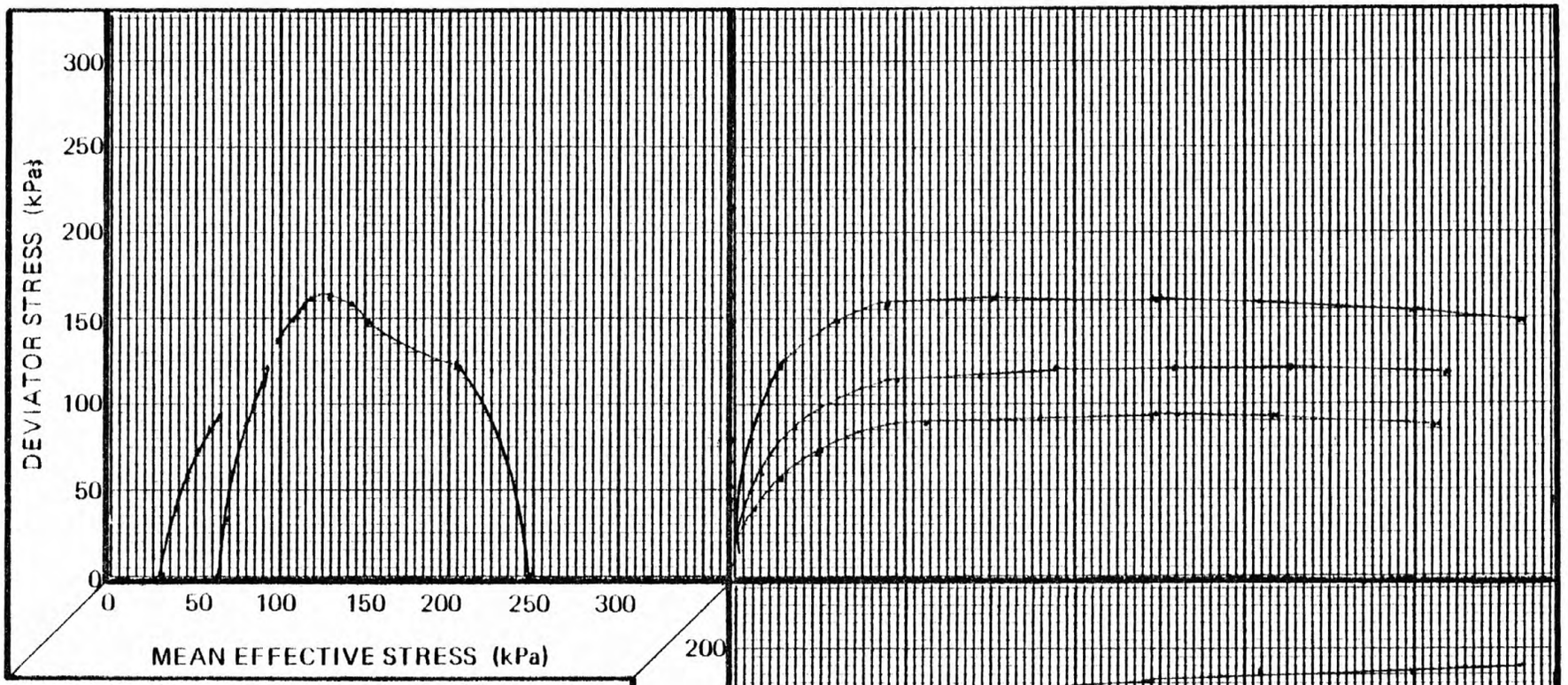


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	6.9	13.8	27.6	6.9
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	CH	CH	CH
INITIAL WATER CONTENT (%)	53.6	51.8	55.5	40.6
TOTAL UNIT WEIGHT (kN/M³)	16.6	16.9	16.5	17.5

CORE: CD-27 PC-31
DEPTH: 121-157 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

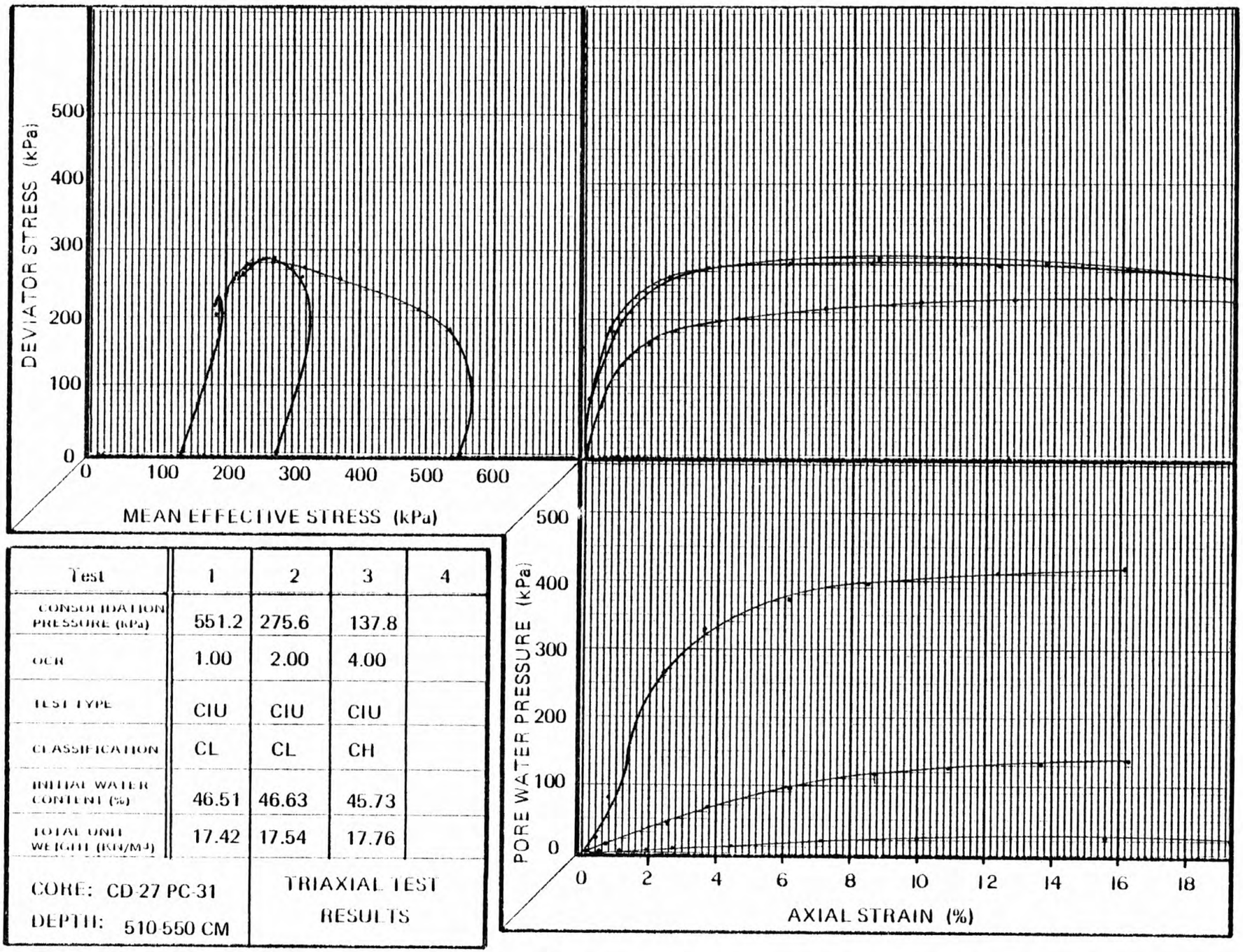


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	62.0	248.1	31.0	
OCR	4.0	1.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	43.2	42.3	43.2	
TOTAL UNIT WEIGHT (KN/M3)	17.9	17.8	17.6	

CORE: CD-27 PC-31
DEPTH: 365-405 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



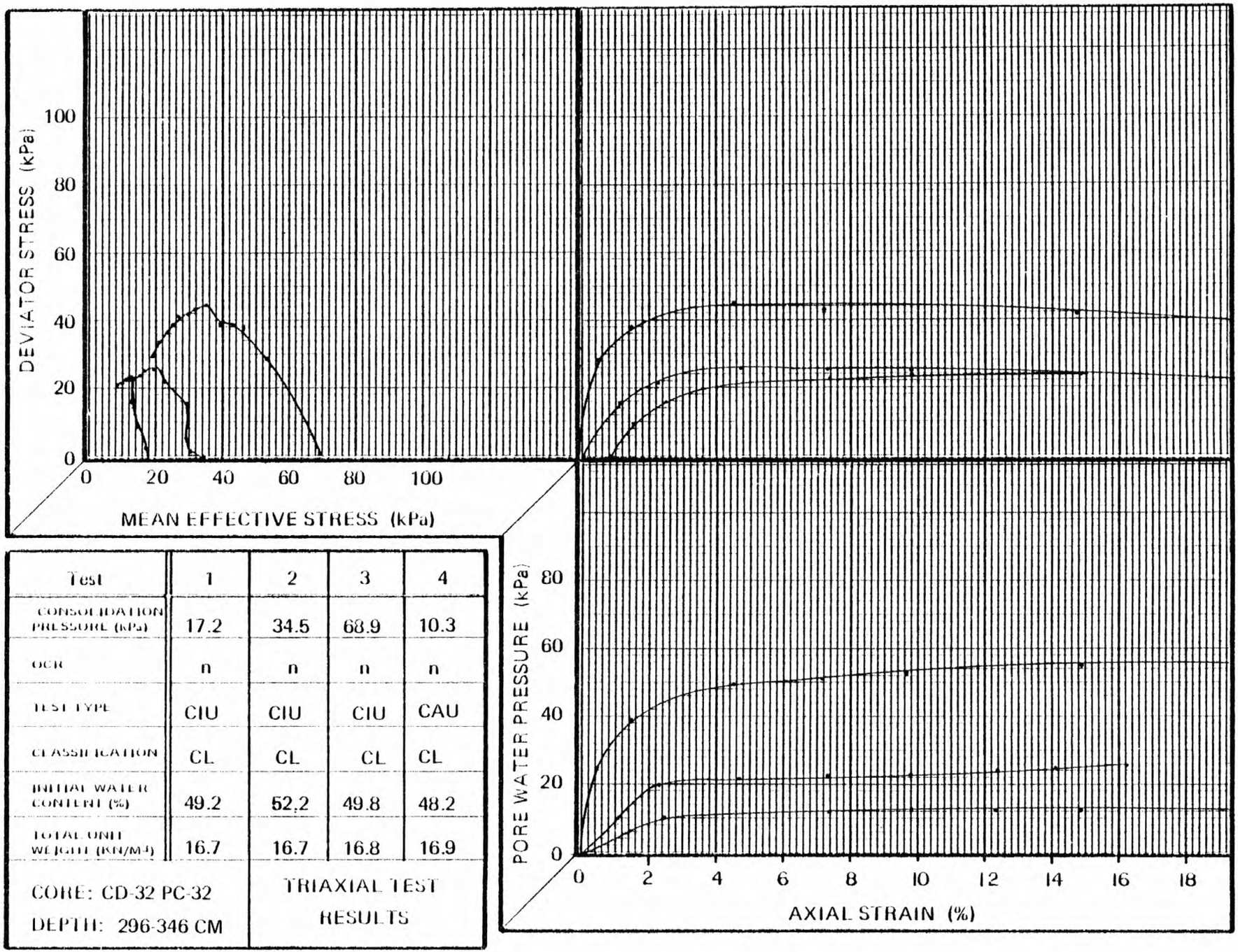
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	551.2	275.6	137.8	
OCR	1.00	2.00	4.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CH	
INITIAL WATER CONTENT (%)	46.51	46.63	45.73	
TOTAL UNIT WEIGHT (KN/M3)	17.42	17.54	17.76	

CORE: CD-27 PC-31

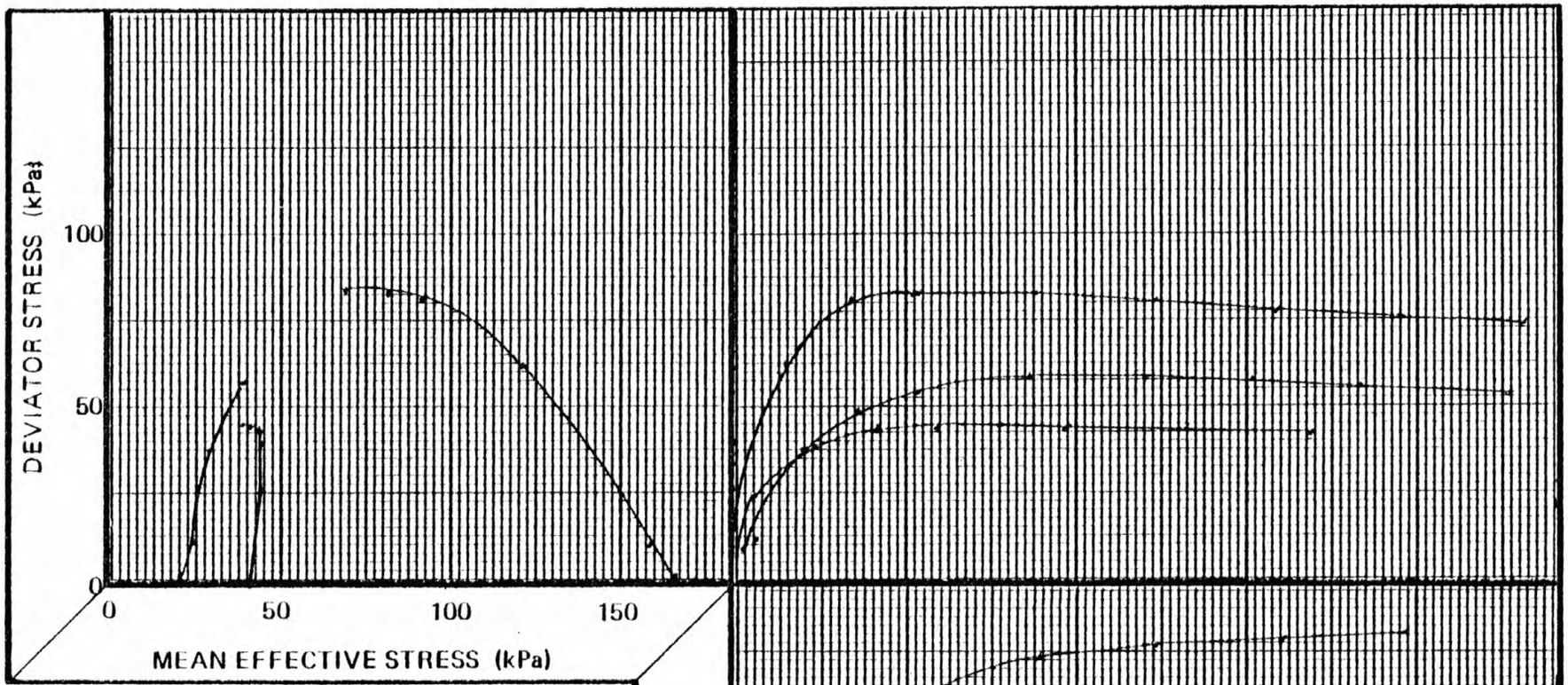
DEPTH: 510-550 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING

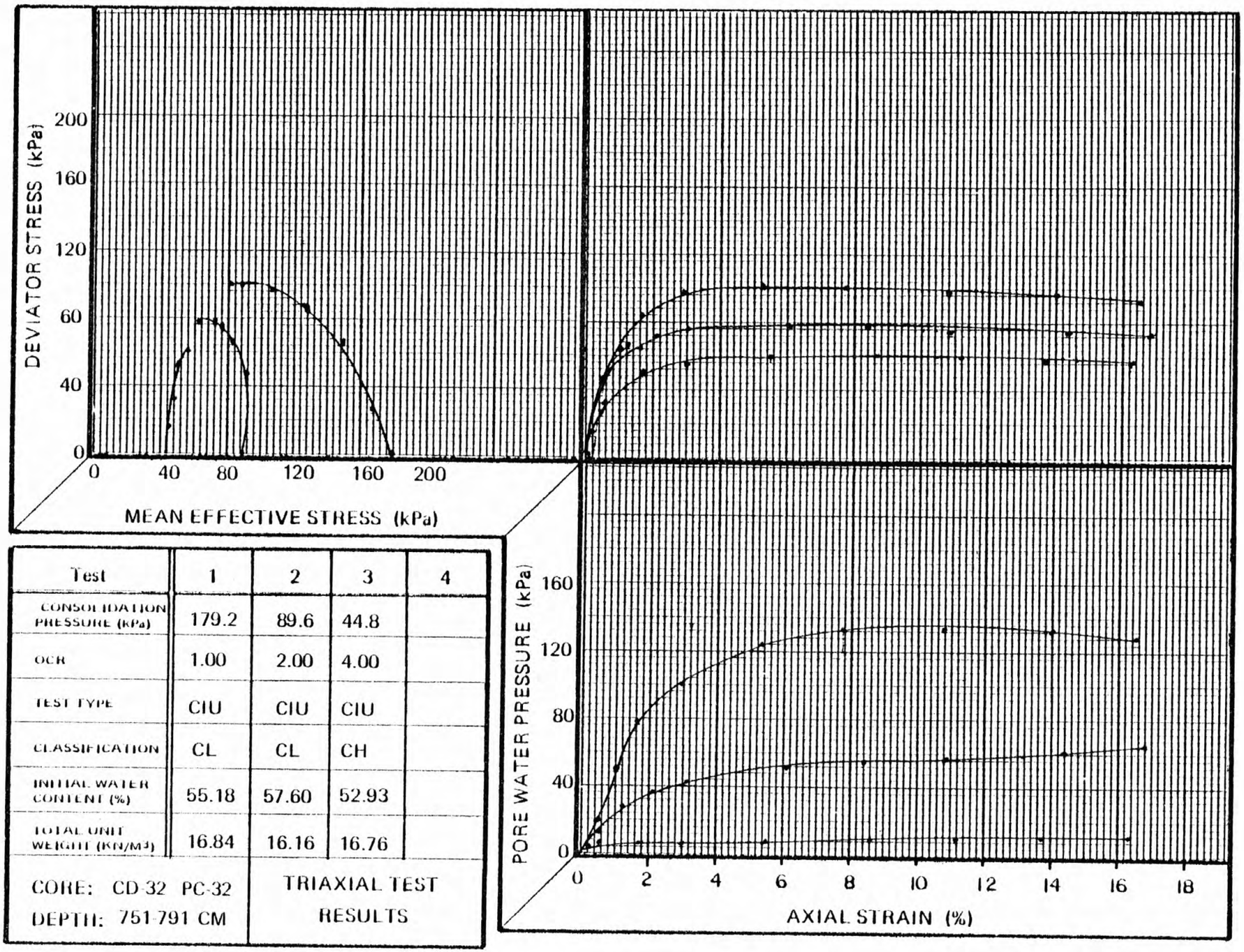


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	17.2	34.5	68.9	10.3
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CL	CL	CL	CL
INITIAL WATER CONTENT (%)	49.2	52.2	49.8	48.2
TOTAL UNIT WEIGHT (KN/M³)	16.7	16.7	16.8	16.9
CORE: CD-32 PC-32 DEPTH: 296-346 CM		TRIAXIAL TEST RESULTS		



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	165.4	41.3	20.7	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	53.9	58.3	52.3	
TOTAL UNIT WEIGHT (KN/M3)	16.7	16.6	16.9	
CORE: CD-32 PC-32 DEPTH: 498-538 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING

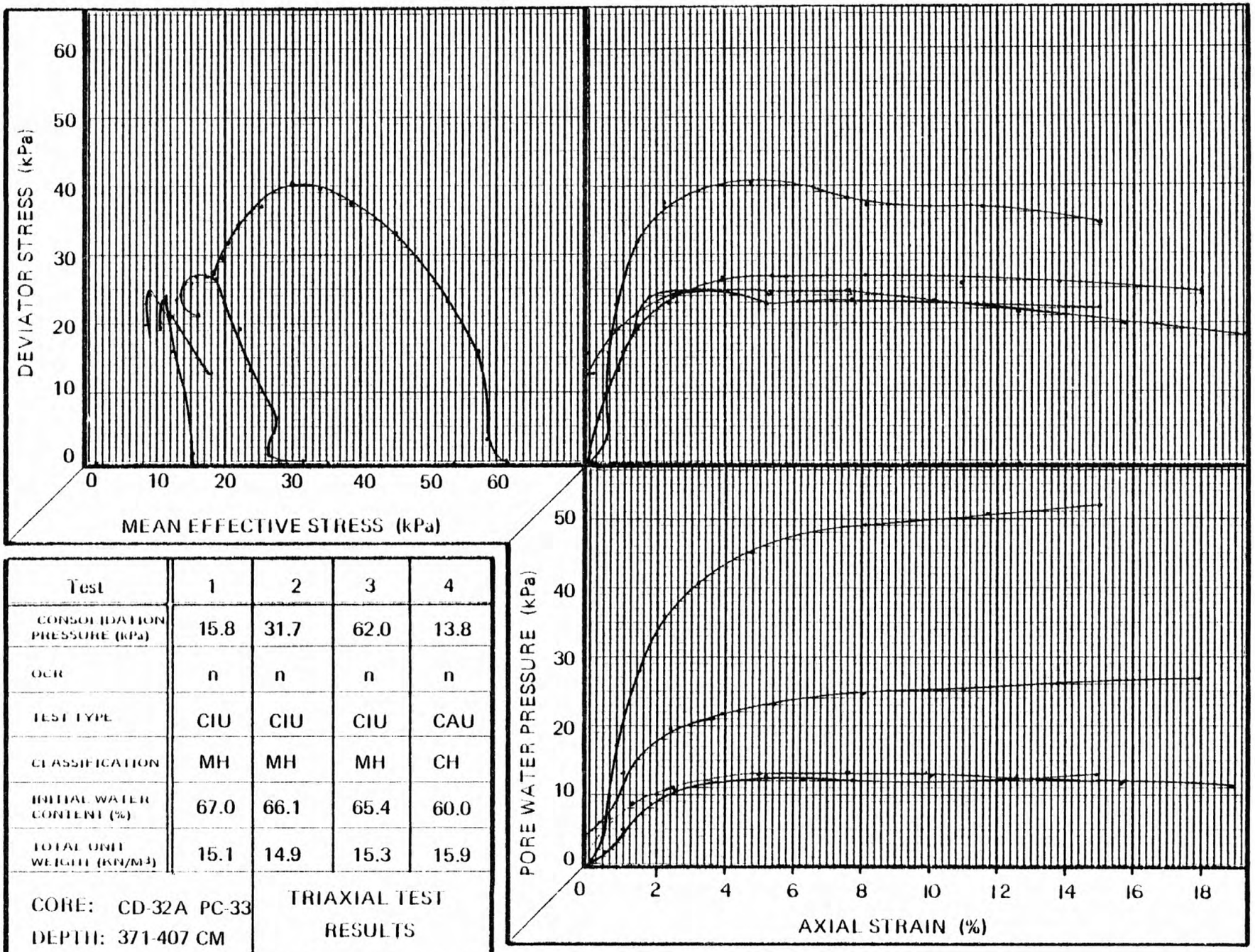


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	179.2	89.6	44.8	
OCR	1.00	2.00	4.00	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CH	
INITIAL WATER CONTENT (%)	55.18	57.60	52.93	
TOTAL UNIT WEIGHT (KN/M3)	16.84	16.16	16.76	

CORE: CD-32 PC-32
DEPTH: 751-791 CM

TRIAXIAL TEST RESULTS

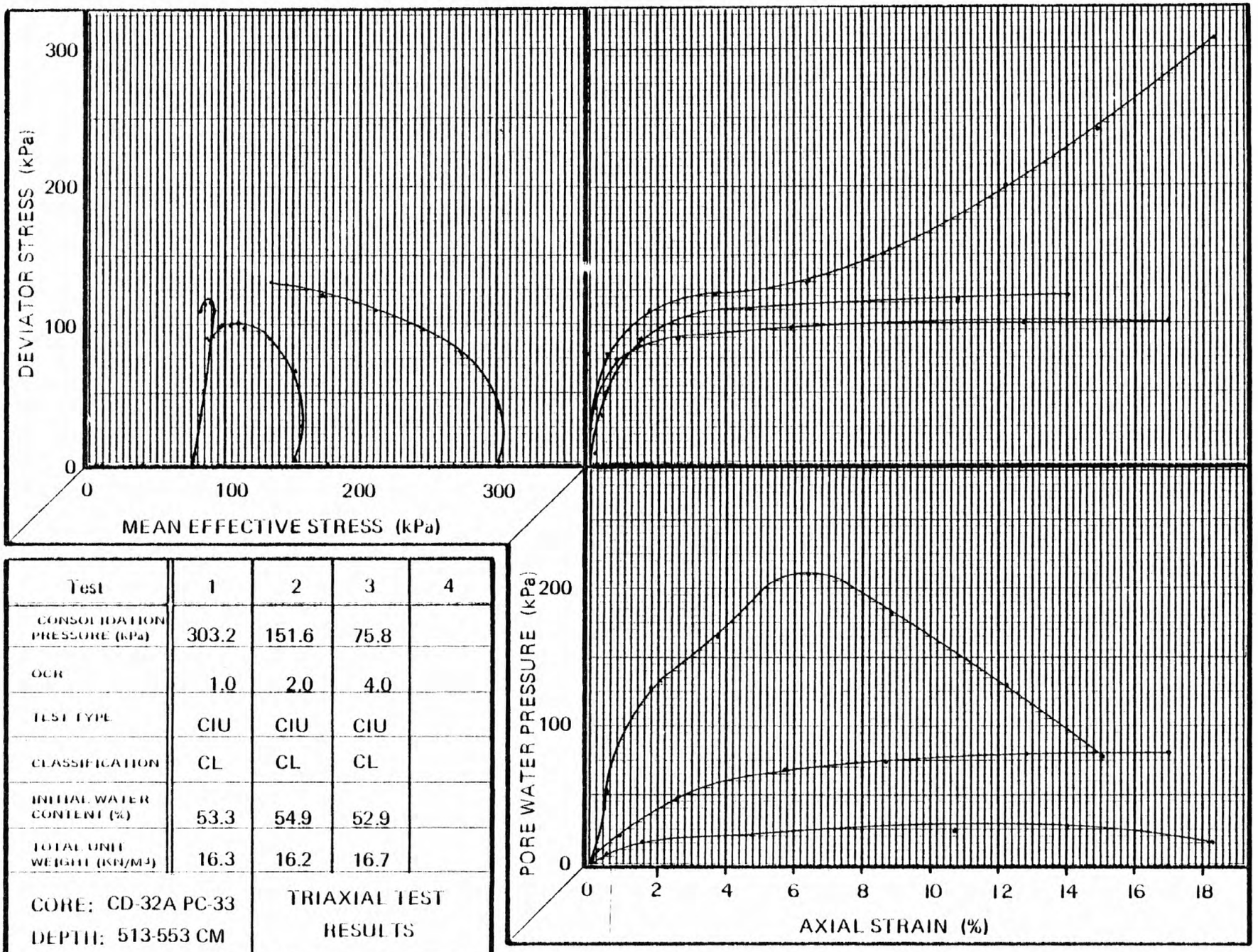
LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	15.8	31.7	62.0	13.8
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	MH	MH	MH	CH
INITIAL WATER CONTENT (%)	67.0	66.1	65.4	60.0
TOTAL UNIT WEIGHT (KN/M³)	15.1	14.9	15.3	15.9

CORE: CD-32A PC-33
DEPTH: 371-407 CM

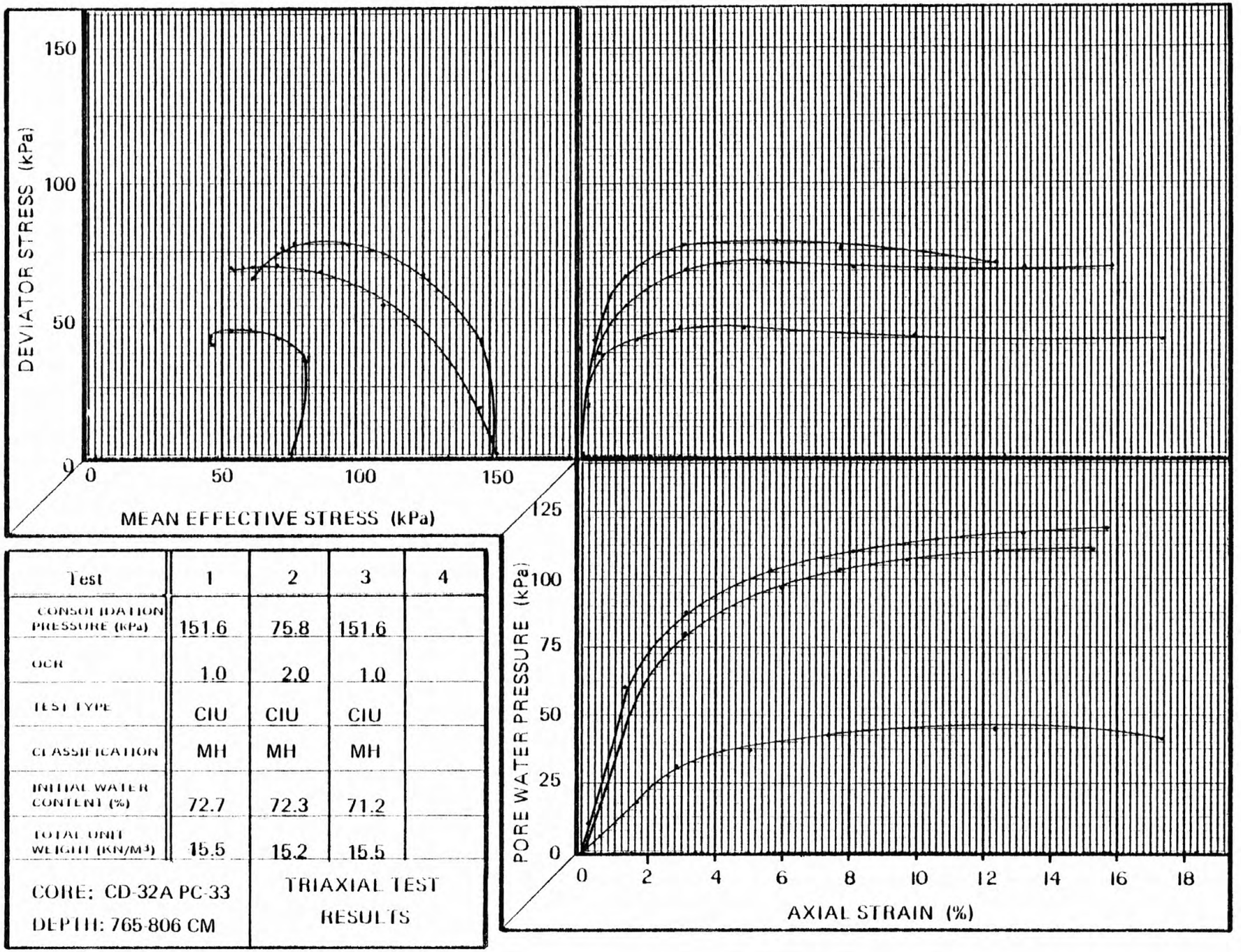
TRIAXIAL TEST RESULTS



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	303.2	151.6	75.8	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	53.3	54.9	52.9	
TOTAL UNIT WEIGHT (kN/m³)	16.3	16.2	16.7	

CORE: CD-32A PC-33
DEPTH: 513-553 CM

TRIAXIAL TEST RESULTS

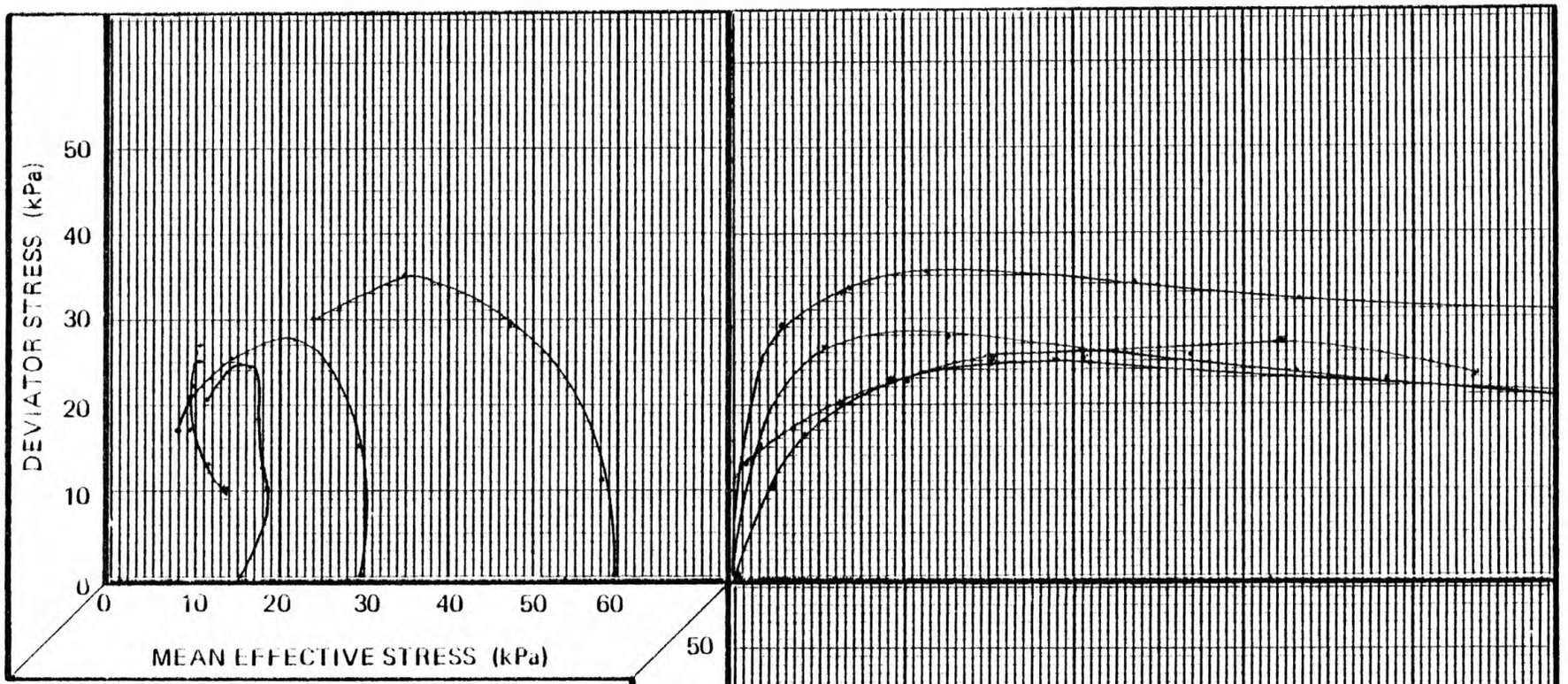


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	151.6	75.8	151.6	
OCR	1.0	2.0	1.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	MH	MH	MH	
INITIAL WATER CONTENT (%)	72.7	72.3	71.2	
TOTAL UNIT WEIGHT (KN/M³)	15.5	15.2	15.5	

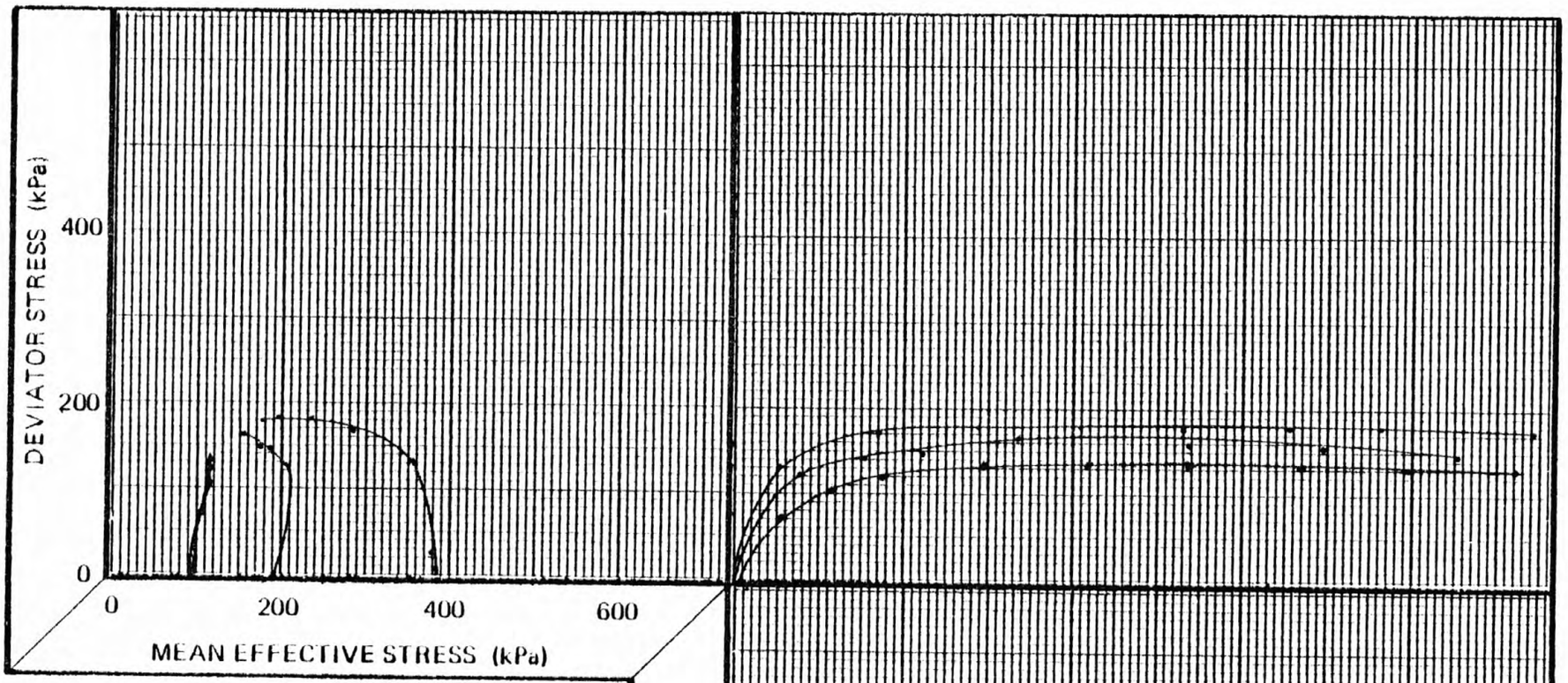
CORE: CD-32A PC-33
DEPTH: 765-806 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



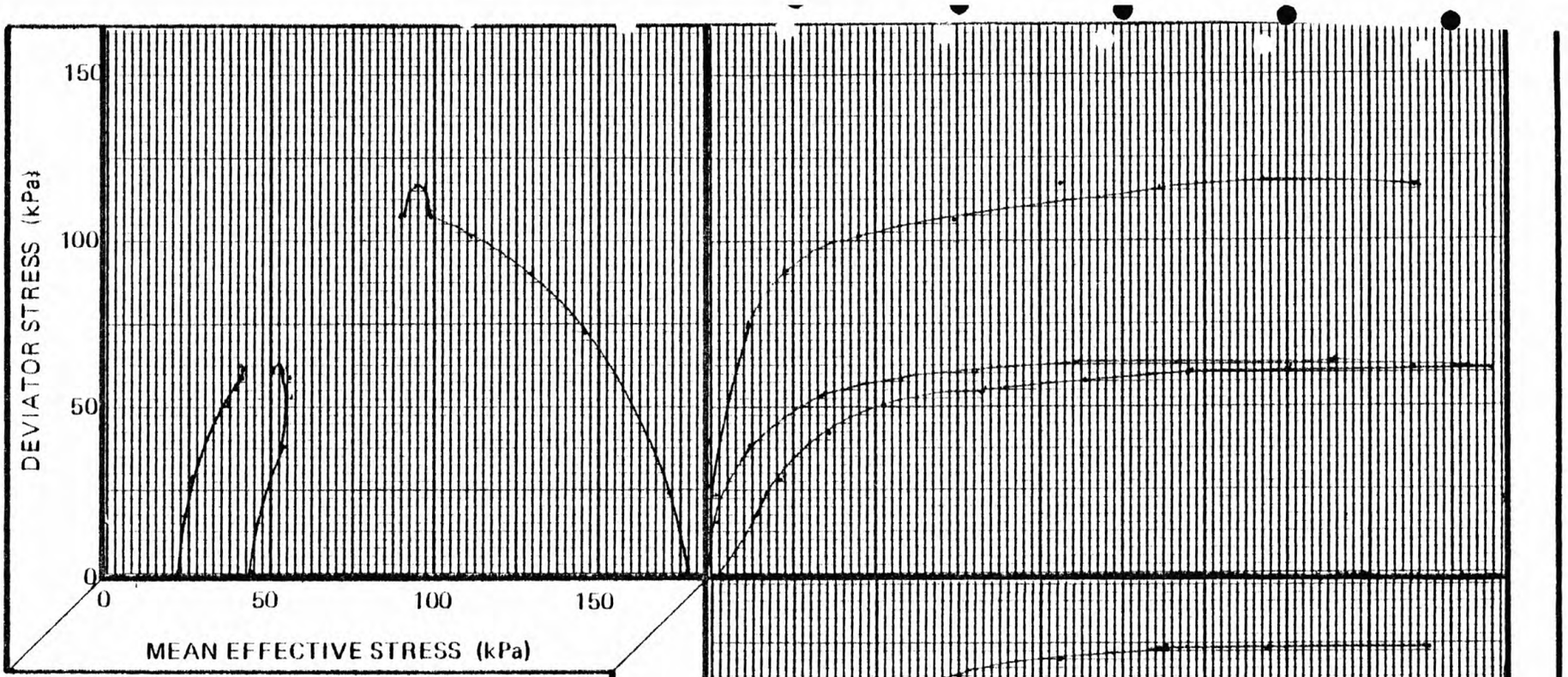
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	15.2	29.6	59.9	10.3
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	CH	CH	CH
INITIAL WATER CONTENT (%)	85.5	85.8	80.4	67.3
TOTAL UNIT WEIGHT (KN/M3)	14.6	15.0	15.1	16.1
CORE: CD-34 PC-34 DEPTH: 378-428 CM		TRIAXIAL TEST RESULTS		



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	385.9	192.9	96.5	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	59.61	62.56	60.63	
TOTAL UNIT WEIGHT (KN/M³)	16.41	15.72	16.34	

CORE: CD-34 PC-34
DEPTH: 528-568

TRIAXIAL TEST RESULTS

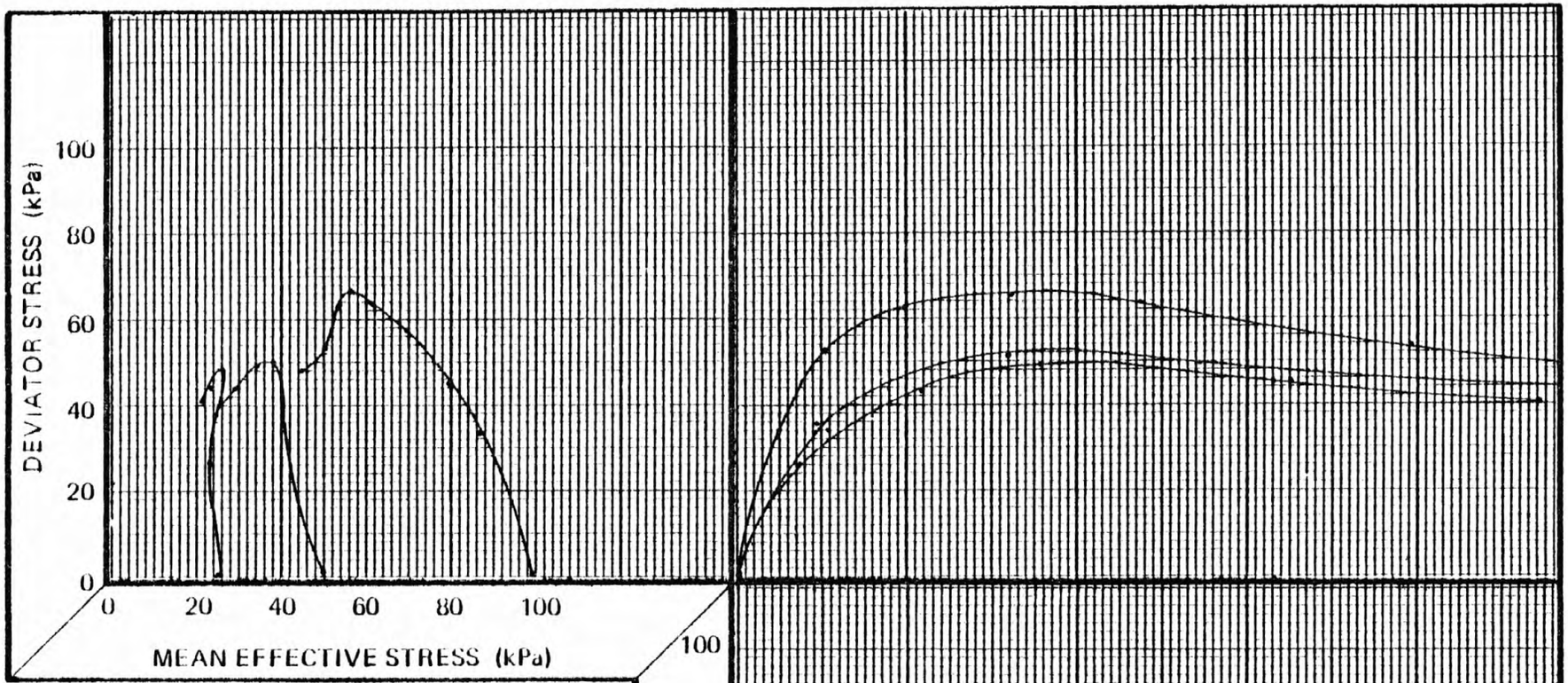


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	179.2	44.8	22.4	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	57.2	61.1	65.6	
TOTAL UNIT WEIGHT (KN/M³)	16.4	16.0	16.0	

CORE: CD-35 PC-35
DEPTH: 264 304 CM

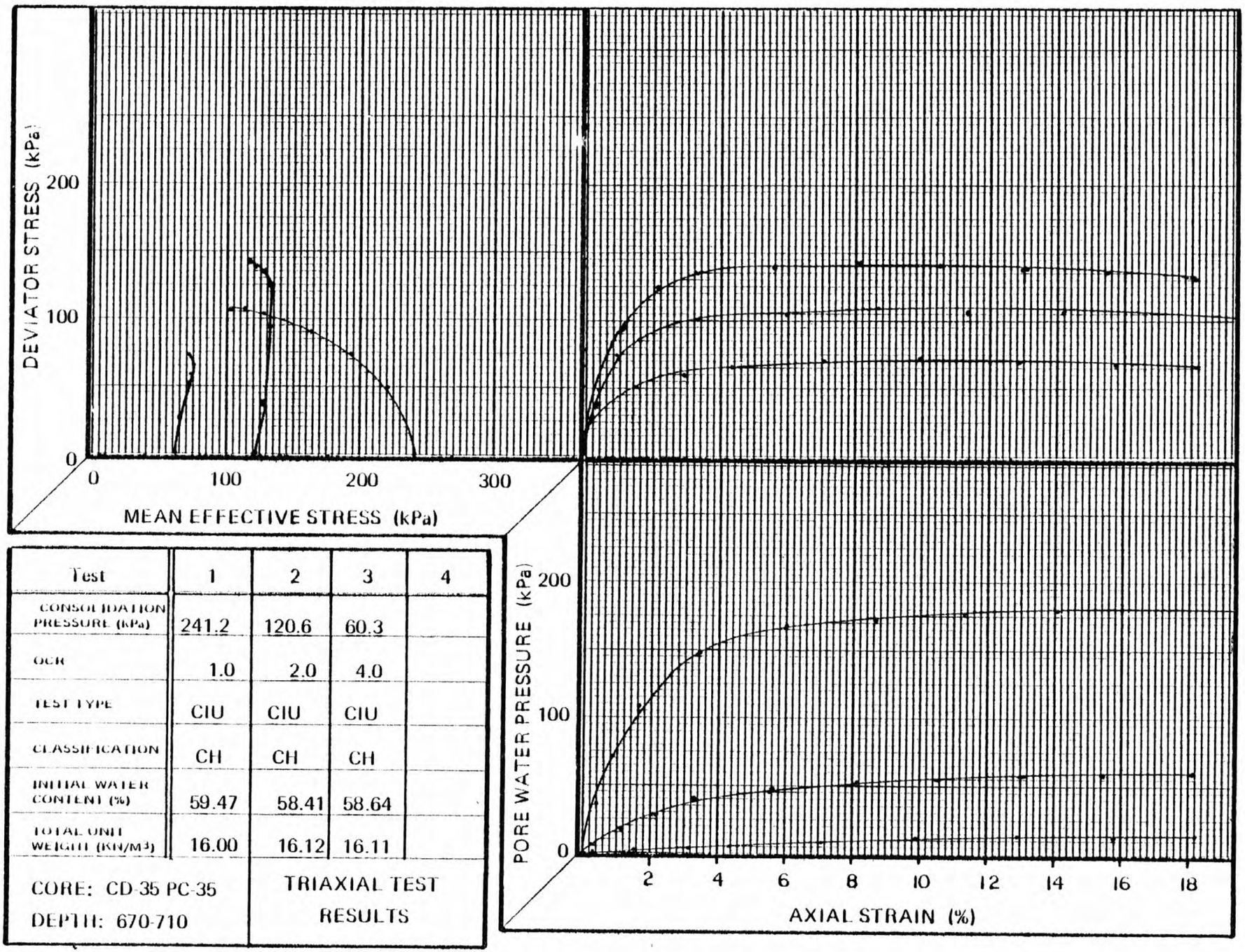
TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	24.8	49.6	99.2	17.2
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	MH	MH	MH
INITIAL WATER CONTENT (%)	63.1	59.4	59.0	59.6
TOTAL UNIT WEIGHT (KN/M³)	16.0	16.4	16.5	16.4
CORE: CD-35 PC-35 DEPTH: 510-560 CM		TRIAXIAL TEST RESULTS		

LAW ENGINEERING

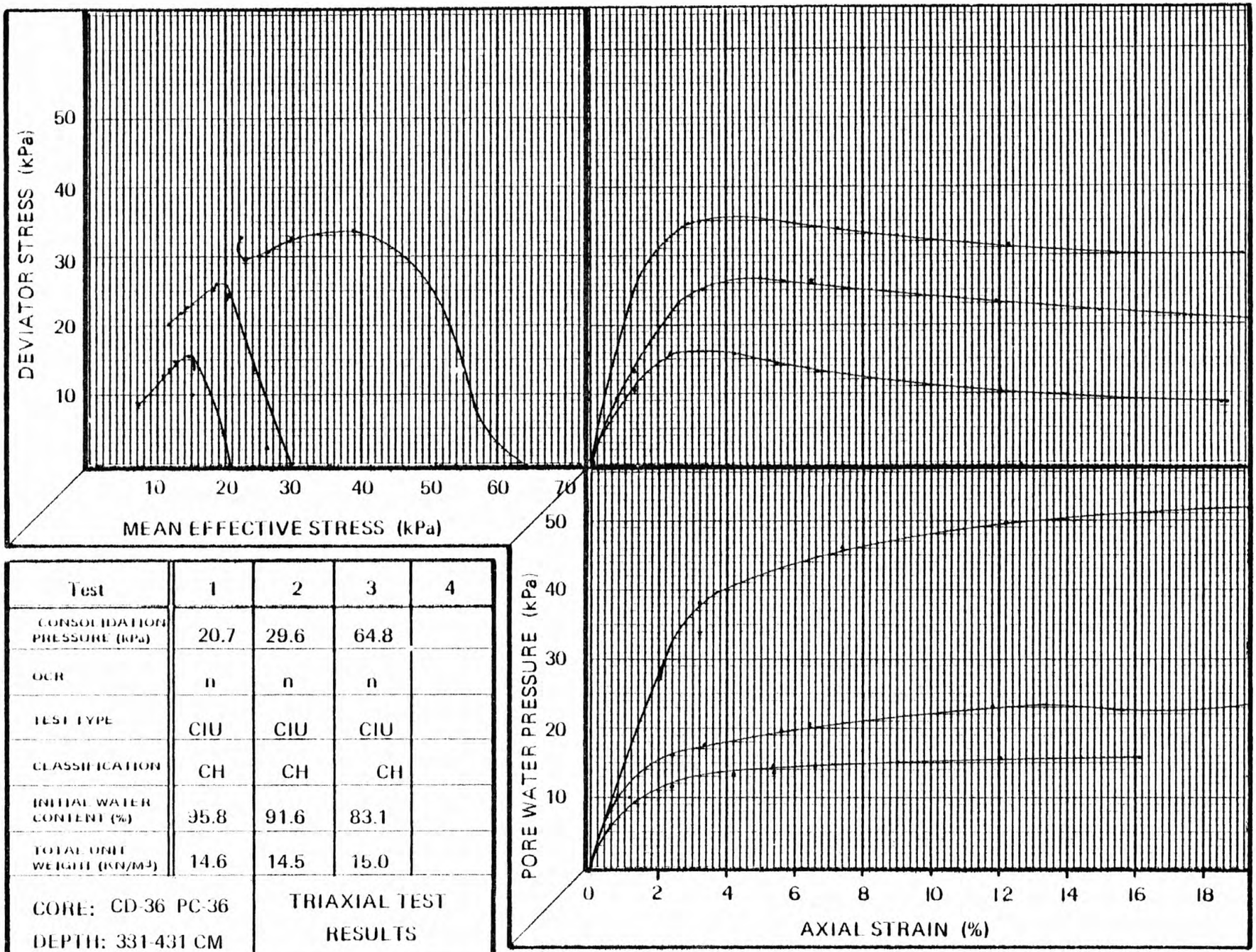


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	241.2	120.6	60.3	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	59.47	58.41	58.64	
TOTAL UNIT WEIGHT (KN/M³)	16.00	16.12	16.11	

CORE: CD-35 PC-35
DEPTH: 670-710

TRIAXIAL TEST RESULTS

LAW ENGINEERING

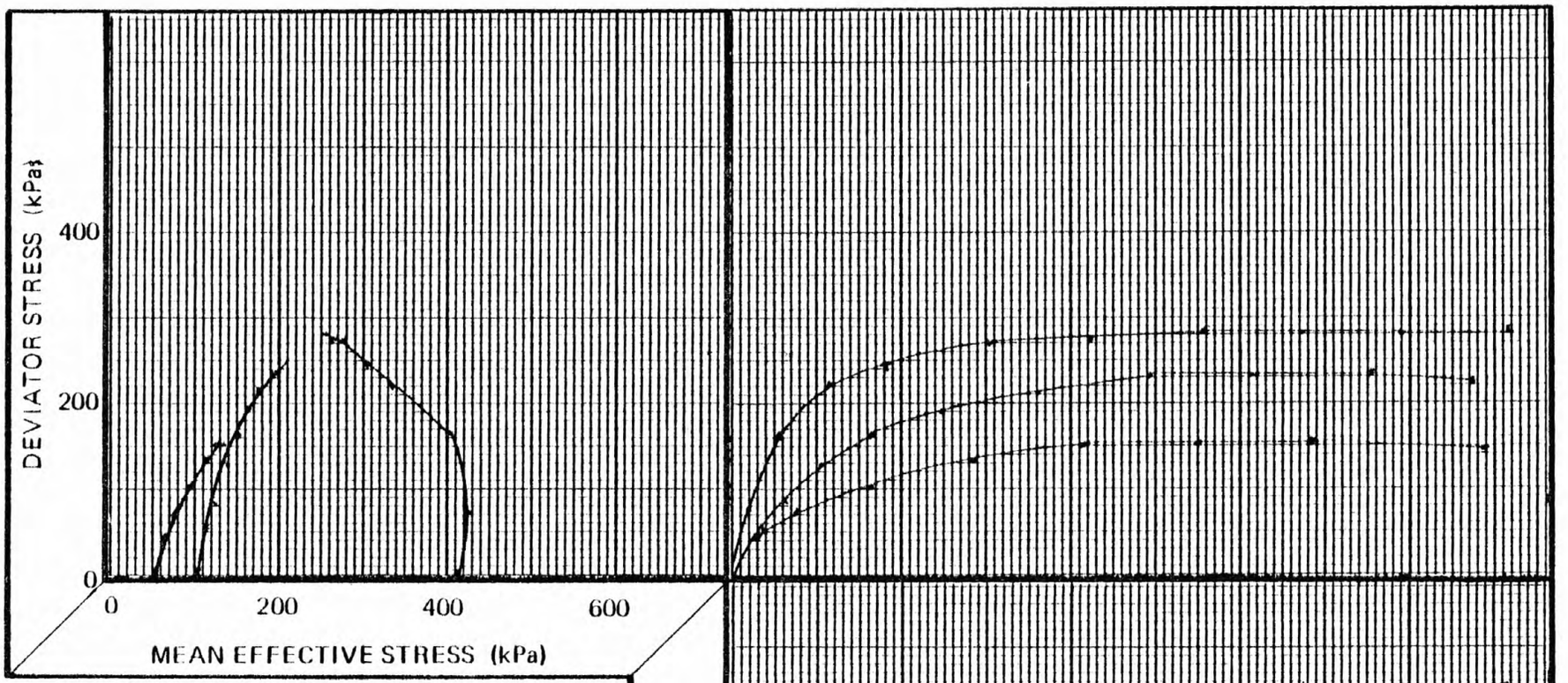


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	20.7	29.6	64.8	
OCR	n	n	n	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CH	CH	CH	
INITIAL WATER CONTENT (%)	95.8	91.6	83.1	
TOTAL UNIT WEIGHT (KN/M³)	14.6	14.5	15.0	

CORE: CD-36 PC-36
DEPTH: 331-431 CM

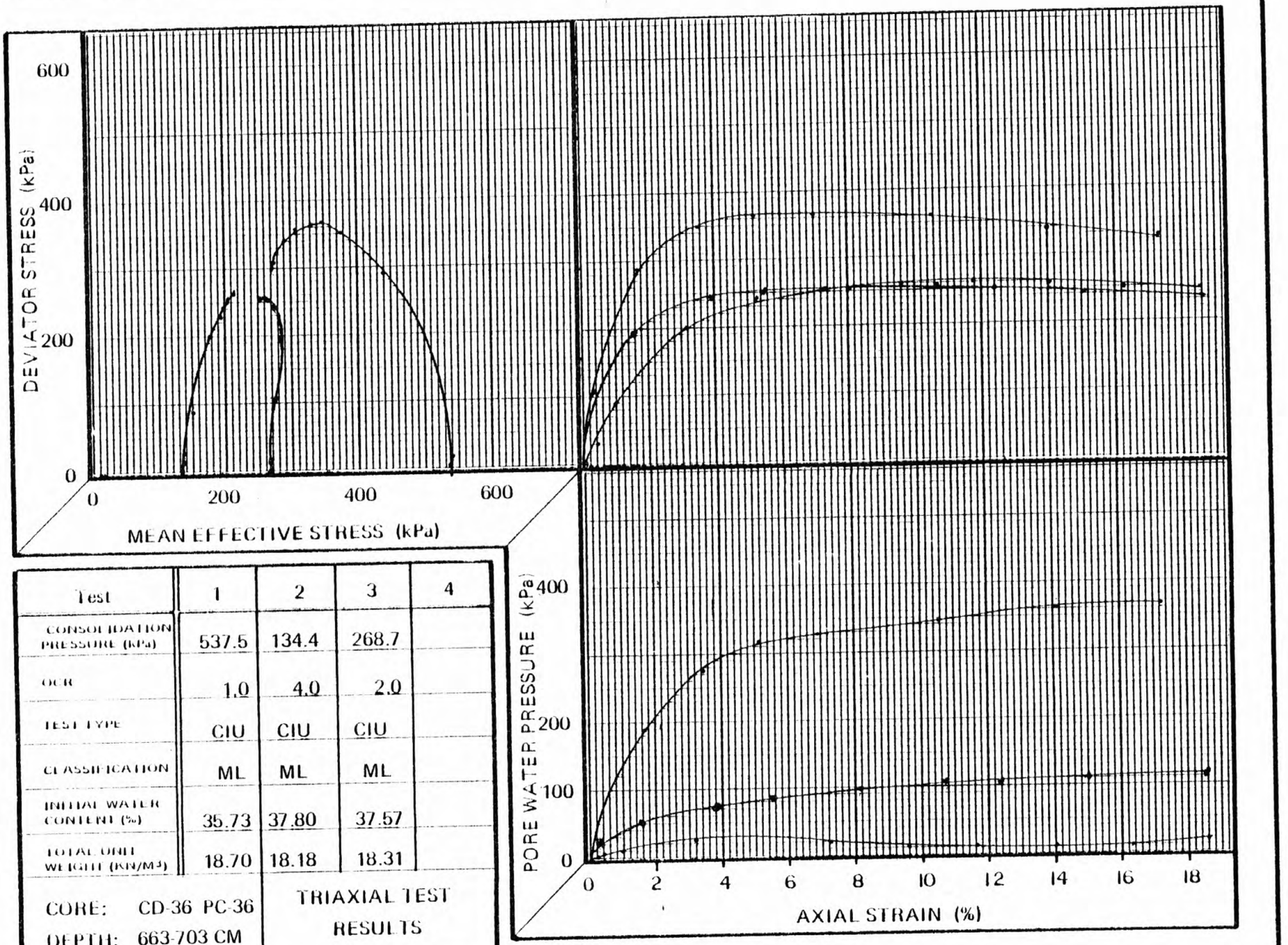
TRIAXIAL TEST RESULTS

LAW ENGINEERING

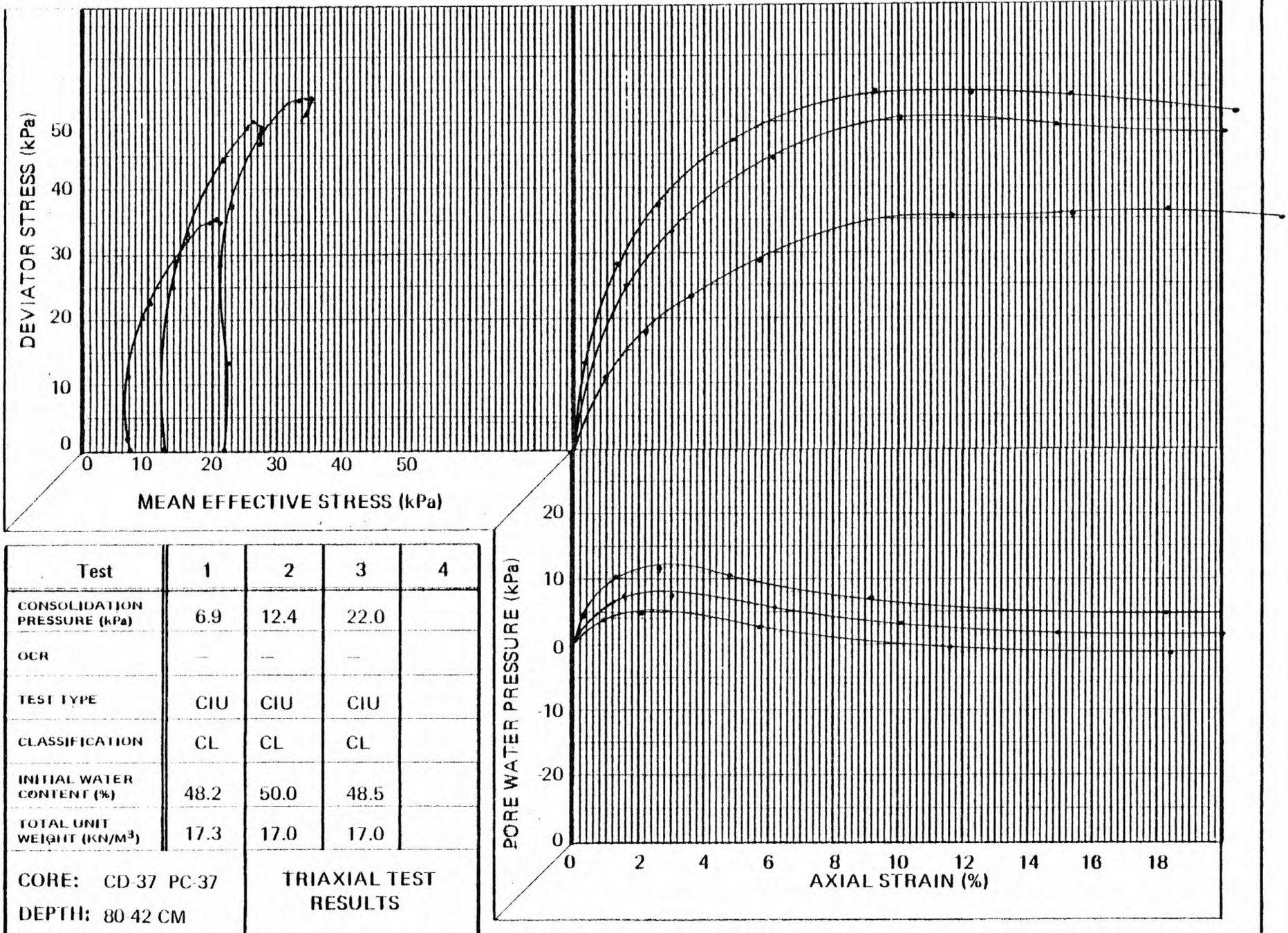


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	413.4	103.4	51.7	
OCR	1.0	4.0	8.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	46.8	35.7	39.6	
TOTAL UNIT WEIGHT (KN/M³)	16.8	18.7	18.0	
CORE: CD-36 PC-36 DEPTH: 535-575 cm		TRIAXIAL TEST RESULTS		

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	537.5	134.4	268.7	
OCR	1.0	4.0	2.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	ML	ML	ML	
INITIAL WATER CONTENT (%)	35.73	37.80	37.57	
TOTAL UNIT WEIGHT (KN/M³)	18.70	18.18	18.31	
CORE: CD-36 PC-36 DEPTH: 663-703 CM		TRIAXIAL TEST RESULTS		



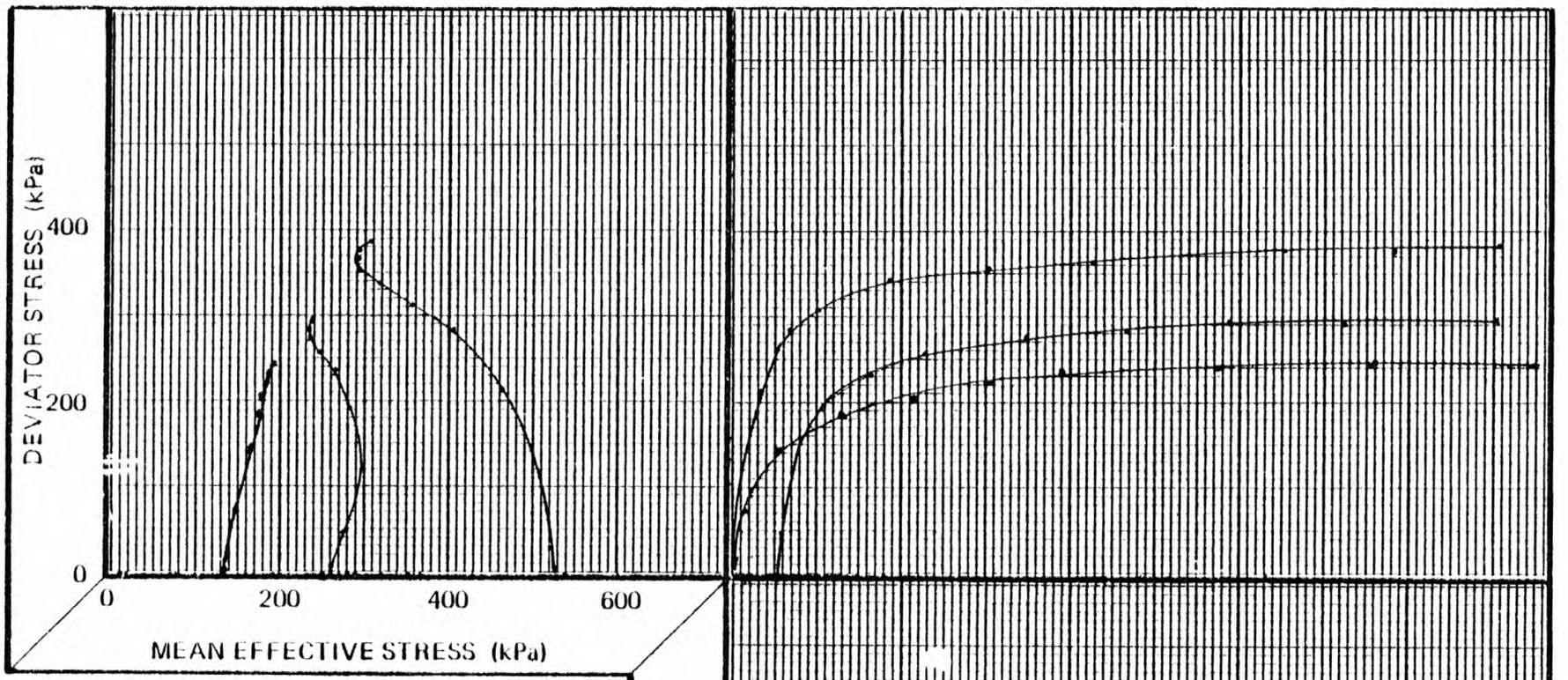
Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	6.9	12.4	22.0	
OCR	—	—	—	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	48.2	50.0	48.5	
TOTAL UNIT WEIGHT (KN/M^3)	17.3	17.0	17.0	

CORE: CD-37 PC-37

DEPTH: 80-42 CM

TRIAXIAL TEST RESULTS

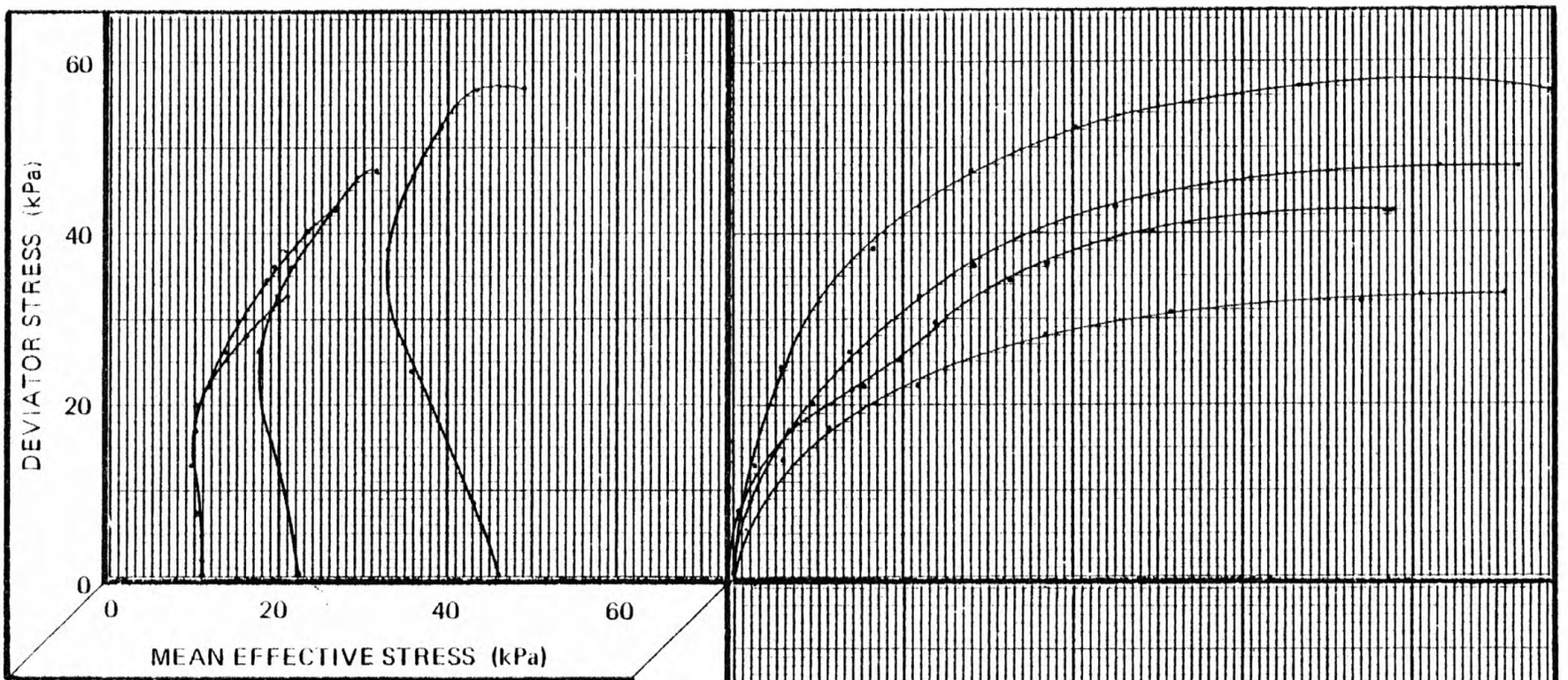
LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	523.7	261.8	130.9	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	37.37	38.15	35.13	
TOTAL UNIT WEIGHT (kN/M³)	18,35	18.38	18.16	
CORE: CD-37 PC-37 DEPTH: 344-384		TRIAXIAL TEST RESULTS		

500

LAW ENGINEERING

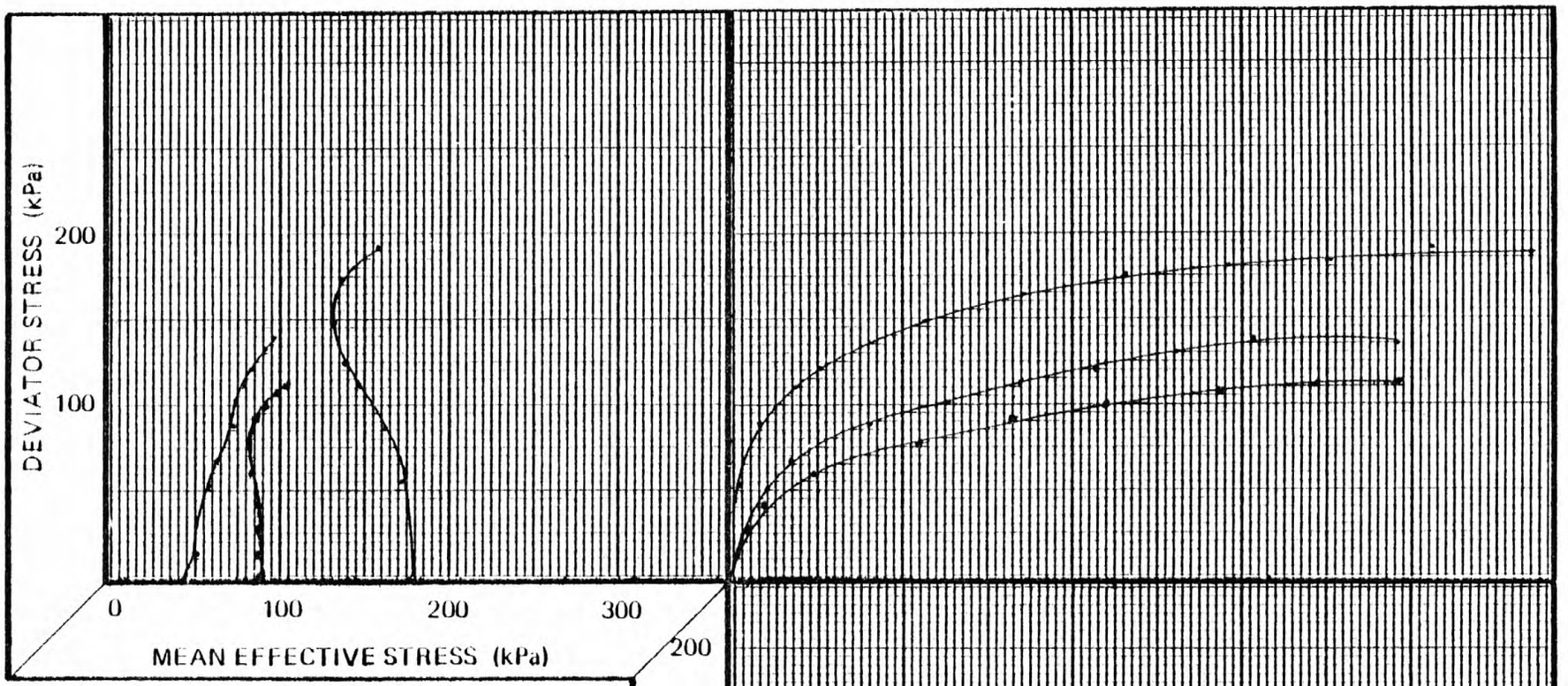


Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	11.0	22.7	46.2	15.2
OCR	n	n	n	n
TEST TYPE	CIU	CIU	CIU	CAU
CLASSIFICATION	CH	CH	CL	CL
INITIAL WATER CONTENT (%)	44.8	43.5	45.0	43.1
TOTAL UNIT WEIGHT (KN/M³)	17.3	17.6	17.5	17.6

CORE: CD-38 PC-38
DEPTH: 180-230 CM

TRIAXIAL TEST RESULTS

LAW ENGINEERING



Test	1	2	3	4
CONSOLIDATION PRESSURE (kPa)	179.2	89.6	44.8	
OCR	1.0	2.0	4.0	
TEST TYPE	CIU	CIU	CIU	
CLASSIFICATION	CL	CL	CL	
INITIAL WATER CONTENT (%)	35.42	39.23	36.62	
TOTAL UNIT WEIGHT (KN/M³)	18.32	17.82	17.99	
CORE: CD-38 PC-38 DEPTH: 238-278 CM		TRIAXIAL TEST RESULTS		

APPENDIX B1

ONE-DIMENSIONAL VERTICAL CONSOLIDATION DATA

TABLE II.
SUMMARY OF CONSOLIDATION DATA

CORE No.	DEPTH (cm)	σ_{v_0}' (kPa)	$\sigma_{v_{max}}'$ (kPa)	e_i	C_c	C_s	w_i (%)	γ_s (KN/m^3)
CD14 PC16	174-189	15.7	19	0.9764	0.210	0.027	33.00	18.54
CD14 PC16	374-389	31.6	90	1.0600	0.241	0.038	34.70	18.12
CD14 PC16	457-472	38.6	85	1.1213	0.298	0.058	40.30	18.20
CD15 PC18	279-294	18.3	20	1.5754	0.466	0.092	58.00	16.24
CD15 PC18	489-504	40.9	50	1.0799	0.267	0.038	36.30	17.99
CD15 PC18	659-674	52.7	25	1.4746	0.398	0.081	51.10	16.77
CD16 PC17	276-290	16.3	19	2.0013	0.700	0.047	72.00	15.54
CD16 PC17	577-592	37.4	40	1.5794	0.453	0.081	54.50	16.20
CD16 PC17	681-696	43.4	50	1.7761	0.490	0.107	58.70	16.10
CD17 PC19	191-206	13.8	55	1.3885	0.457	0.091	47.50	16.71
CD17 PC19	335-350	26.8	50	0.8774	0.294	0.064	33.20	17.60
CD17 PC19	573-588	44.3	30	1.2642	0.296	0.067	42.80	17.45
CD18 PC20	159-174	10.7	45	1.5961	0.494	0.087	50.10	16.11
CD18 PC20	310-325	21.9	50	1.4375	0.408	0.084	50.10	16.67
CD19 PC21	353-368	30.9	40	1.1120	0.199	0.050	39.49	18.39
CD19 PC21	429-444	36.1	24	1.0408	0.216	0.055	33.73	18.32
CD20 PC22	235-250	15.6	30	1.6448	0.534	0.036	59.10	16.28
CD20 PC22	435-450	34.3	44	1.0207	0.220	0.040	32.50	17.62
CD20 PC22	539-554	48.5	100	0.9275	0.213	0.037	30.40	18.71
CD21 PC23	350-365	27.8	90	1.3122	0.455	0.066	43.40	17.31
CD21 PC23	482-497	36.6	150	1.2628	0.567	0.064	42.98	17.29
CD21 PC23	591-606	46.4	150	1.3875	0.402	0.082	44.90	17.55
CD22 PC24	268-283	20.5	21	1.2531	0.401	0.086	46.70	17.43
CD22 PC24	445-460	32.4	33	1.4338	0.410	0.071	53.68	16.92
CD22 PC24	543-558	38.2	32	1.8537	0.677	0.112	62.55	15.58
CD22 PC25	238-253	15.9	20	1.6042	0.358	0.063	56.20	16.31
CD22 PC25	472-487	37.4	60	1.1914	0.368	0.038	43.10	17.61
CD22 PC25	558-573	41.2	60	1.2926	0.320	0.068	43.00	17.89
CD24 PC28	171-186	17.3	10	0.7653	0.062	0.016	26.48	19.42
CD24 PC28	106-121	8.5	11	1.1505	0.389	0.014	41.20	17.51
CD25 PC24	143-164	11.7	70	1.3061	0.281	0.034	44.80	17.12
CD25 PC29	212-227	16.5	55	1.3043	0.295	0.049	45.10	17.29
CD26 PC30	285-300	19.6	45	0.9777	0.394	0.058	38.90	16.47
CD26 PC30	408-423	25.8	32	1.8050	0.523	0.077	66.60	15.78
CD26 PC30	488-503	29.2	27	2.1004	0.625	0.104	73.30	15.87
CD27 PC31	106-121	7.3	36	1.7106	0.519	0.070	59.50	16.20
CD27 PC31	487-502	35.4	120	1.2600	0.508	0.072	44.30	16.97
CD27 PC31	413-428	31.6	35	1.2197	0.462	0.053	43.60	17.25
CD32 PC32	281-296	19.3	10	1.5618	0.442	0.083	57.04	16.44
CD32 PC32	650-665	45.3	49	1.4760	0.423	0.074	52.60	16.68
CD32 PC32	538-553	36.6	40	1.5003	0.496	0.077	55.00	16.47
CD32A PC33	421-436	25.3	25	1.6414	0.446	0.080	63.00	15.70
CD32A PC33	665-680	46.4	50	1.5453	0.466	0.055	59.80	16.68
CD32A PC33	561-576	36.1	17	1.6807	0.493	0.084	62.20	16.14
CD34 PC34	180-195	10.4	14	1.9508	0.571	0.097	71.00	15.29
CD34 PC34	363-378	18.1	22	2.3854	0.928	0.146	82.50	14.71
CD34 PC34	428-443	26.2	50	1.6677	0.640	0.083	60.20	15.84
CD35 PC35	304-319	18.6	30	1.7975	0.515	0.084	65.70	15.80
CD35 PC35	495-510	31.1	40	1.7489	0.470	0.099	61.30	15.97
CD35 PC35	568-583	39.6	44	1.5489	0.448	0.075	57.90	16.70
CD36 PC36	366-381	21.4	10	2.5898	0.885	0.142	97.30	14.35
CD36 PC36	331-346	19.8	25	1.9833	0.765	0.081	68.40	15.64

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 174-189 CM

SPECIFIC GRAVITY	= 2.81	INITIAL DENSITY (KN/M3)	= 18.541
WET SAMPLE WT (GM)	= 181.81	INITIAL WATER CONTENT (%)	= 33.00
VOL OF SAMPLE (CC)	= 80.28	INITIAL SATURATION (%)	= 94.97
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 0.9764

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4		1.3	2.5282	0.00	0.9712	50	-1				
	3.54							.01727	2.2E-06	1.3E-03	.020
4.7		1.3	2.5205	0.30	0.9652	43	4				
	7.07							.02219	2.8E-06	1.3E-03	.039
9.4		1.0	2.5054	0.90	0.9534	46	0				
	14.14							.00038	7.5E-08	2.0E-03	.121
18.9		56.0	2.4587	2.75	0.9170	23	0				
	28.28							.00038	4.6E-08	1.2E-03	.147
37.7		54.4	2.4020	4.99	0.8729	0	0				
	23.57							.00034	4.8E-09	1.4E-04	.013
9.4		60.0	2.4117	4.61	0.8803	0	0				
	5.89							.00017	1.8E-08	1.0E-03	.024
2.4		120.0	2.4301	3.88	0.8947	0	0				
	5.89							.00196	7.1E-08	3.6E-04	.008
9.4		10.6	2.4237	4.13	0.8897	24	0				
	23.57							.00191	9.1E-08	4.6E-04	.043
37.7		10.6	2.3907	5.44	0.8640	23	0				
	56.56							.00022	1.5E-08	6.4E-04	.158
75.4		87.0	2.3299	7.85	0.8166	27	0				
	113.12							.00030	1.5E-08	4.6E-04	.229
150.8		60.0	2.2415	11.34	0.7476	7	0				
	226.23							.00055	1.3E-08	2.1E-04	.210
301.6		30.0	2.1603	14.55	0.6843	0	0				
	188.53							.00028	6.7E-10	2.1E-05	.016
75.4		60.0	2.1724	14.07	0.6938	0	0				
	38.39							.00029	1.3E-08	3.8E-04	.037
2.4		60.0	2.2433	11.27	0.7491	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4		1.3	2.5282	0.00	0.9712	0	0				
	3.54							.01732	1.2E-06	7.1E-04	.011
4.7		1.3	2.5240	0.17	0.9679	0	0				
	7.07							.02238	1.5E-06	6.6E-04	.020
9.4		1.0	2.5161	0.48	0.9618	0	0				
	14.14							.00039	5.3E-08	1.5E-03	.092
18.9		56.0	2.4805	1.89	0.9340	0	0				
	28.28							.00038	4.6E-08	1.2E-03	.147
37.7		54.4	2.4238	4.13	0.8898	0	0				
	23.57							.00035	4.8E-09	1.3E-04	.012
9.4		60.0	2.4334	3.75	0.8973	0	0				
	5.89							.00018	1.8E-08	1.0E-03	.024
2.4		120.0	2.4517	3.03	0.9116	0	0				
	5.89							.00200	5.4E-08	2.7E-04	.006
9.4		10.6	2.4470	3.21	0.9079	0	0				
	23.57							.00196	7.0E-08	3.5E-04	.033
37.7		10.6	2.4218	4.21	0.8883	0	0				
	56.56							.00023	1.1E-08	4.6E-04	.114
75.4		87.0	2.3778	5.95	0.8539	0	0				
	113.12							.00031	1.4E-08	4.3E-04	.213
150.8		60.0	2.2957	9.20	0.7899	0	0				
	226.23							.00058	1.4E-08	2.1E-04	.211
301.6		30.0	2.2144	12.41	0.7265	0	0				
	188.53							.00029	6.9E-10	2.1E-05	.016
75.4		60.0	2.2265	11.93	0.7360	0	0				
	38.39							.00031	1.3E-08	3.8E-04	.037
2.4		60.0	2.2974	9.13	0.7912	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS CD @ 374-389 CM

SPECIFIC GRAVITY	= 2.83	INITIAL DENSITY (KN/M3)	= 18.118
WET SAMPLE WT (GM)	= 148.50	INITIAL WATER CONTENT (%)	= 34.70
VOL OF SAMPLE (CC)	= 80.16	INITIAL SATURATION (%)	= 92.51
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.0600

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

—LOAD—		*—100% PRI CONS—*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
9.0	50.0	2.4945	0.00	1.0252	47	0				
13.46							.00030	4.9E-08	1.7E-03	.101
17.9	72.3	2.4572	1.50	0.9948	4	0				
26.92							.00035	2.5E-08	7.1E-04	.085
35.9	60.0	2.4256	2.76	0.9692	0	0				
53.83							.00040	1.6E-08	3.9E-04	.095
71.8	50.8	2.3904	4.17	0.9407	0	0				
107.66							.00049	1.3E-08	3.5E-04	.169
143.6	39.1	2.3278	6.68	0.3898	0	0				
89.72							.00032	2.3E-09	6.3E-05	.025
35.9	60.0	2.3460	5.96	0.9046	0	0				
22.43							.00033	9.6E-09	2.3E-04	.025
9.0	60.0	2.3649	5.20	0.9199	0	0				
22.43							.00351	4.5E-08	1.2E-04	.011
35.9	5.6	2.3565	5.53	0.9131	25	-1				
89.72							.00155	2.1E-08	1.3E-04	.046
143.6	12.3	2.3225	6.89	0.8856	17	0				
215.33							.00054	1.3E-08	2.3E-04	.223
287.1	33.1	2.2400	10.20	0.8135	4	0				
430.65							.00072	1.1E-08	1.4E-04	.263
574.2	22.6	2.1424	14.12	0.7393	0	0				
861.30							.00025	1.3E-09	6.2E-05	.241
1148.4	60.0	2.0530	17.70	0.6667	0	0				
578.69							.00014	5.4E-10	3.5E-05	.038
9.0	120.0	2.1516	13.75	0.7468	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

—LOAD—		*—100% PRI CONS—*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
9.0	50.0	2.4945	0.00	1.0252	0	0				
13.46							.00030	4.7E-08	1.6E-03	.097
17.9	72.3	2.4587	1.44	0.9961	0	0				
26.92							.00035	2.5E-08	7.1E-04	.085
35.9	60.0	2.4271	2.70	0.9704	0	0				
53.83							.00040	1.6E-08	3.9E-04	.095
71.8	50.8	2.3918	4.12	0.9418	0	0				
107.66							.00049	1.3E-08	3.5E-04	.167
143.6	39.1	2.3297	6.61	0.3914	0	0				
89.72							.00032	2.3E-09	6.7E-05	.024
35.9	60.0	2.3478	5.88	0.9060	0	0				
22.43							.00033	9.6E-09	2.3E-04	.025
9.0	60.0	2.3667	5.13	0.9214	0	0				
22.43							.00352	3.4E-08	9.2E-05	.008
35.9	5.6	2.3605	5.37	0.9164	0	0				
89.72							.00157	1.7E-08	1.1E-04	.038
143.6	12.3	2.3323	6.51	0.8934	0	0				
215.33							.00055	1.3E-08	2.2E-04	.213
287.1	33.1	2.2532	9.67	0.8233	0	0				
430.65							.00073	1.1E-08	1.4E-04	.263
574.2	22.6	2.1556	13.59	0.7500	0	0				
861.30							.00025	1.3E-09	6.2E-05	.241
1148.4	60.0	2.0661	17.17	0.6774	0	0				
578.69							.00014	5.5E-10	3.5E-05	.038
9.0	120.0	2.1646	13.23	0.7573	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 457-472 CM

SPECIFIC GRAVITY	= 2.80	INITIAL DENSITY (KN/M3)	= 18.197
WET SAMPLE WT (GM)	= 149.20	INITIAL WATER CONTENT (%)	= 40.80
VOL OF SAMPLE (CC)	= 80.40	INITIAL SATURATION (%)	= 101.73
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.1213

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
10.8	12.0	2.4917	0.00	1.0822	49	0				
16.15							.00266	4.1E-07	1.6E-03	.116
21.5	8.0	2.4499	1.68	1.0473	16	0				
32.30							.00257	2.0E-07	7.6E-04	.113
43.1	8.0	2.4091	3.31	1.0132	16	0				
64.60							.00196	1.1E-07	5.6E-04	.166
86.1	10.0	2.3494	5.71	0.9634	14	0				
129.19							.00151	7.1E-08	4.5E-04	.266
172.3	12.0	2.2537	9.55	0.8834	4	0				
107.66							.00092	9.0E-09	9.1E-05	.041
43.1	20.0	2.2831	8.37	0.9079	0	0				
26.92							.00063	3.1E-08	4.6E-04	.051
10.8	30.0	2.3199	6.89	0.9387	0	0				
26.92							.00375	8.7E-08	2.2E-04	.025
43.1	5.0	2.3022	7.60	0.9238	24	0				
107.66							.00359	6.4E-08	1.7E-04	.074
172.3	5.0	2.2491	9.74	0.8795	16	0				
258.39							.00126	3.5E-08	2.5E-04	.302
344.5	13.0	2.1403	14.10	0.7885	0	0				
516.78							.00185	2.6E-08	1.2E-04	.283
689.0	8.0	2.0383	18.19	0.7034	0	-2				
1033.56							.00167	1.3E-08	6.2E-05	.298
1378.1	8.0	1.9312	22.49	0.6138	0	0				
694.42							.00008	3.9E-10	4.3E-05	.058
10.8	200.0	2.0771	16.64	0.7357	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
10.8	12.0	2.4917	0.00	1.0822	0	0				
16.15							.00267	3.4E-07	1.3E-03	.097
21.5	8.0	2.4567	1.40	1.0529	0	0				
32.30							.00260	1.6E-07	6.3E-04	.094
43.1	8.0	2.4228	2.76	1.0246	0	0				
64.60							.00200	9.7E-08	4.8E-04	.143
86.1	10.0	2.3714	4.83	0.9817	0	0				
129.19							.00154	6.9E-08	4.3E-04	.254
172.3	12.0	2.2800	8.50	0.9053	0	0				
107.66							.00094	9.1E-09	9.1E-05	.041
43.1	20.0	2.3093	7.32	0.9298	0	0				
26.92							.00065	3.1E-08	4.6E-04	.051
10.8	30.0	2.3460	5.84	0.9605	0	0				
26.92							.00385	6.8E-08	1.7E-04	.019
43.1	5.0	2.3325	6.39	0.9492	0	0				
107.66							.00371	5.4E-08	1.4E-04	.062
172.3	5.0	2.2882	8.17	0.9121	0	0				
258.39							.00130	3.6E-08	2.5E-04	.302
344.5	13.0	2.1795	12.53	0.8213	0	0				
516.78							.00193	2.6E-08	1.2E-04	.282
689.0	8.0	2.0779	16.60	0.7364	0	0				
1033.56							.00173	1.3E-08	6.4E-05	.303
1378.1	8.0	1.9687	20.99	0.6452	0	0				
694.42							.00008	4.0E-10	4.3E-05	.058
10.8	200.0	2.1146	15.13	0.7671	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-13 BC-13
SAMPLE IDENTIFICATION IS UD @ 279-294 CM

SPECIFIC GRAVITY	= 2.70	INITIAL DENSITY (KN/M3)	= 16.242
WET SAMPLE WT (GM)	= 131.32	INITIAL WATER CONTENT (%)	= 58.00
VOL OF SAMPLE (CC)	= 79.28	INITIAL SATURATION (%)	= 99.40
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.5754

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.8	2.0		2.4821	0.00	1.5538	63	3				
	4.14							.01074	2.8E-06	2.6E-03	.062
5.5	2.0		2.4644	0.72	1.5355	38	10				
	8.25							.00046	2.6E-07	5.7E-03	.265
11.0	43.6		2.3869	3.84	1.4557	12	0				
	16.53							.00062	2.5E-07	3.9E-03	.367
22.1	30.0		2.2792	8.18	1.3449	3	2				
	33.06							.00041	5.8E-08	1.3E-03	.242
44.1	42.1		2.2086	11.02	1.2723	0	-1				
	24.79							.00018	1.0E-08	5.3E-04	.058
5.5	100.0		2.2595	8.97	1.3247	0	0				
	4.14							.00018	3.2E-08	1.6E-03	.038
2.8	100.0		2.2706	8.52	1.3361	0	0				
	6.89							.00127	1.1E-07	8.2E-04	.029
11.0	14.1		2.2539	9.20	1.3189	0	2				
	27.54							.00148	1.2E-07	7.1E-04	.100
44.1	11.6		2.1954	11.55	1.2587	4	1				
	66.10							.00056	5.6E-08	8.9E-04	.033
88.1	28.1		2.0980	15.47	1.1586	0	0				
	132.21							.00071	5.3E-08	6.2E-04	.466
176.3	19.4		1.9618	20.97	1.0184	0	1				
	266.14							.00088	3.2E-08	2.9E-04	.431
356.0	13.7		1.8337	26.12	0.8866	0	0				
	179.39							.00011	3.2E-09	2.1E-04	.092
2.8	120.0		2.0213	18.57	1.0796	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.8	2.0		2.4821	0.00	1.5538	0	0				
	4.14							.01081	1.5E-06	1.4E-03	.033
5.5	2.0		2.4725	0.39	1.5439	0	0				
	8.25							.00047	2.3E-07	4.8E-03	.225
11.0	43.6		2.4068	3.04	1.4762	0	0				
	16.53							.00063	2.5E-07	3.8E-03	.354
22.1	30.0		2.3029	7.22	1.3694	0	0				
	33.06							.00042	5.7E-08	1.3E-03	.234
44.1	42.1		2.2346	9.97	1.2991	0	0				
	24.79							.00018	1.0E-08	5.2E-04	.057
5.5	100.0		2.2846	7.96	1.3505	0	0				
	4.14							.00019	3.2E-08	1.6E-03	.038
2.8	100.0		2.2956	7.52	1.3618	0	0				
	6.89							.00130	1.1E-07	8.2E-04	.029
11.0	14.1		2.2789	8.19	1.3447	0	0				
	27.54							.00152	1.1E-07	6.7E-04	.094
44.1	11.6		2.2236	10.42	1.2879	0	0				
	66.10							.00057	5.7E-08	8.8E-04	.330
88.1	28.1		2.1271	14.00	1.1885	0	0				
	132.21							.00073	5.4E-08	6.2E-04	.465
176.3	19.4		1.9911	19.78	1.0485	0	0				
	266.14							.00091	3.2E-08	2.8E-04	.424
356.0	13.7		1.8652	24.86	0.9190	0	0				
	179.39							.00012	3.3E-09	2.1E-04	.092
2.8	120.0		2.0529	17.29	1.1121	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 489-504 CM

SPECIFIC GRAVITY	= 2.80	INITIAL DENSITY (KN/M3)	= 17.992
WET SAMPLE WT (GM)	= 148.20	INITIAL WATER CONTENT (%)	= 36.30
VOL OF SAMPLE (CC)	= 80.77	INITIAL SATURATION (%)	= 94.12
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.0799

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.4	2.0		2.5268	0.00	1.0609	69	0				
8.11								.00558	5.8E-07	1.1E-03	.039
10.8	4.0		2.5124	0.57	1.0490	33	0				
16.25								.00202	4.1E-07	2.0E-03	.150
21.7	10.6		2.4567	2.78	1.0036	21	0				
32.49								.00129	1.0E-07	7.6E-04	.113
43.3	16.0		2.4149	4.43	0.9696	12	0				
64.96								.00150	9.0E-08	5.8E-04	.171
86.6	13.1		2.3517	6.93	0.9180	2	0				
54.14								.00033	2.3E-09	6.6E-05	.015
21.7	60.0		2.3625	6.50	0.9268	0	0				
13.54								.00034	2.8E-08	7.9E-04	.044
5.4	60.0		2.3949	5.22	0.9532	0	0				
13.54								.00999	4.4E-07	4.2E-04	.024
21.7	2.0		2.3775	5.91	0.9390	43	0				
54.14								.00748	1.6E-07	2.0E-04	.045
86.6	2.6		2.3441	7.23	0.9118	28	0				
129.91								.00137	6.7E-08	4.5E-04	.267
173.2	13.1		2.2456	11.13	0.8315	2	0				
259.83								.00183	4.6E-08	2.2E-04	.266
346.4	9.0		2.1474	15.02	0.7514	0	0				
520.13								.00294	3.8E-08	1.1E-04	.261
693.8	5.1		2.0508	18.84	0.6726	0	0				
433.76								.00025	4.0E-10	1.3E-05	.023
173.7	60.0		2.0680	18.16	0.6866	0	0				
89.55								.00027	7.3E-09	2.3E-04	.052
5.4	60.0		2.1646	14.34	0.7654	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.4	2.0		2.5268	0.00	1.0609	0	0				
8.11								.00560	3.9E-07	7.0E-04	.026
10.8	4.0		2.5173	0.38	1.0530	0	0				
16.25								.00205	3.2E-07	1.6E-03	.117
21.7	10.6		2.4738	2.10	1.0176	0	0				
32.49								.00132	8.8E-08	6.7E-04	.099
43.3	16.0		2.4374	3.54	0.9879	0	0				
64.96								.00153	8.9E-08	5.6E-04	.167
86.6	13.1		2.3756	5.99	0.9375	0	0				
54.14								.00034	2.3E-09	6.5E-05	.015
21.7	60.0		2.3863	5.56	0.9462	0	0				
13.54								.00034	2.8E-08	7.9E-04	.044
5.4	60.0		2.4188	4.28	0.9727	0	0				
13.54								.01026	2.5E-07	2.4E-04	.013
21.7	2.0		2.4089	4.67	0.9646	0	0				
54.14								.00775	1.2E-07	1.5E-04	.033
86.6	2.6		2.3849	5.62	0.9451	0	0				
129.91								.00142	6.6E-08	4.4E-04	.261
173.2	13.1		2.2887	9.43	0.8666	0	0				
259.83								.00190	4.7E-08	2.2E-04	.266
346.4	9.0		2.1904	13.31	0.7865	0	0				
520.13								.00307	3.9E-08	1.1E-04	.261
693.8	5.1		2.0939	17.13	0.7078	0	0				
433.76								.00026	4.0E-10	1.3E-05	.023
173.7	60.0		2.1111	16.45	0.7218	0	0				
89.55								.00028	7.4E-09	2.3E-04	.052
5.4	60.0		2.2077	12.63	0.8005	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS 659-674 CM

SPECIFIC GRAVITY = 2.80	INITIAL DENSITY (KN/M3) =	16.770
WET SAMPLE WT (GM) = 138.52	INITIAL WATER CONTENT (%) =	51.10
VOL OF SAMPLE (CC) = 80.99	INITIAL SATURATION (%) =	97.06
DIA OF SAMPLE (CM) = 6.35	INITIAL VOID RATIO =	1.4746

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.9	2.6		2.5389	0.00	1.4568	56	0				
	10.34							.00101	1.6E-07	1.6E-03	.089
13.8	22.0		2.5111	1.09	1.4299	38	0				
	20.65							.00275	6.8E-07	2.5E-03	.277
27.5	7.6		2.4250	4.48	1.3466	27	0				
	41.27							.00047	7.2E-08	1.4E-03	.324
55.0	40.6		2.3242	8.45	1.2491	23	0				
	82.54							.00038	3.6E-08	8.6E-04	.384
110.1	45.6		2.2047	13.16	1.1334	0	0				
	68.78							.00029	3.8E-09	1.1E-04	.039
27.5	60.0		2.2287	12.22	1.1567	0	0				
	17.20							.00030	2.0E-08	6.1E-04	.052
6.9	60.0		2.2607	10.95	1.1876	0	0				
	17.20							.00126	7.2E-08	5.2E-04	.044
27.5	14.0		2.2336	12.02	1.1614	35	31				
	68.78							.00140	2.9E-08	1.8E-04	.062
110.1	12.2		2.1952	13.53	1.1243	-41	0				
	165.08							.00051	2.9E-08	4.9E-04	.441
220.1	30.0		2.0582	18.93	0.9916	0	0				
	330.17							.00084	2.3E-08	2.2E-04	.398
440.2	16.0		1.9343	23.81	0.8717	0	0				
	660.33							.00118	1.7E-08	1.1E-04	.387
880.4	10.0		1.8140	28.55	0.7553	0	0				
	443.67							.00023	2.4E-09	8.0E-05	.081
6.9	60.0		1.9907	21.59	0.9264	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.9	2.6		2.5389	0.00	1.4568	0	0				
	10.34							.00102	9.9E-08	9.8E-04	.055
13.8	22.0		2.5217	0.68	1.4401	0	0				
	20.65							.00283	5.1E-07	1.8E-03	.202
27.5	7.6		2.4590	3.15	1.3795	0	0				
	41.27							.00050	5.7E-08	1.1E-03	.249
55.0	40.6		2.3817	6.19	1.3047	0	0				
	82.54							.00040	3.7E-08	8.6E-04	.385
110.1	45.6		2.2620	10.90	1.1889	0	0				
	68.78							.00031	3.8E-09	1.1E-04	.039
27.5	60.0		2.2860	9.96	1.2121	0	0				
	17.20							.00032	2.1E-08	6.1E-04	.051
6.9	60.0		2.3179	8.70	1.2430	0	0				
	17.20							.00134	3.7E-08	2.5E-04	.021
27.5	14.0		2.3046	9.23	1.2301	0	0				
	68.78							.00149	2.8E-08	1.7E-04	.059
110.1	12.2		2.2682	10.66	1.1949	0	0				
	165.08							.00054	1.0E-08	4.9E-04	.441
220.1	30.0		2.1311	16.06	1.0622	0	0				
	330.17							.00090	2.4E-08	2.2E-04	.398
440.2	16.0		2.0072	20.94	0.9421	0	0				
	660.33							.00127	1.8E-08	1.1E-04	.386
880.4	10.0		1.8869	25.68	0.8259	0	0				
	443.67							.00025	2.5E-09	8.0E-05	.081
6.9	60.0		2.0636	18.72	0.9969	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 276-290 CM

SPECIFIC GRAVITY	= 2.77	INITIAL DENSITY (KN/M3)	= 15.543
WET SAMPLE WT (GM)	= 127.35	INITIAL WATER CONTENT (%)	= 72.00
VOL OF SAMPLE (CC)	= 80.34	INITIAL SATURATION (%)	= 99.51
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 2.0013

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.8	8.0	2.5140	0.00	1.9744	48	0				
4.14							.00180	5.2E-07	2.9E-03	.080
5.5	12.2	2.4938	0.80	1.9505	11	0				
8.25							.00239	4.8E-07	2.0E-03	.110
11.0	9.0	2.4657	1.92	1.9173	21	0				
16.53							.01312	3.1E-06	2.3E-03	.252
22.1	1.6	2.4015	4.47	1.8413	23	0				
33.06							.00050	1.5E-07	2.8E-03	.604
44.1	36.0	2.2479	10.58	1.6597	19	0				
24.79							.00031	1.2E-08	3.6E-04	.045
5.5	60.0	2.2824	9.21	1.7005	0	0				
4.14							.00053	9.9E-08	1.7E-03	.047
2.8	35.0	2.2943	8.74	1.7145	0	0				
6.89							.00362	1.6E-07	4.1E-04	.017
11.0	5.1	2.2859	9.07	1.7045	23	1				
27.54							.00196	1.4E-07	6.6E-04	.108
44.1	9.0	2.2307	11.27	1.6392	12	0				
66.10							.00030	6.6E-08	1.9E-03	.824
88.1	49.0	2.0209	19.61	1.3911	0	0				
132.21							.00080	5.7E-08	5.6E-04	.491
176.3	16.0	1.8961	24.58	1.2433	0	2				
266.14							.00066	3.6E-08	4.0E-04	.700
356.0	16.0	1.7155	31.76	1.0297	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.8	8.0	2.5140	0.00	1.9744	0	0				
4.14							.00180	4.6E-07	2.6E-03	.071
5.5	12.2	2.4962	0.71	1.9534	0	0				
8.25							.00241	3.8E-07	1.6E-03	.087
11.0	9.0	2.4742	1.58	1.9273	0	0				
16.53							.01337	2.4E-06	1.8E-03	.194
22.1	1.6	2.4248	3.55	1.8689	0	0				
33.06							.00053	1.2E-07	2.2E-03	.489
44.1	36.0	2.3006	8.49	1.7220	0	0				
24.79							.00032	1.2E-08	3.7E-04	.047
5.5	60.0	2.3362	7.07	1.7640	0	0				
4.14							.00056	1.0E-07	1.7E-03	.047
2.8	35.0	2.3480	6.60	1.7781	0	0				
6.89							.00380	1.3E-07	3.1E-04	.013
11.0	5.1	2.3415	6.86	1.7704	0	0				
27.54							.00207	1.3E-07	5.8E-04	.094
44.1	9.0	2.2935	8.77	1.7136	0	0				
66.10							.00032	6.8E-08	1.9E-03	.824
88.1	49.0	2.0838	17.11	1.4655	0	0				
132.21							.00086	5.9E-08	5.6E-04	.491
176.3	16.0	1.9588	22.08	1.3176	0	0				
266.14							.00071	3.7E-08	3.9E-04	.689
356.0	16.0	1.7810	29.15	1.1072	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE #9-1679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 577-592 CM

SPECIFIC GRAVITY	= 2.76	INITIAL DENSITY (KN/M3)	= 16.199
WET SAMPLE WT (GM)	= 132.90	INITIAL WATER CONTENT (%)	= 54.40
VOL OF SAMPLE (CC)	= 80.44	INITIAL SATURATION (%)	= 95.06
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.5794

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.4	19.0	2.5143	0.00	1.5533	67	0				
6.57							.00156	3.0E-07	1.9E-03	.071
8.8	14.1	2.4931	0.84	1.5318	21	0				
13.16							.00112	2.1E-07	1.9E-03	.139
17.6	19.1	2.4517	2.49	1.4898	15	0				
26.32							.00109	1.7E-07	1.6E-03	.234
35.1	18.5	2.3824	5.25	1.4194	13	0				
52.71							.00116	1.4E-07	1.1E-03	.331
70.3	16.0	2.2839	9.16	1.3194	3	0				
43.95							.00031	8.1E-09	2.4E-04	.053
17.6	60.0	2.3156	7.90	1.3515	0	0				
10.97							.00032	2.7E-08	7.8E-04	.044
4.4	60.0	2.3414	6.87	1.3778	0	0				
10.97							.00239	1.2E-07	4.7E-04	.026
17.6	8.0	2.3258	7.49	1.3620	16	0				
43.95							.00265	1.2E-07	4.2E-04	.094
70.3	6.9	2.2701	9.71	1.3053	14	0				
105.51							.00060	6.9E-08	1.0E-03	.602
140.7	26.0	2.0916	16.81	1.1241	0	0				
211.02							.00092	4.2E-08	3.7E-04	.445
281.4	15.0	1.9596	22.06	0.9900	0	0				
422.04							.00105	2.6E-08	1.9E-04	.453
562.7	11.4	1.8253	27.40	0.8536	5	0				
351.70							.00020	9.8E-10	3.6E-05	.064
140.7	60.0	1.8633	25.89	0.8923	-3	0				
72.53							.00023	1.3E-08	4.2E-04	.098
4.4	60.0	2.0087	20.11	1.0399	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.4	19.0	2.5143	0.00	1.5533	0	0				
6.57							.00167	3.2E-07	1.8E-03	.056
8.8	14.1	2.4976	0.66	1.5364	0	0				
13.16							.00113	1.8E-07	1.6E-03	.117
17.6	19.1	2.4629	2.04	1.5011	0	0				
26.32							.00111	1.5E-07	1.4E-03	.203
35.1	18.5	2.4028	4.43	1.4401	0	0				
52.71							.00119	1.3E-07	1.1E-03	.319
70.3	16.0	2.3080	8.21	1.3438	0	0				
43.95							.00032	8.1E-09	2.4E-04	.053
17.6	60.0	2.3396	6.95	1.3759	0	0				
10.97							.00033	2.7E-08	7.8E-04	.044
4.4	60.0	2.3655	5.92	1.4023	0	0				
10.97							.00245	1.0E-07	3.9E-04	.022
17.6	8.0	2.3525	6.43	1.3891	0	0				
43.95							.00273	1.0E-07	3.6E-04	.080
70.3	6.9	2.3051	8.32	1.3409	0	0				
105.51							.00060	7.0E-08	1.0E-03	.602
140.7	26.0	2.1268	15.41	1.1598	0	0				
211.02							.00095	4.2E-08	3.7E-04	.446
281.4	15.0	1.9947	20.66	1.0257	0	0				
422.04							.00110	2.5E-08	1.8E-04	.427
562.7	11.4	1.8680	25.69	0.8973	0	0				
351.70							.00021	1.0E-09	3.6E-05	.064
140.7	60.0	1.9064	24.18	0.9360	0	0				
72.53							.00024	1.3E-08	4.2E-04	.098
4.4	60.0	2.0517	18.40	1.0836	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 681-696 CM

SPECIFIC GRAVITY	= 2.87	INITIAL DENSITY (KN/M3)	= 16.098
WET SAMPLE WT (GM)	= 134.32	INITIAL WATER CONTENT (%)	= 58.70
VOL OF SAMPLE (CC)	= 81.81	INITIAL SATURATION (%)	= 94.92
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.7761

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.6	12.3	2.5380	0.00	1.7276	38	0				
9.90							.00139	2.2E-07	1.6E-03	.096
13.2	16.0	2.5111	1.06	1.6986	16	0				
19.83							.00126	5.0E-07	3.9E-03	.470
26.5	16.0	2.3791	6.26	1.5568	22	0				
39.67							.00076	7.2E-08	8.9E-04	.214
52.9	25.0	2.3193	8.62	1.4926	7	0				
79.31							.00058	5.6E-08	8.8E-04	.421
105.7	30.0	2.2013	13.27	1.3657	0	0				
66.10							.00059	1.1E-08	1.7E-04	.060
26.5	30.0	2.2350	11.94	1.4019	0	0				
16.53							.00030	2.6E-08	7.7E-04	.069
6.6	60.0	2.2739	10.41	1.4437	0	0				
16.53							.00170	7.1E-08	3.8E-04	.034
26.5	10.6	2.2547	11.16	1.4231	18	0				
66.10							.00148	6.0E-08	3.6E-04	.130
105.7	11.4	2.1817	14.04	1.3447	11	0				
158.62							.00058	3.4E-08	4.9E-04	.473
211.5	26.0	2.0492	19.26	1.2023	0	0				
317.25							.00066	2.1E-08	2.6E-04	.490
423.0	20.0	1.9119	24.67	1.0547	0	0				
632.58							.00087	1.4E-08	1.2E-04	.443
842.2	13.1	1.7885	29.53	0.9221	0	0				
424.38							.00023	3.0E-09	9.8E-05	.107
6.6	60.0	1.9973	21.30	1.1465	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.6	12.3	2.5380	0.00	1.7276	0	0				
9.90							.00140	1.8E-07	1.3E-03	.080
13.2	16.0	2.5157	0.88	1.7036	0	0				
19.83							.00130	4.0E-07	3.1E-03	.366
26.5	16.0	2.4130	4.93	1.5932	0	0				
39.67							.00079	6.8E-08	8.3E-04	.198
52.9	25.0	2.3577	7.11	1.5337	0	0				
79.31							.00060	5.7E-08	8.8E-04	.421
105.7	30.0	2.2397	11.75	1.4070	0	0				
66.10							.00061	1.1E-08	1.7E-04	.060
26.5	30.0	2.2733	10.43	1.4431	0	0				
16.53							.00031	2.6E-08	7.7E-04	.069
6.6	60.0	2.3122	8.90	1.4849	0	0				
16.53							.00176	5.9E-08	3.1E-04	.028
26.5	10.6	2.2967	9.51	1.4682	0	0				
66.10							.00155	5.5E-08	3.2E-04	.115
105.7	11.4	2.2321	12.05	1.3988	0	0				
158.62							.00061	3.4E-08	4.9E-04	.474
211.5	26.0	2.0994	17.28	1.2562	0	0				
317.25							.00069	2.2E-08	2.6E-04	.489
423.0	20.0	1.9625	22.67	1.1091	0	0				
632.58							.00092	1.4E-08	1.2E-04	.443
842.2	13.1	1.8392	27.53	0.9766	0	0				
424.38							.00024	3.1E-09	9.9E-05	.107
6.6	60.0	2.0486	19.28	1.2016	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS CD @ 191-206 CM

SPECIFIC GRAVITY =	2.76	INITIAL DENSITY (KN/M3) =	16.712
WET SAMPLE WT (GM) =	138.69	INITIAL WATER CONTENT (%) =	47.50
VOL OF SAMPLE (CC) =	81.37	INITIAL SATURATION (%) =	94.42
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.3885

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.8		1.0	2.5657	0.00	1.3852	40	8				
	8.73							.00853	7.6E-07	9.1E-04	.042
11.6		2.7	2.5522	0.53	1.3726	39	1				
	17.44							.00147	3.1E-07	2.1E-03	.195
23.3		15.0	2.4891	2.98	1.3140	18	0				
	34.88							.00160	1.5E-07	9.4E-04	.173
46.5		13.1	2.4330	5.17	1.2619	27	0				
	69.77							.00153	7.3E-08	4.6E-04	.168
93.0		13.1	2.3795	7.30	1.2112	8	0				
	58.14							.00034	5.6E-09	1.6E-04	.043
23.3		60.0	2.4067	6.20	1.2374	0	0				
	14.55							.00035	4.4E-08	1.2E-03	.083
5.8		60.0	2.4603	4.11	1.2872	0	0				
	14.55							.00200	5.2E-08	2.5E-04	.018
23.3		10.6	2.4490	4.55	1.2767	22	-1				
	58.14							.00222	1.0E-07	4.4E-04	.122
93.0		9.0	2.3698	7.64	1.2031	22	0				
	139.53							.00233	8.7E-08	3.8E-04	.256
186.0		8.0	2.2868	10.87	1.1260	0	0				
	279.06							.00063	2.1E-08	2.9E-04	.427
372.1		26.3	2.1485	16.26	0.9973	0	0				
	558.07							.00102	1.9E-08	1.6E-04	.457
744.1		14.1	2.0004	22.03	0.8597	0	0				
	465.05							.00025	1.2E-09	7.9E-05	.087
186.0		60.0	2.0569	19.83	0.9122	0	0				
	95.94							.00028	1.1E-08	3.3E-04	.095
5.8		60.0	2.2099	13.87	1.0544	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.8		1.0	2.5657	0.00	1.3852	0	0				
	8.73							.00857	4.3E-07	5.3E-04	.025
11.6		2.7	2.5578	0.31	1.3779	0	0				
	17.44							.00149	2.3E-07	1.7E-03	.159
23.3		15.0	2.5064	2.31	1.3301	0	0				
	34.88							.00165	1.1E-07	6.9E-04	.126
46.5		13.1	2.4655	3.90	1.2921	0	0				
	69.77							.00158	6.8E-08	4.2E-04	.154
93.0		13.1	2.4156	5.85	1.2456	0	0				
	58.14							.00035	5.7E-09	1.6E-04	.044
23.3		60.0	2.4438	4.75	1.2719	0	0				
	14.55							.00037	4.5E-08	1.2E-03	.080
5.8		60.0	2.4974	2.66	1.3217	0	0				
	14.55							.00207	4.1E-08	2.0E-04	.014
23.3		10.6	2.4887	3.00	1.3136	0	0				
	58.14							.00232	8.1E-08	3.4E-04	.095
93.0		9.0	2.4274	5.39	1.2566	0	0				
	139.53							.00244	9.0E-08	3.5E-04	.256
186.0		8.0	2.3444	8.52	1.1795	0	0				
	279.06							.00066	2.1E-08	2.9E-04	.427
372.1		26.3	2.2062	14.01	1.0509	0	0				
	558.07							.00108	2.0E-08	1.6E-04	.457
744.1		14.1	2.0583	19.78	0.9133	0	0				
	465.05							.00026	1.2E-09	8.3E-05	.087
186.0		60.0	2.1147	17.58	0.9659	0	0				
	95.94							.00030	1.1E-08	3.3E-04	.095
5.8		60.0	2.2677	11.62	1.1081	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 335-350 CM

SPECIFIC GRAVITY	= 2.53	INITIAL DENSITY (KN/M3)	= 17.601
WET SAMPLE WT (GM)	= 144.40	INITIAL WATER CONTENT (%)	= 33.20
VOL OF SAMPLE (CC)	= 80.44	INITIAL SATURATION (%)	= 95.73
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 0.8774

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.5	5.1	2.5832	0.00	0.9093	117	0				
5.28							.00237	5.0E-07	2.1E-03	.048
7.0	9.8	2.5637	0.76	0.8949	49	-1				
10.55							.00508	5.9E-07	1.2E-03	.053
14.1	4.5	2.5422	1.59	0.8790	38	0				
21.15							.00242	4.2E-07	1.7E-03	.153
28.2	9.0	2.4796	4.01	0.8327	35	0				
42.35							.00131	9.2E-08	6.8E-04	.123
56.5	16.0	2.4297	5.94	0.7958	31	0				
35.27							.00035	8.7E-09	2.4E-04	.032
14.1	60.0	2.4557	4.93	0.8151	0	0				
8.79							.00022	2.7E-08	1.2E-03	.040
3.5	100.0	2.4881	3.68	0.8390	0	0				
8.79							.00271	1.1E-07	4.1E-04	.014
14.1	8.0	2.4769	4.11	0.8307	45	-1				
35.27							.00159	9.5E-08	5.8E-04	.077
56.5	13.0	2.4137	6.56	0.7840	34	0				
84.46							.00110	4.5E-08	3.9E-04	.138
112.4	18.0	2.3579	8.72	0.7428	4	0				
168.67							.00090	3.1E-08	3.1E-04	.223
224.9	20.3	2.2668	12.25	0.6755	3	0				
337.58							.00131	3.1E-08	2.1E-04	.294
450.3	12.6	2.1470	16.89	0.5869	0	0				
226.89							.00016	2.8E-09	1.6E-04	.064
3.5	120.0	2.3290	9.84	0.7214	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.5	5.1	2.5832	0.00	0.9093	0	0				
5.28							.00239	2.6E-07	1.1E-03	.024
7.0	9.8	2.5733	0.38	0.9020	0	0				
10.55							.00515	3.7E-07	7.3E-04	.033
14.1	4.5	2.5600	0.90	0.8922	0	0				
21.15							.00250	2.7E-07	1.1E-03	.099
28.2	9.0	2.5197	2.46	0.8624	0	0				
42.35							.00137	6.4E-08	4.6E-04	.083
56.5	16.0	2.4858	3.77	0.8373	0	0				
35.27							.00037	8.9E-09	2.4E-04	.032
14.1	60.0	2.5118	2.76	0.8565	0	0				
8.79							.00023	2.7E-08	1.2E-03	.040
3.5	100.0	2.5442	1.51	0.8805	0	0				
8.79							.00285	6.5E-08	2.3E-04	.008
14.1	8.0	2.5380	1.75	0.8759	0	0				
35.27							.00170	6.5E-08	3.8E-04	.051
56.5	13.0	2.4965	3.35	0.8453	0	0				
84.46							.00118	4.5E-08	3.7E-04	.132
112.4	18.0	2.4429	5.43	0.8056	0	0				
168.67							.00097	3.1E-08	3.0E-04	.215
224.9	20.3	2.3554	8.82	0.7410	0	0				
337.58							.00142	3.2E-08	2.1E-04	.294
450.3	12.6	2.2355	13.46	0.6523	0	0				
226.89							.00017	2.9E-09	1.6E-04	.064
3.5	120.0	2.4167	6.45	0.7862	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-3679 USGS
BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 573-588 CM

SPECIFIC GRAVITY	= 2.82	INITIAL DENSITY (KN/M3)	= 17.452
WET SAMPLE WT (GM)	= 144.28	INITIAL WATER CONTENT (%)	= 42.80
VOL OF SAMPLE (CC)	= 81.06	INITIAL SATURATION (%)	= 95.54
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.2642

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.0	5.1	2.5314	0.00	1.2392	81	0					
9.02								.00140	1.7E-07	1.2E-03	.054
12.0	16.0	2.5130	0.72	1.2230	29	0					
18.02								.00203	3.3E-07	1.6E-03	.147
24.0	10.6	2.4630	2.70	1.1787	38	0					
35.94								.00085	1.1E-07	1.3E-03	.227
47.9	23.9	2.3860	5.74	1.1106	3	10					
71.78								.00076	4.7E-08	5.9E-04	.209
95.7	25.0	2.3148	8.56	1.0476	0	0					
59.86								.00032	4.0E-09	1.2E-04	.031
24.0	60.0	2.3361	7.71	1.0665	0	0					
15.02								.00016	1.3E-08	7.2E-04	.049
6.0	120.0	2.3691	6.41	1.0956	0	0					
15.02								.00159	6.6E-08	3.9E-04	.026
24.0	12.3	2.3511	7.12	1.0798	19	0					
59.86								.00144	3.8E-08	2.5E-04	.067
95.7	13.1	2.3056	8.92	1.0395	6	0					
144.03								.00111	3.6E-08	3.0E-04	.213
192.4	16.0	2.2327	11.80	0.9750	2	0					
288.30								.00125	2.5E-08	1.8E-04	.255
384.2	13.1	2.1462	15.22	0.8985	1	0					
576.35								.00152	1.9E-08	1.0E-04	.296
768.5	9.8	2.0455	19.19	0.8095	0	0					
387.25								.00028	2.7E-09	8.3E-05	.067
6.0	60.0	2.2058	12.86	0.9512	0	0					

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.0	5.1	2.5314	0.00	1.2392	0	0					
9.02								.00140	1.2E-07	8.6E-04	.038
12.0	16.0	2.5184	0.51	1.2277	0	0					
18.02								.00207	2.1E-07	1.0E-03	.091
24.0	10.6	2.4873	1.74	1.2003	0	0					
35.94								.00087	1.1E-07	1.2E-03	.219
47.9	23.9	2.4131	4.67	1.1346	0	0					
71.78								.00078	4.2E-08	5.2E-04	.184
95.7	25.0	2.3505	7.15	1.0792	0	0					
59.86								.00033	4.0E-09	1.2E-04	.031
24.0	60.0	2.3713	6.32	1.0977	0	0					
15.02								.00017	1.3E-08	7.3E-04	.049
6.0	120.0	2.4044	5.02	1.1269	0	0					
15.02								.00164	5.4E-08	3.2E-04	.021
24.0	12.3	2.3900	5.59	1.1141	0	0					
59.86								.00149	3.7E-08	2.3E-04	.063
95.7	13.1	2.3474	7.27	1.0764	0	0					
144.03								.00115	3.6E-08	2.9E-04	.207
192.4	16.0	2.2765	10.07	1.0138	0	0					
288.30								.00131	2.5E-08	1.7E-04	.250
384.2	13.1	2.1916	13.42	0.9386	0	0					
576.35								.00159	1.9E-08	1.0E-04	.296
768.5	9.8	2.0908	17.40	0.8495	0	0					
387.25								.00029	2.8E-09	8.3E-05	.067
6.0	60.0	2.2511	11.07	0.9913	0	0					

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 159-174 CM

SPECIFIC GRAVITY	= 2.84	INITIAL DENSITY (KN/M3)	= 16.106
WET SAMPLE WT (GM)	= 135.44	INITIAL WATER CONTENT (%)	= 50.10
VOL OF SAMPLE (CC)	= 82.46	INITIAL SATURATION (%)	= 89.18
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.5961

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.6		0.3	2.6029	0.00	1.5956	0	44				
	2.40							.04781	2.3E-06	5.0E-04	.007
3.2		0.5	2.6008	0.08	1.5935	22	28				
	4.81							.02381	1.6E-06	6.7E-04	.018
6.4		1.0	2.5953	0.29	1.5879	27	12				
	9.62							.00870	9.1E-07	1.1E-03	.059
12.8		2.7	2.5776	0.97	1.5703	34	10				
	19.24							.00560	1.1E-06	1.9E-03	.215
25.6		4.0	2.5125	3.47	1.5054	24	10				
	16.03							.00038	1.9E-08	4.8E-04	.040
6.4		60.0	2.5368	2.54	1.5296	0	0				
	4.01							.00038	6.8E-08	1.8E-03	.037
1.6		60.0	2.5590	1.69	1.5517	0	0				
	4.01							.02307	7.8E-07	3.4E-04	.007
6.4		1.0	2.5547	1.85	1.5475	33	19				
	16.03							.02249	1.5E-06	6.6E-04	.055
25.6		1.0	2.5215	3.13	1.5143	46	23				
	38.47							.02192	1.1E-06	4.9E-04	.108
51.3		1.0	2.4889	4.38	1.4818	15	24				
	76.94							.00252	2.1E-07	7.8E-04	.346
102.6		8.0	2.3844	8.39	1.3777	33	0				
	153.89							.00057	3.5E-08	5.6E-04	.494
205.2		31.6	2.2353	14.12	1.2290	2	0				
	103.39							.00017	6.4E-09	3.5E-04	.087
1.6		120.0	2.4184	7.09	1.4115	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.6		0.3	2.6029	0.00	1.5956	0	0				
	2.40							.04784	1.3E-06	2.7E-04	.004
3.2		0.5	2.6018	0.04	1.5944	0	0				
	4.81							.02386	9.5E-07	4.1E-04	.011
6.4		1.0	2.5984	0.17	1.5911	0	0				
	9.62							.00877	5.4E-07	6.3E-04	.035
12.8		2.7	2.5880	0.57	1.5806	0	0				
	19.24							.00573	7.8E-07	1.4E-03	.152
25.6		4.0	2.5420	2.34	1.5348	0	0				
	16.03							.00039	2.4E-08	6.3E-04	.052
6.4		60.0	2.5736	1.13	1.5663	0	0				
	4.01							.00040	6.9E-08	1.8E-03	.036
1.6		60.0	2.5956	0.28	1.5882	0	0				
	4.01							.02376	4.7E-07	2.0E-04	.004
6.4		1.0	2.5931	0.38	1.5857	0	0				
	16.03							.02355	5.9E-07	2.5E-04	.021
25.6		1.0	2.5804	0.87	1.5730	0	0				
	38.47							.02323	6.3E-07	2.7E-04	.061
51.3		1.0	2.5620	1.57	1.5547	0	0				
	76.94							.00277	1.4E-07	4.8E-04	.214
102.6		8.0	2.4974	4.06	1.4903	0	0				
	153.89							.00063	3.6E-08	5.5E-04	.484
205.2		31.6	2.3512	9.67	1.3445	0	0				
	103.39							.00019	6.7E-09	3.5E-04	.087
1.6		120.0	2.5344	2.63	1.5272	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 310-325 CM

SPECIFIC GRAVITY	= 2.76	INITIAL DENSITY (KN/M3)	= 16.665
WET SAMPLE WT (GM)	= 138.50	INITIAL WATER CONTENT (%)	= 50.10
VOL OF SAMPLE (CC)	= 81.49	INITIAL SATURATION (%)	= 96.19
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.4375

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.1	1.0		2.5720	0.00	1.4365	100	0				
	4.69							.00666	3.7E-07	5.7E-04	.014
6.3	3.5		2.5674	0.18	1.4322	36	4				
	9.38							.00056	8.9E-08	1.6E-03	.081
12.5	40.6		2.5418	1.18	1.4079	9	0				
	18.73							.00104	1.3E-07	1.3E-03	.129
25.0	21.4		2.5007	2.77	1.3690	22	0				
	37.37							.00100	7.8E-08	7.7E-04	.136
49.8	21.4		2.4515	4.69	1.3224	4	0				
	31.13							.00036	1.1E-08	3.0E-04	.045
12.5	60.0		2.4799	3.58	1.3492	0	0				
	7.80							.00037	4.5E-08	1.2E-03	.046
3.1	60.0		2.5089	2.45	1.3767	0	0				
	7.80							.00225	9.9E-08	4.4E-04	.017
12.5	9.8		2.4983	2.86	1.3668	26	0				
	31.13							.00104	6.3E-08	6.0E-04	.090
49.8	20.3		2.4411	5.09	1.3125	13	0				
	74.89							.00076	3.9E-08	4.8E-04	.195
100.0	26.3		2.3798	7.51	1.2535	0	0				
	150.01							.00102	4.5E-08	4.1E-04	.328
200.0	18.1		2.2746	11.56	1.1548	0	0				
	299.78							.00063	1.8E-08	2.5E-04	.408
399.5	26.3		2.1453	16.59	1.0323	0	0				
	249.78							.00028	2.4E-09	7.2E-05	.088
100.0	60.0		2.2012	14.42	1.0852	0	0				
	51.56							.00032	1.8E-08	5.1E-04	.079
3.1	60.0		2.3276	9.50	1.2050	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.1	1.0		2.5720	0.00	1.4365	0	0				
	4.69							.00667	2.3E-07	3.5E-04	.009
6.3	3.5		2.5692	0.11	1.4339	0	0				
	9.38							.00057	8.0E-08	1.4E-03	.072
12.5	40.6		2.5463	1.00	1.4122	0	0				
	18.73							.00105	1.0E-07	9.9E-04	.100
25.0	21.4		2.5144	2.24	1.3820	0	0				
	37.37							.00101	7.5E-08	7.4E-04	.149
49.8	21.4		2.4673	4.07	1.3373	0	0				
	31.13							.00037	1.1E-08	3.0E-04	.045
12.5	60.0		2.4958	2.96	1.3644	0	0				
	7.80							.00037	4.5E-08	1.2E-03	.046
3.1	60.0		2.5249	1.83	1.3919	0	0				
	7.80							.00229	7.2E-08	3.2E-04	.012
12.5	9.8		2.5173	2.13	1.3847	0	0				
	31.13							.00106	5.5E-08	5.2E-04	.078
49.8	20.3		2.4679	4.05	1.3379	0	0				
	74.89							.00078	3.9E-08	4.8E-04	.195
100.0	26.3		2.4055	6.47	1.2788	0	0				
	150.01							.00104	4.5E-08	4.0E-04	.327
200.0	18.1		2.3016	10.51	1.1804	0	0				
	299.78							.00064	1.8E-08	2.5E-04	.407
399.5	26.3		2.1734	15.54	1.0580	0	0				
	249.78							.00029	2.4E-09	7.3E-05	.088
100.0	60.0		2.2283	13.36	1.1109	0	0				
	51.56							.00032	1.8E-08	5.1E-04	.079
3.1	60.0		2.3547	8.45	1.2307	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 353-368 CM

SPECIFIC GRAVITY	= 2.84	INITIAL DENSITY (KN/M3)	= 18.392
WET SAMPLE WT (GM)	= 150.77	INITIAL WATER CONTENT (%)	= 39.49
VOL OF SAMPLE (CC)	= 80.38	INITIAL SATURATION (%)	= 100.86
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.1120

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.8	2.0		2.5140	0.00	1.0920	83	0				
5.63								.01007	1.1E-06	1.2E-03	.030
7.5	2.2		2.5030	0.44	1.0829	34	0				
11.27								.00272	3.4E-07	1.3E-03	.066
15.0	8.0		2.4791	1.39	1.0630	26	0				
22.54								.00131	1.6E-07	1.2E-03	.129
30.0	16.0		2.4325	3.24	1.0243	17	0				
45.07								.00048	3.5E-08	7.1E-04	.148
60.1	42.0		2.3790	5.37	0.9797	5	0				
37.56								.00034	9.9E-09	2.8E-04	.044
15.0	60.0		2.4109	4.10	1.0062	0	0				
9.39								.00018	3.2E-08	1.8E-03	.070
3.8	120.0		2.4618	2.08	1.0486	0	0				
9.39								.01060	4.8E-07	4.5E-04	.018
15.0	2.0		2.4489	2.59	1.0379	29	0				
37.56								.00126	7.1E-08	5.5E-04	.086
60.1	16.0		2.3867	5.06	0.9861	12	0				
90.15								.00122	3.4E-08	2.7E-04	.113
120.2	16.0		2.3459	6.68	0.9522	0	0				
180.30								.00116	2.6E-08	2.1E-04	.174
240.4	16.0		2.2831	9.18	0.8999	1	0				
360.65								.00124	1.6E-08	1.2E-04	.199
480.9	14.0		2.2110	12.05	0.8399	0	0				
242.32								.00011	1.2E-09	1.0E-04	.050
3.8	180.0		2.3367	7.05	0.9445	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.8	2.0		2.5140	0.00	1.0920	0	0				
5.63								.01010	7.4E-07	7.5E-04	.020
7.5	2.2		2.5069	0.28	1.0861	0	0				
11.27								.00274	2.5E-07	9.3E-04	.048
15.0	8.0		2.4894	0.98	1.0716	0	0				
22.54								.00133	1.3E-07	1.0E-03	.106
30.0	16.0		2.4510	2.50	1.0396	0	0				
45.07								.00049	3.3E-08	6.7E-04	.140
60.1	42.0		2.4002	4.52	0.9974	0	0				
37.56								.00035	1.0E-08	2.8E-04	.044
15.0	60.0		2.4321	3.26	1.0239	0	0				
9.39								.00018	3.2E-08	1.8E-03	.070
3.8	120.0		2.4829	1.23	1.0662	0	0				
9.39								.01082	3.4E-07	3.2E-04	.012
15.0	2.0		2.4739	1.59	1.0587	0	0				
37.56								.00130	6.3E-08	4.8E-04	.075
60.1	16.0		2.4194	3.76	1.0133	0	0				
90.15								.00125	3.5E-08	2.7E-04	.113
120.2	16.0		2.3785	5.39	0.9793	0	0				
180.30								.00119	2.6E-08	2.0E-04	.171
240.4	16.0		2.3167	7.85	0.9279	0	0				
360.65								.00128	1.7E-08	1.2E-04	.200
480.9	14.0		2.2444	10.72	0.8677	0	0				
242.32								.00011	1.2E-09	1.0E-04	.050
3.8	180.0		2.3700	5.73	0.9722	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 429-444 CM

SPECIFIC GRAVITY = 2.81	INITIAL DENSITY (KN/M3) =	18.023
WET SAMPLE WT (GM) = 152.30	INITIAL WATER CONTENT (%) =	33.73
VOL OF SAMPLE (CC) = 82.86	INITIAL SATURATION (%) =	90.91
DIA OF SAMPLE (CM) = 6.35	INITIAL VOID RATIO =	1.0408

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.2		2.3	2.5927	0.00	1.0225	73	0				
	7.75							.00260	4.4E-07	1.7E-03	.059
10.3		9.0	2.5698	0.88	1.0046	37	0				
	15.50							.01137	1.5E-06	1.3E-03	.090
20.7		2.0	2.5349	2.23	0.9773	33	0				
	30.98							.00092	2.0E-07	2.1E-03	.291
41.3		22.6	2.4229	6.55	0.8900	52	0				
	62.04							.00043	5.0E-08	1.1E-03	.298
82.8		44.0	2.3076	11.00	0.8001	5	0				
	51.73							.00032	4.4E-09	1.3E-04	.026
20.7		60.0	2.3279	10.21	0.8159	0	0				
	12.92							.00033	5.5E-08	1.5E-03	.079
5.2		60.0	2.3889	7.36	0.8634	0	0				
	12.92							.00248	1.2E-07	4.6E-04	.024
20.7		8.0	2.3703	8.58	0.8490	57	0				
	51.73							.00083	4.0E-08	4.4E-04	.092
82.8		22.6	2.2994	11.31	0.7937	10	0				
	123.93							.00061	7.2E-09	1.1E-04	.059
165.1		30.0	2.2767	12.19	0.7760	0	0				
	247.62							.00069	1.3E-08	1.7E-04	.135
330.2		25.0	2.2053	14.94	0.7202	0	0				
	495.25							.00075	8.6E-09	9.7E-05	.216
660.3		21.4	2.1220	18.16	0.6552	0	0				
	412.71							.00027	1.0E-09	3.1E-05	.052
165.1		60.0	2.1620	16.61	0.6865	0	0				
	85.13							.00030	9.2E-09	2.7E-04	.057
5.2		60.0	2.2724	12.35	0.7726	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.2		2.3	2.5927	0.00	1.0225	0	0				
	7.75							.00261	2.8E-07	1.1E-03	.037
10.3		9.0	2.5783	0.56	1.0112	0	0				
	15.50							.01156	9.9E-07	8.6E-04	.060
20.7		2.0	2.5552	1.45	0.9932	0	0				
	30.98							.00098	9.8E-08	9.9E-04	.138
41.3		22.6	2.5021	3.49	0.9518	0	0				
	62.04							.00046	4.9E-08	1.0E-03	.281
82.8		44.0	2.3935	7.68	0.8670	0	0				
	51.73							.00034	4.6E-09	1.3E-04	.026
20.7		60.0	2.4138	6.90	0.8829	0	0				
	12.92							.00036	5.7E-08	1.5E-03	.079
5.2		60.0	2.4748	4.55	0.9304	0	0				
	12.92							.00269	5.4E-08	2.0E-04	.010
20.7		8.0	2.4668	4.85	0.9243	0	0				
	51.73							.00091	3.8E-08	4.0E-04	.083
82.8		22.6	2.4031	7.31	0.8745	0	0				
	123.93							.00067	8.9E-09	1.3E-04	.070
165.1		30.0	2.3763	8.35	0.8536	0	0				
	247.62							.00076	1.4E-08	1.7E-04	.134
330.2		25.0	2.3054	11.08	0.7983	0	0				
	495.25							.00082	9.0E-09	9.7E-05	.216
660.3		21.4	2.2222	14.29	0.7334	0	0				
	412.71							.00030	1.1E-09	3.1E-05	.052
165.1		60.0	2.2622	12.75	0.7647	0	0				
5.2	85.13	60.0	2.3726	8.49	0.8507	0	0	.00033	9.6E-09	2.7E-04	.057

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 235-250 CM

SPECIFIC GRAVITY	= 2.76	INITIAL DENSITY (KN/M3)	= 16.279
WET SAMPLE WT (GM)	= 134.67	INITIAL WATER CONTENT (%)	= 59.10
VOL OF SAMPLE (CC)	= 81.11	INITIAL SATURATION (%)	= 99.17
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.6448

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.4	11.4		2.5419	0.00	1.6250	51	0				
8.11								.00404	3.5E-07	8.8E-04	.042
10.8	5.6		2.5297	0.48	1.6124	27	0				
16.25								.01125	2.9E-07	2.6E-04	.025
21.7	2.0		2.5225	0.76	1.6050	37	0				
32.49								.00169	3.4E-07	2.0E-03	.372
43.3	12.3		2.4142	5.02	1.4931	10	0				
64.96								.00043	8.7E-08	1.9E-03	.705
86.6	40.6		2.2088	13.10	1.2810	0	0				
54.14								.00015	7.7E-09	4.6E-04	.129
21.7	120.0		2.2841	10.14	1.3588	0	0				
13.54								.00016	4.9E-09	2.9E-04	.020
5.4	120.0		2.2961	9.67	1.3711	0	0				
13.54								.00205	6.7E-08	3.0E-04	.021
21.7	9.0		2.2836	10.16	1.3583	12	0				
54.14								.00191	1.1E-07	5.1E-04	.144
86.6	9.0		2.1996	13.47	1.2715	8	0				
129.91								.00073	6.8E-08	7.9E-04	.598
173.2	20.3		2.0252	20.33	1.0914	0	0				
259.83								.00074	3.3E-08	3.5E-04	.534
346.4	17.0		1.8696	26.45	0.9308	0	0				
519.65								.00103	2.1E-08	1.4E-04	.437
692.9	10.6		1.7421	31.46	0.7991	0	0				
433.04								.00009	2.7E-10	2.1E-05	.047
173.2	120.0		1.7696	30.38	0.8274	0	0				
89.31								.00010	1.2E-09	8.7E-05	.025
5.4	120.0		1.8066	28.93	0.8656	0	87				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.4	11.4		2.5419	0.00	1.6250	0	0				
8.11								.00405	2.5E-07	6.4E-04	.030
10.8	5.6		2.5331	0.34	1.6159	0	0				
16.25								.01130	1.8E-07	1.6E-04	.015
21.7	2.0		2.5286	0.52	1.6113	0	0				
32.49								.00171	3.0E-07	1.8E-03	.334
43.3	12.3		2.4315	4.34	1.5110	0	0				
64.96								.00044	8.8E-08	1.9E-03	.705
86.6	40.6		2.2261	12.42	1.2988	0	0				
54.14								.00015	7.8E-09	4.6E-04	.129
21.7	120.0		2.3014	9.46	1.3766	0	0				
13.54								.00016	4.9E-09	2.9E-04	.020
5.4	120.0		2.3133	8.99	1.3889	0	0				
13.54								.00208	6.0E-08	2.7E-04	.019
21.7	9.0		2.3023	9.43	1.3775	0	0				
54.14								.00196	1.0E-07	4.7E-04	.132
86.6	9.0		2.2255	12.45	1.2982	0	0				
129.91								.00074	6.9E-08	7.9E-04	.598
173.2	20.3		2.0511	19.31	1.1181	0	0				
259.83								.00076	3.4E-08	3.5E-04	.533
346.4	17.0		1.8956	25.43	0.9575	0	0				
519.65								.00106	2.1E-08	1.4E-04	.438
692.9	10.6		1.7680	30.44	0.8258	0	0				
433.04								.00009	2.7E-10	2.1E-05	.047
173.2	120.0		1.7954	29.37	0.8541	0	0				
89.31								.00010	1.2E-09	8.7E-05	.025
5.4	120.0		1.8324	27.91	0.8923	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS CD @ 435-450 CM

SPECIFIC GRAVITY	= 2.74	INITIAL DENSITY (KN/M3)	= 17.616
WET SAMPLE WT (GM)	= 149.30	INITIAL WATER CONTENT (%)	= 32.50
VOL OF SAMPLE (CC)	= 83.10	INITIAL SATURATION (%)	= 87.24
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.0207

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.6		1.6	2.6201	0.00	1.0179	59	2				
	7.03							.00428	5.1E-07	1.2E-03	.038
9.4		5.6	2.6049	0.58	1.0062	44	0				
	14.00							.00171	6.3E-07	3.8E-03	.238
18.6		13.1	2.5140	4.05	0.9362	60	0				
	27.82							.00273	1.7E-07	6.2E-04	.077
37.1		8.0	2.4841	5.19	0.9131	7	0				
	55.63							.00369	2.8E-07	7.4E-04	.183
74.2		5.6	2.4127	7.92	0.8581	28	0				
	46.37							.00035	5.2E-09	1.4E-04	.026
18.6		60.0	2.4333	7.13	0.8740	0	0				
	11.60							.00036	2.9E-08	7.7E-04	.036
4.6		60.0	2.4613	6.06	0.8955	0	0				
	11.60							.00916	3.5E-07	3.8E-04	.027
18.6		2.3	2.4402	6.87	0.8793	54	0				
	46.37							.00398	1.3E-07	3.2E-04	.059
74.2		5.1	2.3942	8.62	0.8439	39	0				
	111.25							.00273	1.4E-07	4.6E-04	.228
148.3		6.9	2.3051	12.02	0.7752	35	0				
	222.50							.00210	5.6E-08	2.3E-04	.332
296.7		8.3	2.2143	15.49	0.7053	3	0				
	445.01							.00403	5.3E-08	1.1E-04	.220
593.3		4.0	2.1282	18.77	0.6390	2	0				
	370.84							.00027	5.8E-10	1.8E-05	.026
148.3		60.0	2.1489	17.99	0.6549	0	0				
	76.49							.00030	9.6E-09	2.8E-04	.053
4.6		60.0	2.2533	14.00	0.7353	0	4				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.6		1.6	2.6201	0.00	1.0179	0	0				
	7.03							.00431	2.9E-07	6.8E-04	.021
9.4		5.6	2.6117	0.32	1.0113	0	0				
	14.00							.00179	2.7E-07	1.5E-03	.095
18.6		13.1	2.5755	1.70	0.9835	0	0				
	27.82							.00287	1.6E-07	5.7E-04	.071
37.1		8.0	2.5479	2.76	0.9622	0	0				
	55.63							.00395	2.1E-07	5.3E-04	.131
74.2		5.6	2.4968	4.71	0.9229	0	0				
	46.37							.00037	5.4E-09	1.4E-04	.026
18.6		60.0	2.5174	3.92	0.9387	0	0				
	11.60							.00038	3.0E-08	7.7E-04	.036
4.6		60.0	2.5453	2.85	0.9603	0	0				
	11.60							.00989	3.6E-07	2.6E-04	.012
18.6		2.3	2.5357	3.22	0.9529	0	0				
	46.37							.00437	8.5E-08	1.9E-04	.036
74.2		5.1	2.5078	4.29	0.9314	0	0				
	111.25							.00309	9.5E-08	3.0E-04	.148
148.3		6.9	2.4499	6.50	0.8868	0	0				
	222.50							.00239	5.7E-08	2.2E-04	.223
296.7		8.3	2.3627	9.82	0.8196	0	0				
	445.01							.00462	5.5E-08	1.1E-04	.215
593.3		4.0	2.2786	13.03	0.7549	0	0				
	370.84							.00031	6.2E-10	1.8E-05	.026
148.3		60.0	2.2992	12.25	0.7707	0	0				
	76.49							.00034	1.0E-08	2.8E-04	.053
4.6		60.0	2.4037	8.26	0.8511	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 539-554 CM

SPECIFIC GRAVITY	= 2.82	INITIAL DENSITY (KN/M3)	= 18.706
WET SAMPLE WT (GM)	= 152.64	INITIAL WATER CONTENT (%)	= 30.40
VOL OF SAMPLE (CC)	= 80.01	INITIAL SATURATION (%)	= 92.43
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 0.9275

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.4	3.0		2.5024	0.00	0.9093	55	0				
9.66								.00725	9.8E-07	1.4E-03	.056
12.9	3.0		2.4802	0.89	0.8923	36	0				
19.33								.01046	1.6E-06	1.5E-03	.125
25.8	2.0		2.4308	2.86	0.8547	49	0				
38.65								.00511	2.3E-07	4.5E-04	.073
51.5	4.0		2.4020	4.01	0.8327	16	0				
77.30								.00393	1.5E-07	3.7E-04	.120
103.1	5.0		2.3546	5.91	0.7965	9	0				
64.42								.00066	3.2E-09	4.7E-05	.011
25.8	30.0		2.3636	5.55	0.8034	0	1				
16.10								.00067	3.4E-08	4.9E-04	.030
6.4	30.0		2.3871	4.60	0.8214	0	0				
16.10								.01992	5.7E-07	2.8E-04	.017
25.8	1.0		2.3737	5.14	0.8111	28	0				
64.42								.00975	1.4E-07	1.3E-04	.033
103.1	2.0		2.3479	6.17	0.7914	26	0				
154.60								.00535	1.1E-07	2.0E-04	.128
206.1	3.5		2.2973	8.19	0.7529	7	0				
309.21								.00473	7.9E-08	1.5E-04	.202
412.3	3.7		2.2178	11.37	0.6922	12	0				
618.37								.00648	5.9E-08	9.1E-05	.213
824.5	2.5		2.1339	14.72	0.6282	7	0				
415.45								.00009	5.0E-10	5.0E-05	.037
6.4	200.0		2.2371	10.60	0.7069	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.4	3.0		2.5024	0.00	0.9093	0	0				
9.66								.00730	6.3E-07	8.7E-04	.036
12.9	3.0		2.4883	0.56	0.8985	0	0				
19.33								.01074	8.2E-07	7.7E-04	.063
25.8	2.0		2.4634	1.56	0.8796	0	0				
38.65								.00527	2.0E-07	3.7E-04	.061
51.5	4.0		2.4394	2.52	0.8613	0	0				
77.30								.00407	1.4E-07	3.3E-04	.109
103.1	5.0		2.3965	4.23	0.8285	0	0				
64.42								.00068	3.2E-09	4.7E-05	.011
25.8	30.0		2.4056	3.87	0.8354	0	0				
16.10								.00069	3.4E-08	4.8E-04	.030
6.4	30.0		2.4290	2.93	0.8533	0	0				
16.10								.02070	4.2E-07	2.0E-04	.012
25.8	1.0		2.4194	3.32	0.8460	0	0				
64.42								.01020	1.0E-07	9.8E-05	.024
103.1	2.0		2.4005	4.07	0.8316	0	0				
154.60								.00562	1.0E-07	1.8E-04	.118
206.1	3.5		2.3539	5.93	0.7960	0	0				
309.21								.00501	7.1E-08	1.3E-04	.176
412.3	3.7		2.2845	8.71	0.7431	0	0				
618.37								.00693	5.7E-08	7.6E-05	.197
824.5	2.5		2.2066	11.82	0.6836	0	0				
415.45								.00009	5.1E-10	5.0E-05	.037
6.4	200.0		2.3099	7.69	0.7624	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 350-365 CM

SPECIFIC GRAVITY =	2.85	INITIAL DENSITY (KN/M3) =	17.306
WET SAMPLE WT (GM) =	141.32	INITIAL WATER CONTENT (%) =	43.40
VOL OF SAMPLE (CC) =	80.07	INITIAL SATURATION (%) =	94.13
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.3122

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.0	2.0		2.5180	0.00	1.3030	57	0				
	4.49							.02222	3.1E-06	1.4E-03	.032
6.0	1.0		2.5073	0.42	1.2933	35	0				
	8.97							.02186	3.1E-06	1.4E-03	.065
12.0	1.0		2.4859	1.27	1.2737	40	0				
	17.94							.00260	5.7E-07	2.2E-03	.200
23.9	8.0		2.4201	3.89	1.2135	34	0				
	35.89							.00253	1.2E-07	4.6E-04	.085
47.9	8.0		2.3922	5.00	1.1879	0	-1				
	29.91							.00068	1.6E-08	2.2E-04	.031
12.0	30.0		2.4124	4.19	1.2065	0	0				
	7.48							.00042	3.6E-08	8.5E-04	.029
3.0	50.0		2.4317	3.43	1.2241	0	0				
	7.48							.00518	2.3E-07	4.3E-04	.015
12.0	4.0		2.4219	3.82	1.2151	25	0				
	29.91							.00505	1.9E-07	3.6E-04	.049
47.9	4.0		2.3895	5.10	1.1855	17	0				
	71.78							.00300	1.2E-07	3.7E-04	.136
95.7	6.5		2.3448	6.88	1.1446	0	0				
	143.55							.00165	7.3E-08	4.1E-04	.302
191.4	10.9		2.2453	10.83	1.0536	0	0				
	287.10							.00105	3.7E-08	3.1E-04	.455
382.8	15.0		2.0955	16.78	0.9166	0	0				
	192.90							.00017	3.1E-09	1.6E-04	.066
3.0	102.0		2.2479	10.73	1.0560	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.0	2.0		2.5180	0.00	1.3030	0	0				
	4.49							.02229	3.0E-06	9.0E-04	.021
6.0	1.0		2.5112	0.27	1.2968	0	0				
	8.97							.02208	1.8E-06	8.4E-04	.039
12.0	1.0		2.4985	0.77	1.2852	0	0				
	17.94							.00267	3.8E-07	1.4E-03	.130
23.9	8.0		2.4556	2.48	1.2460	0	0				
	35.89							.00261	1.2E-07	4.6E-04	.085
47.9	8.0		2.4277	3.59	1.2204	0	0				
	29.91							.00070	1.6E-08	2.2E-04	.030
12.0	30.0		2.4474	2.80	1.2385	0	0				
	7.48							.00043	3.7E-08	8.5E-04	.029
3.0	50.0		2.4666	2.04	1.2560	0	0				
	7.48							.00535	1.7E-07	3.2E-04	.011
12.0	4.0		2.4593	2.33	1.2493	0	0				
	29.91							.00524	1.6E-07	3.0E-04	.041
47.9	4.0		2.4325	3.40	1.2248	0	0				
	71.78							.00311	1.0E-07	3.7E-04	.135
95.7	6.5		2.3879	5.17	1.1840	0	0				
	143.55							.00171	7.4E-08	4.1E-04	.302
191.4	10.9		2.2885	9.11	1.0932	0	0				
	287.10							.00109	3.8E-08	3.1E-04	.455
382.8	15.0		2.1387	15.06	0.9561	0	0				
	192.90							.00018	3.2E-09	1.6E-04	.066
3.0	102.0		2.2911	9.01	1.0955	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 482-497 CM

SPECIFIC GRAVITY	= 2.79	INITIAL DENSITY (KN/M3)	= 17.285
WET SAMPLE WT (GM)	= 143.63	INITIAL WATER CONTENT (%)	= 42.98
VOL OF SAMPLE (CC)	= 81.47	INITIAL SATURATION (%)	= 94.96
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.2628

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.5	1.0	2.5717	0.00	1.2622	75	25					
6.68							.02331	6.8E-07	3.0E-04	.010	
8.9	1.0	2.5683	0.13	1.2592	61	4					
13.35							.00410	3.8E-07	9.5E-04	.064	
17.8	5.6	2.5465	0.98	1.2400	25	0					
26.72							.00245	2.6E-07	1.1E-03	.142	
35.6	9.0	2.4977	2.88	1.1970	49	0					
53.47							.00269	1.0E-07	3.8E-04	.102	
71.3	8.0	2.4629	4.23	1.1664	8	0					
44.55							.00036	4.2E-09	1.1E-04	.023	
17.8	60.0	2.4786	3.62	1.1802	0	0					
11.13							.00037	3.8E-08	1.0E-03	.051	
4.5	60.0	2.5132	2.27	1.2107	0	0					
11.13							.00317	2.4E-07	7.5E-04	.038	
17.8	6.9	2.4876	3.27	1.1881	37	0					
44.55							.00340	6.6E-08	1.9E-04	.038	
71.3	6.3	2.4615	4.29	1.1652	23	0					
106.94							.00231	5.1E-08	2.1E-04	.115	
142.6	9.0	2.4222	5.82	1.1306	4	0					
213.89							.00148	3.8E-08	2.4E-04	.262	
285.2	13.1	2.3326	9.30	1.0518	1	0					
427.78							.00066	2.0E-08	2.6E-04	.567	
570.4	25.0	2.1386	16.84	0.8812	0	0					
356.48							.00014	5.0E-10	3.1E-05	.049	
142.6	120.0	2.1723	15.53	0.9108	0	0					
73.52							.00015	6.6E-09	3.8E-04	.078	
4.5	120.0	2.3065	10.31	1.0289	0	0					

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.5	1.0	2.5717	0.00	1.2622	0	0					
6.68							.02335	2.3E-07	9.9E-05	.003	
8.9	1.0	2.5706	0.04	1.2612	0	0					
13.35							.00412	2.8E-07	7.0E-04	.047	
17.8	5.6	2.5545	0.67	1.2470	0	0					
26.72							.00252	1.3E-07	5.3E-04	.072	
35.6	9.0	2.5300	1.62	1.2254	0	0					
53.47							.00276	9.6E-08	3.4E-04	.092	
71.3	8.0	2.4984	2.85	1.1976	0	0					
44.55							.00037	4.2E-09	1.1E-04	.023	
17.8	60.0	2.5139	2.25	1.2113	0	0					
11.13							.00038	3.8E-08	1.0E-03	.051	
4.5	60.0	2.5486	0.90	1.2418	0	0					
11.13							.00329	1.5E-07	4.7E-04	.024	
17.8	6.9	2.5325	1.53	1.2277	0	0					
44.55							.00355	5.2E-08	1.5E-04	.029	
71.3	6.3	2.5125	2.30	1.2100	0	0					
106.94							.00241	5.0E-08	2.0E-04	.110	
142.6	9.0	2.4749	3.76	1.1770	0	0					
213.89							.00155	3.8E-08	2.4E-04	.256	
285.2	13.1	2.3872	7.18	1.0998	0	0					
427.78							.00069	2.0E-08	2.6E-04	.567	
570.4	25.0	2.1933	14.72	0.9293	0	0					
356.48							.00015	5.1E-10	3.1E-05	.049	
142.6	120.0	2.2269	13.41	0.9588	0	0					
73.52							.00016	6.7E-09	3.8E-04	.079	
4.5	120.0	2.3612	8.19	1.0770	0	0					

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679
USGS BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS CD @ 591-606 CM

SPECIFIC GRAVITY	= 2.85	INITIAL DENSITY (KN/M3)	= 17.548
WET SAMPLE WT (GM)	= 144.07	INITIAL WATER CONTENT (%)	= 44.90
VOL OF SAMPLE (CC)	= 80.50	INITIAL SATURATION (%)	= 97.87
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.3075

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.8	3.1		2.5286	0.00	1.2955	61	0				
	10.24							.00110	1.2E-07	1.1E-03	.058
13.6	20.3		2.5093	0.76	1.2780	23	0				
	20.46							.00098	1.1E-07	1.1E-03	.113
27.3	22.0		2.4718	2.24	1.2440	16	0				
	40.91							.00099	4.3E-08	4.3E-04	.089
54.5	21.4		2.4422	3.42	1.2171	5	0				
	81.82							.00127	4.5E-08	3.5E-04	.145
109.1	16.0		2.3941	5.32	1.1734	3	0				
	68.19							.00034	4.4E-09	1.2E-04	.039
27.3	60.0		2.4199	4.30	1.1968	0	0				
	17.06							.00035	2.3E-08	6.9E-04	.054
6.8	60.0		2.4554	2.89	1.2291	0	0				
	17.06							.00198	8.4E-08	4.2E-04	.033
27.3	10.6		2.4338	3.75	1.2094	15	0				
	68.19							.00252	6.0E-08	2.3E-04	.072
109.1	8.0		2.3863	5.63	1.1664	9	0				
	163.65							.00111	3.6E-08	3.1E-04	.255
218.2	17.0		2.3017	8.97	1.0895	3	0				
	327.29							.00070	2.0E-08	2.6E-04	.427
436.4	23.8		2.1601	14.57	0.9610	0	0				
	654.59							.00104	1.5E-08	1.2E-04	.402
872.8	14.1		2.0268	19.84	0.8400	0	0				
	439.81							.00028	2.9E-09	8.7E-05	.082
6.8	60.0		2.2180	12.28	1.0135	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.8	3.1		2.5286	0.00	1.2955	0	0				
	10.24							.00110	9.2E-08	8.5E-04	.044
13.6	20.3		2.5139	0.58	1.2822	0	0				
	20.46							.00099	8.9E-08	9.1E-04	.094
27.3	22.0		2.4826	1.82	1.2537	0	0				
	40.91							.00100	4.1E-08	4.1E-04	.084
54.5	21.4		2.4546	2.92	1.2284	0	0				
	81.82							.00129	4.4E-08	3.4E-04	.140
109.1	16.0		2.4081	4.77	1.1861	0	0				
	68.19							.00035	4.4E-09	1.2E-04	.039
27.3	60.0		2.4337	3.75	1.2094	0	0				
	17.06							.00036	2.5E-08	6.9E-04	.054
6.8	60.0		2.4693	2.34	1.2417	0	0				
	17.06							.00201	7.2E-08	3.6E-04	.028
27.3	10.6		2.4510	3.07	1.2250	0	0				
	68.19							.00257	5.5E-08	2.1E-04	.065
109.1	8.0		2.4078	4.78	1.1858	0	0				
	163.65							.00113	3.5E-08	3.0E-04	.248
218.2	17.0		2.3257	8.03	1.1113	0	0				
	327.29							.00072	2.0E-08	2.6E-04	.427
436.4	23.8		2.1340	13.63	0.9827	0	0				
	654.59							.00107	1.5E-08	1.2E-04	.403
872.8	14.1		2.0505	18.91	0.8615	0	0				
	439.81							.00029	2.9E-09	8.7E-05	.082
6.8	60.0		2.2416	11.35	1.0349	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 268-283 CM

SPECIFIC GRAVITY	= 2.73	INITIAL DENSITY (KN/M3)	= 17.429
WET SAMPLE WT (GM)	= 143.09	INITIAL WATER CONTENT (%)	= 46.70
VOL OF SAMPLE (CC)	= 80.50	INITIAL SATURATION (%)	= 101.74
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.2531

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9		6.2	2.5369	0.00	1.2488	31	-1				
	4.34							.00131	1.8E-07	1.4E-03	.031
5.8		17.2	2.5265	0.41	1.2395	19	1				
	8.68							.00015	4.2E-08	2.8E-03	.120
11.6		144.0	2.4859	2.01	1.2036	11	0				
	17.37							.00043	1.3E-07	2.9E-03	.249
23.2		47.3	2.4013	5.35	1.1286	0	0				
	34.74							.00033	4.0E-08	1.1E-03	.198
46.3		58.1	2.3339	8.00	1.0688	0	0				
	28.95							.00033	1.1E-08	3.3E-04	.042
11.6		60.0	2.3626	6.87	1.0943	0	0				
	7.24							.00033	3.9E-08	1.1E-03	.036
2.9		60.0	2.3873	5.90	1.1162	0	0				
	7.24							.00222	8.5E-08	3.7E-04	.012
11.6		9.0	2.3792	6.22	1.1090	34	0				
	28.95							.00112	7.8E-08	6.6E-04	.085
46.3		17.0	2.3213	8.50	1.0577	17	0				
	69.48							.00044	4.0E-08	8.3E-04	.289
92.6		40.0	2.2233	12.36	0.9708	4	0				
	138.96							.00038	2.1E-08	4.8E-04	.335
185.3		42.2	2.1095	16.85	0.8700	0	0				
	277.91							.00053	1.9E-08	2.9E-04	.401
370.6		26.3	1.9734	22.21	0.7493	0	0				
	231.59							.00024	2.9E-09	9.5E-05	.099
92.6		60.0	2.0405	19.57	0.8088	0	0				
	47.77							.00027	1.7E-08	5.4E-04	.073
2.9		60.0	2.1637	14.71	0.9180	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9		6.2	2.5369	0.00	1.2488	0	0				
	4.34							.00131	1.5E-07	1.2E-03	.025
5.8		17.2	2.5284	0.33	1.2413	0	0				
	8.68							.00015	3.7E-08	2.4E-03	.106
11.6		144.0	2.4926	1.75	1.2095	0	0				
	17.37							.00044	1.3E-07	2.9E-03	.248
23.2		47.3	2.4082	5.07	1.1347	0	0				
	34.74							.00034	4.0E-08	1.1E-03	.199
46.3		58.1	2.3407	7.73	1.0749	0	0				
	28.95							.00033	1.1E-08	3.3E-04	.043
11.6		60.0	2.3698	6.59	1.1007	0	0				
	7.24							.00034	4.0E-08	1.1E-03	.037
2.9		60.0	2.3946	5.61	1.1227	0	0				
	7.24							.00224	5.7E-08	2.4E-04	.008
11.6		9.0	2.3893	5.82	1.1179	0	0				
	28.95							.00114	6.5E-08	5.4E-04	.071
46.3		17.0	2.3413	7.71	1.0754	0	0				
	69.48							.00045	3.9E-08	8.0E-04	.275
92.6		40.0	2.2479	11.39	0.9926	0	0				
	138.96							.00039	2.1E-08	4.8E-04	.335
185.3		42.2	2.1341	15.88	0.8918	0	0				
	277.91							.00054	1.9E-08	2.9E-04	.401
370.6		26.3	1.9981	21.24	0.7712	0	0				
	231.59							.00025	2.9E-09	9.5E-05	.099
92.6		60.0	2.0653	18.59	0.8307	0	0				
	47.77							.00028	1.8E-08	5.4E-04	.072
2.9		60.0	2.1883	13.74	0.9398	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE USGS W9-2679
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 445-460 CM

SPECIFIC GRAVITY =	2.73	INITIAL DENSITY (KN/M3) =	16.915
WET SAMPLE WT (GM) =	138.97	INITIAL WATER CONTENT (%) =	53.68
VOL OF SAMPLE (CC) =	80.56	INITIAL SATURATION (%) =	102.29
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.4338

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.0	2.0	2.5282	0.00	1.4191	42	0				
6.01							.00139	3.4E-07	2.5E-03	.080
8.0	16.0	2.5029	1.00	1.3949	20	0				
12.02							.00135	2.1E-07	1.6E-03	.101
16.0	16.0	2.4711	2.26	1.3644	1	0				
24.04							.00075	1.5E-07	1.9E-03	.245
32.1	27.0	2.3939	5.31	1.2905	0	0				
48.09							.00056	6.5E-08	1.1E-03	.284
64.1	34.0	2.3045	8.85	1.2051	0	0				
40.07							.00032	7.5E-09	2.2E-04	.043
16.0	60.0	2.3314	7.79	1.2307	0	0				
10.02							.00016	1.6E-08	9.1E-04	.044
4.0	120.0	2.3591	6.69	1.2573	0	0				
10.02							.00243	1.3E-07	5.0E-04	.024
16.0	8.0	2.3440	7.29	1.2428	21	0				
40.07							.00208	8.3E-08	4.0E-04	.076
64.1	9.0	2.2959	9.19	1.1968	4	0				
96.18							.00042	4.5E-08	9.5E-04	.491
128.2	39.0	2.1413	15.30	1.0489	0	0				
192.36							.00066	3.3E-08	4.2E-04	.428
256.5	22.0	2.0066	20.63	0.9200	0	0				
384.71							.00103	2.6E-08	2.0E-04	.410
513.0	12.3	1.8776	25.73	0.7966	0	0				
258.48							.00012	1.9E-09	1.2E-04	.071
4.0	120.0	2.0350	19.81	0.9472	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.0	2.0	2.5282	0.00	1.4191	0	0				
6.01							.00139	2.7E-07	2.0E-03	.064
8.0	16.0	2.5082	0.79	1.3999	0	0				
12.02							.00136	2.1E-07	1.5E-03	.100
16.0	16.0	2.4768	2.03	1.3699	0	0				
24.04							.00076	1.5E-07	1.9E-03	.245
32.1	27.0	2.3998	5.08	1.2962	0	0				
48.09							.00056	6.5E-08	1.1E-03	.283
64.1	34.0	2.3109	8.60	1.2112	0	0				
40.07							.00032	7.5E-09	2.2E-04	.043
16.0	60.0	2.3377	7.53	1.2368	0	0				
10.02							.00016	1.6E-08	9.1E-04	.044
4.0	120.0	2.3654	6.44	1.2633	0	0				
10.02							.00245	1.3E-07	5.0E-04	.019
16.0	8.0	2.3535	6.91	1.2519	0	0				
40.07							.00210	8.4E-08	3.8E-04	.073
64.1	9.0	2.3075	8.73	1.2079	0	0				
96.18							.00043	4.5E-08	9.5E-04	.491
128.2	39.0	2.1531	14.84	1.0602	0	0				
192.36							.00066	3.3E-08	4.2E-04	.429
256.5	22.0	2.0182	20.17	0.9311	0	0				
384.71							.00104	2.6E-08	2.0E-04	.410
513.0	12.3	1.8893	25.27	0.8077	0	0				
258.48							.00012	1.9E-09	1.2E-04	.072
4.0	120.0	2.0467	19.04	0.9584	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 543-558 CM

SPECIFIC GRAVITY	= 2.79	INITIAL DENSITY (KN/M3)	= 15.582
WET SAMPLE WT (GM)	= 130.40	INITIAL WATER CONTENT (%)	= 62.55
VOL OF SAMPLE (CC)	= 82.05	INITIAL SATURATION (%)	= 94.14
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.8537

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.5		0.8	2.5808	0.00	1.8427	69	0				
	6.68							.00155	2.5E-07	1.7E-03	.069
8.9		15.0	2.5619	0.73	1.8218	48	0				
	13.35							.00048	1.4E-07	2.9E-03	.247
17.8		45.6	2.4943	3.35	1.7474	17	0				
	26.70							.00035	4.6E-08	1.3E-03	.214
35.6		60.0	2.4359	5.62	1.6830	0	0				
	53.45							.00013	2.3E-08	1.7E-03	.568
71.3		144.0	2.2804	11.64	1.5118	0	0				
	44.55							.00031	6.7E-09	1.9E-04	.049
17.8		60.0	2.3072	10.60	1.5414	0	0				
	11.13							.00032	4.7E-08	1.3E-03	.084
4.5		60.0	2.3533	8.81	1.5921	0	0				
	11.13							.00119	1.2E-07	9.7E-04	.061
17.8		16.0	2.3200	10.11	1.5554	29	0				
	44.55							.00080	3.6E-08	4.1E-04	.104
71.3		22.6	2.2633	12.31	1.4929	3	0				
	106.94							.00026	3.5E-08	1.1E-03	.761
142.6		58.1	2.0551	20.37	1.2637	0	0				
	213.65							.00034	2.2E-08	5.0E-04	.677
284.7		37.5	1.8706	27.52	1.0604	0	0				
	427.06							.00050	1.4E-08	2.0E-04	.546
569.4		21.4	1.7214	33.30	0.8961	0	0				
	286.93							.00011	2.2E-09	1.5E-04	.112
4.5		120.0	1.9356	25.00	1.1320	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.5		0.8	2.5808	0.00	1.8427	0	0				
	6.68							.00156	1.3E-07	8.6E-04	.036
8.9		15.0	2.5710	0.38	1.8319	0	0				
	13.35							.00049	1.2E-07	2.4E-03	.203
17.8		45.6	2.5154	2.54	1.7706	0	0				
	26.70							.00036	4.6E-08	1.3E-03	.214
35.6		60.0	2.4569	4.80	1.7063	0	0				
	53.45							.00013	2.4E-08	1.7E-03	.566
71.3		144.0	2.3020	10.80	1.5356	0	0				
	44.55							.00032	6.8E-09	1.9E-04	.049
17.8		60.0	2.3288	9.77	1.5651	0	0				
	11.13							.00033	4.7E-08	1.3E-03	.084
4.5		60.0	2.3748	7.98	1.6158	0	0				
	11.13							.00122	9.0E-08	6.9E-04	.043
17.8		16.0	2.3511	8.90	1.5897	0	0				
	44.55							.00083	3.6E-08	4.0E-04	.100
71.3		22.6	2.2964	11.02	1.5294	0	0				
	106.94							.00027	3.5E-08	1.1E-03	.761
142.6		58.1	2.0884	19.08	1.3003	0	0				
	213.65							.00035	2.2E-08	5.0E-04	.676
284.7		37.5	1.9041	26.22	1.0973	0	0				
	427.06							.00052	1.5E-08	2.0E-04	.546
569.4		21.4	1.7548	32.01	0.9328	0	0				
	286.93							.00011	2.2E-09	1.5E-04	.112
4.5		120.0	1.9690	23.71	1.1688	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 238-253 CM

SPECIFIC GRAVITY	= 2.77	INITIAL DENSITY (KN/M3)	= 16.309
WET SAMPLE WT (GM)	= 133.80	INITIAL WATER CONTENT (%)	= 36.20
VOL OF SAMPLE (CC)	= 80.44	INITIAL SATURATION (%)	= 97.15
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.6042

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.7		6.3	2.5305	0.00	1.5944	57	1				
	2.59							.00355	1.3E-06	3.3E-03	.057
3.5		6.3	2.5137	0.66	1.5772	45	0				
	5.19							.00275	6.1E-07	2.2E-03	.066
6.9		8.0	2.4942	1.43	1.5572	43	0				
	10.37							.00106	2.1E-07	2.0E-03	.117
13.8		20.3	2.4598	2.79	1.5220	21	0				
	20.74							.00176	4.5E-07	2.5E-03	.294
27.7		11.4	2.3734	6.21	1.4333	11	0				
	17.29							.00034	1.3E-08	3.8E-04	.034
6.9		60.0	2.3931	5.43	1.4536	0	0				
	4.32							.00017	2.9E-08	1.6E-03	.036
1.7		120.0	2.4144	4.59	1.4754	0	0				
	4.32							.00402	2.1E-07	5.1E-04	.011
6.9		5.1	2.4076	4.85	1.4684	15	0				
	17.29							.00049	4.4E-08	8.6E-04	.077
27.7		40.0	2.3623	6.64	1.4220	24	0				
	41.49							.00028	7.4E-08	2.5E-03	.585
55.3		62.0	2.1906	13.43	1.2459	8	0				
	82.97							.00068	6.7E-08	8.5E-04	.407
110.6		22.6	2.0711	18.15	1.1234	0	1				
	165.94							.00069	3.2E-08	3.8E-04	.358
221.3		20.0	1.9660	22.31	1.0157	0	0				
	111.49							.00013	3.6E-09	2.3E-04	.063
1.7		120.0	2.0947	17.22	1.1477	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.7		6.3	2.5305	0.00	1.5944	0	0				
	2.59							.00357	7.2E-07	2.1E-03	.031
3.5		6.3	2.5214	0.36	1.5851	0	0				
	5.19							.00279	3.5E-07	1.3E-03	.038
6.9		8.0	2.5104	0.79	1.5739	0	0				
	10.37							.00108	1.7E-07	1.5E-03	.092
13.8		20.3	2.4833	1.86	1.5461	0	0				
	20.74							.00181	4.0E-07	2.2E-03	.260
27.7		11.4	2.4071	4.87	1.4679	0	0				
	17.29							.00035	1.3E-08	3.8E-04	.034
6.9		60.0	2.4269	4.09	1.4882	0	0				
	4.32							.00018	2.9E-08	1.6E-03	.036
1.7		120.0	2.4481	3.26	1.5099	0	0				
	4.32							.00413	1.8E-07	4.3E-04	.010
6.9		5.1	2.4424	3.48	1.5041	0	0				
	17.29							.00051	3.4E-08	6.6E-04	.059
27.7		40.0	2.4080	4.84	1.4688	0	0				
	41.49							.00029	7.0E-08	2.2E-03	.503
55.3		62.0	2.2513	11.03	1.3082	0	0				
	82.97							.00072	6.9E-08	8.5E-04	.407
110.6		22.6	2.1320	15.75	1.1858	0	0				
	165.94							.00073	3.2E-08	3.7E-04	.354
221.3		20.0	2.0281	19.85	1.0793	0	0				
	111.49							.00014	3.7E-09	2.3E-04	.063
1.7		120.0	2.1576	14.73	1.2122	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 472-487 CM

SPECIFIC GRAVITY	= 2.75	INITIAL DENSITY (KN/M3)	= 17.608
WET SAMPLE WT (GM)	= 144.10	INITIAL WATER CONTENT (%)	= 43.10
VOL OF SAMPLE (CC)	= 80.24	INITIAL SATURATION (%)	= 99.49
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.1914

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.3	16.0	2.5129	0.00	1.1734	42	0				
6.46							.00244	4.2E-07	1.7E-03	.054
8.6	9.0	2.4940	0.75	1.1571	18	0				
12.94							.00125	2.3E-07	1.9E-03	.117
17.3	17.0	2.4532	2.38	1.1218	14	0				
25.89							.00094	1.8E-07	1.9E-03	.233
34.5	21.4	2.3723	5.60	1.0518	1	0				
51.70							.00070	8.2E-08	1.1E-03	.274
68.9	26.3	2.2773	9.38	0.9696	0	0				
43.09							.00031	6.5E-09	1.9E-04	.036
17.3	60.0	2.3025	8.37	0.9914	0	0				
10.79							.00032	1.9E-08	5.7E-04	.027
4.3	60.0	2.3211	7.63	1.0076	0	0				
10.79							.00305	1.0E-07	3.2E-04	.015
17.3	6.2	2.3107	8.05	0.9986	9	0				
43.09							.00265	8.7E-08	3.1E-04	.057
68.9	6.9	2.2709	9.63	0.9641	1	0				
103.36							.00087	6.7E-08	6.9E-04	.345
137.8	19.1	2.1508	14.41	0.8602	0	0				
206.95							.00086	3.8E-08	3.7E-04	.368
276.1	17.0	2.0225	19.52	0.7492	0	0				
414.14							.00167	2.6E-08	1.3E-04	.251
552.2	8.0	1.9351	22.99	0.6737	0	0				
345.00							.00022	5.3E-10	1.9E-05	.028
137.8	60.0	1.9544	22.22	0.6904	0	0				
71.06							.00024	7.4E-09	2.5E-04	.047
4.3	60.0	2.0369	18.94	0.7618	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.3	16.0	2.5129	0.00	1.1734	0	0				
6.46							.00245	3.4E-07	1.4E-03	.044
8.6	9.0	2.4977	0.61	1.1603	0	0				
12.94							.00126	2.0E-07	1.6E-03	.100
17.3	17.0	2.4627	2.00	1.1300	0	0				
25.89							.00094	1.8E-07	1.8E-03	.229
34.5	21.4	2.3831	5.17	1.0611	0	0				
51.70							.00071	8.2E-08	1.1E-03	.274
68.9	26.3	2.2880	8.95	0.9789	0	0				
43.09							.00031	6.5E-09	1.9E-04	.036
17.3	60.0	2.3131	7.95	1.0006	0	0				
10.79							.00032	1.9E-08	5.7E-04	.027
4.3	60.0	2.3317	7.21	1.0167	0	0				
10.79							.00308	9.3E-08	2.9E-04	.013
17.3	6.2	2.3224	7.58	1.0087	0	0				
43.09							.00268	8.6E-08	3.0E-04	.056
68.9	6.9	2.2835	9.13	0.9750	0	0				
103.36							.00088	6.7E-08	6.9E-04	.345
137.8	19.1	2.1632	13.92	0.8710	0	0				
206.95							.00087	3.8E-08	3.7E-04	.368
276.1	17.0	2.0348	19.03	0.7599	0	0				
414.14							.00169	2.6E-08	1.3E-04	.251
552.2	8.0	1.9473	22.51	0.6843	0	0				
345.00							.00023	5.3E-10	1.9E-05	.028
137.8	60.0	1.9668	21.73	0.7011	0	0				
71.06							.00025	7.4E-09	2.5E-04	.047
4.3	60.0	2.0492	18.45	0.7724	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 558-573 CM

SPECIFIC GRAVITY = 2.79	INITIAL DENSITY (KN/M3)	=	17.094
WET SAMPLE WT (GM) = 143.05	INITIAL WATER CONTENT (%)	=	43.00
VOL OF SAMPLE (CC) = 82.05	INITIAL SATURATION (%)	=	92.98
DIA OF SAMPLE (CM) = 6.35	INITIAL VOID RATIO	=	1.2926

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.7	6.3	2.5678	0.00	1.2722	60	0				
8.61							.00253	5.2E-07	2.1E-03	.090
11.5	9.0	2.5373	1.19	1.2452	27	0				
17.18							.00144	3.6E-07	2.5E-03	.215
22.9	15.0	2.4645	4.02	1.1808	25	0				
34.31							.00145	1.6E-07	1.1E-03	.189
45.7	14.1	2.4003	6.52	1.1240	8	0				
68.57							.00113	1.1E-07	8.7E-04	.300
91.4	16.0	2.2982	10.50	1.0337	0	0				
57.13							.00032	6.3E-09	1.3E-04	.047
22.9	60.0	2.3301	9.26	1.0619	0	0				
14.31							.00033	2.3E-08	6.6E-04	.043
5.7	60.0	2.3593	8.12	1.0877	0	0				
14.31							.00428	2.6E-07	5.7E-04	.037
22.9	4.5	2.3343	9.09	1.0657	32	0				
57.13							.00715	1.9E-07	2.3E-04	.064
91.4	2.6	2.2906	10.79	1.0270	25	0				
137.09							.00148	8.3E-08	5.0E-04	.342
182.8	11.4	2.1743	15.32	0.9240	2	0				
274.42							.00168	5.1E-08	2.5E-04	.351
366.1	9.0	2.0549	19.98	0.8183	0	0				
549.08							.00265	3.9E-08	1.2E-04	.320
732.1	5.1	1.9461	24.21	0.7221	3	0				
368.92							.00013	1.4E-09	8.6E-05	.068
5.7	120.0	2.1067	17.96	0.8642	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.7	6.3	2.5678	0.00	1.2722	0	0				
8.61							.00255	3.7E-07	1.5E-03	.065
11.5	9.0	2.5458	0.86	1.2528	0	0				
17.18							.00147	2.7E-07	1.8E-03	.159
22.9	15.0	2.4919	2.96	1.2051	0	0				
34.31							.00149	1.5E-07	1.0E-03	.173
45.7	14.1	2.4332	5.24	1.1531	0	0				
68.57							.00121	1.1E-07	8.6E-04	.297
91.4	16.0	2.3321	9.18	1.0637	0	0				
57.13							.00033	6.4E-09	1.3E-04	.047
22.9	60.0	2.3640	7.94	1.0919	0	0				
14.31							.00034	2.4E-08	6.5E-04	.043
5.7	60.0	2.3931	6.80	1.1176	0	0				
14.31							.00444	1.8E-07	3.8E-04	.025
22.9	4.5	2.3762	7.46	1.1027	0	0				
57.13							.00749	1.5E-07	1.8E-04	.048
91.4	2.6	2.3437	8.73	1.0739	0	0				
137.09							.00156	8.3E-08	4.8E-04	.334
182.8	11.4	2.2303	13.15	0.9735	0	0				
274.42							.00177	5.2E-08	.5E-04	.350
366.1	9.0	2.1109	17.79	0.8679	0	0				
549.08							.00282	3.8E-08	1.1E-04	.309
732.1	5.1	2.0059	21.88	0.7750	0	0				
368.92							.00014	1.4E-09	8.6E-05	.067
5.7	120.0	2.1665	15.63	0.9171	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 106-121 CM

SPECIFIC GRAVITY	= 2.72	INITIAL DENSITY (KN/M3)	= 17.511
WET SAMPLE WT (GM)	= 144.10	INITIAL WATER CONTENT (%)	= 41.20
VOL OF SAMPLE (CC)	= 80.69	INITIAL SATURATION (%)	= 97.41
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.1505

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.4	1.6		2.5374	0.00	1.1419	72	0				
	2.11							.02264	4.1E-06	1.8E-03	.019
2.8	1.0		2.5308	0.26	1.1363	53	0				
	4.22							.00975	1.6E-06	1.7E-03	.034
5.6	2.3		2.5187	0.74	1.1260	58	0				
	8.43							.01107	1.2E-06	1.1E-03	.045
11.2	2.0		2.5025	1.38	1.1124	56	0				
	16.87							.01072	1.5E-06	1.4E-03	.113
22.5	2.0		2.4621	2.97	1.0783	70	0				
	14.06							.00072	9.4E-09	1.3E-04	.008
5.6	30.0		2.4677	2.75	1.0830	0	-1				
	3.51							.00036	2.3E-08	6.3E-04	.009
1.4	60.0		2.4744	2.48	1.0887	0	1				
	3.51							.00270	7.8E-08	2.9E-04	.004
5.6	8.0		2.4713	2.61	1.0861	61	4				
	14.06							.02119	1.2E-06	5.4E-04	.033
22.5	1.0		2.4481	3.52	1.0665	57	0				
	33.73							.02986	8.9E-07	2.9E-04	.047
45.0	0.7		2.4314	4.18	1.0524	56	7				
	67.47							.02036	5.8E-07	2.8E-04	.089
90.0	1.0		2.3996	5.43	1.0255	67	0				
	134.94							.00992	1.4E-07	1.4E-04	.089
179.9	2.0		2.3680	6.68	0.9988	62	3				
	90.66							.00020	1.6E-09	7.5E-05	.014
1.4	100.0		2.4018	5.35	1.0274	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.4	1.6		2.5374	0.00	1.1419	0	0				
	2.11							.02270	1.9E-06	8.6E-04	.009
2.8	1.0		2.5343	0.12	1.1393	0	0				
	4.22							.00983	6.9E-07	7.2E-04	.014
5.6	2.3		2.5292	0.32	1.1350	0	0				
	8.43							.01124	5.5E-07	4.9E-04	.020
11.2	2.0		2.5222	0.60	1.1290	0	0				
	16.87							.01114	4.6E-07	4.2E-04	.033
22.5	2.0		2.5103	1.07	1.1190	0	0				
	14.06							.00075	9.7E-09	1.3E-04	.008
5.6	30.0		2.5160	0.85	1.1238	0	0				
	3.51							.00037	2.3E-08	6.3E-04	.010
1.4	60.0		2.5228	0.58	1.1295	0	0				
	3.51							.00281	2.9E-08	1.1E-04	.002
5.6	8.0		2.5216	0.62	1.1285	0	0				
	14.06							.02231	5.1E-07	2.3E-04	.014
22.5	1.0		2.5117	1.01	1.1202	0	0				
	33.73							.03170	3.6E-07	1.1E-04	.018
45.0	0.7		2.5053	1.27	1.1147	0	0				
	67.47							.02202	1.9E-07	8.7E-05	.028
90.0	1.0		2.4954	1.66	1.1064	0	0				
	134.94							.01091	5.3E-08	4.8E-05	.031
179.9	2.0		2.4844	2.09	1.0971	0	0				
	90.66							.00022	1.7E-09	7.7E-05	.014
1.4	100.0		2.5194	0.71	1.1266	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 171-186 CM

SPECIFIC GRAVITY	= 2.76	INITIAL DENSITY (KN/M3)	= 19.418
WET SAMPLE WT (GM)	= 158.10	INITIAL WATER CONTENT (%)	= 26.48
VOL OF SAMPLE (CC)	= 79.83	INITIAL SATURATION (%)	= 95.64
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 0.7653

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.8	2.0		2.5184	0.00	0.7637	0	1				
2.63								.02236	1.5E-06	6.7E-04	.007
3.5	1.0		2.5155	0.12	0.7616	40	22				
5.26								.02222	1.9E-06	8.8E-04	.018
7.0	1.0		2.5077	0.42	0.7562	53	15				
10.52								.02195	2.0E-06	9.0E-04	.037
14.0	1.0		2.4918	1.06	0.7450	60	9				
21.03								.02127	2.4E-06	1.1E-03	.093
28.0	1.0		2.4517	2.65	0.7169	53	3				
17.53								.00021	3.6E-09	1.7E-04	.010
7.0	100.0		2.4605	2.30	0.7231	0	0				
4.38								.00018	2.0E-08	1.1E-03	.017
1.8	120.0		2.4755	1.71	0.7336	0	0				
4.38								.02157	8.0E-07	3.7E-04	.006
7.0	1.0		2.4705	1.90	0.7301	66	5				
17.53								.02130	6.4E-07	3.0E-04	.018
28.0	1.0		2.4547	2.53	0.7191	68	3				
42.06								.02093	6.6E-07	3.1E-04	.051
56.1	1.0		2.4328	3.40	0.7037	59	7				
84.12								.02045	4.1E-07	2.0E-04	.065
112.2	1.0		2.4050	4.51	0.6842	71	3				
168.24								.02857	2.8E-07	9.5E-05	.062
224.3	0.7		2.3782	5.57	0.6655	70	2				
113.04								.00017	1.5E-09	8.4E-05	.016
1.8	120.0		2.4254	3.69	0.6985	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.8	2.0		2.5184	0.00	0.7637	0	0				
2.63								.02239	7.0E-07	3.2E-04	.003
3.5	1.0		2.5170	0.06	0.7627	0	0				
5.26								.02234	6.3E-07	2.9E-04	.006
7.0	1.0		2.5145	0.16	0.7609	0	0				
10.52								.02226	5.9E-07	2.7E-04	.011
14.0	1.0		2.5097	0.35	0.7576	0	0				
21.03								.02198	1.1E-06	4.9E-04	.040
28.0	1.0		2.4925	1.03	0.7455	0	0				
17.53								.00022	4.3E-09	2.0E-04	.012
7.0	100.0		2.5029	0.62	0.7528	0	0				
4.38								.00019	2.1E-08	1.1E-03	.017
1.8	120.0		2.5179	0.02	0.7633	0	0				
4.38								.02238	3.3E-07	1.5E-04	.002
7.0	1.0		2.5165	0.08	0.7623	0	0				
17.53								.02230	1.9E-07	8.5E-05	.005
28.0	1.0		2.5119	0.26	0.7591	0	0				
42.06								.02217	2.4E-07	1.1E-04	.018
56.1	1.0		2.5043	0.56	0.7538	0	0				
84.12								.02205	1.0E-07	4.8E-05	.016
112.2	1.0		2.4976	0.83	0.7491	0	0				
168.24								.03132	8.1E-08	2.6E-05	.017
224.3	0.7		2.4902	1.12	0.7439	0	0				
113.04								.00019	1.6E-09	8.5E-05	.016
1.8	120.0		2.5379	-0.77	0.7773	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 149-164 CM

SPECIFIC GRAVITY	= 2.78	INITIAL DENSITY (KN/M3)	= 17.115
WET SAMPLE WT (GM)	= 140.70	INITIAL WATER CONTENT (%)	= 44.80
VOL OF SAMPLE (CC)	= 80.61	INITIAL SATURATION (%)	= 95.35
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.3061

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9		1.6	2.5371	0.00	1.2989	61	0				
	4.31							.01129	1.4E-06	1.3E-03	.028
5.7		2.0	2.5278	0.37	1.2905	48	0				
	8.61							.00638	6.3E-07	1.0E-03	.044
11.5		3.5	2.5132	0.94	1.2773	39	0				
	17.23							.00317	2.9E-07	9.2E-04	.081
23.0		6.9	2.4863	2.00	1.2529	30	0				
	34.45							.00382	1.8E-07	4.7E-04	.082
45.9		5.6	2.4590	3.08	1.2281	26	0				
	28.71							.00036	6.6E-09	1.8E-04	.024
11.5		60.0	2.4748	2.46	1.2424	0	0				
	7.18							.00036	2.4E-08	6.7E-04	.022
2.9		60.0	2.4894	1.88	1.2557	0	0				
	7.18							.00545	1.6E-07	3.0E-04	.010
11.5		4.0	2.4829	2.14	1.2498	26	0				
	28.71							.00533	1.8E-07	3.4E-04	.044
45.9		4.0	2.4534	3.30	1.2230	21	0				
	68.90							.00368	1.3E-07	3.4E-04	.121
91.9		5.6	2.4133	4.88	1.1867	17	0				
	137.81							.00312	8.5E-08	2.6E-04	.182
183.7		6.3	2.3527	7.27	1.1318	5	0				
	275.62							.00160	3.4E-08	2.0E-04	.281
367.5		11.4	2.2594	10.95	1.0473	0	-1				
	229.68							.00031	9.2E-10	2.7E-05	.029
91.9		60.0	2.2786	10.19	1.0647	0	0				
	47.37							.00032	9.6E-09	2.8E-04	.038
2.9		60.0	2.3413	7.72	1.1215	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9		1.6	2.5371	0.00	1.2989	0	0				
	4.31							.01133	7.3E-07	6.6E-04	.014
5.7		2.0	2.5324	0.19	1.2946	0	0				
	8.61							.00643	3.8E-07	6.0E-04	.026
11.5		3.5	2.5236	0.53	1.2867	0	0				
	17.23							.00322	2.0E-07	6.4E-04	.056
23.0		6.9	2.5050	1.27	1.2698	0	0				
	34.45							.00390	1.3E-07	3.4E-04	.060
45.9		5.6	2.4849	2.06	1.2516	0	0				
	28.71							.00037	6.6E-09	1.8E-04	.024
11.5		60.0	2.5007	1.43	1.2659	0	0				
	7.18							.00037	2.5E-08	6.7E-04	.022
2.9		60.0	2.5154	0.86	1.2792	0	0				
	7.18							.00557	1.2E-07	2.2E-04	.007
11.5		4.0	2.5106	1.05	1.2749	0	0				
	28.71							.00548	1.4E-07	2.6E-04	.035
45.9		4.0	2.4875	1.96	1.2539	0	0				
	68.90							.00381	1.1E-07	2.8E-04	.099
91.9		5.6	2.4545	3.26	1.2240	0	0				
	137.81							.00324	8.1E-08	2.4E-04	.172
183.7		6.3	2.3974	5.51	1.1724	0	0				
	275.62							.00166	3.5E-08	2.0E-04	.281
367.5		11.4	2.3040	9.19	1.0877	0	0				
	229.68							.00032	9.5E-10	2.5E-05	.026
91.9		60.0	2.3215	8.50	1.1036	0	0				
	47.37							.00033	9.8E-09	2.8E-04	.038
2.9		60.0	2.3842	6.03	1.1603	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 212-227 CM

SPECIFIC GRAVITY	= 2.80	INITIAL DENSITY (KN/M3)	= 17.288
WET SAMPLE WT (GM)	= 142.30	INITIAL WATER CONTENT (%)	= 45.10
VOL OF SAMPLE (CC)	= 80.71	INITIAL SATURATION (%)	= 96.82
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.3043

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4	1.0	2.5481	0.00	1.3041	0	44				
3.61							.02293	1.8E-07	8.2E-05	.002
4.8	1.0	2.5476	0.02	1.3036	0	44				
7.25							.01143	3.9E-07	3.5E-04	.013
9.7	2.0	2.5433	0.19	1.2997	37	0				
14.47							.00184	1.0E-07	5.7E-04	.042
19.3	12.3	2.5292	0.74	1.2870	21	0				
28.93							.00278	1.3E-07	4.7E-04	.069
38.6	8.0	2.5062	1.64	1.2662	65	0				
24.12							.00037	1.6E-10	4.2E-06	.000
9.7	60.0	2.5065	1.63	1.2665	0	44				
6.03							.00037	2.0E-08	5.3E-04	.015
2.4	60.0	2.5163	1.25	1.2754	0	0				
6.03							.00279	6.4E-08	2.3E-04	.006
9.7	8.0	2.5120	1.42	1.2714	29	-1				
24.12							.00189	1.2E-07	6.5E-04	.072
38.6	11.4	2.4644	3.28	1.2284	32	0				
57.80							.00130	5.1E-08	3.8E-04	.113
77.0	16.0	2.4269	4.75	1.1945	17	0				
115.56							.00124	3.9E-08	3.0E-04	.177
154.1	16.0	2.3680	7.07	1.1412	0	0				
231.35							.00090	2.4E-08	2.5E-04	.295
308.6	20.3	2.2695	10.93	1.0522	0	0				
192.84							.00031	1.4E-09	4.2E-05	.037
77.0	60.0	2.2940	9.97	1.0744	0	0				
39.72							.00017	9.6E-09	5.4E-04	.061
2.4	120.0	2.3966	5.95	1.1671	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4	1.0	2.5481	0.00	1.3041	0	0				
3.61							.02294	1.0E-07	4.5E-05	.001
4.8	1.0	2.5478	0.01	1.3038	0	0				
7.25							.01145	2.3E-07	2.1E-04	.008
9.7	2.0	2.5453	0.11	1.3015	0	0				
14.47							.00185	8.2E-08	4.5E-04	.033
19.3	12.3	2.5343	0.54	1.2916	0	0				
28.93							.00282	4.5E-08	1.6E-04	.024
38.6	8.0	2.5264	0.85	1.2844	0	0				
24.12							.00038	1.4E-10	3.8E-06	.000
9.7	60.0	2.5267	0.84	1.2847	0	0				
6.03							.00038	1.9E-08	5.2E-04	.014
2.4	60.0	2.5362	0.47	1.2934	0	0				
6.03							.00283	4.7E-08	1.7E-04	.005
9.7	8.0	2.5331	0.59	1.2906	0	0				
24.12							.00194	8.3E-08	4.3E-04	.048
38.6	11.4	2.5013	1.84	1.2617	0	0				
57.80							.00135	4.3E-08	3.1E-04	.093
77.0	16.0	2.4705	3.05	1.2339	0	0				
115.56							.00129	4.0E-08	3.0E-04	.177
154.1	16.0	2.4115	5.36	1.1806	0	0				
231.35							.00094	2.5E-08	2.5E-04	.295
308.6	20.3	2.3130	9.23	1.0915	0	0				
192.84							.00032	1.4E-09	4.2E-05	.037
77.0	60.0	2.3376	8.26	1.1137	0	0				
39.72							.00017	9.8E-09	5.4E-04	.061
2.4	120.0	2.4400	4.24	1.2063	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 285-300 CM

SPECIFIC GRAVITY	= 2.39	INITIAL DENSITY (KN/M3)	= 16.473
WET SAMPLE WT (GM)	= 135.20	INITIAL WATER CONTENT (%)	= 38.90
VOL OF SAMPLE (CC)	= 80.48	INITIAL SATURATION (%)	= 95.17
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 0.9777

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.7	1.0		2.5294	0.00	0.9687	63	0				
	4.06							.01118	2.4E-06	2.2E-03	.039
5.4	2.0		2.5143	0.60	0.9569	49	0				
	8.13							.00731	1.3E-06	1.8E-03	.065
10.8	3.0		2.4894	1.58	0.9375	45	0				
	16.26							.00174	2.0E-07	1.1E-03	.079
21.7	12.3		2.4586	2.80	0.9136	24	-4				
	32.51							.00222	3.8E-07	1.7E-03	.235
43.4	9.0		2.3679	6.39	0.8429	15	0				
	27.10							.00020	7.1E-09	3.4E-04	.036
10.8	100.0		2.3957	5.29	0.8646	0	0				
	6.77							.00011	1.5E-08	1.3E-03	.035
2.7	180.0		2.4225	4.23	0.8855	0	0				
	6.77							.00257	1.7E-07	6.4E-04	.017
10.8	8.0		2.4094	4.75	0.8752	17	0				
	27.10							.00150	1.0E-07	6.5E-04	.069
43.4	13.1		2.3561	6.85	0.8337	9	0				
	65.03							.00050	4.9E-08	9.0E-04	.255
86.7	36.0		2.2576	10.75	0.7571	0	0				
	130.06							.00059	3.8E-08	5.8E-04	.328
173.4	27.6		2.1308	15.76	0.6584	0	1				
	260.11							.00078	3.3E-08	3.5E-04	.394
346.8	18.1		1.9784	21.79	0.5398	0	0				
	174.76							.00008	1.7E-09	1.8E-04	.058
2.7	200.0		2.1368	15.52	0.6630	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.7	1.0		2.5294	0.00	0.9687	0	0				
	4.06							.01124	1.2E-06	1.1E-03	.020
5.4	2.0		2.5218	0.30	0.9627	0	0				
	8.13							.00742	7.2E-07	9.9E-04	.035
10.8	3.0		2.5082	0.84	0.9522	0	0				
	16.26							.00178	1.5E-07	8.6E-04	.061
21.7	12.3		2.4845	1.77	0.9337	0	0				
	32.51							.00229	3.3E-07	1.4E-03	.201
43.4	9.0		2.4069	4.84	0.8733	0	0				
	27.10							.00021	7.3E-09	3.4E-04	.036
10.8	100.0		2.4349	3.74	0.8951	0	0				
	6.77							.00012	1.6E-08	1.3E-03	.035
2.7	180.0		2.4617	2.68	0.9159	0	0				
	6.77							.00265	1.4E-07	5.4E-04	.014
10.8	8.0		2.4507	3.11	0.9074	0	0				
	27.10							.00156	9.4E-08	5.9E-04	.063
43.4	13.1		2.4021	5.03	0.8696	0	0				
	65.03							.00053	5.0E-08	9.0E-04	.255
86.7	36.0		2.3036	8.93	0.7929	0	0				
	130.06							.00061	3.9E-08	5.8E-04	.328
173.4	27.6		2.1766	13.95	0.6941	0	0				
	260.11							.00081	3.3E-08	3.4E-04	.388
346.8	18.1		2.0265	19.88	0.5772	0	0				
	174.76							.00008	1.8E-09	1.8E-04	.059
2.7	200.0		2.1851	13.61	0.7007	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 408-423 CM

SPECIFIC GRAVITY = 2.71	INITIAL DENSITY (KN/M3) =	15.782
WET SAMPLE WT (GM) = 130.22	INITIAL WATER CONTENT (%) =	66.60
VOL OF SAMPLE (CC) = 80.90	INITIAL SATURATION (%) =	99.39
DIA OF SAMPLE (CM) = 6.35	INITIAL VOID RATIO =	1.8050

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9		4.0	2.5493	0.00	1.7993	76	2				
	4.31							.01760	1.2E-06	6.9E-04	.018
5.7		1.3	2.5443	0.20	1.7938	36	-1				
	8.61							.00566	5.2E-07	9.4E-04	.050
11.5		4.0	2.5305	0.74	1.7786	37	0				
	17.23							.00177	3.1E-07	1.7E-03	.185
23.0		12.3	2.4792	2.73	1.7229	18	0				
	34.45							.00097	1.1E-07	1.1E-03	.234
45.9		21.4	2.4156	5.24	1.6525	1	0				
	68.71							.00035	1.3E-08	3.6E-04	.058
11.5		60.0	2.4474	4.00	1.6874	0	0				
	7.18							.00036	3.2E-08	8.9E-04	.036
2.9		60.0	2.4670	3.23	1.7089	0	0				
	7.18							.00534	2.1E-07	3.9E-04	.016
11.5		4.0	2.4585	3.56	1.6996	14	0				
	28.71							.00328	1.6E-07	4.9E-04	.078
45.9		6.3	2.4156	5.24	1.6525	7	0				
	68.90							.00064	7.9E-08	1.2E-03	.493
91.9		28.9	2.2804	10.55	1.5040	0	0				
	137.81							.00051	5.7E-08	9.7E-04	.827
183.7		30.0	2.0535	19.45	1.2549	0	0				
	275.62							.00082	3.2E-08	3.1E-04	.523
367.5		16.0	1.9102	25.07	1.0976	0	0				
	229.68							.00022	1.5E-09	5.3E-05	.068
91.9		60.0	1.9476	23.60	1.1386	0	0				
	47.37							.00025	1.6E-08	5.2E-04	.086
2.9		60.0	2.0648	19.00	1.2673	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9		4.0	2.5493	0.00	1.7993	0	0				
	4.31							.01762	7.3E-07	4.2E-04	.011
5.7		1.3	2.5462	0.12	1.7959	0	0				
	8.61							.00569	3.3E-07	6.0E-04	.032
11.5		4.0	2.5374	0.46	1.7863	0	0				
	17.23							.00180	2.5E-07	1.4E-03	.152
23.0		12.3	2.4957	2.10	1.7404	0	0				
	34.45							.00098	1.1E-07	1.1E-03	.230
45.9		21.4	2.4327	4.57	1.6713	0	0				
	68.71							.00036	1.3E-08	3.6E-04	.058
11.5		60.0	2.4646	3.32	1.7063	0	0				
	7.18							.00036	3.2E-08	8.9E-04	.036
2.9		60.0	2.4841	2.56	1.7277	0	0				
	7.18							.00542	1.8E-07	3.3E-04	.013
11.5		4.0	2.4768	2.85	1.7196	0	0				
	28.71							.00334	1.5E-07	4.5E-04	.073
45.9		6.3	2.4370	4.41	1.6759	0	0				
	68.90							.00066	8.0E-08	1.2E-03	.493
91.9		28.9	2.3018	9.71	1.5275	0	0				
	137.81							.00052	5.7E-08	9.7E-04	.828
183.7		30.0	2.0749	18.61	1.2793	0	0				
	275.62							.00084	3.2E-08	3.1E-04	.522
367.5		16.0	1.9318	24.22	1.1211	0	0				
	229.68							.00023	1.5E-09	5.3E-05	.068
91.9		60.0	1.9690	22.76	1.1621	0	0				
	47.37							.00025	1.6E-08	5.2E-04	.085
2.9		60.0	2.0862	18.17	1.2907	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 488-503 CM

SPECIFIC GRAVITY	= 2.75	INITIAL DENSITY (KN/M3)	= 15.072
WET SAMPLE WT (GM)	= 126.50	INITIAL WATER CONTENT (%)	= 73.30
VOL OF SAMPLE (CC)	= 82.29	INITIAL SATURATION (%)	= 95.97
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 2.1004

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.7	13.1		2.5794	0.00	2.0776	60	0				
5.60								.00367	8.4E-07	2.3E-03	.089
7.5	6.3		2.5569	0.87	2.0508	50	0				
11.17								.00171	3.8E-07	2.3E-03	.171
14.9	13.1		2.5138	2.54	1.9994	35	0				
22.32								.00224	8.3E-07	3.6E-03	.541
29.8	9.0		2.3772	7.84	1.8365	0	0				
44.55								.00092	1.2E-07	1.2E-03	.367
59.3	20.3		2.2852	11.41	1.7266	2	0				
37.11								.00032	9.5E-09	2.7E-04	.062
14.9	60.0		2.3166	10.19	1.7641	0	0				
9.31								.00032	4.2E-08	1.2E-03	.069
3.7	60.0		2.3512	8.85	1.8054	0	0				
9.31								.00279	1.8E-07	6.0E-04	.034
14.9	6.9		2.3340	9.51	1.7849	27	0				
37.11								.00231	1.1E-07	4.3E-04	.097
59.3	8.0		2.2851	11.41	1.7265	14	0				
89.24								.00058	7.4E-08	1.1E-03	.672
119.1	27.6		2.1145	18.02	1.5230	0	0				
178.72								.00060	4.3E-08	5.7E-04	.698
238.3	22.6		1.9384	24.85	1.3129	0	0				
357.20								.00081	2.8E-08	2.6E-04	.625
476.1	14.1		1.7810	30.95	1.1251	2	0				
297.63								.00020	1.3E-09	4.8E-05	.087
119.1	60.0		1.8248	29.25	1.1773	0	0				
61.44								.00023	1.5E-08	5.1E-04	.120
3.7	60.0		1.9757	23.40	1.3574	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.7	13.1		2.5794	0.00	2.0776	0	0				
5.60								.00370	4.3E-07	1.2E-03	.045
7.5	6.3		2.5681	0.44	2.0642	0	0				
11.17								.00174	2.5E-07	1.5E-03	.111
14.9	13.1		2.5401	1.52	2.0308	0	0				
22.32								.00229	8.3E-07	3.6E-03	.541
29.8	9.0		2.4035	6.82	1.8678	0	0				
44.55								.00094	1.2E-07	1.2E-03	.356
59.3	20.3		2.3141	10.29	1.7611	0	0				
37.11								.00032	9.6E-09	2.7E-04	.062
14.9	60.0		2.3454	9.07	1.7985	0	0				
9.31								.00033	4.3E-08	1.2E-03	.069
3.7	60.0		2.3801	7.72	1.8399	0	0				
9.31								.00287	1.3E-07	4.3E-04	.025
14.9	6.9		2.3677	8.21	1.8251	0	0				
37.11								.00240	9.4E-08	3.6E-04	.083
59.3	8.0		2.3259	9.83	1.7752	0	0				
89.24								.00060	7.5E-08	1.1E-03	.672
119.1	27.6		2.1555	16.43	1.5718	0	0				
178.72								.00062	4.4E-08	5.7E-04	.698
238.3	22.6		1.9794	23.26	1.3617	0	0				
357.20								.00085	2.8E-08	2.5E-04	.606
476.1	14.1		1.8267	29.18	1.1795	0	0				
297.63								.00021	1.3E-09	4.8E-05	.087
119.1	60.0		1.8704	27.49	1.2317	0	0				
61.44								.00024	1.6E-08	5.1E-04	.120
3.7	60.0		2.0214	21.63	1.4119	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 106-121 CM

SPECIFIC GRAVITY =	2.81	INITIAL DENSITY (KN/M3) =	16.196
WET SAMPLE WT (GM) =	135.00	INITIAL WATER CONTENT (%) =	59.50
VOL OF SAMPLE (CC) =	81.73	INITIAL SATURATION (%) =	97.64
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.7106

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.2	0.5	2.5793	0.00	1.7091	16	9				
1.75							.04693	3.5E-06	7.6E-04	.008
2.3	0.5	2.5770	0.09	1.7067	40	15				
3.50							.04678	3.4E-06	7.3E-04	.015
4.7	0.5	2.5726	0.26	1.7021	42	16				
7.00							.04647	3.3E-06	7.2E-04	.030
9.3	0.5	2.5640	0.59	1.6930	35	23				
14.00							.01139	1.3E-06	1.1E-03	.093
18.7	2.0	2.5373	1.63	1.6650	38	4				
11.66							.00076	2.6E-08	3.4E-04	.021
4.7	30.0	2.5495	1.16	1.6778	0	0				
2.92							.00077	1.1E-07	1.5E-03	.024
1.2	30.0	2.5629	0.63	1.6920	0	0				
2.92							.04632	1.4E-06	3.1E-04	.005
4.7	0.5	2.5602	0.74	1.6890	28	23				
11.66							.02293	8.4E-07	3.7E-04	.023
18.7	1.0	2.5467	1.26	1.6749	42	13				
27.99							.01570	1.9E-06	1.2E-03	.200
37.3	1.4	2.4895	3.48	1.6148	18	17				
55.98							.00207	1.9E-07	8.9E-04	.299
74.6	9.9	2.4039	6.80	1.5249	15	9				
111.97							.00091	7.6E-08	7.7E-04	.519
149.3	20.0	2.2550	12.57	1.3686	0	0				
75.23							.00033	1.0E-08	3.7E-04	.070
1.2	60.0	2.3956	7.12	1.5162	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.2	0.5	2.5793	0.00	1.7091	0	0				
1.75							.04697	1.7E-06	3.7E-04	.004
2.3	0.5	2.5781	0.04	1.7079	0	0				
3.50							.04691	1.5E-06	3.3E-04	.007
4.7	0.5	2.5762	0.12	1.7058	0	0				
7.00							.04676	1.6E-06	3.5E-04	.015
9.3	0.5	2.5719	0.28	1.7014	0	0				
14.00							.01151	6.8E-07	6.0E-04	.050
18.7	2.0	2.5575	0.84	1.6863	0	0				
11.66							.00078	2.8E-08	3.7E-04	.023
4.7	30.0	2.5708	0.33	1.7002	0	0				
2.92							.00079	1.2E-07	1.5E-03	.024
1.2	30.0	2.5843	-0.20	1.7144	0	0				
2.92							.04714	8.7E-07	1.9E-04	.003
4.7	0.5	2.5826	-0.13	1.7127	0	0				
11.66							.02346	4.1E-07	1.8E-04	.011
18.7	1.0	2.5762	0.12	1.7058	0	0				
27.99							.01625	1.4E-06	8.9E-04	.149
37.3	1.4	2.5335	1.77	1.6611	0	0				
55.98							.00219	1.4E-07	6.3E-04	.213
74.6	9.9	2.4726	4.14	1.5971	0	0				
111.97							.00098	7.3E-08	7.1E-04	.478
149.3	20.0	2.3357	9.44	1.4533	0	0				
75.23							.00036	1.4E-08	3.7E-04	.070
1.2	60.0	2.4762	3.99	1.6009	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 413-428 CM

SPECIFIC GRAVITY =	2.72	INITIAL DENSITY (KN/M3) =	17.253
WET SAMPLE WT (GM) =	144.10	INITIAL WATER CONTENT (%) =	43.60
VOL OF SAMPLE (CC) =	81.89	INITIAL SATURATION (%) =	97.23
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.2197

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.7	2.0		2.5823	0.00	1.2168	57	3				
5.60								.01172	8.8E-07	7.6E-04	.021
7.5	2.0		2.5749	0.28	1.2105	49	-1				
11.20								.01159	8.1E-07	7.1E-04	.039
14.9	2.0		2.5612	0.82	1.1987	55	0				
22.39								.00359	3.0E-07	8.5E-04	.094
29.9	6.3		2.5284	2.09	1.1705	25	0				
44.84								.00178	9.4E-08	5.2E-04	.115
59.8	12.3		2.4881	3.65	1.1359	22	0				
37.37								.00037	7.1E-09	1.9E-04	.031
14.9	60.0		2.5099	2.80	1.1547	0	0				
9.33								.00038	2.2E-08	5.8E-04	.024
3.7	60.0		2.5267	2.15	1.1691	0	0				
9.33								.00560	1.6E-07	2.9E-04	.012
14.9	4.0		2.5182	2.48	1.1618	17	0				
37.37								.00430	1.1E-07	2.5E-04	.042
59.8	5.1		2.4889	3.62	1.1366	19	0				
89.72								.00198	7.7E-08	3.8E-04	.166
119.6	10.6		2.4307	5.87	1.0866	10	0				
179.20								.00088	4.1E-08	4.4E-04	.383
238.8	21.4		2.2966	11.06	0.9715	0	0				
358.16								.00090	2.7E-08	2.6E-04	.462
477.5	18.1		2.1347	17.33	0.8326	0	0				
298.58								.00028	1.3E-09	4.0E-05	.053
119.6	60.0		2.1719	15.89	0.8645	0	0				
61.68								.00015	5.3E-09	3.1E-04	.053
3.7	120.0		2.2654	12.27	0.9447	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.7	2.0		2.5823	0.00	1.2168	0	0				
5.60								.01175	4.4E-07	3.8E-04	.010
7.5	2.0		2.5786	0.14	1.2136	0	0				
11.20								.01170	3.7E-07	3.2E-04	.018
14.9	2.0		2.5724	0.38	1.2083	0	0				
22.39								.00365	2.3E-07	6.4E-04	.070
29.9	6.3		2.5478	1.33	1.1872	0	0				
44.84								.00182	7.4E-08	4.1E-04	.089
59.8	12.3		2.5165	2.55	1.1603	0	0				
37.37								.00038	7.1E-09	1.9E-04	.031
14.9	60.0		2.5383	1.70	1.1790	0	0				
9.33								.00038	2.2E-08	5.8E-04	.024
3.7	60.0		2.5549	1.06	1.1933	0	0				
9.33								.00574	1.4E-07	2.4E-04	.010
14.9	4.0		2.5478	1.33	1.1872	0	0				
37.37								.00442	9.0E-08	2.0E-04	.034
59.8	5.1		2.5241	2.25	1.1669	0	0				
89.72								.00205	7.0E-08	3.4E-04	.148
119.6	10.6		2.4722	4.26	1.1223	0	0				
179.20								.00091	4.2E-08	4.3E-04	.380
238.8	21.4		2.3393	9.41	1.0082	0	0				
358.16								.00094	2.8E-08	2.6E-04	.461
477.5	18.1		2.1776	15.67	0.8694	0	0				
298.58								.00029	1.3E-09	4.0E-05	.053
119.6	60.0		2.2148	14.23	0.9013	0	0				
61.68								.00016	5.4E-09	3.1E-04	.053
3.7	120.0		2.3082	10.61	0.9815	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 487-502 CM

SPECIFIC GRAVITY =	2.71	INITIAL DENSITY (KN/M3) =	16.966
WET SAMPLE WT (GM) =	141.70	INITIAL WATER CONTENT (%) =	44.30
VOL OF SAMPLE (CC) =	81.89	INITIAL SATURATION (%) =	95.28
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.2600

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.9	2.3	2.5736	0.00	1.2494	64	0					
7.42								.00237	2.0E-07	8.4E-04	.031
9.9	9.8	2.5629	0.42	1.2400	52	0					
14.83								.00359	5.1E-07	1.4E-03	.106
19.8	6.3	2.5265	1.83	1.2082	48	0					
29.64								.00208	1.2E-07	5.6E-04	.083
39.5	10.6	2.4978	2.95	1.1832	19	0					
59.24								.00159	1.2E-07	7.2E-04	.212
79.0	13.1	2.4250	5.78	1.1195	58	0					
49.36								.00035	7.1E-09	1.9E-04	.043
19.8	60.0	2.4546	4.63	1.1454	0	0					
12.35								.00037	4.0E-08	1.1E-03	.059
4.9	60.0	2.4953	3.04	1.1810	0	0					
12.35								.00417	4.7E-07	1.1E-03	.061
19.8	5.1	2.4530	4.68	1.1440	74	0					
49.36								.00463	8.3E-08	1.8E-04	.041
79.0	4.5	2.4249	5.78	1.1195	0	0					
118.43								.00151	5.0E-08	3.2E-04	.187
157.9	13.1	2.3607	8.27	1.0633	9	0					
237.10								.00066	2.9E-08	4.0E-04	.470
316.3	26.3	2.1984	14.58	0.9215	0	0					
473.95								.00077	2.0E-08	2.2E-04	.508
631.6	19.1	2.0237	21.37	0.7688	0	0					
394.76								.00025	9.4E-10	3.1E-05	.054
157.9	60.0	2.0609	19.92	0.8013	0	0					
81.42								.00028	1.3E-08	3.9E-04	.090
4.9	60.0	2.2153	13.92	0.9363	0	0					

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.9	2.3	2.5736	0.00	1.2494	0	0					
7.42								.00238	9.3E-08	4.0E-04	.015
9.9	9.8	2.5685	0.20	1.2450	0	0					
14.83								.00365	2.6E-07	7.3E-04	.054
19.8	6.3	2.5499	0.92	1.2287	0	0					
29.64								.00213	9.6E-08	4.6E-04	.067
39.5	10.6	2.5268	1.82	1.2085	0	0					
59.24								.00169	5.0E-08	3.0E-04	.088
79.0	13.1	2.4966	2.99	1.1821	0	0					
49.36								.00037	7.3E-09	1.9E-04	.043
19.8	60.0	2.5262	1.84	1.2080	0	0					
12.35								.00039	4.1E-08	1.1E-03	.059
4.9	60.0	2.5668	0.26	1.2435	0	0					
12.35								.00453	1.3E-07	2.9E-04	.016
19.8	5.1	2.5558	0.69	1.2339	0	0					
49.36								.00503	9.2E-08	1.8E-04	.041
79.0	4.5	2.5279	1.78	1.2095	0	0					
118.43								.00165	4.8E-08	2.9E-04	.169
157.9	13.1	2.4698	4.04	1.1586	0	0					
237.10								.00073	3.0E-08	4.0E-04	.470
316.3	26.3	2.3075	10.34	1.0168	0	0					
473.95								.00086	2.1E-08	2.2E-04	.508
631.6	19.1	2.1328	17.13	0.8641	0	0					
394.76								.00028	9.9E-10	3.1E-05	.054
157.9	60.0	2.1700	15.68	0.8967	0	0					
81.42								.00031	1.4E-08	3.9E-04	.090
4.9	60.0	2.3244	9.68	1.0316	0	0					

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 281-296 CM

SPECIFIC GRAVITY	= 2.74	INITIAL DENSITY (KN/M3)	= 16.439
WET SAMPLE WT (GM)	= 134.60	INITIAL WATER CONTENT (%)	= 57.04
VOL OF SAMPLE (CC)	= 80.28	INITIAL SATURATION (%)	= 99.89
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.5618

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.7	1.0		2.5148	0.00	1.5415	65	11				
4.00								.02210	4.8E-06	2.2E-03	.049
5.3	1.0		2.5001	0.58	1.5267	29	21				
8.00								.00028	1.3E-07	4.7E-03	.214
10.7	74.0		2.4364	3.12	1.4623	0	0				
16.01								.00038	..0E-07	5.0E-03	.453
21.3	50.4		2.3014	8.49	1.3258	0	-2				
32.01								.00019	3.8E-08	1.8E-03	.321
42.7	90.1		2.2057	12.29	1.2291	0	0				
26.68								.00018	7.3E-09	3.7E-04	.050
10.7	100.0		2.2357	11.10	1.2594	0	0				
6.67								.00015	2.2E-08	1.3E-03	.046
2.7	120.0		2.2628	10.02	1.2868	0	0				
6.67								.00183	1.1E-07	5.8E-04	.019
10.7	9.8		2.2512	10.48	1.2751	15	0				
26.68								.00131	1.0E-07	7.0E-04	.094
42.7	13.1		2.1952	12.71	1.2185	6	8				
64.02								.00026	3.7E-08	1.2E-03	.443
85.4	58.0		2.0633	17.95	1.0852	0	0				
128.05								.00045	3.3E-08	6.1E-04	.436
170.7	30.0		1.9334	23.12	0.9539	0	0				
256.09								.00073	2.9E-08	3.1E-04	.442
341.5	16.0		1.8017	28.36	0.8208	0	0				
172.06								.00005	1.2E-09	2.0E-04	.083
2.7	300.0		1.9741	21.50	0.9950	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.7	1.0		2.5148	0.00	1.5415	0	0				
4.00								.02222	2.5E-06	1.1E-03	.026
5.3	1.0		2.5072	0.30	1.5338	0	0				
8.00								.00029	1.3E-07	4.5E-03	.203
10.7	74.0		2.4468	2.70	1.4728	0	0				
16.01								.00038	2.0E-07	5.0E-03	.455
21.3	50.4		2.3113	8.09	1.3359	0	0				
32.01								.00019	3.9E-08	1.9E-03	.334
42.7	90.1		2.2120	12.04	1.2355	0	0				
26.68								.00018	7.3E-09	3.7E-04	.050
10.7	100.0		2.2419	10.85	1.2657	0	0				
6.67								.00015	2.2E-08	1.3E-03	.046
2.7	120.0		2.2690	9.77	1.2931	0	0				
6.67								.00184	9.8E-08	4.9E-04	.017
10.7	9.8		2.2591	10.17	1.2831	0	0				
26.68								.00132	9.4E-08	6.5E-04	.087
42.7	13.1		2.2072	12.23	1.1 06	0	0				
64.02								.00027	3.6E-08	1.2E-03	.424
85.4	58.0		2.0811	17.25	1.1 31	0	0				
128.05								.00045	3.4E-08	6.0E-04	.436
170.7	30.0		1.9512	22.41	0.9719	0	0				
256.09								.00074	3.0E-08	3.1E-04	.442
341.5	16.0		1.8194	27.65	0.8387	0	0				
172.06								.00005	1.2E-09	2.0E-04	.083
2.7	300.0		1.9919	20.79	1.0130	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS CD @ 538-553 CM

SPECIFIC GRAVITY =	2.71	INITIAL DENSITY (KN/M3) =	16.473
WET SAMPLE WT (GM) =	136.30	INITIAL WATER CONTENT (%) =	55.00
VOL OF SAMPLE (CC) =	81.25	INITIAL SATURATION (%) =	99.35
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	1.5003

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--			*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.4	1.3		2.5617	0.00	1.4967	59	2				
	6.64							.00743	6.3E-07	8.7E-04	.032
8.9	3.1		2.5519	0.38	1.4871	41	1				
	13.28							.00352	8.0E-07	2.3E-03	.169
17.7	6.3		2.4998	2.42	1.4363	20	0				
	26.53							.00265	3.2E-07	1.2E-03	.172
35.4	8.0		2.4469	4.48	1.3848	15	0				
	53.04							.00065	8.5E-08	1.2E-03	.366
70.7	30.0		2.3338	8.90	1.2745	16	0				
	44.21							.00033	7.2E-09	2.1E-04	.045
17.7	60.0		2.3617	7.81	1.3017	0	0				
	11.06							.00034	5.3E-08	1.5E-03	.081
4.4	60.0		2.4116	5.86	1.3504	0	0				
	11.06							.01027	2.2E-08	2.1E-05	.001
17.7	2.0		2.4109	5.89	1.3497	49	22				
	44.21							.00180	1.4E-07	7.1E-04	.157
70.7	10.6		2.3141	9.67	1.2553	24	0				
	106.18							.00056	5.3E-08	8.5E-04	.496
141.6	30.0		2.1604	15.67	1.1056	0	0				
	212.21							.00057	3.1E-08	4.5E-04	.528
282.8	25.0		1.9978	22.01	0.9471	0	0				
	424.19							.00068	1.7E-08	1.9E-04	.451
565.6	18.1		1.8586	27.45	0.8114	0	0				
	353.61							.00021	9.4E-10	3.3E-05	.058
141.6	60.0		1.8946	26.04	0.8465	0	0				
	73.03							.00024	1.3E-08	4.2E-04	.095
4.4	60.0		2.0408	20.34	0.9890	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--			*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.4	1.3		2.5617	0.00	1.4967	0	0				
	6.64							.00745	3.6E-07	5.0E-04	.018
8.9	3.1		2.5561	0.22	1.4912	0	0				
	13.28							.00356	6.4E-07	1.8E-03	.133
17.7	6.3		2.5149	1.83	1.4510	0	0				
	26.53							.00270	2.7E-07	9.9E-04	.145
35.4	8.0		2.4703	3.57	1.4075	0	0				
	53.04							.00067	7.2E-08	1.0E-03	.304
70.7	30.0		2.3763	7.24	1.3139	0	0				
	44.21							.00034	7.3E-09	2.1E-04	.045
17.7	60.0		2.4042	6.15	1.3432	0	0				
	11.06							.00035	5.4E-08	1.5E-03	.081
4.4	60.0		2.4542	4.20	1.3919	0	0				
	11.06							.01064	9.0E-09	8.3E-06	.000
17.7	2.0		2.4539	4.21	1.3916	0	0				
	44.21							.00190	1.1E-07	5.3E-04	.113
70.7	10.6		2.3814	7.04	1.3209	0	0				
	106.18							.00059	5.5E-08	8.5E-04	.496
141.6	30.0		2.2278	13.03	1.1713	0	0				
	212.21							.00061	3.2E-08	4.5E-04	.524
282.8	25.0		2.0664	19.33	1.0139	0	0				
	424.19							.00074	1.8E-08	1.9E-04	.450
565.6	18.1		1.9273	24.77	0.8783	0	0				
	353.61							.00023	9.7E-10	3.3E-05	.059
141.6	60.0		1.9634	23.36	0.9135	0	0				
	73.03							.00026	1.3E-08	4.2E-04	.095
4.4	60.0		2.1096	17.65	1.0560	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 650-665 CM

SPECIFIC GRAVITY	= 2.76	INITIAL DENSITY (KN/M3)	= 16.679
WET SAMPLE WT (GM)	= 139.30	INITIAL WATER CONTENT (%)	= 52.60
VOL OF SAMPLE (CC)	= 81.89	INITIAL SATURATION (%)	= 98.36
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.4760

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.9	6.3		2.5639	0.00	1.4551	19	0				
10.34								.00575	4.0E-07	7.0E-04	.039
13.8	4.0		2.5515	0.48	1.4433	26	0				
20.65								.00073	1.5E-07	2.1E-03	.237
27.5	30.0		2.4773	3.38	1.3722	21	0				
41.27								.00061	7.9E-08	1.3E-03	.281
55.0	33.1		2.3888	6.83	1.2875	10	0				
82.54								.00032	3.5E-08	1.0E-03	.457
110.1	56.3		2.2452	12.43	1.1500	0	0				
68.78								.00031	6.6E-09	1.9E-04	.065
27.5	60.0		2.2860	10.84	1.1891	0	0				
17.20								.00032	4.0E-08	1.1E-03	.096
6.9	60.0		2.3461	8.49	1.2466	0	0				
17.20								.00178	1.4E-07	7.4E-04	.063
27.5	10.6		2.3067	10.03	1.2089	33	0				
68.78								.00098	3.8E-08	3.5E-04	.117
110.1	18.1		2.2329	12.91	1.1382	20	0				
165.08								.00040	2.2E-08	4.8E-04	.427
220.1	39.1		2.0986	18.15	1.0096	0	0				
330.17								.00058	1.7E-08	2.4E-04	.423
440.2	23.8		1.9656	23.33	0.8822	0	0				
660.33								.00093	1.3E-08	1.1E-04	.395
880.4	13.1		1.8415	28.17	0.7634	0	0				
550.28								.00020	4.1E-10	1.5E-05	.040
220.1	60.0		1.8666	27.20	0.7874	0	0				
113.50								.00024	9.6E-09	3.1E-04	.108
6.9	60.0		2.0368	20.56	0.9504	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.9	6.3		2.5639	0.00	1.4551	0	0				
10.34								.00577	2.9E-07	5.1E-04	.029
13.8	4.0		2.5549	0.35	1.4465	0	0				
20.65								.00074	1.2E-07	1.6E-03	.185
27.5	30.0		2.4970	2.61	1.3911	0	0				
41.27								.00063	7.2E-08	1.1E-03	.251
55.0	33.1		2.4180	5.69	1.3154	0	0				
82.54								.00033	3.6E-08	1.0E-03	.457
110.1	56.3		2.2743	11.29	1.1779	0	0				
68.78								.00031	6.7E-09	1.9E-04	.065
27.5	60.0		2.3153	9.70	1.2170	0	0				
17.20								.00033	4.0E-08	1.1E-03	.096
6.9	60.0		2.3754	7.35	1.2746	0	0				
17.20								.00184	9.7E-08	5.0E-04	.042
27.5	10.6		2.3491	8.38	1.2495	0	0				
68.78								.00103	3.1E-08	2.8E-04	.093
110.1	18.1		2.2904	10.67	1.1933	0	0				
165.08								.00043	2.3E-08	4.8E-04	.427
220.1	39.1		2.1561	15.91	1.0646	0	0				
330.17								.00062	1.7E-08	2.4E-04	.423
440.2	23.8		2.0232	21.09	0.9373	0	0				
660.33								.00099	1.4E-08	1.1E-04	.395
880.4	13.1		1.8990	25.93	0.8184	0	0				
550.28								.00022	4.2E-10	1.5E-05	.040
220.1	60.0		1.9241	24.95	0.8425	0	0				
113.50								.00025	9.9E-09	3.1E-04	.108
6.9	60.0		2.0943	18.32	1.0054	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 421-436 CM

SPECIFIC GRAVITY	= 2.69	INITIAL DENSITY KN/M3)	= 15.696
WET SAMPLE WT (GM)	= 130.19	INITIAL WATER CONTENT %)	= 63.00
VOL OF SAMPLE (CC)	= 81.33	INITIAL SATURATION (%)	= 99.57
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.6414

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9	8.0		2.5524	0.00	1.6253	45	0				
	4.38							.00160	5.5E-07	3.5E-03	.089
5.8	14.1		2.5262	1.03	1.5984	28	0				
	8.76							.00207	5.4E-07	2.6E-03	.132
11.7	10.6		2.4875	2.54	1.5586	15	0				
	17.51							.00590	1.5E-06	2.5E-03	.256
23.4	3.5		2.4124	5.48	1.4814	27	0				
	35.03							.00022	8.0E-08	3.4E-03	.693
46.7	81.0		2.2097	13.43	1.2728	10	0				
	29.19							.00030	2.1E-08	6.2E-04	.095
11.7	60.0		2.2654	11.24	1.3302	0	0				
	7.30							.00031	5.5E-08	1.6E-03	.062
2.9	60.0		2.3016	9.33	1.3673	0	0				
	7.30							.00597	3.9E-07	6.1E-04	.023
11.7	3.1		2.2880	10.36	1.3534	40	1				
	29.19							.00394	2.5E-07	5.9E-04	.089
46.7	4.5		2.2357	12.41	1.2996	31	0				
	70.05							.00075	8.7E-08	1.0E-03	.412
93.4	21.4		2.1151	17.13	1.1755	7	0				
	140.10							.00114	8.2E-08	5.9E-04	.481
186.8	12.2		1.9742	22.65	1.0307	0	0				
	280.21							.00107	3.8E-08	2.7E-04	.446
373.6	11.4		1.8436	27.77	0.8963	1	0				
	188.27							.00023	5.2E-09	1.7E-04	.080
2.9	60.0		2.0067	21.38	1.0640	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.9	8.0		2.5524	0.00	1.6253	0	0				
	4.38							.00161	4.0E-07	2.5E-03	.065
5.8	14.1		2.5335	0.74	1.6059	0	0				
	8.76							.00209	4.6E-07	2.2E-03	.112
11.7	10.6		2.5007	2.02	1.5722	0	0				
	17.51							.00607	1.1E-06	1.8E-03	.185
23.4	3.5		2.4465	4.15	1.5165	0	0				
	35.03							.00023	7.4E-08	3.0E-03	.621
46.7	81.0		2.2648	11.27	1.3295	0	0				
	29.19							.00032	2.2E-08	6.3E-04	.095
11.7	60.0		2.3207	9.08	1.3870	0	0				
	7.30							.00033	5.6E-08	1.6E-03	.062
2.9	60.0		2.3568	7.66	1.4242	0	0				
	7.30							.00629	2.4E-07	3.5E-04	.014
11.7	3.1		2.3489	7.97	1.4160	0	0				
	29.19							.00421	1.3E-07	4.0E-04	.061
46.7	4.5		2.3133	9.37	1.3795	0	0				
	70.05							.00081	8.4E-08	9.4E-04	.382
93.4	21.4		2.2016	13.74	1.2645	0	0				
	140.10							.00124	8.6E-08	5.9E-04	.481
186.8	12.2		2.0607	19.25	1.1196	0	0				
	280.21							.00117	4.0E-08	2.7E-04	.441
373.6	11.4		1.9318	24.32	0.9870	0	0				
	188.27							.00025	5.4E-09	1.7E-04	.080
2.9	60.0		2.0949	17.92	1.1548	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 561-576 CM

SPECIFIC GRAVITY	= 2.72	INITIAL DENSITY (KN/M3)	= 16.137
WET SAMPLE WT (GM)	= 131.60	INITIAL WATER CONTENT (%)	= 62.20
VOL OF SAMPLE (CC)	= 79.96	INITIAL SATURATION (%)	= 100.66
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.6807

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.2	14.0		2.5108	0.00	1.6658	43	0				
6.24								.00179	3.2E-07	1.8E-03	.067
8.3	12.3		2.4917	0.76	1.6456	17	0				
12.49								.00420	6.4E-07	1.5E-03	.112
16.7	5.1		2.4599	2.03	1.6118	0	0				
24.95								.00023	9.8E-08	4.1E-03	.602
33.3	81.0		2.2897	8.81	1.4311	8	0				
49.88								.00018	3.6E-08	1.8E-03	.522
66.5	90.0		2.1417	14.70	1.2740	8	0				
41.58								.00029	1.8E-08	5.7E-04	.126
16.7	60.0		2.2128	11.87	1.3495	0	0				
10.40								.00030	3.1E-08	9.5E-04	.053
4.2	60.0		2.2428	10.67	1.3813	0	0				
10.40								.00016	9.9E-09	5.7E-04	.032
16.7	112.0		2.2248	11.39	1.3622	16	0				
41.58								.00064	5.6E-08	7.7E-04	.171
66.5	25.0		2.1282	15.24	1.2596	20	0				
99.77								.00023	2.7E-08	9.6E-04	.564
133.0	60.0		1.9682	21.61	1.0898	0	0				
199.53								.00035	1.9E-08	4.2E-04	.493
266.0	34.5		1.8284	27.18	0.9413	0	0				
399.07								.00038	9.8E-09	1.9E-04	.441
532.1	27.6		1.7033	32.16	0.8085	0	0				
332.56								.00018	6.9E-10	2.7E-05	.048
133.0	60.0		1.7307	31.07	0.8376	0	0				
68.59								.00021	1.5E-08	5.3E-04	.120
4.2	60.0		1.9012	24.28	1.0186	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.2	14.0		2.5108	0.00	1.6658	0	0				
6.24								.00179	2.7E-07	1.5E-03	.056
8.3	12.3		2.4950	0.63	1.6490	0	0				
12.49								.00421	6.3E-07	1.5E-03	.111
16.7	5.1		2.4633	1.89	1.6155	0	0				
24.95								.00024	9.1E-08	3.8E-03	.553
33.3	81.0		2.3070	8.12	1.4495	0	0				
49.88								.00019	3.3E-08	1.6E-03	.475
66.5	90.0		2.1724	13.48	1.3065	0	0				
41.58								.00029	1.9E-08	5.7E-04	.126
16.7	60.0		2.2435	10.64	1.3821	0	0				
10.40								.00030	3.2E-08	9.5E-04	.053
4.2	60.0		2.2734	9.45	1.4138	0	0				
10.40								.00016	8.3E-09	4.8E-04	.026
16.7	112.0		2.2585	10.05	1.3979	0	0				
41.58								.00068	4.6E-08	6.1E-04	.136
66.5	25.0		2.1817	13.11	1.3164	0	0				
99.77								.00024	2.7E-08	9.6E-04	.564
133.0	60.0		2.0217	19.48	1.1465	0	0				
199.53								.00037	1.9E-08	4.2E-04	.490
266.0	34.5		1.8828	25.01	0.9991	0	0				
399.07								.00040	1.0E-08	1.9E-04	.441
532.1	27.6		1.7578	29.99	0.8664	0	0				
332.56								.00019	7.1E-10	2.7E-05	.048
133.0	60.0		1.7852	28.90	0.8954	0	0				
68.59								.00022	1.5E-08	5.3E-04	.120
4.2	60.0		1.9556	22.11	1.0764	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 665-680 CM

SPECIFIC GRAVITY	= 2.71	INITIAL DENSITY (KN/M3)	= 16.683
WET SAMPLE WT (GM)	= 138.10	INITIAL WATER CONTENT (%)	= 39.80
VOL OF SAMPLE (CC)	= 81.17	INITIAL SATURATION (%)	= 104.87
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.5453

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.9	8.0	2.5195	0.00	1.5023	55	0					
8.85								.00243	5.6E-07	2.3E-03	.114
11.8	9.0	2.4847	1.38	1.4677	0	0					
17.73								.00129	3.3E-07	2.6E-03	.252
23.6	16.0	2.4085	4.41	1.3920	0	0					
35.43								.00119	1.9E-07	1.5E-03	.302
47.2	16.0	2.3172	8.03	1.3013	1	0					
70.75								.00118	1.8E-07	1.4E-03	.533
94.3	14.1	2.1562	14.42	1.1414	2	0					
58.95								.00028	6.4E-09	2.0E-04	.059
23.6	60.0	2.1918	13.01	1.1767	0	0					
14.76								.00029	2.2E-08	6.8E-04	.050
5.9	60.0	2.2222	11.80	1.2070	0	0					
14.76								.00306	1.7E-07	5.1E-04	.037
23.6	5.6	2.1996	12.70	1.1845	19	0					
58.95								.00465	1.7E-07	3.3E-04	.096
94.3	3.5	2.1412	15.01	1.1266	9	0					
141.64								.00146	1.0E-07	5.9E-04	.466
189.0	9.8	1.9995	20.64	0.9858	0	0					
283.51								.00229	6.4E-08	2.2E-04	.344
378.0	5.6	1.8953	24.77	0.8824	0	0					
567.02								.00176	1.1E-08	4.7E-05	.146
756.0	6.9	1.8510	26.53	0.8384	0	0					
472.52								.00021	8.0E-10	2.9E-05	.068
189.0	60.0	1.8921	24.90	0.8791	0	0					
97.45								.00023	5.2E-09	1.8E-04	.055
5.9	60.0	1.9753	21.60	0.9618	0	0					

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.9	8.0	2.5195	0.00	1.5023	0	0					
8.85								.00243	5.6E-07	2.3E-03	.114
11.8	9.0	2.4848	1.38	1.4678	0	0					
17.73								.00129	3.3E-07	2.5E-03	.250
23.6	16.0	2.4089	4.39	1.3924	0	0					
35.43								.00120	1.9E-07	1.5E-03	.297
47.2	16.0	2.3192	7.95	1.3033	0	0					
70.75								.00119	1.7E-07	1.3E-03	.522
94.3	14.1	2.1614	14.21	1.1466	0	0					
58.95								.00028	6.4E-09	2.0E-04	.059
23.6	60.0	2.1970	12.80	1.1819	0	0					
14.76								.00029	2.2E-08	6.8E-04	.050
5.9	60.0	2.2274	11.59	1.2122	0	0					
14.76								.00308	1.4E-07	4.1E-04	.030
23.6	5.6	2.2091	12.32	1.1940	0	0					
58.95								.00472	1.6E-07	3.0E-04	.088
94.3	3.5	2.1560	14.43	1.1413	0	0					
141.64								.00148	1.0E-07	5.9E-04	.466
189.0	9.8	2.0144	20.05	1.0006	0	0					
283.51								.00233	6.4E-08	2.2E-04	.344
378.0	5.6	1.9102	24.18	0.8971	0	0					
567.02								.00179	1.1E-08	4.7E-05	.146
756.0	6.9	1.8659	25.94	0.8531	0	0					
472.52								.00021	8.0E-10	2.9E-05	.068
189.0	60.0	1.9068	24.32	0.8938	0	0					
97.45								.00023	5.3E-09	1.8E-04	.055
5.9	60.0	1.9901	21.01	0.9765	0	0					

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 180-195 CM

SPECIFIC GRAVITY	= 2.69	INITIAL DENSITY (KN/M3)	= 15.285
WET SAMPLE WT (GM)	= 124.90	INITIAL WATER CONTENT (%)	= 71.00
VOL OF SAMPLE (CC)	= 80.12	INITIAL SATURATION (%)	= 97.90
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.9508

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.7	30.0	2.4819	0.00	1.8949	80	0				
2.60							.00021	1.4E-07	6.7E-03	.112
3.5	100.0	2.4530	1.16	1.8612	7	0				
5.20							.00039	1.6E-07	4.1E-03	.137
6.9	52.6	2.4177	2.59	1.8200	2	0				
10.41							.00026	1.2E-07	4.6E-03	.304
13.9	76.0	2.3391	5.75	1.7283	0	0				
20.81							.00037	1.6E-07	4.0E-03	.535
27.8	47.0	2.2011	11.32	1.5673	0	0				
17.35							.00030	2.7E-08	8.4E-04	.084
6.9	60.0	2.2447	9.56	1.6182	0	0				
4.34							.00030	7.3E-08	2.2E-03	.056
1.7	60.0	2.2737	8.39	1.6520	0	0				
4.34							.00128	1.1E-07	8.2E-04	.020
6.9	14.1	2.2631	8.81	1.6397	2	0				
17.35							.00076	1.1E-07	1.4E-03	.137
27.8	22.6	2.1922	11.67	1.5570	2	0				
41.63							.00057	8.8E-08	1.4E-03	.366
55.5	27.6	2.0977	15.48	1.4468	0	0				
83.26							.00046	5.8E-08	1.1E-03	.568
111.0	30.0	1.9511	21.39	1.2757	0	0				
166.52							.00058	4.0E-08	5.3E-04	.571
222.0	20.3	1.8038	27.32	1.1039	1	0				
138.76							.00020	2.7E-09	1.0E-04	.081
55.5	60.0	1.8457	25.63	1.1528	0	0				
28.62							.00023	3.2E-08	1.1E-03	.113
1.7	60.0	1.9915	19.76	1.3229	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.7	30.0	2.4819	0.00	1.8949	0	0				
2.60							.00021	1.3E-07	6.2E-03	.103
3.5	100.0	2.4554	1.07	1.8640	0	0				
5.20							.00039	1.6E-07	4.0E-03	.133
6.9	52.6	2.4210	2.46	1.8238	0	0				
10.41							.00026	1.2E-07	4.6E-03	.304
13.9	76.0	2.3425	5.62	1.7323	0	0				
20.81							.00037	1.6E-07	4.0E-03	.535
27.8	47.0	2.2045	11.18	1.5713	0	0				
17.35							.00030	2.7E-08	8.5E-04	.085
6.9	60.0	2.2482	9.42	1.6223	0	0				
4.34							.00030	7.4E-08	2.3E-03	.056
1.7	60.0	2.2773	8.24	1.6563	0	0				
4.34							.00129	1.1E-07	7.9E-04	.020
6.9	14.1	2.2671	8.65	1.6444	0	0				
17.35							.00076	1.1E-07	1.3E-03	.133
27.8	22.6	2.1983	11.43	1.5641	0	0				
41.63							.00057	8.9E-08	1.4E-03	.366
55.5	27.6	2.1037	15.24	1.4538	0	0				
83.26							.00046	5.8E-08	1.1E-03	.568
111.0	30.0	1.9573	21.14	1.2830	0	0				
166.52							.00058	4.0E-08	5.3E-04	.566
222.0	20.3	1.8111	27.03	1.1124	0	0				
138.76							.00020	2.7E-09	1.0E-04	.081
55.5	60.0	1.8531	25.33	1.1615	0	0				
28.62							.00023	3.2E-08	1.1E-03	.113
1.7	60.0	1.9990	19.46	1.3317	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-3679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 363-378 CM

SPECIFIC GRAVITY =	2.78	INITIAL DENSITY (KN/M3) =	14.710
WET SAMPLE WT (GM) =	123.10	INITIAL WATER CONTENT (%) =	32.50
VOL OF SAMPLE (CC) =	82.05	INITIAL SATURATION (%) =	96.25
DIA OF SAMPLE (CM) =	6.35	INITIAL VOID RATIO =	2.3854

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4		0.8	2.5637	0.00	2.3500	83	0				
	3.59							.02302	4.3E-06	1.9E-03	.051
4.8		1.0	2.5519	0.46	2.3345	51	0				
	7.18							.00357	8.8E-07	2.5E-03	.132
9.6		6.3	2.5214	1.65	2.2947	31	0				
	14.36							.02191	3.1E-06	1.4E-03	.150
19.1		1.0	2.4869	2.99	2.2497	4	0				
	28.71							.02581	4.1E-06	1.5E-03	.327
38.3		0.8	2.4116	5.93	2.1513	20	0				
	23.92							.00046	5.0E-09	1.1E-04	.017
9.6		45.0	2.4193	5.63	2.1614	0	0				
	5.98							.00017	1.3E-08	7.4E-04	.029
2.4		120.0	2.4329	5.10	2.1791	0	0				
	5.98							.00405	3.6E-07	8.5E-04	.034
9.6		5.1	2.4173	5.71	2.1587	18	0				
	23.92							.00217	2.3E-07	1.0E-03	.162
38.3		9.0	2.3426	8.62	2.0611	14	0				
	57.42							.00040	9.9E-08	2.2E-03	.928
76.6		40.6	2.1287	16.97	1.7816	0	0				
	114.84							.00064	7.3E-08	9.3E-04	.791
153.1		21.4	1.9466	24.07	1.5436	0	0				
	229.68							.00033	2.8E-08	6.2E-04	.053
306.2		32.0	1.7040	33.53	1.2266	0	0				
	154.32							.00011	4.5E-09	3.0E-04	.146
2.4		120.0	1.9397	24.34	1.6347	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4		0.8	2.5637	0.00	2.3500	0	0				
	3.59							.02313	2.2E-06	9.7E-04	.026
4.8		1.0	2.5577	0.23	2.3422	0	0				
	7.18							.00362	6.1E-07	1.7E-03	.091
9.6		6.3	2.5368	1.05	2.3149	0	0				
	14.36							.02221	3.0E-06	1.3E-03	.143
19.1		1.0	2.5038	2.33	2.2718	0	0				
	28.71							.02652	3.3E-06	1.2E-03	.258
38.3		0.8	2.4443	4.66	2.1940	0	0				
	23.92							.00047	5.0E-09	1.0E-04	.017
9.6		45.0	2.4519	4.36	2.2039	0	0				
	5.98							.00018	1.3E-08	7.4E-04	.029
2.4		120.0	2.4654	3.83	2.2216	0	0				
	5.98							.00417	2.9E-07	6.9E-04	.028
9.6		5.1	2.4527	4.33	2.2050	0	0				
	23.92							.00225	2.0E-07	8.7E-04	.139
38.3		9.0	2.3887	6.83	2.1213	0	0				
	57.42							.00042	1.0E-07	2.2E-03	.929
76.6		40.6	2.1747	15.17	1.8418	0	0				
	114.84							.00067	7.4E-08	9.2E-04	.786
153.1		21.4	1.9936	22.24	1.6050	0	0				
	229.68							.00035	2.9E-08	6.2E-04	.051
306.2		32.0	1.7514	31.68	1.2886	0	0				
	154.32							.00011	4.6E-09	3.0E-04	.146
2.4		120.0	1.9871	22.49	1.5965	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 428-443 CM

SPECIFIC GRAVITY	= 2.69	INITIAL DENSITY (KN/M3)	= 15.839
WET SAMPLE WT (GM)	= 130.60	INITIAL WATER CONTENT (%)	= 60.20
VOL OF SAMPLE (CC)	= 80.85	INITIAL SATURATION (%)	= 97.10
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.6677

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.3	1.0		2.5522	0.00	1.6671	100	0				
4.99								.02298	5.7E-07	2.5E-04	.007
6.7	1.0		2.5500	0.08	1.6649	44	6				
9.98								.00406	3.5E-07	8.9E-04	.052
13.3	5.6		2.5349	0.68	1.6491	33	0				
19.95								.00133	3.4E-07	2.5E-03	.300
26.6	16.0		2.4487	4.06	1.5590	36	0				
39.91								.00518	2.4E-07	4.5E-04	.107
53.2	4.0		2.4179	5.26	1.5268	11	0				
33.26								.00035	5.5E-09	1.5E-04	.027
13.3	60.0		2.4336	4.65	1.5432	0	0				
8.31								.00036	4.7E-08	1.3E-03	.057
3.3	60.0		2.4666	3.35	1.5777	0	0				
8.31								.00345	1.0E-07	2.9E-04	.013
13.3	6.2		2.4591	3.65	1.5699	50	1				
33.26								.00112	7.6E-08	6.6E-04	.117
53.2	18.1		2.3917	6.29	1.4995	29	0				
79.81								.00046	3.5E-08	7.0E-04	.330
106.4	40.6		2.2968	10.01	1.4002	4	0				
159.63								.00030	1.9E-08	5.6E-04	.524
212.8	54.4		2.1457	15.93	1.2423	0	0				
319.26								.00046	1.9E-08	3.4E-04	.640
425.7	30.0		1.9612	23.15	1.0496	0	0				
266.05								.00024	1.7E-09	5.7E-05	.081
106.4	60.0		2.0080	21.32	1.0984	0	0				
54.87								.00026	1.5E-08	4.6E-04	.084
3.3	60.0		2.1289	16.58	1.2248	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.3	1.0		2.5522	0.00	1.6671	0	0				
4.99								.02300	3.0E-07	1.3E-04	.004
6.7	1.0		2.5511	0.04	1.6660	0	0				
9.98								.00408	2.3E-07	5.8E-04	.034
13.3	5.6		2.5412	0.43	1.6556	0	0				
19.95								.00137	2.2E-07	1.6E-03	.190
26.6	16.0		2.4864	2.58	1.5984	0	0				
39.91								.00535	2.2E-07	4.0E-04	.094
53.2	4.0		2.4593	3.64	1.5701	0	0				
33.26								.00036	5.7E-09	1.6E-04	.027
13.3	60.0		2.4751	3.02	1.5866	0	0				
8.31								.00037	4.8E-08	1.3E-03	.057
3.3	60.0		2.5082	1.73	1.6211	0	0				
8.31								.00358	5.1E-08	1.4E-04	.006
13.3	6.2		2.5045	1.87	1.6173	0	0				
33.26								.00118	5.6E-08	4.7E-04	.082
53.2	18.1		2.4571	3.73	1.5678	0	0				
79.81								.00049	3.4E-08	6.7E-04	.314
106.4	40.6		2.3665	7.28	1.4731	0	0				
159.63								.00032	2.0E-08	5.6E-04	.524
212.8	54.4		2.2155	13.19	1.3153	0	0				
319.26								.00049	2.0E-08	3.4E-04	.640
425.7	30.0		2.0312	20.41	1.1227	0	0				
266.05								.00025	1.8E-09	5.8E-05	.081
106.4	60.0		2.0781	18.58	1.1717	0	0				
54.87								.00028	1.5E-08	4.6E-04	.084
3.3	60.0		2.1991	13.83	1.2982	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 304-319 CM

SPECIFIC GRAVITY = 2.72	INITIAL DENSITY (KN/M3) =	15.797
WET SAMPLE WT (GM) = 130.90	INITIAL WATER CONTENT (%) =	65.70
VOL OF SAMPLE (CC) = 81.35	INITIAL SATURATION (%) =	99.42
DIA OF SAMPLE (CM) = 6.35	INITIAL VOID RATIO =	1.7975

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.2	1.0	2.5602	0.00	1.7918	66	1				
3.28							.01153	1.3E-06	1.1E-03	.023
4.4	2.0	2.5539	0.24	1.7850	30	0				
6.56							.00571	6.6E-07	1.2E-03	.047
8.8	4.0	2.5408	0.76	1.7706	23	0				
13.11							.00130	2.6E-07	2.0E-03	.162
17.5	17.0	2.4963	2.49	1.7222	9	0				
26.20							.00091	1.9E-07	2.0E-03	.325
34.9	22.6	2.4067	5.99	1.6244	3	0				
21.84							.00035	2.1E-08	5.9E-04	.072
8.8	60.0	2.4462	4.45	1.6675	0	0				
5.47							.00036	3.4E-08	9.5E-04	.029
2.2	60.0	2.4621	3.83	1.6848	0	0				
5.47							.00201	1.2E-07	5.8E-04	.018
8.8	10.6	2.4523	4.21	1.6741	13	0				
21.84							.00299	1.9E-07	6.0E-04	.073
34.9	6.9	2.4120	5.79	1.6302	17	0				
52.40							.00088	1.2E-07	1.3E-03	.411
69.9	21.4	2.2984	10.23	1.5063	14	0				
104.79							.00064	7.4E-08	1.0E-03	.658
139.7	25.0	2.1167	17.32	1.3082	0	0				
209.10							.00099	4.8E-08	4.0E-04	.815
278.5	14.1	1.9752	22.85	1.1539	0	0				
174.17							.00024	1.7E-09	5.8E-05	.056
69.9	60.0	2.0061	21.64	1.1876	0	0				
36.02							.00027	2.9E-08	8.9E-04	.111
2.2	60.0	2.1596	15.64	1.3550	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.2	1.0	2.5602	0.00	1.7918	0	0				
3.28							.01155	6.3E-07	5.5E-04	.011
4.4	2.0	2.5570	0.12	1.7884	0	0				
6.56							.00573	5.1E-07	9.0E-04	.037
8.8	4.0	2.5469	0.52	1.7773	0	0				
13.11							.00131	2.4E-07	1.8E-03	.147
17.5	17.0	2.5065	2.09	1.7333	0	0				
26.20							.00092	1.8E-07	1.9E-03	.312
34.9	22.6	2.4205	5.46	1.6394	0	0				
21.84							.00036	2.2E-08	5.9E-04	.072
8.8	60.0	2.4600	3.91	1.6825	0	0				
5.47							.00036	3.4E-08	9.4E-04	.029
2.2	60.0	2.4758	3.30	1.6997	0	0				
5.47							.00203	1.0E-07	5.0E-04	.015
8.8	10.6	2.4673	3.63	1.6905	0	0				
21.84							.00304	1.5E-07	5.0E-04	.060
34.9	6.9	2.4340	4.93	1.6542	0	0				
52.40							.00091	1.0E-07	1.1E-03	.353
69.9	21.4	2.3366	8.73	1.5480	0	0				
104.79							.00067	7.6E-08	1.0E-03	.658
139.7	25.0	2.1549	15.83	1.3498	0	0				
209.10							.00103	4.9E-08	4.0E-04	.815
278.5	14.1	2.0135	21.35	1.1956	0	0				
174.17							.00025	1.8E-09	5.8E-05	.056
69.9	60.0	2.0445	20.14	1.2295	0	0				
36.02							.00028	2.9E-08	8.9E-04	.111
2.2	60.0	2.1981	14.14	1.3969	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 495-510 CM

SPECIFIC GRAVITY	= 2.78	INITIAL DENSITY (KN/M3)	= 15.971
WET SAMPLE WT (GM)	= 133.00	INITIAL WATER CONTENT (%)	= 61.30
VOL OF SAMPLE (CC)	= 81.65	INITIAL SATURATION (%)	= 97.30
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.7489

SAMPLE INUNDATED AT 0.0 KPA.
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.2		1.9	2.5649	0.00	1.7349	46	0				
	6.28							.00572	1.2E-06	2.1E-03	.080
8.4		4.0	2.5424	0.88	1.7108	35	0				
	12.56							.01392	2.2E-06	1.6E-03	.120
16.7		1.6	2.5085	2.20	1.6747	24	0				
	25.12							.00304	5.6E-07	1.8E-03	.275
33.5		6.9	2.4309	5.23	1.5920	26	0				
	50.24							.00122	1.3E-07	9.8E-04	.299
67.0		16.0	2.3465	8.52	1.5020	1	0				
	41.87							.00066	1.1E-08	1.6E-04	.037
16.7		30.0	2.3673	7.70	1.5242	0	0				
	10.47							.00034	4.4E-08	1.2E-03	.069
4.2		60.0	2.4065	6.18	1.5660	0	0				
	10.47							.00359	1.7E-07	4.7E-04	.027
16.7		5.6	2.3915	6.76	1.5500	22	0				
	41.87							.00241	1.3E-07	4.9E-04	.112
67.0		8.0	2.3282	9.23	1.4824	7	0				
	100.49							.00076	6.5E-08	7.7E-04	.468
134.0		22.6	2.1961	14.38	1.3416	0	0				
	200.97							.00065	3.9E-08	5.1E-04	.617
268.0		22.6	2.0220	21.17	1.1559	0	4				
	401.94							.00075	1.9E-08	1.9E-04	.470
535.9		17.0	1.8893	26.34	1.0145	0	0				
	270.05							.00025	4.6E-09	1.4E-04	.099
4.2		60.0	2.0854	18.70	1.2236	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
4.2		1.9	2.5649	0.00	1.7349	0	0				
	6.28							.00575	7.6E-07	1.3E-03	.051
8.4		4.0	2.5506	0.56	1.7196	0	0				
	12.56							.01411	1.7E-06	1.2E-03	.090
16.7		1.6	2.5252	1.55	1.6925	0	0				
	25.12							.00313	4.2E-07	1.3E-03	.203
33.5		6.9	2.4679	3.79	1.6314	0	0				
	50.24							.00126	1.3E-07	9.7E-04	.295
67.0		16.0	2.3846	7.03	1.5426	0	0				
	41.87							.00068	1.2E-08	1.6E-04	.037
16.7		30.0	2.4055	6.22	1.5649	0	0				
	10.47							.00035	4.4E-08	1.2E-03	.069
4.2		60.0	2.4447	4.69	1.6067	0	0				
	10.47							.00371	1.4E-07	3.6E-04	.020
16.7		5.6	2.4332	5.14	1.5944	0	0				
	41.87							.00250	1.2E-07	4.5E-04	.103
67.0		8.0	2.3747	7.42	1.5321	0	0				
	100.49							.00080	6.7E-08	7.7E-04	.468
134.0		22.6	2.2427	12.57	1.3913	0	0				
	200.97							.00068	4.0E-08	5.1E-04	.617
268.0		22.6	2.0685	19.35	1.2056	0	0				
	401.94							.00080	1.8E-08	1.8E-04	.440
535.9		17.0	1.9443	24.20	1.0732	0	0				
	270.05							.00026	4.7E-09	1.4E-04	.099
4.2		60.0	2.1405	16.55	1.2823	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 568-583 CM

SPECIFIC GRAVITY	= 2.75	INITIAL DENSITY (KN/M3)	= 16.704
WET SAMPLE WT (GM)	= 135.40	INITIAL WATER CONTENT (%)	= 57.90
VOL OF SAMPLE (CC)	= 79.48	INITIAL SATURATION (%)	= 102.80
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.5489

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.9		1.0	2.4889	0.00	1.5280	70	6				
	8.92							.02161	2.4E-06	1.1E-03	.056
11.9		1.0	2.4721	0.68	1.5109	35	22				
	17.87							.02110	2.2E-06	1.0E-03	.104
23.8		1.0	2.4414	1.91	1.4796	13	28				
	35.74							.00093	1.3E-07	1.4E-03	.273
47.7		21.2	2.3604	5.16	1.3974	2	0				
	71.49							.00073	6.0E-08	7.7E-04	.310
95.3		25.0	2.2687	8.85	1.3042	0	0				
	59.57							.00015	1.9E-09	1.1E-04	.034
23.8		120.0	2.2890	8.03	1.3249	0	0				
	14.88							.00016	1.3E-08	7.7E-04	.057
5.9		120.0	2.3232	6.66	1.3596	0	0				
	14.88							.00209	7.7E-08	3.5E-04	.026
23.8		9.0	2.3076	7.28	1.3438	4	0				
	59.57							.00182	6.0E-08	3.1E-04	.093
95.3		9.9	2.2526	9.50	1.2879	0	3				
	142.98							.00066	4.1E-08	5.6E-04	.449
190.6		24.5	2.1195	14.84	1.1527	0	0				
	285.95							.00066	2.2E-08	2.8E-04	.448
381.3		21.4	1.9866	20.18	1.0177	2	0				
	571.90							.00094	1.6E-08	1.4E-04	.437
762.5		13.1	1.8570	25.39	0.8861	0	0				
	476.59							.00010	2.9E-10	2.2E-05	.052
190.6		120.0	1.8878	24.15	0.9174	0	0				
	98.29							.00012	4.4E-09	2.9E-04	.091
5.9		120.0	2.0232	18.71	1.0549	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
5.9		1.0	2.4889	0.00	1.5280	0	0				
	8.92							.02176	1.2E-06	5.5E-04	.027
11.9		1.0	2.4808	0.33	1.5197	0	0				
	17.87							.02141	1.5E-06	7.1E-04	.071
23.8		1.0	2.4596	1.18	1.4982	0	0				
	35.74							.00096	1.1E-07	1.2E-03	.231
47.7		21.2	2.3910	3.93	1.4285	0	0				
	71.49							.00075	6.1E-08	7.9E-04	.310
95.3		25.0	2.2990	7.63	1.3351	0	0				
	59.57							.00016	1.9E-09	1.1E-04	.034
23.8		120.0	2.3190	6.83	1.3554	0	0				
	14.88							.00016	1.3E-08	7.7E-04	.057
5.9		120.0	2.3532	5.45	1.3901	0	0				
	14.88							.00215	7.4E-08	3.5E-04	.025
23.8		9.0	2.3385	6.04	1.3752	0	0				
	59.57							.00187	6.1E-08	3.1E-04	.093
95.3		9.9	2.2935	8.25	1.3193	0	0				
	142.98							.00068	4.1E-08	5.6E-04	.442
190.6		24.5	2.1525	13.52	1.1863	0	0				
	285.95							.00068	2.2E-08	2.7E-04	.435
381.3		21.4	2.0236	18.70	1.0553	0	0				
	571.90							.00098	1.7E-08	1.4E-04	.437
762.5		13.1	1.8940	23.90	0.9237	0	0				
	476.59							.00011	3.0E-10	2.2E-05	.052
190.6		120.0	1.9248	22.67	0.9550	0	0				
	98.29							.00012	4.4E-09	2.9E-04	.091
5.9		120.0	2.0603	17.22	1.0926	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 331-346 CM

SPECIFIC GRAVITY	= 2.75	INITIAL DENSITY (KN/M3)	= 15.640
WET SAMPLE WT (GM)	= 129.60	INITIAL WATER CONTENT (%)	= 68.40
VOL OF SAMPLE (CC)	= 81.25	INITIAL SATURATION (%)	= 98.83
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.9033

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.0	1.0		2.5641	0.00	1.9018	66	14				
4.50								.02320	4.7E-07	2.1E-04	.006
6.0	1.0		2.5625	0.06	1.9000	33	11				
8.97								.01775	8.2E-07	4.7E-04	.027
12.0	1.3		2.5553	0.34	1.8918	32	0				
17.94								.00392	8.6E-07	2.2E-03	.254
23.9	5.6		2.4878	2.98	1.8154	25	0				
35.89								.00117	2.4E-07	2.0E-03	.459
47.9	17.0		2.3657	7.74	1.6773	12	0				
29.91								.00034	1.1E-08	3.2E-04	.056
12.0	60.0		2.3954	6.58	1.7109	0	0				
7.48								.00034	3.6E-08	1.0E-03	.043
3.0	60.0		2.4183	5.68	1.7368	0	0				
7.48								.00514	1.4E-07	2.6E-04	.011
12.0	4.0		2.4124	5.92	1.7301	33	1				
29.91								.00767	3.4E-07	4.3E-04	.074
47.9	2.6		2.3732	7.44	1.6858	17	0				
71.78								.00056	1.1E-07	1.8E-03	.814
95.7	30.0		2.1567	15.89	1.4408	3	0				
143.55								.00061	6.2E-08	8.3E-04	.765
191.4	22.6		1.9532	23.82	1.2105	0	0				
287.10								.00061	2.5E-08	3.1E-04	.570
382.8	19.0		1.8017	29.74	1.0389	1	0				
239.25								.00020	1.3E-09	4.8E-05	.067
95.7	60.0		1.8372	28.35	1.0791	0	0				
49.35								.00022	1.6E-08	5.2E-04	.094
3.0	60.0		1.9619	23.48	1.2203	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.0	1.0		2.5641	0.00	1.9018	0	0				
4.50								.02322	2.5E-07	1.1E-04	.003
6.0	1.0		2.5633	0.03	1.9008	0	0				
8.97								.01780	5.5E-07	3.1E-04	.018
12.0	1.3		2.5585	0.22	1.8954	0	0				
17.94								.00399	6.4E-07	1.6E-03	.188
23.9	5.6		2.5085	2.17	1.8389	0	0				
35.89								.00121	2.2E-07	1.7E-03	.403
47.9	17.0		2.4013	6.35	1.7175	0	0				
29.91								.00035	1.2E-08	3.2E-04	.056
12.0	60.0		2.4309	5.20	1.7510	0	0				
7.48								.00035	3.6E-08	9.9E-04	.043
3.0	60.0		2.4538	4.30	1.7769	0	0				
7.48								.00530	9.3E-08	1.7E-04	.007
12.0	4.0		2.4498	4.46	1.7724	0	0				
29.91								.00796	2.9E-07	3.5E-04	.060
47.9	2.6		2.4176	5.71	1.7360	0	0				
71.78								.00059	1.1E-07	1.7E-03	.783
95.7	30.0		2.2093	13.84	1.5003	0	0				
143.55								.00064	6.3E-08	8.3E-04	.765
191.4	22.6		2.0059	21.77	1.2700	0	0				
287.10								.00065	2.6E-08	3.0E-04	.562
382.8	19.0		1.8563	27.60	1.1008	0	0				
239.25								.00021	1.4E-09	4.8E-05	.067
95.7	60.0		1.8918	26.22	1.1410	0	0				
49.35								.00024	1.6E-08	5.2E-04	.094
3.0	60.0		2.0166	21.35	1.2822	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 366-381 CM

SPECIFIC GRAVITY	= 2.66	INITIAL DENSITY (KN/M3)	= 14.349
WET SAMPLE WT (GM)	= 117.49	INITIAL WATER CONTENT (%)	= 97.50
VOL OF SAMPLE (CC)	= 80.28	INITIAL SATURATION (%)	= 100.14
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 2.5898

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--			*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.3	1.0	2.5259	0.00	2.5770	45	19					
3.46								.02234	4.6E-06	2.1E-03	.057
4.6	1.0	2.5137	0.48	2.5698	28	25					
6.93								.00205	6.9E-07	3.4E-03	.136
9.2	10.6	2.4741	2.05	2.5037	18	4					
13.85								.00066	4.3E-07	6.7E-03	.688
18.5	29.2	2.3279	7.84	2.2967	5	0					
27.71								.00015	6.0E-08	3.7E-03	.805
36.9	112.4	2.1569	14.61	2.0545	0	0					
23.09								.00009	9.6E-09	9.7E-04	.160
9.2	200.0	2.2250	11.91	2.1509	0	0					
5.77								.00009	1.9E-08	1.9E-03	.079
2.3	200.0	2.2583	10.59	2.1982	0	0					
5.77								.00127	1.2E-07	8.3E-04	.034
9.2	14.1	2.2439	11.17	2.1777	14	0					
23.09								.00104	1.4E-07	1.2E-03	.198
36.9	16.0	2.1599	14.49	2.0587	7	0					
55.41								.00017	4.0E-08	1.9E-03	.842
73.9	81.0	1.9808	21.58	1.8051	0	0					
110.82								.00024	3.8E-08	1.2E-03	.024
147.8	46.2	1.7631	30.20	1.4968	0	0					
221.64								.00040	2.6E-08	4.5E-04	.788
295.5	23.0	1.5957	36.83	1.2597	0	0					
148.92								.00006	2.3E-09	2.3E-04	.142
2.3	200.0	1.8064	28.48	1.5582	0	0					

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--			*---100% PRI CONS---*							
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.3	1.0	2.5259	0.00	2.5770	0	0					
3.46								.02244	2.3E-06	1.1E-03	.029
4.6	1.0	2.5197	0.25	2.5682	0	0					
6.93								.00208	5.1E-07	2.5E-03	.137
9.2	10.6	2.4906	1.40	2.5271	0	0					
13.85								.00068	4.1E-07	5.9E-03	.644
18.5	29.2	2.3537	6.82	2.3332	0	0					
27.71								.00015	6.1E-08	3.7E-03	.805
36.9	112.4	2.1827	13.59	2.0910	0	0					
23.09								.00009	9.7E-09	9.7E-04	.160
9.2	200.0	2.2507	10.89	2.1874	0	0					
5.77								.00009	1.9E-08	1.9E-03	.078
2.3	200.0	2.2840	9.58	2.2345	0	0					
5.77								.00130	1.0E-07	7.1E-04	.029
9.2	14.1	2.2716	10.07	2.2169	0	0					
23.09								.00107	1.3E-07	1.1E-03	.183
36.9	16.0	2.1940	13.14	2.1070	0	0					
55.41								.00018	4.1E-08	1.9E-03	.843
73.9	81.0	2.0148	20.23	1.8532	0	0					
110.82								.00025	3.8E-08	1.2E-03	.025
147.8	46.2	1.7969	28.36	1.5447	0	0					
221.64								.00042	2.7E-08	4.5E-04	.787
295.5	23.0	1.6296	35.49	1.3077	0	0					
148.92								.00006	2.4E-09	2.3E-04	.142
2.3	200.0	1.8404	27.14	1.6062	0	0					

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 583-598 CM

SPECIFIC GRAVITY	= 2.78	INITIAL DENSITY (KN/M3)	= 17.467
WET SAMPLE WT (GM)	= 147.60	INITIAL WATER CONTENT (%)	= 35.10
VOL OF SAMPLE (CC)	= 82.86	INITIAL SATURATION (%)	= 88.04
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.1084

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.9	2.0		2.6065	0.00	1.1006	44	0				
10.34								.00463	6.0E-07	1.3E-03	.063
13.8	5.1		2.5830	0.90	1.0816	50	0				
20.65								.00649	9.0E-07	1.4E-03	.134
27.5	3.5		2.5331	2.82	1.0414	43	0				
41.27								.00166	1.2E-07	7.0E-04	.134
55.0	13.1		2.4832	4.73	1.0012	85	0				
82.54								.00168	7.9E-08	4.5E-04	.173
110.1	12.3		2.4185	7.21	0.9490	51	0				
68.78								.00035	7.0E-09	1.9E-04	.054
27.5	60.0		2.4589	5.66	0.9816	0	0				
17.20								.00018	1.0E-08	5.5E-04	.039
6.9	120.0		2.4883	4.53	1.0053	0	0				
17.20								.00538	2.2E-07	4.0E-04	.029
27.5	4.0		2.4668	5.36	0.9880	39	0				
68.78								.00211	5.5E-08	2.5E-04	.072
110.1	9.8		2.4127	7.44	0.9444	29	0				
165.08								.00140	2.7E-08	1.8E-04	.136
220.1	14.1		2.3618	9.39	0.9034	7	0				
330.17								.00116	1.7E-08	1.3E-04	.204
440.2	16.0		2.2854	12.32	0.8418	2	1				
660.33								.00149	1.5E-08	8.9E-05	.275
880.4	11.4		2.1829	16.25	0.7592	0	0				
550.28								.00029	7.7E-10	2.3E-05	.053
220.1	60.0		2.2224	14.74	0.7910	0	0				
113.50								.00016	4.0E-09	2.2E-04	.066
6.9	120.0		2.3464	9.98	0.8909	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
6.9	2.0		2.6065	0.00	1.1006	0	0				
10.34								.00467	3.0E-07	6.4E-04	.031
13.8	5.1		2.5949	0.44	1.0912	0	0				
20.65								.00667	5.1E-07	7.8E-04	.075
27.5	3.5		2.5670	1.52	1.0687	0	0				
41.27								.00177	1.7E-08	9.8E-05	.019
55.0	13.1		2.5600	1.79	1.0630	0	0				
82.54								.00184	4.0E-08	2.2E-04	.084
110.1	12.3		2.5286	2.99	1.0378	0	0				
68.78								.00039	7.3E-09	1.9E-04	.054
27.5	60.0		2.5690	1.44	1.0703	0	0				
17.20								.00020	1.1E-08	5.5E-04	.039
6.9	120.0		2.5983	0.31	1.0940	0	0				
17.20								.00591	1.4E-07	2.4E-04	.017
27.5	4.0		2.5854	0.81	1.0835	0	0				
68.78								.00235	4.2E-08	1.8E-04	.051
110.1	9.8		2.5470	2.28	1.0526	0	0				
165.08								.00157	2.6E-08	1.6E-04	.126
220.1	14.1		2.4998	4.09	1.0146	0	0				
330.17								.00131	1.8E-08	1.3E-04	.199
440.2	16.0		2.4256	6.94	0.9548	0	0				
660.33								.00169	1.6E-08	8.9E-05	.272
880.4	11.4		2.3240	10.84	0.8729	0	0				
550.28								.00033	8.3E-10	2.3E-05	.053
220.1	60.0		2.3638	9.31	0.9050	0	0				
113.50								.00018	4.2E-09	2.2E-04	.066
6.9	120.0		2.4877	4.56	1.0048	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 128-143 CM

SPECIFIC GRAVITY	= 2.79	INITIAL DENSITY (KN/M3)	=	16.434
WET SAMPLE WT (GM)	= 138.20	INITIAL WATER CONTENT (%)	=	47.80
VOL OF SAMPLE (CC)	= 82.46	INITIAL SATURATION (%)	=	91.32
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	=	1.4603

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.2	1.0	2.6035	0.00	1.4603	0	0				
1.79							.02393	7.9E-07	3.4E-04	.003
2.4	1.0	2.6025	0.04	1.4593	59	17				
3.59							.01193	8.3E-07	7.1E-04	.014
4.8	2.0	2.5980	0.21	1.4551	64	2				
7.18							.00462	5.5E-07	1.2E-03	.047
9.6	5.1	2.5830	0.79	1.4409	54	0				
14.36							.00573	8.7E-07	1.5E-03	.120
19.1	4.0	2.5449	2.25	1.4049	41	0				
11.96							.00076	4.0E-10	5.3E-06	.000
4.8	30.0	2.5451	2.24	1.4051	0	44				
2.99							.00038	3.2E-08	8.4E-04	.012
1.2	60.0	2.5530	1.94	1.4125	0	-3				
2.99							.01769	4.0E-07	2.3E-04	.003
4.8	1.3	2.5508	2.02	1.4105	50	8				
11.96							.00358	2.4E-07	6.8E-04	.040
19.1	6.3	2.5256	2.99	1.3867	41	0				
28.71							.00208	1.4E-07	6.7E-04	.104
38.3	10.6	2.4924	4.27	1.3553	19	0				
57.42							.00404	3.4E-07	8.1E-04	.254
76.6	5.1	2.4114	7.38	1.2787	45	0				
114.84							.00135	7.3E-08	5.0E-04	.313
153.1	14.1	2.3118	11.21	1.1846	11	0				
95.70							.00032	2.3E-09	6.7E-05	.031
38.3	60.0	2.3317	10.44	1.2035	0	0				
19.74							.00035	3.8E-08	1.0E-03	.062
1.2	60.0	2.4311	6.62	1.2974	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*							
ACT KPA	AVG T90 KPA MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
1.2	1.0	2.6035	0.00	1.4603	0	0				
1.79							.02395	2.1E-07	9.1E-05	.001
2.4	1.0	2.6032	0.01	1.4600	0	0				
3.59							.01196	2.7E-07	2.3E-04	.004
4.8	2.0	2.6018	0.07	1.4587	0	0				
7.18							.00467	2.5E-07	5.4E-04	.021
9.6	5.1	2.5950	0.33	1.4523	0	0				
14.36							.00586	5.1E-07	8.8E-04	.069
19.1	4.0	2.5730	1.17	1.4315	0	0				
11.96							.00078	5.8E-10	7.6E-06	.000
4.8	30.0	2.5733	1.16	1.4318	0	0				
2.99							.00039	3.2E-08	8.2E-04	.012
1.2	60.0	2.5809	0.87	1.4390	0	0				
2.99							.01809	1.6E-07	9.1E-05	.001
4.8	1.3	2.5801	0.90	1.4382	0	0				
11.96							.00370	1.4E-07	3.9E-04	.023
19.1	6.3	2.5654	1.46	1.4243	0	0				
28.71							.00215	1.2E-07	5.4E-04	.084
38.3	10.6	2.5386	2.49	1.3990	0	0				
57.42							.00433	1.9E-07	4.4E-04	.139
76.6	5.1	2.4943	4.20	1.3571	0	0				
114.84							.00146	6.7E-08	4.4E-04	.176
153.1	14.1	2.4065	7.37	1.2742	0	0				
95.70							.00035	2.4E-09	6.7E-05	.031
38.3	60.0	2.4265	6.80	1.2931	0	0				
19.74							.00037	4.0E-08	1.0E-03	.062
1.2	60.0	2.5259	2.98	1.3870	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 232-247 CM

SPECIFIC GRAVITY	= 2.78	INITIAL DENSITY (KN/M3)	= 17.425
WET SAMPLE WT (GM)	= 142.90	INITIAL WATER CONTENT (%)	= 43.60
VOL OF SAMPLE (CC)	= 80.41	INITIAL SATURATION (%)	= 97.25
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.2464

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.4	6.3		2.5344	0.00	1.2424	44	0				
5.17								.00869	6.4E-07	7.6E-04	.019
6.9	2.6		2.5278	0.26	1.2365	23	0				
10.36								.00279	2.6E-07	9.6E-04	.050
13.8	8.0		2.5109	0.93	1.2215	29	0				
20.72								.00191	1.7E-07	8.8E-04	.090
27.6	11.4		2.4803	2.14	1.1945	24	0				
41.32								.00331	2.6E-07	7.9E-04	.161
55.0	6.3		2.4257	4.29	1.1462	11	0				
34.43								.00035	7.8E-09	2.2E-04	.033
13.8	60.0		2.4483	3.40	1.1662	0	0				
8.64								.00036	3.2E-08	8.8E-04	.034
3.4	60.0		2.4714	2.48	1.1867	0	0				
8.64								.00383	1.0E-07	2.7E-04	.010
13.8	5.6		2.4643	2.76	1.1804	32	0				
34.43								.00371	1.5E-07	3.9E-04	.060
55.0	5.6		2.4235	4.38	1.1442	51	0				
82.78								.00098	3.9E-08	3.9E-04	.159
110.5	20.3		2.3691	6.52	1.0961	16	0				
165.80								.00044	1.6E-08	3.4E-04	.282
221.1	42.3		2.2731	10.31	1.0112	0	0				
331.36								.00038	1.3E-08	2.9E-04	.485
441.7	42.3		2.1082	16.82	0.8653	0	0				
276.09								.00027	1.5E-09	4.6E-05	.057
110.5	60.0		2.1469	15.29	0.8995	0	0				
56.99								.00030	1.3E-08	4.0E-04	.064
3.4	60.0		2.2560	10.98	0.9961	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
3.4	6.3		2.5344	0.00	1.2424	0	0				
5.17								.00870	5.0E-07	5.8E-04	.015
6.9	2.6		2.5293	0.20	1.2379	0	0				
10.36								.00280	1.9E-07	6.7E-04	.035
13.8	8.0		2.5175	0.67	1.2274	0	0				
20.72								.00193	1.3E-07	6.6E-04	.068
27.6	11.4		2.4943	1.58	1.2069	0	0				
41.32								.00337	2.4E-07	6.9E-04	.143
55.0	6.3		2.4461	3.49	1.1642	0	0				
34.43								.00036	7.8E-09	2.2E-04	.033
13.8	60.0		2.4687	2.59	1.1842	0	0				
8.64								.00036	3.2E-08	8.8E-04	.034
3.4	60.0		2.4918	1.68	1.2047	0	0				
8.64								.00390	7.1E-08	1.8E-04	.007
13.8	5.6		2.4870	1.87	1.2004	0	0				
34.43								.00385	7.3E-08	1.9E-04	.029
55.0	5.6		2.4672	2.65	1.1829	0	0				
82.78								.00102	3.4E-08	3.2E-04	.133
110.5	20.3		2.4218	4.44	1.1427	0	0				
165.80								.00046	1.6E-08	3.4E-04	282
221.1	42.3		2.3258	8.23	1.0578	0	0				
331.36								.00040	1.3E-08	3.0E-04	.486
441.7	42.3		2.1607	14.74	0.9118	0	0				
276.09								.00028	1.5E-09	4.6E-05	.057
110.5	60.0		2.1997	13.21	0.9462	0	0				
56.99								.00031	1.4E-08	4.0E-04	.064
3.4	60.0		2.3089	8.90	1.0429	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 138-153 CM

SPECIFIC GRAVITY	= 2.80	INITIAL DENSITY (KN/M3)	= 18.185
WET SAMPLE WT (GM)	= 148.90	INITIAL WATER CONTENT (%)	= 40.40
VOL OF SAMPLE (CC)	= 80.28	INITIAL SATURATION (%)	= 101.03
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.1196

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.7	1.0		2.5288	0.00	1.1145	100	0				
4.05								.02257	4.1E-07	1.9E-04	.004
5.4	1.0		2.5276	0.05	1.1135	100	0				
8.11								.00212	7.9E-08	3.8E-04	.014
10.8	10.6		2.5224	0.25	1.1091	34	-1				
16.20								.00966	5.5E-07	5.8E-04	.044
21.6	2.3		2.5066	0.88	1.0959	45	0				
32.37								.00093	1.2E-07	1.3E-03	.194
43.2	22.6		2.4366	3.65	1.0374	20	0				
26.99								.00035	6.4E-09	1.8E-04	.020
10.8	60.0		2.4513	3.07	1.0497	0	0				
6.76								.00036	1.8E-08	5.0E-04	.014
2.7	60.0		2.4615	2.66	1.0582	0	0				
6.76								.00339	4.5E-08	1.3E-04	.004
10.8	6.3		2.4588	2.77	1.0560	45	4				
26.99								.00116	3.0E-08	2.5E-04	.029
43.2	18.1		2.4383	3.58	1.0388	20	0				
64.74								.00118	6.5E-08	5.3E-04	.161
86.3	17.0		2.3803	5.87	0.9903	5	0				
129.48								.00133	5.2E-08	3.7E-04	.225
172.6	14.1		2.2994	9.07	0.9227	4	0				
259.06								.00179	3.7E-08	1.9E-04	.226
345.5	9.8		2.2180	12.29	0.8546	3	0				
215.90								.00030	1.2E-09	3.7E-05	.033
86.3	60.0		2.2419	11.35	0.8746	0	0				
44.51								.00032	1.3E-08	3.9E-04	.045
2.7	60.0		2.3234	8.12	0.9427	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD-- ACT KPA	AVG KPA	T90 MIN	*---100% PRI CONS---* SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.7	1.0		2.5288	0.00	1.1145	0	0				
4.05								.02260	0.0E+00	0.0E+00	.000
5.4	1.0		2.5288	0.00	1.1145	0	0				
8.11								.00213	5.2E-08	2.5E-04	.009
10.8	10.6		2.5254	0.13	1.1117	0	0				
16.20								.00974	3.1E-07	3.2E-04	.024
21.6	2.3		2.5167	0.48	1.1044	0	0				
32.37								.00095	9.7E-08	1.0E-03	.155
43.2	22.6		2.4608	2.69	1.0576	0	0				
26.99								.00036	6.5E-09	1.8E-04	.020
10.8	60.0		2.4755	2.11	1.0699	0	0				
6.76								.00036	1.8E-08	5.0E-04	.014
2.7	60.0		2.4856	1.71	1.0784	0	0				
6.76								.00346	2.4E-08	6.9E-05	.002
10.8	6.3		2.4842	1.76	1.0772	0	0				
26.99								.00119	2.4E-08	2.0E-04	.023
43.2	18.1		2.4679	2.41	1.0635	0	0				
64.74								.00122	6.2E-08	5.0E-04	.153
86.3	17.0		2.4129	4.59	1.0175	0	0				
129.48								.00138	5.1E-08	3.5E-04	.214
172.6	14.1		2.3358	7.63	0.9531	0	0				
259.06								.00195	3.6E-08	1.8E-04	.218
345.5	9.8		2.2573	10.74	0.8875	0	0				
215.90								.00031	1.2E-09	3.7E-05	.033
86.3	60.0		2.2813	9.79	0.9076	0	0				
44.51								.00033	1.3E-08	3.9E-04	.045
2.7	60.0		2.3629	6.56	0.9758	0	0				

LAW ENGINEERING TESTING COMPANY
CONSOLIDATION TEST DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 153-168 CM

SPECIFIC GRAVITY	= 2.81	INITIAL DENSITY (KN/M3)	= 17.462
WET SAMPLE WT (GM)	= 144.70	INITIAL WATER CONTENT (%)	= 41.60
VOL OF SAMPLE (CC)	= 81.25	INITIAL SATURATION (%)	= 94.85
DIA OF SAMPLE (CM)	= 6.35	INITIAL VOID RATIO	= 1.2302

SAMPLE INUNDATED AT 0.0 KPA
SQUARE ROOT OF TIME METHOD
DOUBLE DRAINAGE
NO STONE CORRECTIONS

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4		0.7	2.5433	0.00	1.2110	77	-1				
	3.59							.00565	1.5E-06	2.6E-03	.047
4.8		4.0	2.5272	0.63	1.1970	46	0				
	7.18							.00553	1.2E-06	2.2E-03	.077
9.6		4.0	2.5004	1.69	1.1737	41	3				
	14.12							.00690	1.3E-06	1.8E-03	.126
18.7		3.1	2.4583	3.34	1.1371	48	-2				
	27.99							.00111	1.8E-07	1.6E-03	.221
37.3		18.1	2.3819	6.35	1.0707	33	0				
	23.45							.00034	6.5E-09	1.9E-04	.019
9.6		60.0	2.3950	5.83	1.0821	0	0				
	5.98							.00034	4.4E-08	1.2E-03	.033
2.4		60.0	2.4175	4.94	1.1017	0	0				
	5.98							.00294	1.0E-07	3.4E-04	.009
9.6		7.0	2.4113	5.19	1.0962	28	0				
	23.45							.00222	1.3E-07	5.5E-04	.057
37.3		9.0	2.3725	6.71	1.0625	25	0				
	56.94							.00084	5.4E-08	6.0E-04	.167
76.6		22.6	2.3125	9.07	1.0103	0	0				
	112.45							.00099	4.1E-08	3.8E-04	.211
148.3		18.1	2.2427	11.82	0.9497	0	0				
	222.50							.00127	3.0E-08	2.1E-04	.229
296.7		13.1	2.1635	14.93	0.8808	0	0				
	149.53							.00015	2.6E-09	1.5E-04	.047
2.4		120.0	2.2779	10.44	0.9802	0	0				

CONSOLIDATION TEST DATA REDUCTION FOR PRIMARY CONSOLIDATION ONLY

--LOAD--		*---100% PRI CONS---*								
ACT KPA	AVG KPA	T90 MIN	SAMPLE HT. CM	STRAIN %	VOID RATIO	% INI	% SEC	CV CM2/SEC	PERM CM/SEC	MV M2/KN	CC
2.4		0.7	2.5433	0.00	1.2110	0	0				
	3.59							.00568	8.0E-07	1.4E-03	.025
4.8		4.0	2.5346	0.34	1.2034	0	0				
	7.18							.00561	6.9E-07	1.3E-03	.044
9.6		4.0	2.5193	0.94	1.1901	0	0				
	14.12							.00712	6.6E-07	9.4E-04	.065
18.7		3.1	2.4976	1.80	1.1712	0	0				
	27.99							.00117	1.3E-07	1.1E-03	.150
37.3		18.1	2.4457	3.84	1.1261	0	0				
	23.45							.00036	6.6E-09	1.8E-04	.019
9.6		60.0	2.4586	3.33	1.1374	0	0				
	5.98							.00036	4.5E-08	1.2E-03	.033
2.4		60.0	2.4812	2.44	1.1570	0	0				
	5.98							.00310	7.7E-08	2.5E-04	.007
9.6		7.0	2.4767	2.62	1.1531	0	0				
	23.45							.00236	9.7E-08	4.1E-04	.042
37.3		9.0	2.4479	3.75	1.1281	0	0				
	56.94							.00090	5.6E-08	6.0E-04	.167
76.6		22.6	2.3878	6.11	1.0758	0	0				
	112.45							.00106	4.3E-08	3.8E-04	.211
148.3		18.1	2.3181	8.86	1.0152	0	0				
	222.50							.00136	3.1E-08	2.1E-04	.229
296.7		13.1	2.2388	11.97	0.9463	0	0				
	149.53							.00016	2.7E-09	1.5E-04	.047
2.4		120.0	2.3531	7.48	1.0456	0	0				

APPENDIX B2

VOID RATIO VERSUS

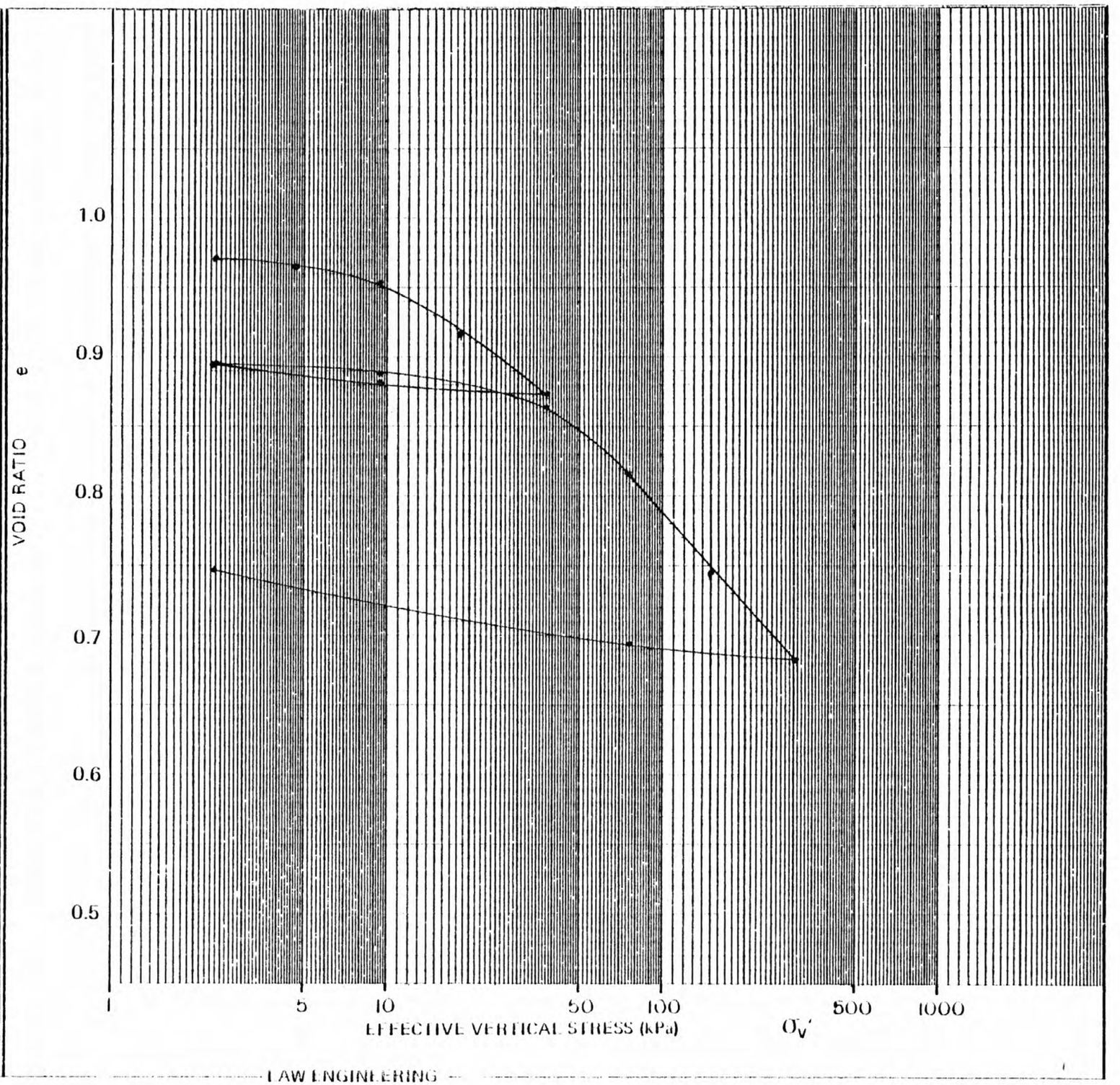
LOGARITHM VERTICAL STRESS FOR CONSOLIDATION TESTS

CONSOLIDATION TEST

COMPRESSION INDEX	0.210
SWELLING INDEX	0.027
MAXIMUM PRECONSOLIDATION STRESS (kPa)	19
INITIAL VOID RATIO	0.976
INITIAL WATER CONTENT	33.0
INITIAL SATURATION	95.0

SAMPLE IDENTIFICATION

CORE NUMBER	CD-14 PC-16
DEPTH	174-189 CM
CLASSIFICATION	



LAW ENGINEERING

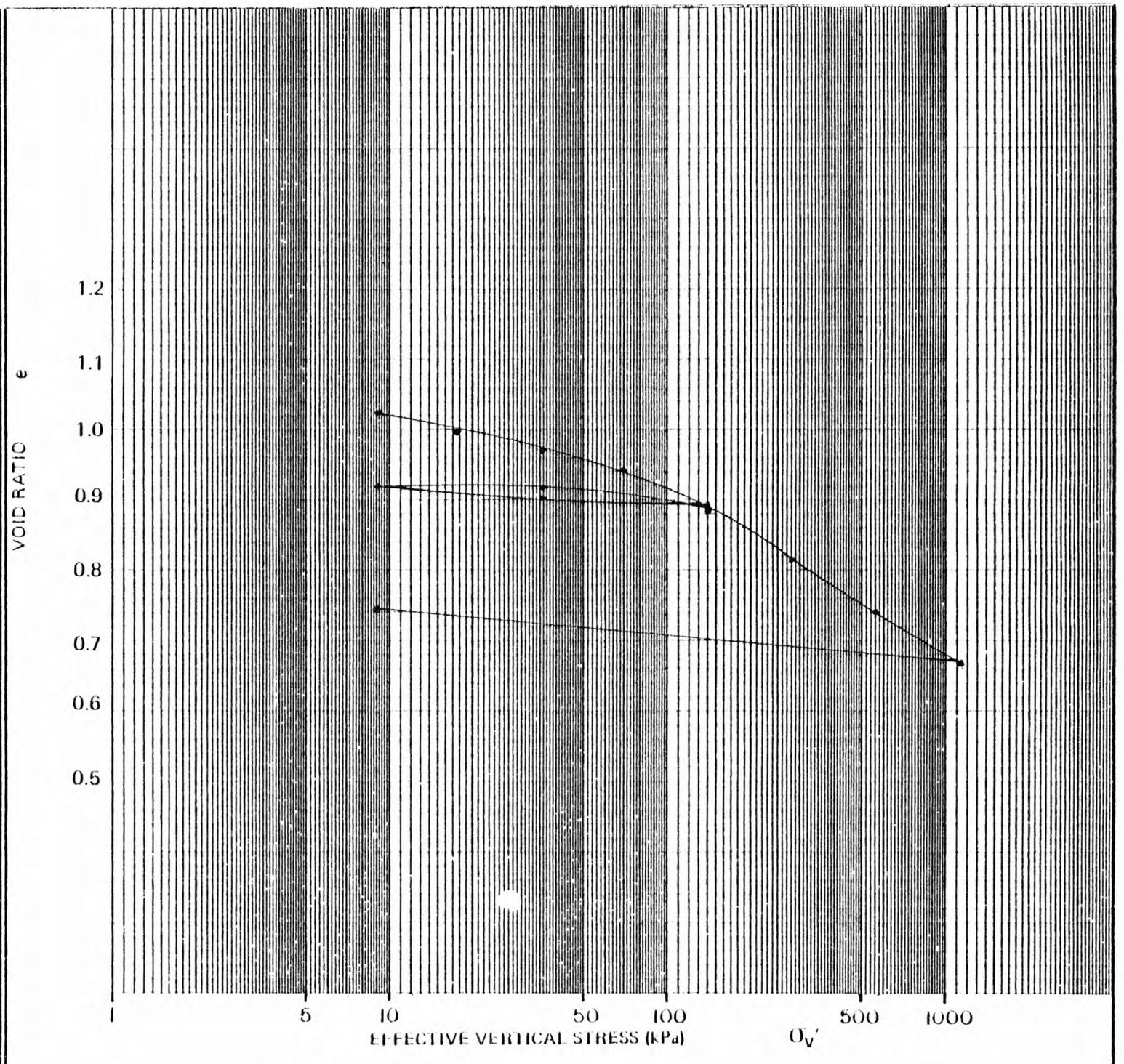
CONSOLIDATION TEST

COMPRESSION INDEX	0.241
SWELLING INDEX	0.038
MAXIMUM PRECONSOLIDATION STRESS (kPa)	90
INITIAL VOID RATIO	1.0600
INITIAL WATER CONTENT	34.7
INITIAL SATURATION	92.5

SAMPLE IDENTIFICATION

CORE NUMBER	CD-14 PC-16
DEPTH	374-389 CM
CLASSIFICATION	

564



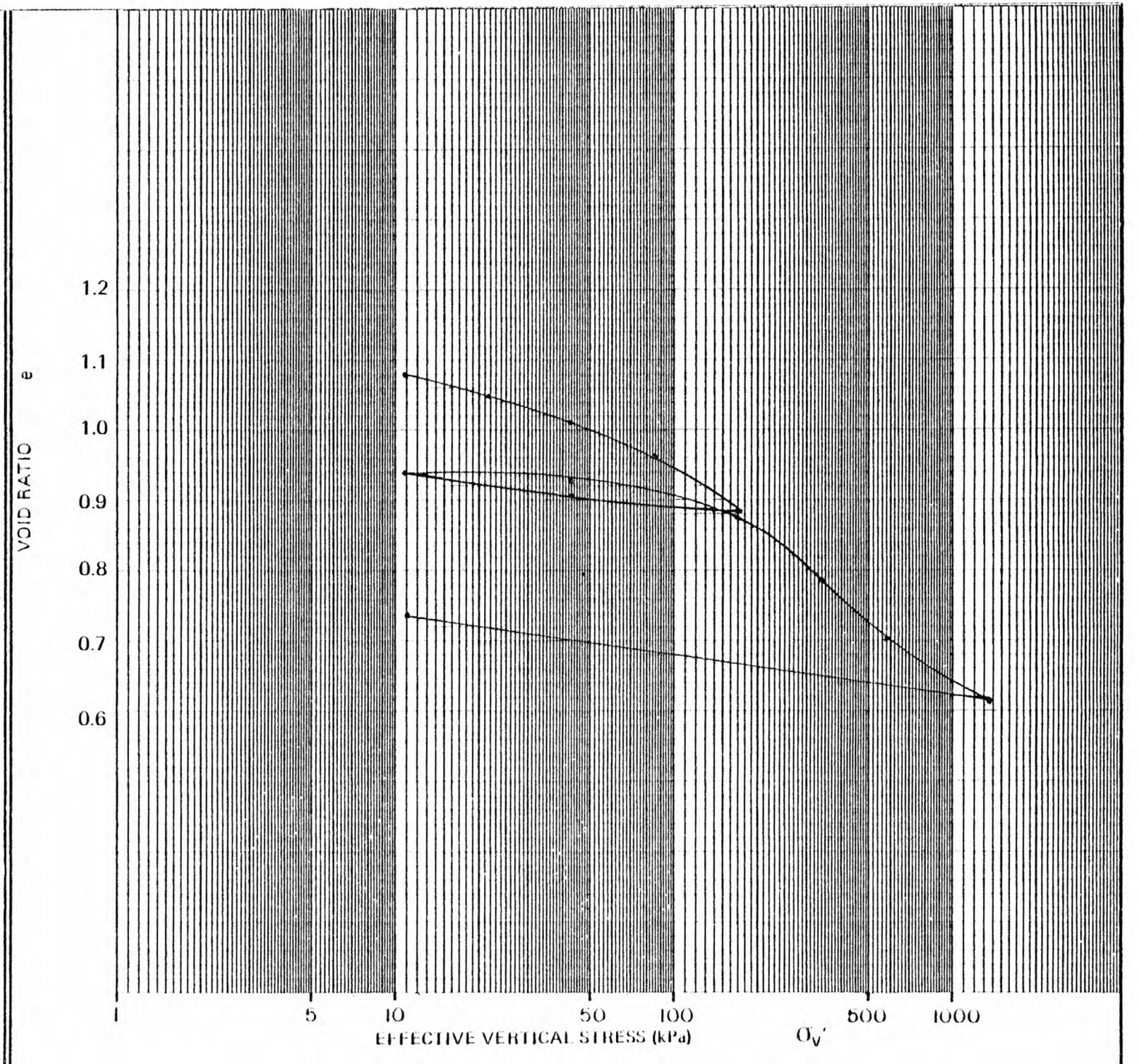
CONSOLIDATION TEST

COMPRESSION INDEX	0.298
SWELLING INDEX	0.058
MAXIMUM PRECONSOLIDATION STRESS (kPa)	85
INITIAL VOID RATIO	1.1213
INITIAL WATER CONTENT	40.8
INITIAL SATURATION	100.0

SAMPLE IDENTIFICATION

CORE NUMBER	CD-14 PC-16
DEPTH	457-472 CM
CLASSIFICATION	CL

565

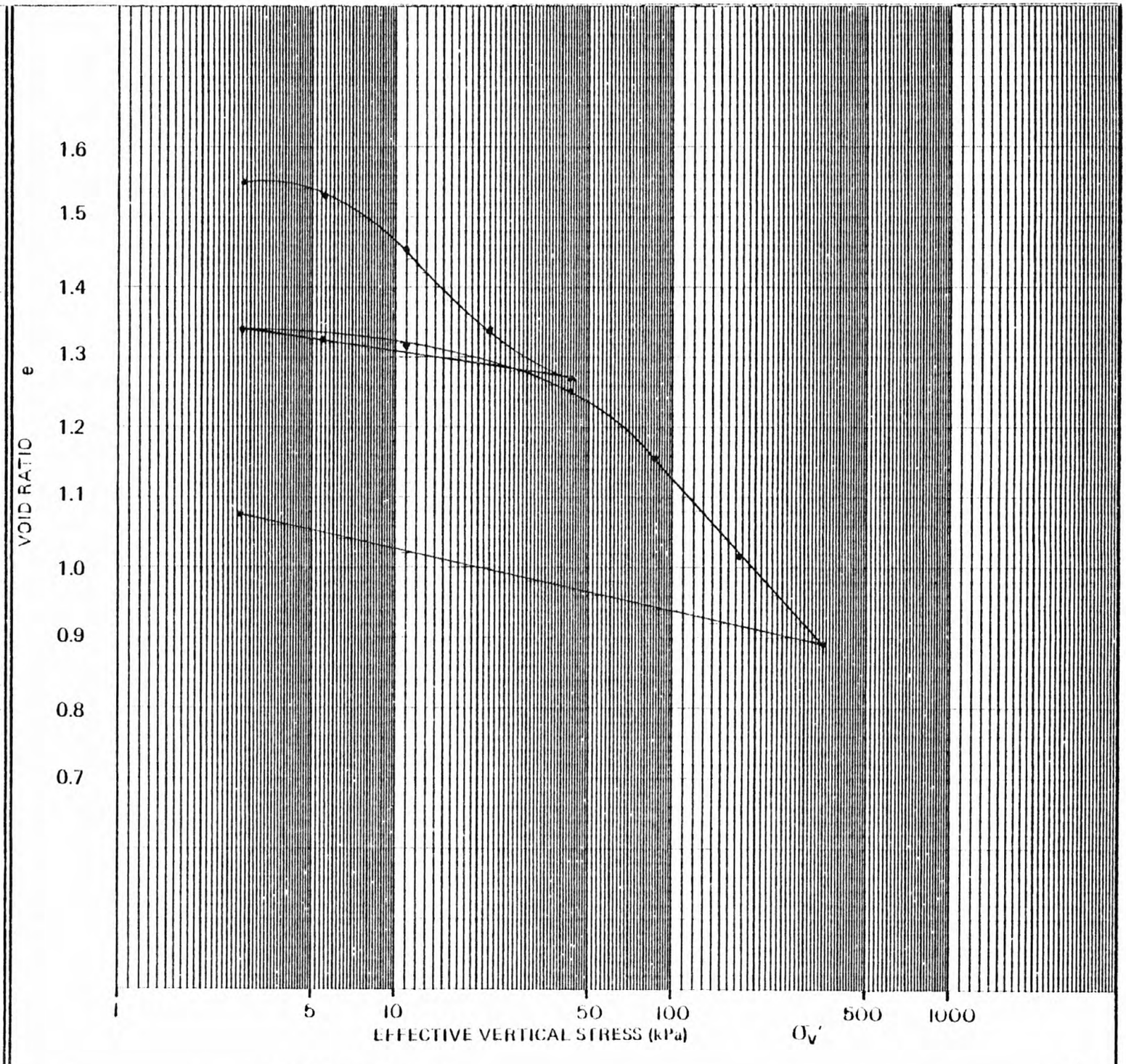


CONSOLIDATION TEST

COMPRESSION INDEX	0.466
SWELLING INDEX	0.092
MAXIMUM PRECONSOLIDATION STRESS (kPa)	20
INITIAL VOID RATIO	1.5754
INITIAL WATER CONTENT	58.0
INITIAL SATURATION	97.4

SAMPLE IDENTIFICATION

CORE NUMBER	CD-15 PC-18
DEPTH	279-294 CM
CLASSIFICATION	



CONSOLIDATION TEST

COMPRESSION INDEX 0.267

SWELLING INDEX 0.038

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 1.0799

INITIAL WATER CONTENT 36.3

INITIAL SATURATION 74.1

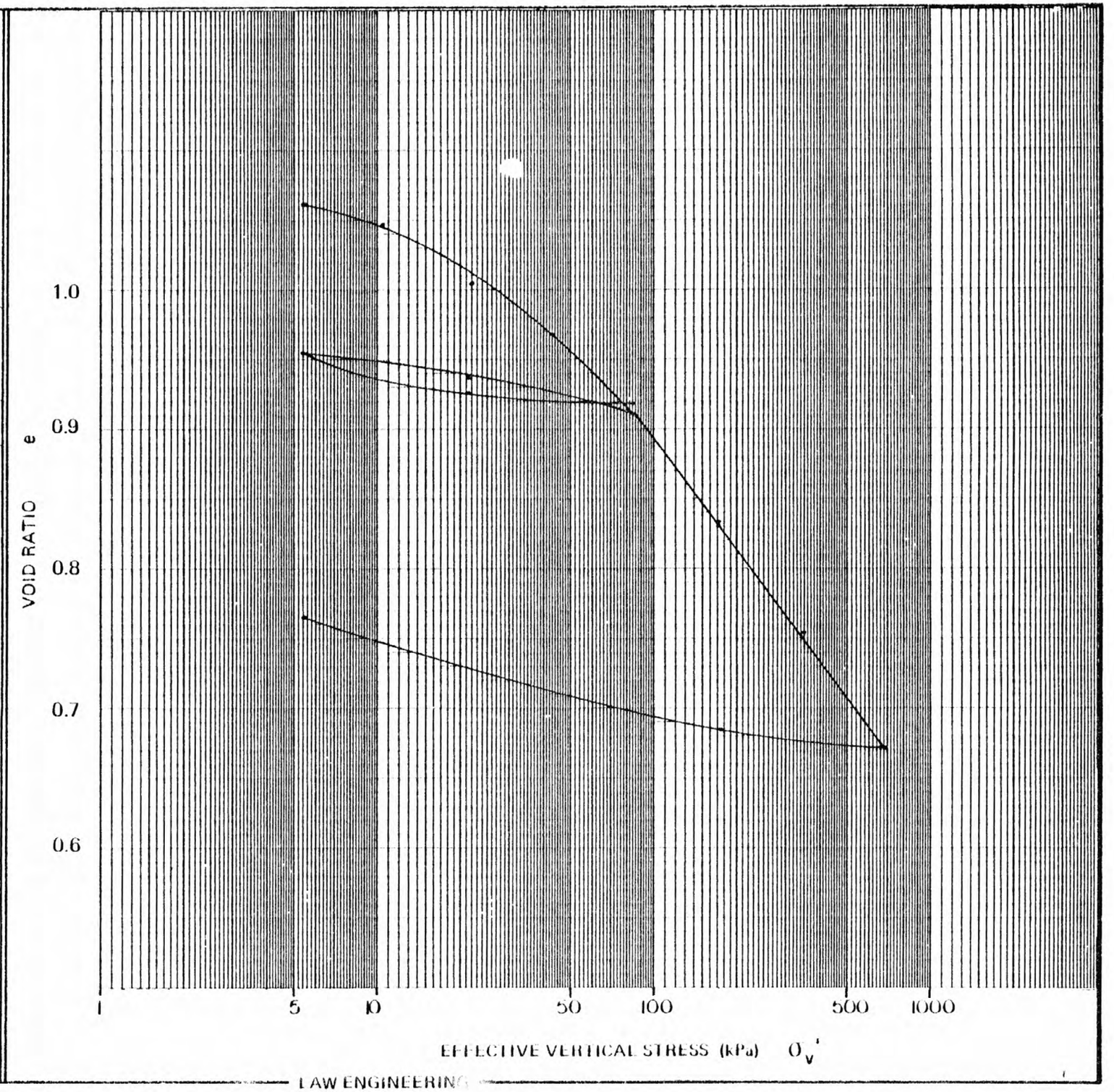
S67

SAMPLE IDENTIFICATION

CORE NUMBER CD-15 PC-18

DEPTH 489-504 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.398

SWELLING INDEX 0.081

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 1.475

INITIAL WATER CONTENT 51.1%

INITIAL SATURATION 97.1%

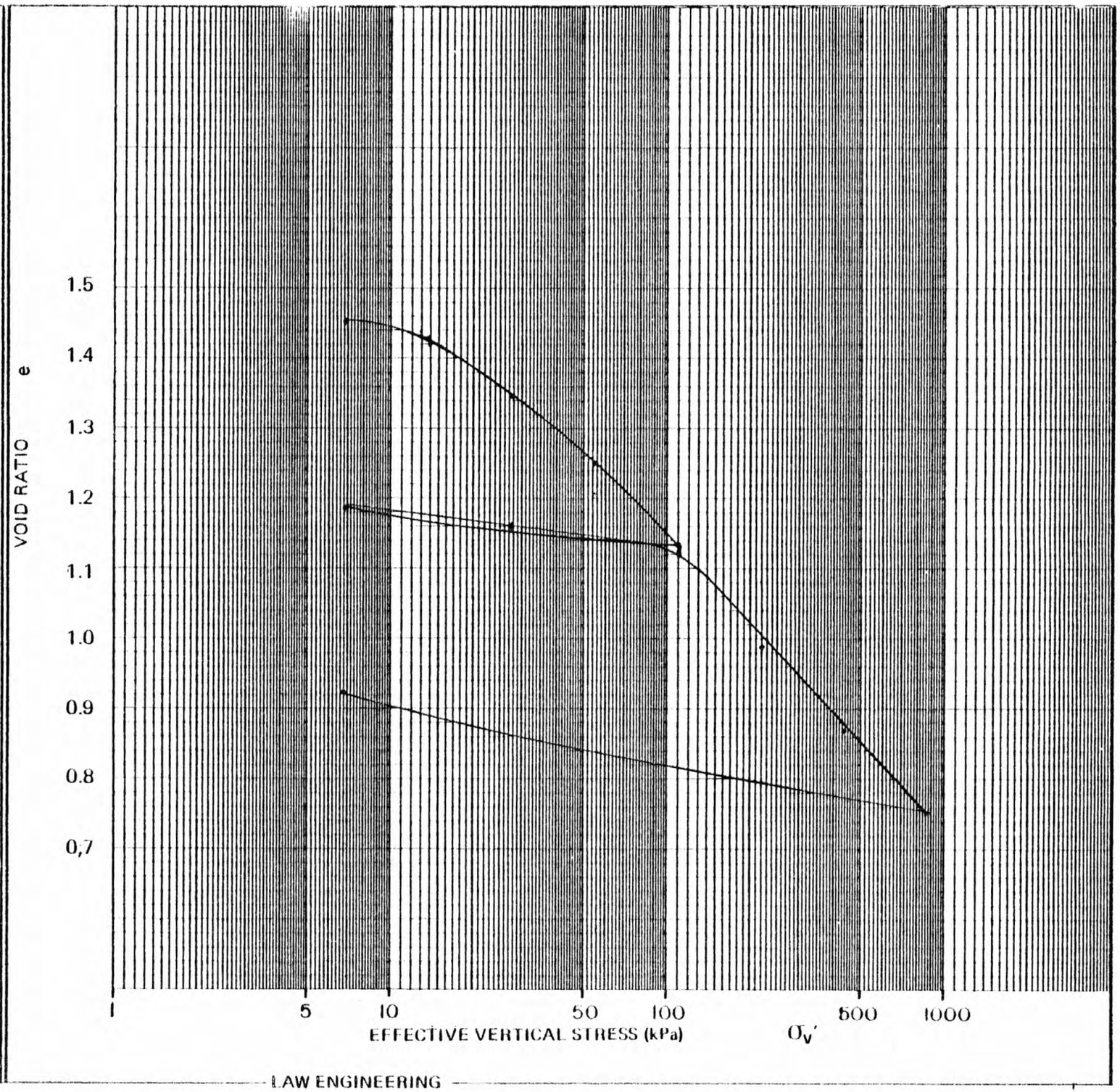
SAMPLE IDENTIFICATION

CORE NUMBER CD-15 PC-18

DEPTH 659.674 cm

CLASSIFICATION

598



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.700

SWELLING INDEX 0.047

MAXIMUM PRECONSOLIDATION STRESS (kPa) 19

INITIAL VOID RATIO 2.001

INITIAL WATER CONTENT 72.0%

INITIAL SATURATION 99.5%

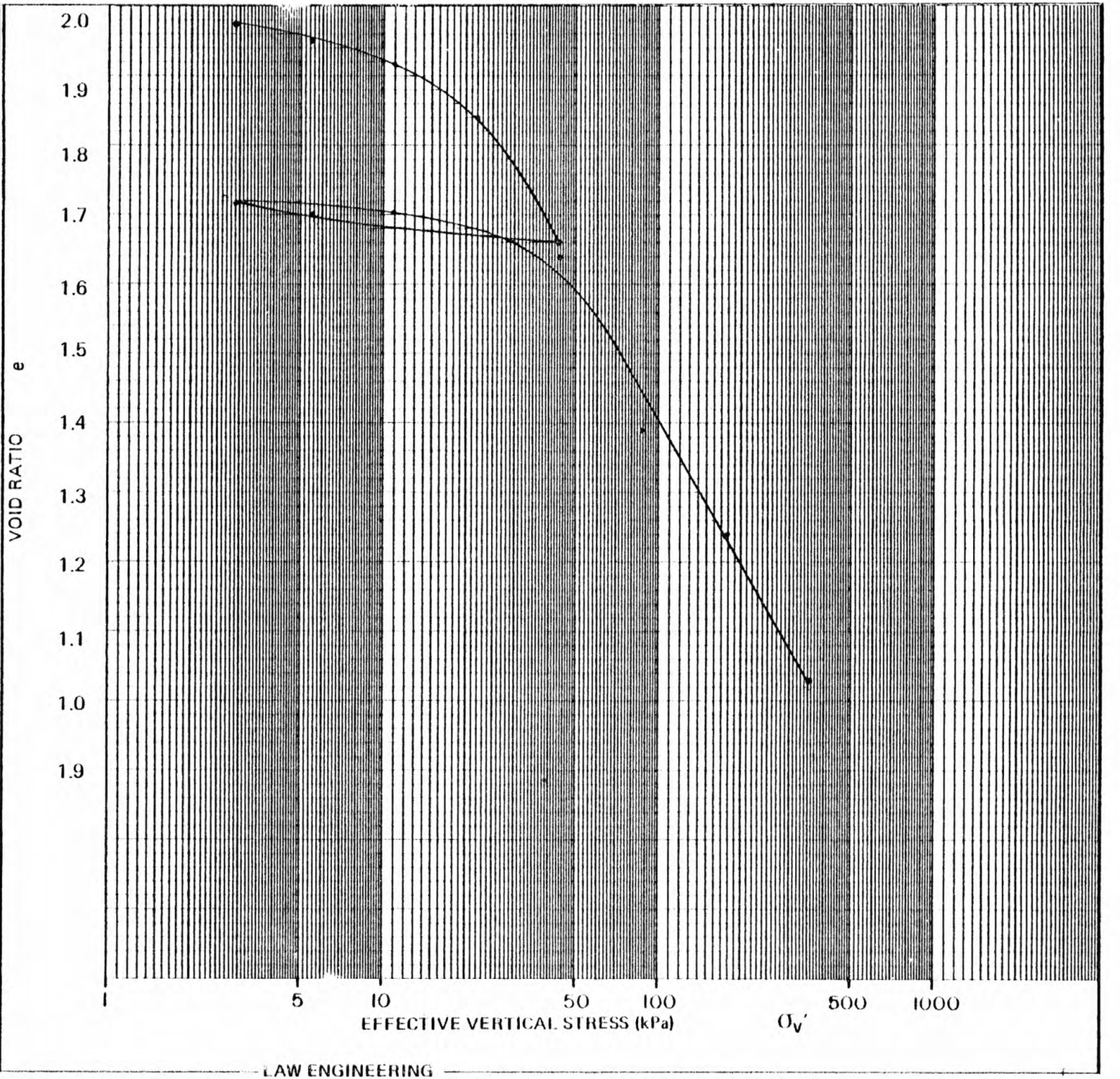
SAMPLE IDENTIFICATION

CORE NUMBER CD-16 PC-17

DEPTH 276-290 cm

CLASSIFICATION

S69



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.453

SWELLING INDEX 0.081

MAXIMUM PRECONSOLIDATION STRESS (kPa) 40

INITIAL VOID RATIO 1.579

INITIAL WATER CONTENT 54.4%

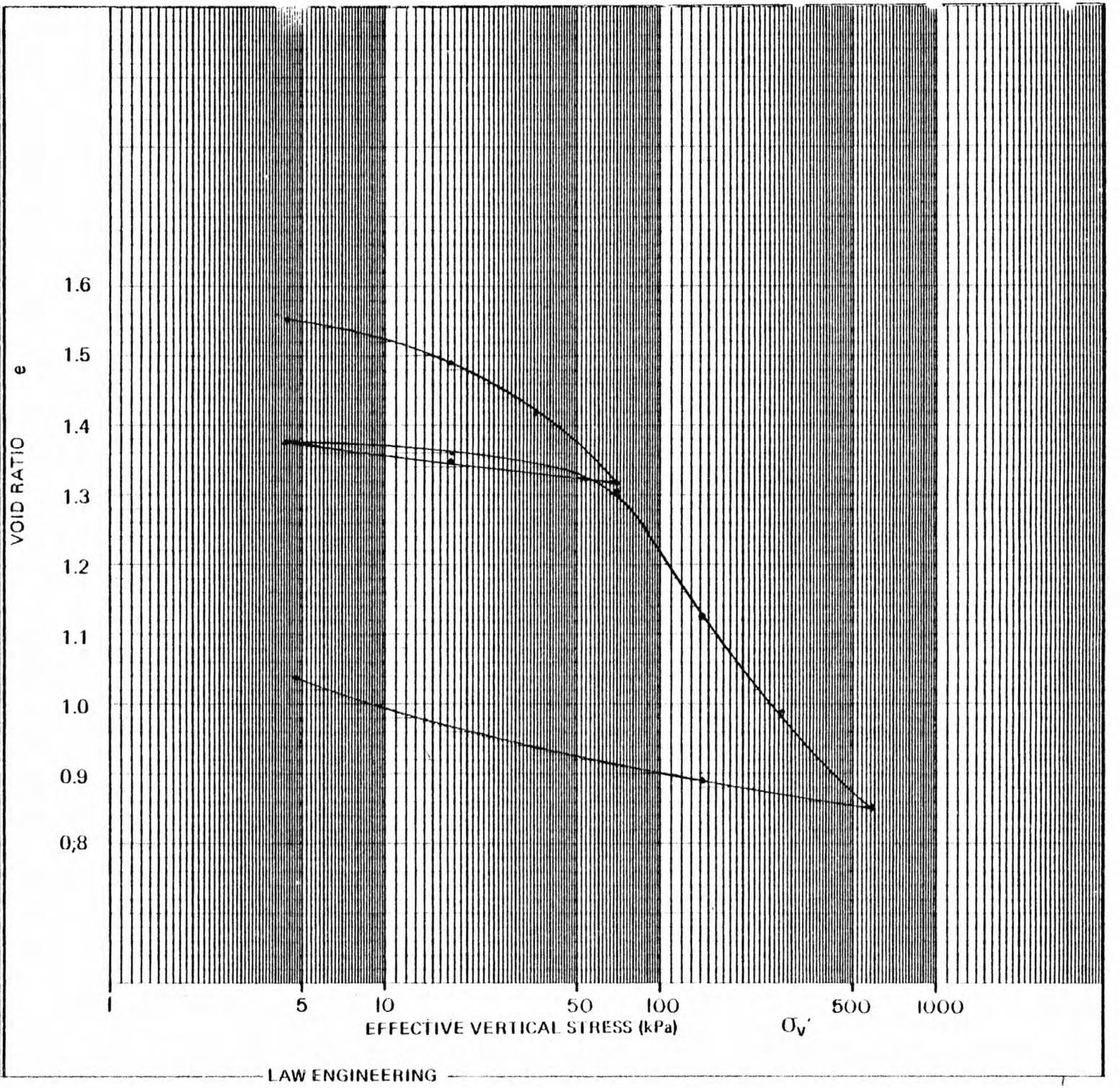
INITIAL SATURATION 95.1%

SAMPLE IDENTIFICATION

CORE NUMBER CD-16 PC-17

DEPTH 577-592 cm

CLASSIFICATION



LAW ENGINEERING

570

CONSOLIDATION TEST

COMPRESSION INDEX 0.490

SWELLING INDEX 0.107

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 1.776

INITIAL WATER CONTENT 58.7%

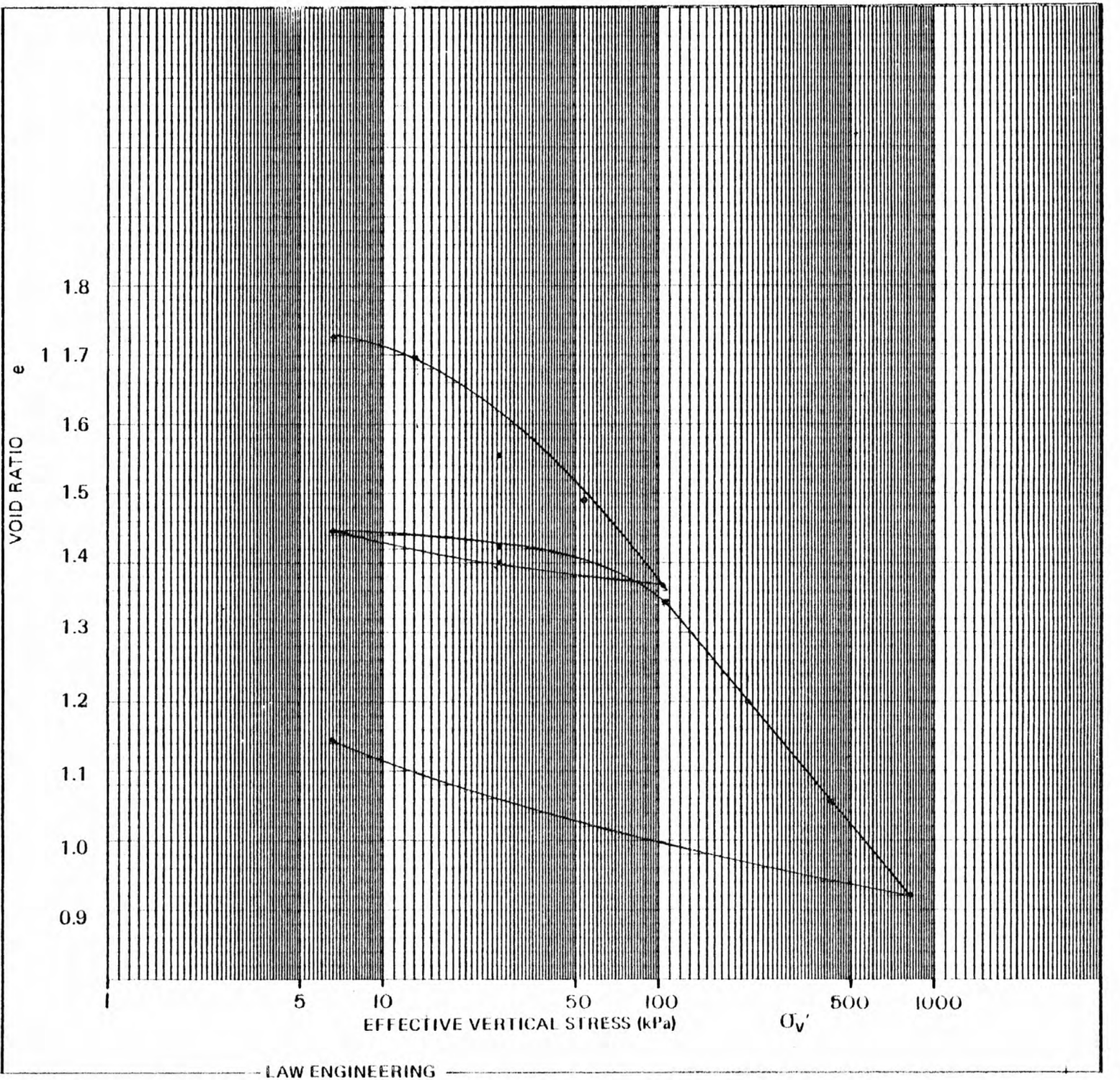
INITIAL SATURATION 94.9%

SAMPLE IDENTIFICATION

CORE NUMBER CD-16 PC-17

DEPTH 681-696 cm

CLASSIFICATION



LAW ENGINEERING

571

CONSOLIDATION TEST

COMPRESSION INDEX 0.457

SWELLING INDEX 0.091

MAXIMUM PRECONSOLIDATION STRESS (kPa) 55

INITIAL VOID RATIO 1.388

INITIAL WATER CONTENT 47.5%

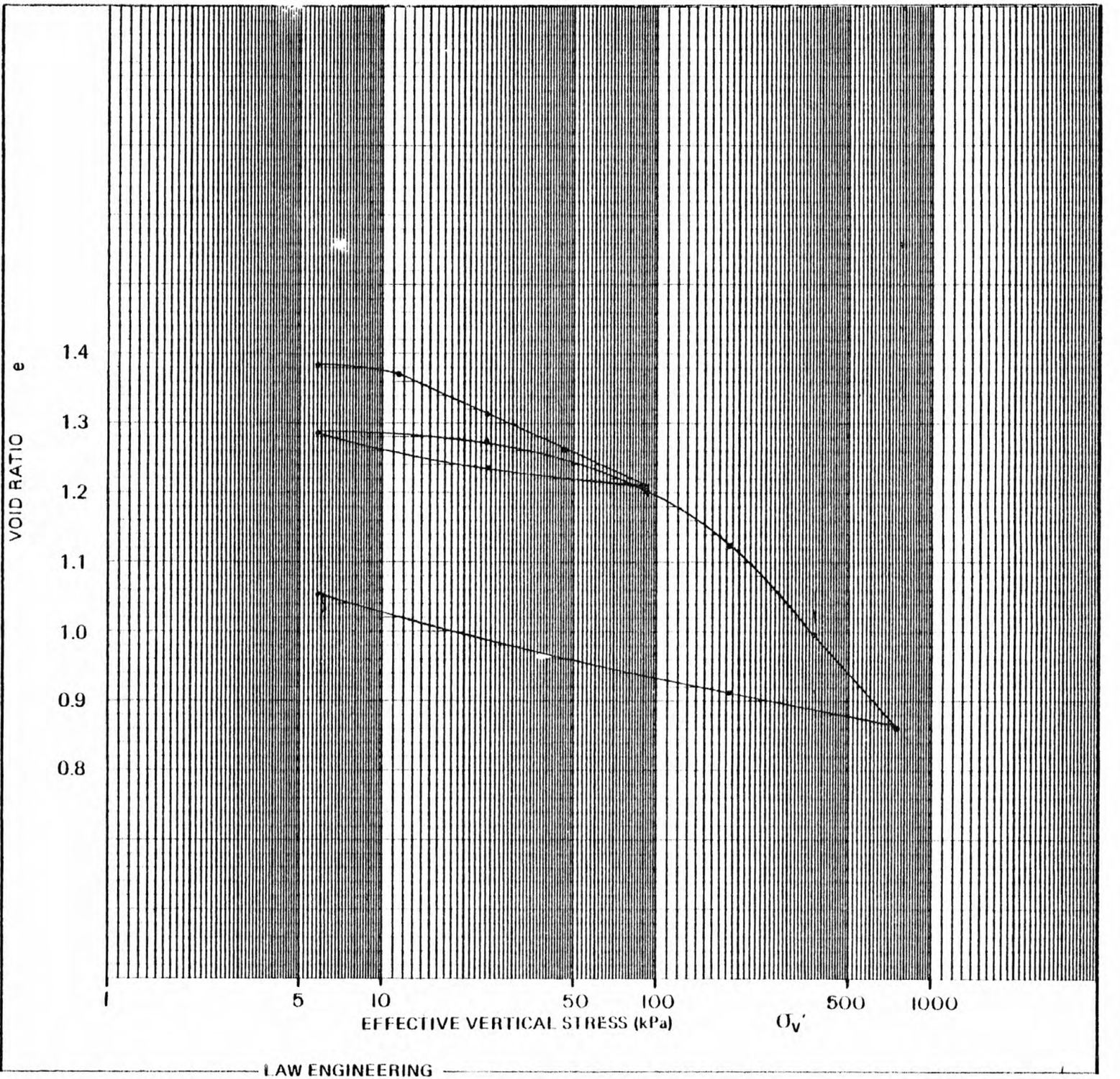
INITIAL SATURATION 94.4%

SAMPLE IDENTIFICATION

CORE NUMBER CD-17 PC-19

DEPTH 191.206 cm

CLASSIFICATION



LAW ENGINEERING

572

CONSOLIDATION TEST

COMPRESSION INDEX 0.294

SWELLING INDEX 0.064

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 0.877

INITIAL WATER CONTENT 33.2%

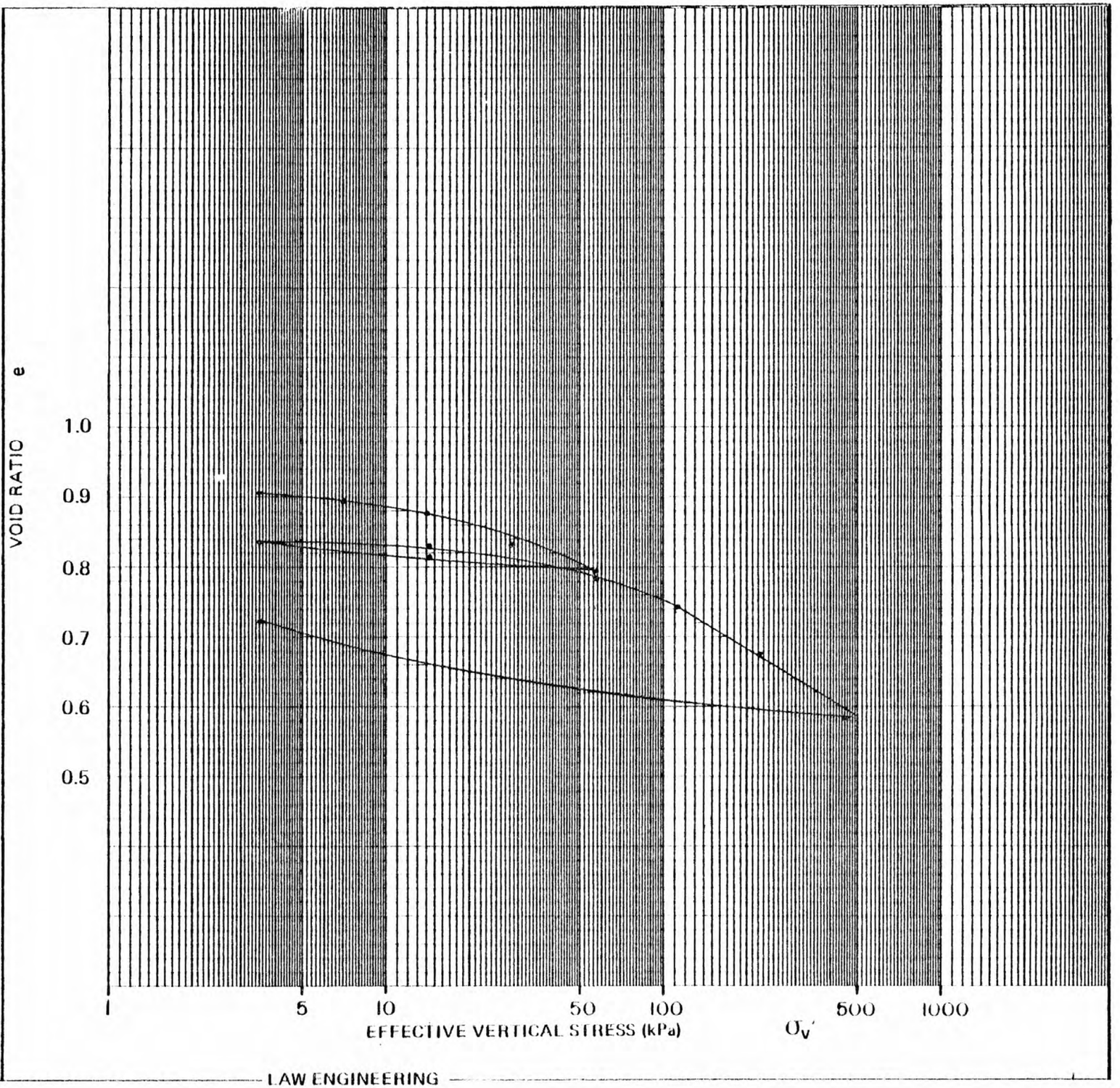
INITIAL SATURATION 95.7%

SAMPLE IDENTIFICATION

CORE NUMBER CD17 PC-19

DEPTH 335-350 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.296

SWELLING INDEX 0.067

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 1.264

INITIAL WATER CONTENT 42.8%

INITIAL SATURATION 95.5%

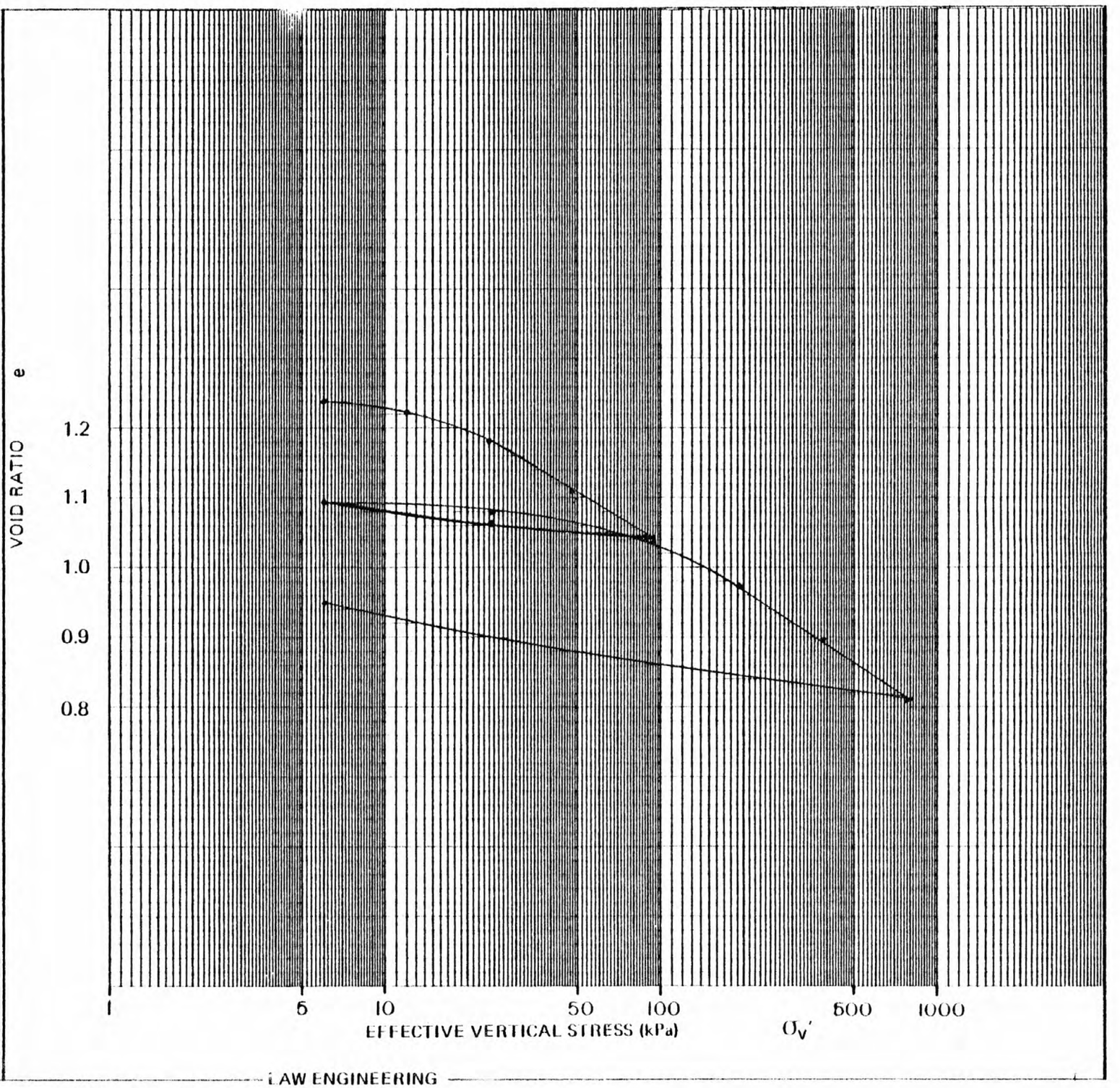
SAMPLE IDENTIFICATION

CORE NUMBER CD-17 PC-19

DEPTH 573.588 cm

CLASSIFICATION

574



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.494

SWELLING INDEX 0.087

MAXIMUM PRECONSOLIDATION STRESS (kPa) 45

INITIAL VOID RATIO 1.596

INITIAL WATER CONTENT 50.1%

INITIAL SATURATION 89.2%

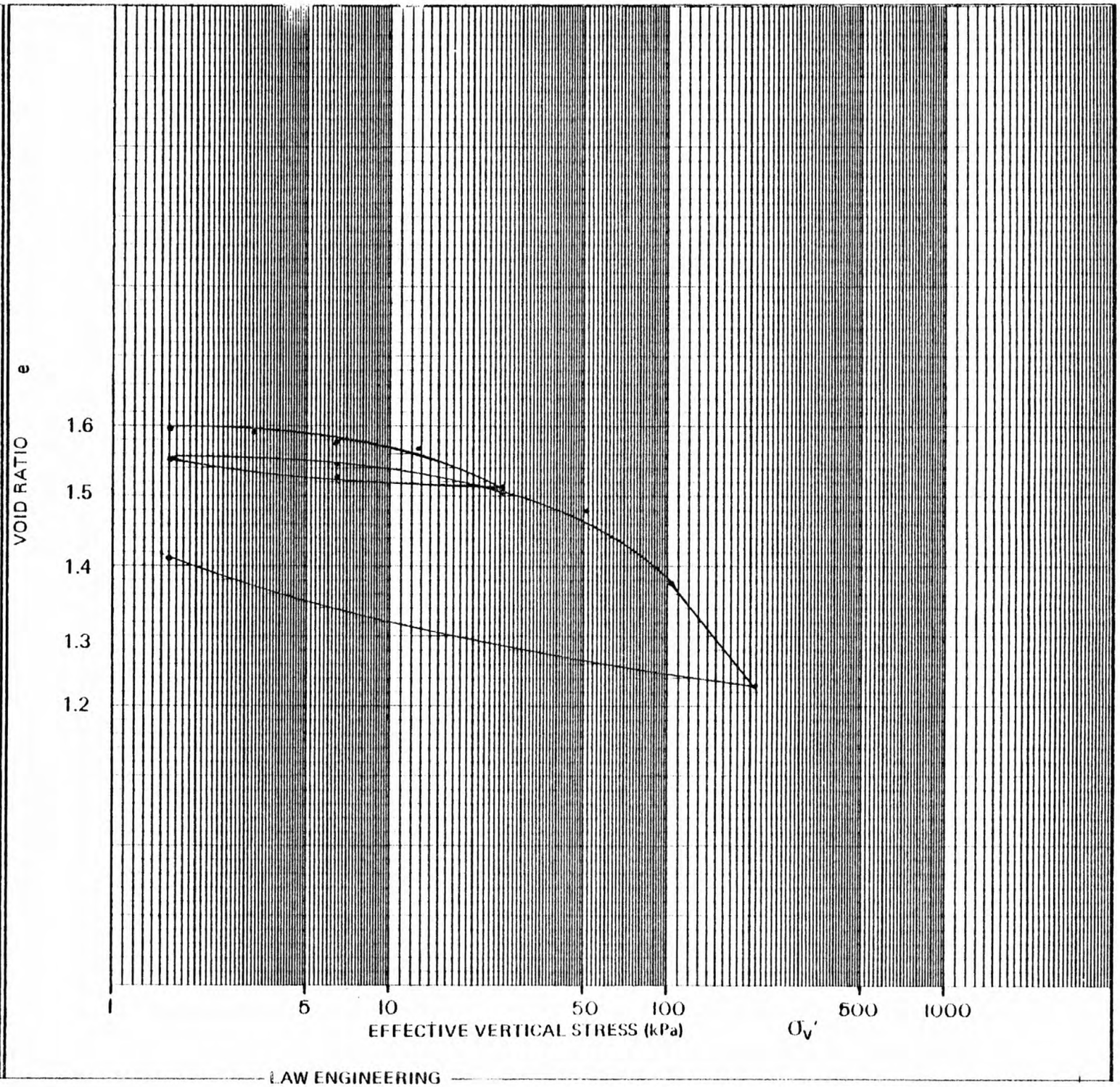
SAMPLE IDENTIFICATION

CORE NUMBER CD-18 PC-20

DEPTH 159-174 cm

CLASSIFICATION

S75



CONSOLIDATION TEST

COMPRESSION INDEX 0.400

SWELLING INDEX 0.084

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 1.4375

INITIAL WATER CONTENT 50.1%

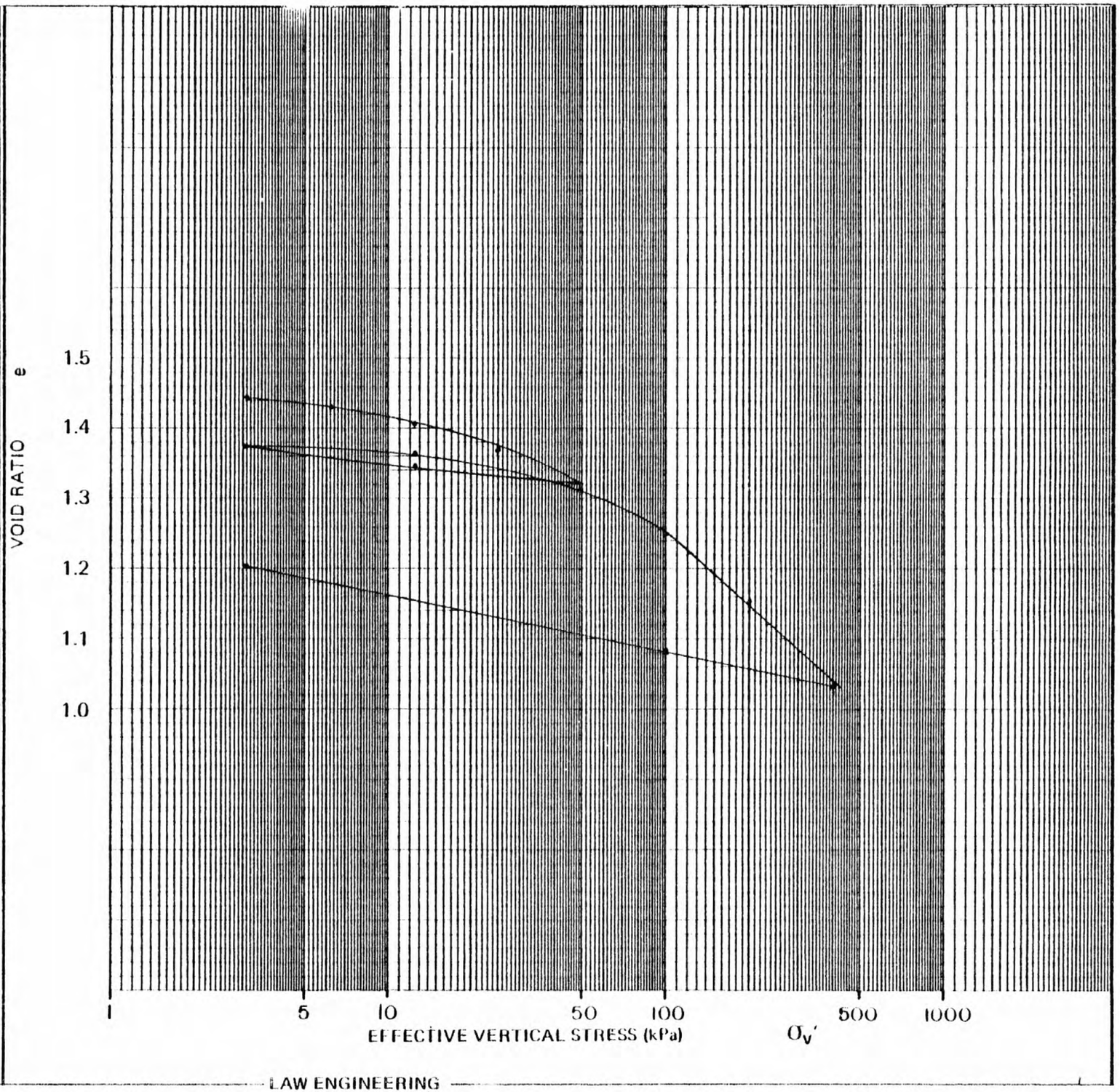
INITIAL SATURATION 96.2%

SAMPLE IDENTIFICATION

CORE NUMBER CD-18 PC-20

DEPTH 310-325 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.199

SWELLING INDEX 0.050

MAXIMUM PRECONSOLIDATION STRESS (kPa) 40

INITIAL VOID RATIO 1.112

INITIAL WATER CONTENT 39.5%

INITIAL SATURATION 100.9%

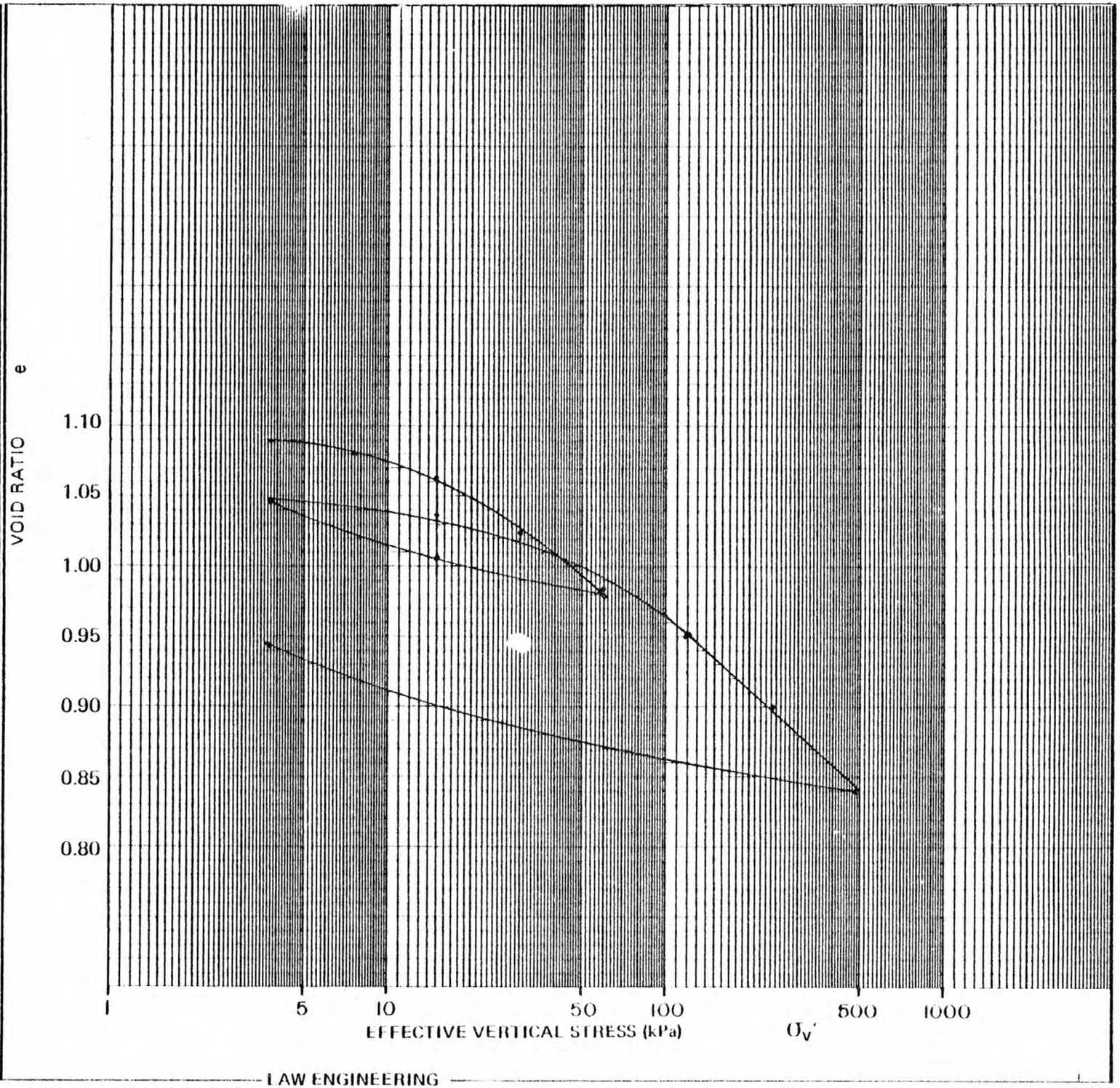
SAMPLE IDENTIFICATION

577

CORE NUMBER CD 19 PC 21

DEPTH 353-368 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX

SWELLING INDEX

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 1.041

INITIAL WATER CONTENT 33.7%

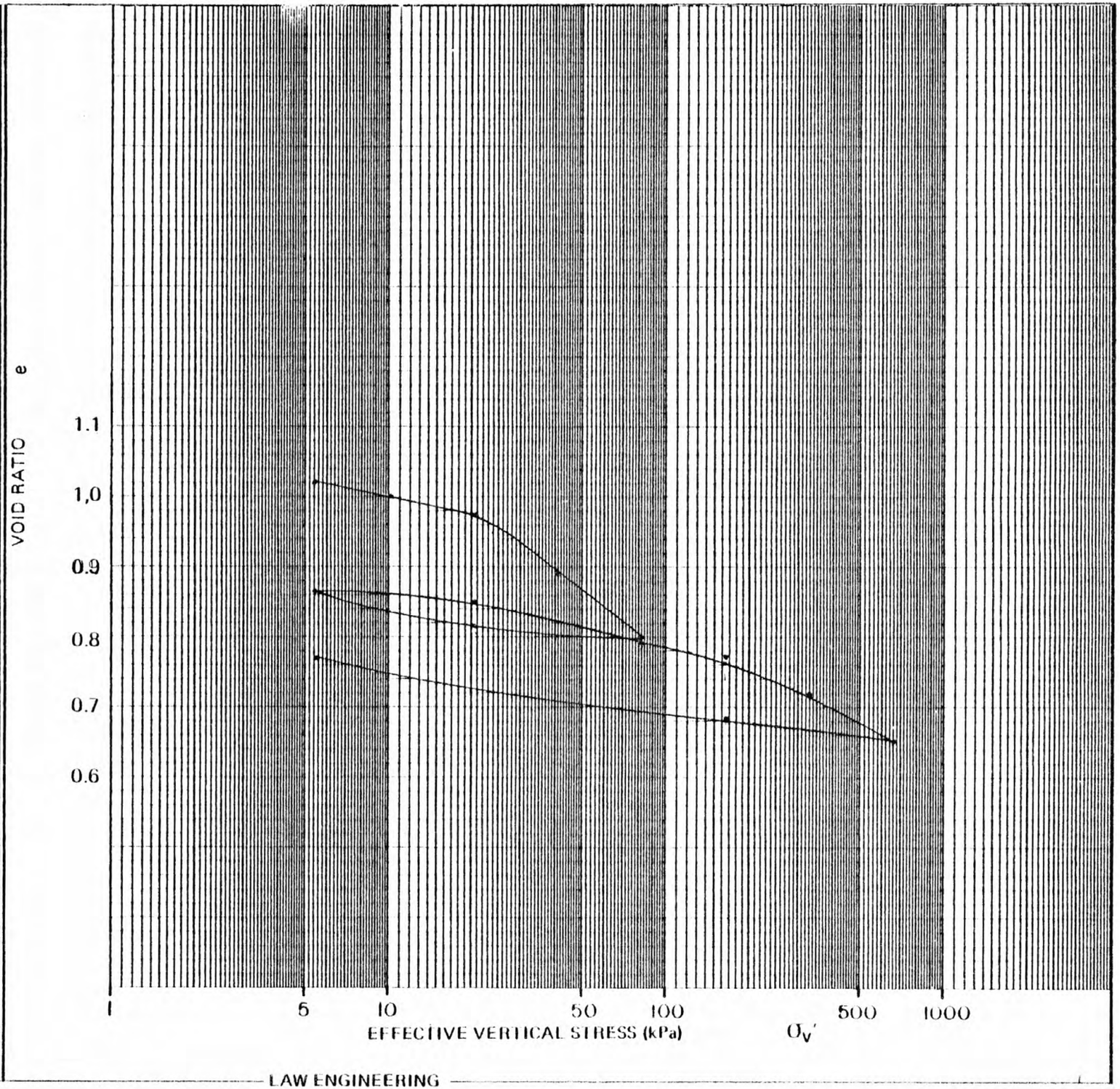
INITIAL SATURATION 90.9%

SAMPLE IDENTIFICATION

CORE NUMBER CD-19 PC-21

DEPTH 429-444 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.534

SWELLING INDEX 0.036

MAXIMUM PRECONSOLIDATION STRESS (kPa) 30

INITIAL VOID RATIO 1.6448

INITIAL WATER CONTENT 59.1%

INITIAL SATURATION 99.2%

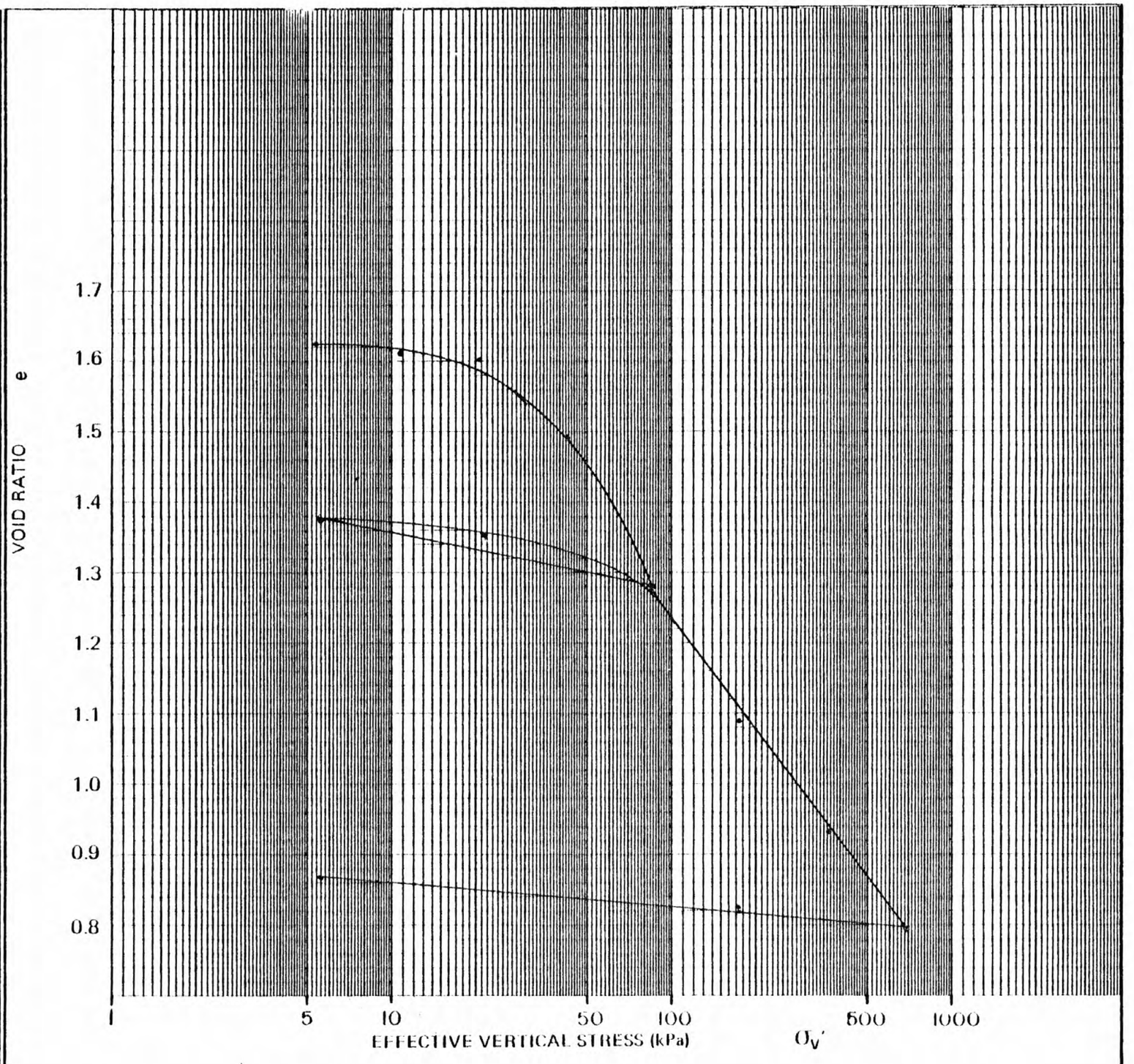
SAMPLE IDENTIFICATION

S 79

CORE NUMBER CD-20 PC-22

DEPTH 235-250 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.220

SWELLING INDEX 0.040

MAXIMUM PRECONSOLIDATION STRESS (kPa) 44

INITIAL VOID RATIO 1.0207

INITIAL WATER CONTENT 32.5%

INITIAL SATURATION 87.2%

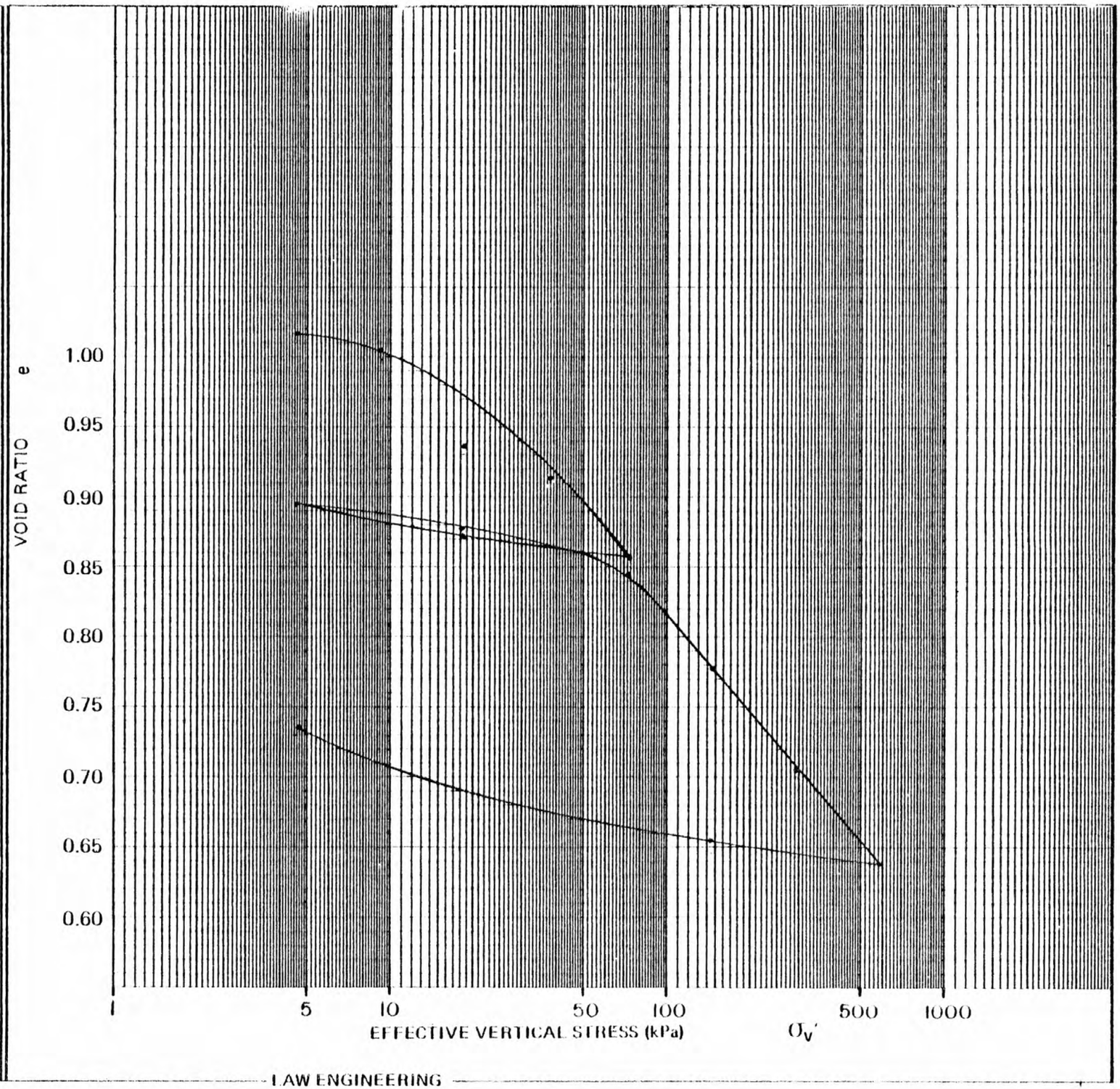
SAMPLE IDENTIFICATION

CORE NUMBER CD 20 PC 22

DEPTH 435 450 cm

CLASSIFICATION

S80



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.213

SWELLING INDEX 0.037

MAXIMUM PRECONSOLIDATION STRESS (kPa) 100

INITIAL VOID RATIO 0.9275

INITIAL WATER CONTENT 30.4%

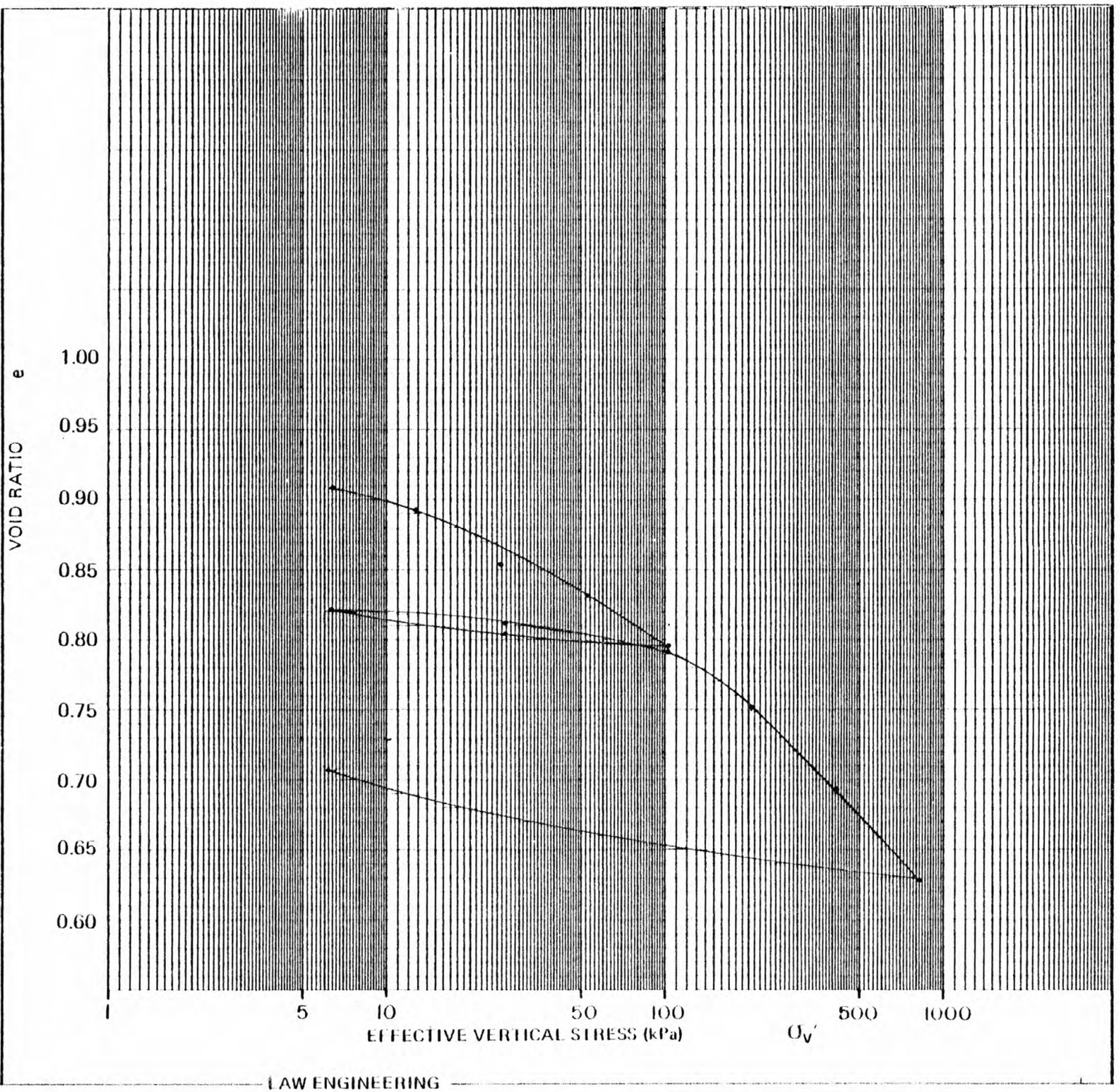
INITIAL SATURATION 92.4%

SAMPLE IDENTIFICATION

CORE NUMBER CD-20 PC-22

DEPTH 539.554 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.455

SWELLING INDEX 0.066

MAXIMUM PRECONSOLIDATION STRESS (kPa) 90

INITIAL VOID RATIO 1.3122

INITIAL WATER CONTENT 43.40

INITIAL SATURATION 94.13

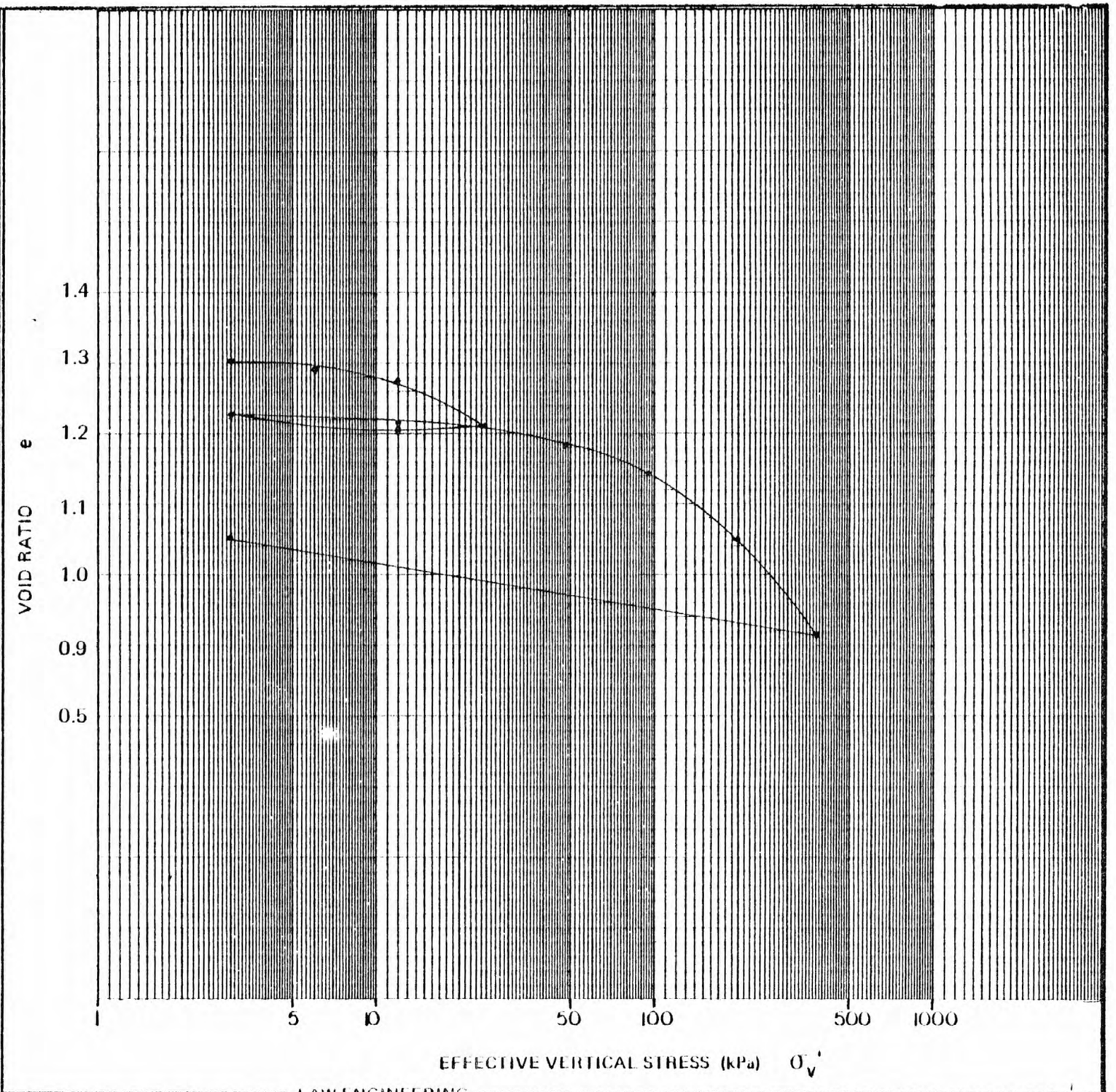
S82

SAMPLE IDENTIFICATION

CORE NUMBER CD-21 PC-23

DEPTH 350-365 CM

CLASSIFICATION CL



CONSOLIDATION TEST

COMPRESSION INDEX 0.567

SWELLING INDEX 0.064

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 1.2628

INITIAL WATER CONTENT 43.0%

INITIAL SATURATION 95.0%

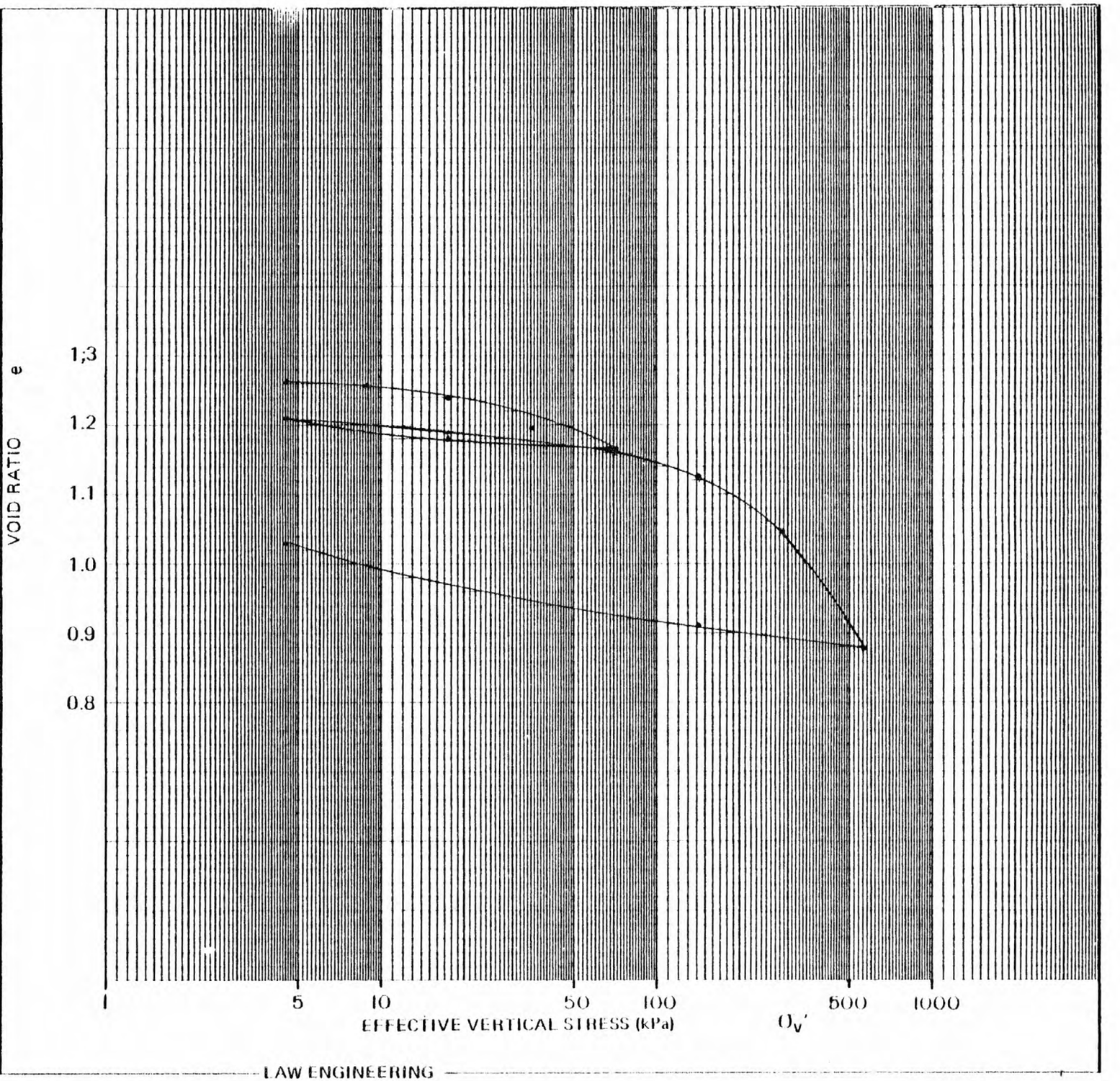
SAMPLE IDENTIFICATION

CORE NUMBER CD-21 PC-23

DEPTH 482-497 cm

CLASSIFICATION

583



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.402

SWELLING INDEX 0.082

MAXIMUM PRECONSOLIDATION STRESS (kPa) 150

INITIAL VOID RATIO 1.308

INITIAL WATER CONTENT 44.9%

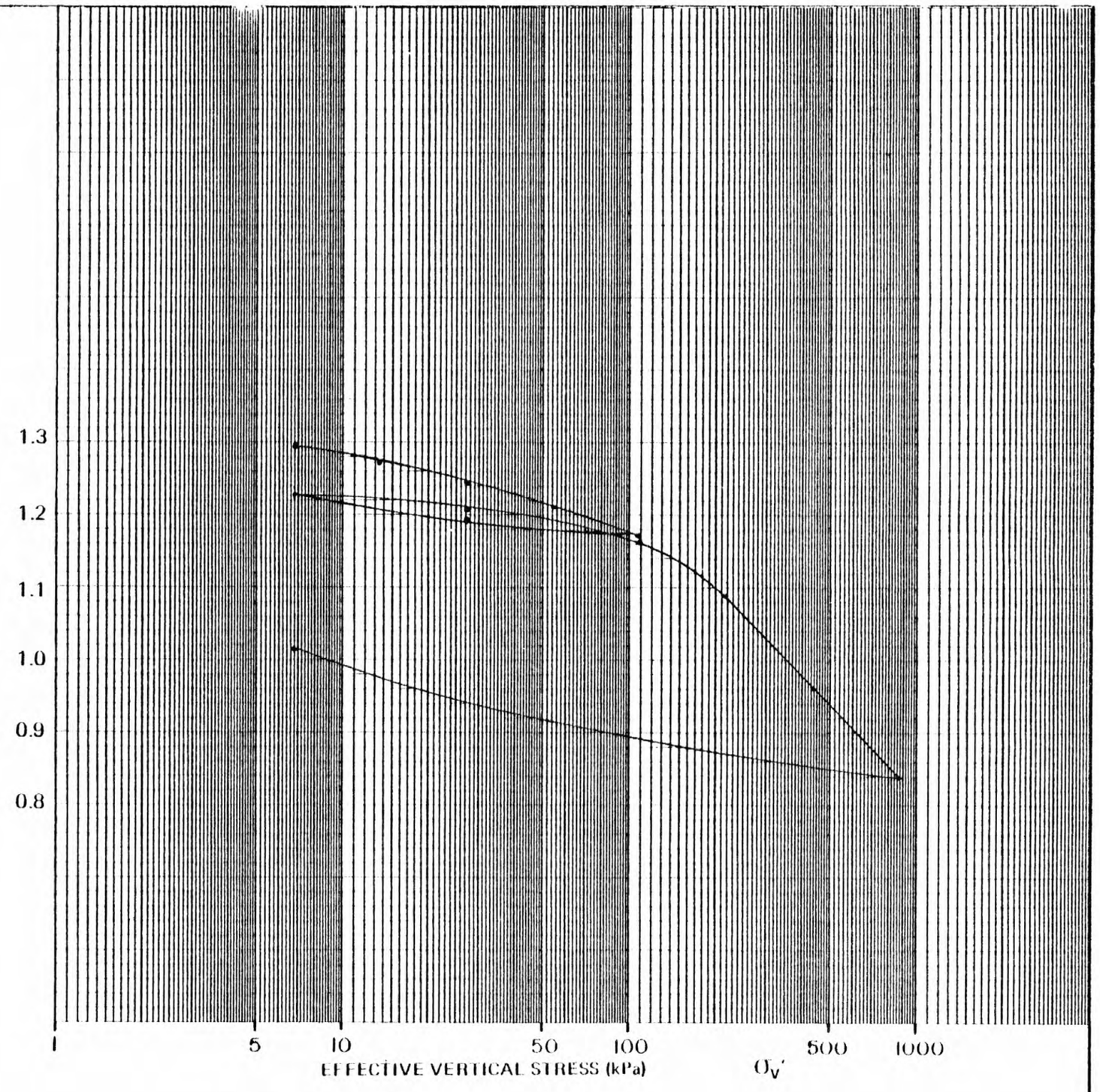
INITIAL SATURATION 97.9%

SAMPLE IDENTIFICATION

CORE NUMBER CD-21 PC-23

DEPTH 591-606 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.401

SWELLING INDEX 0.086

MAXIMUM PRECONSOLIDATION STRESS (kPa) 21

INITIAL VOID RATIO 1.2531

INITIAL WATER CONTENT 46.7%

INITIAL SATORATION 100%

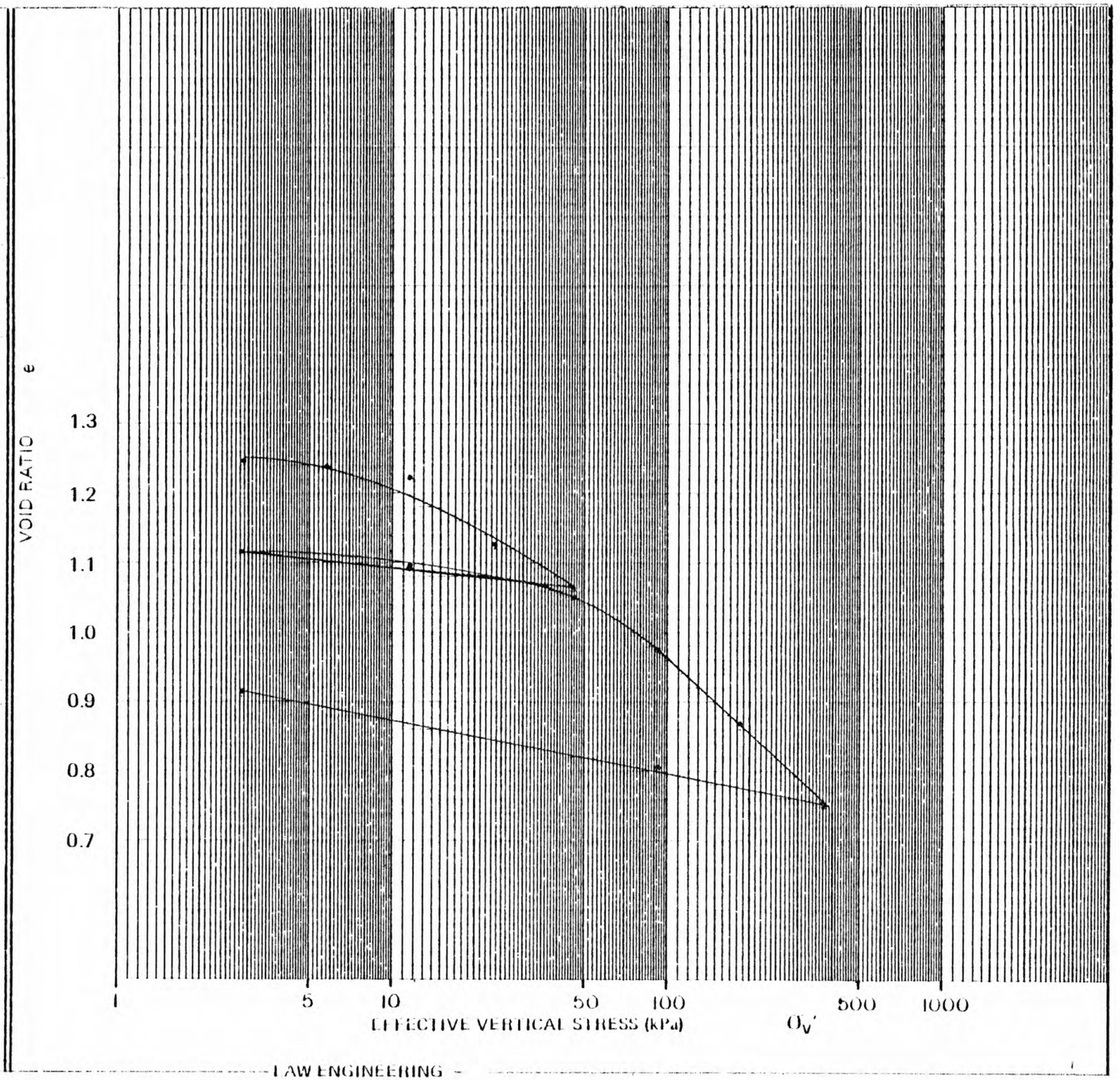
SAMPLE IDENTIFICATION

585

CORE NUMBER CD-22 PC-24

DEPTH 268-283 cm

CLASSIFICATION



CONSOLIDATION TEST

COMPRESSION INDEX 0.410

SWELLING INDEX 0.071

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 1.434

INITIAL WATER CONTENT 53.7%

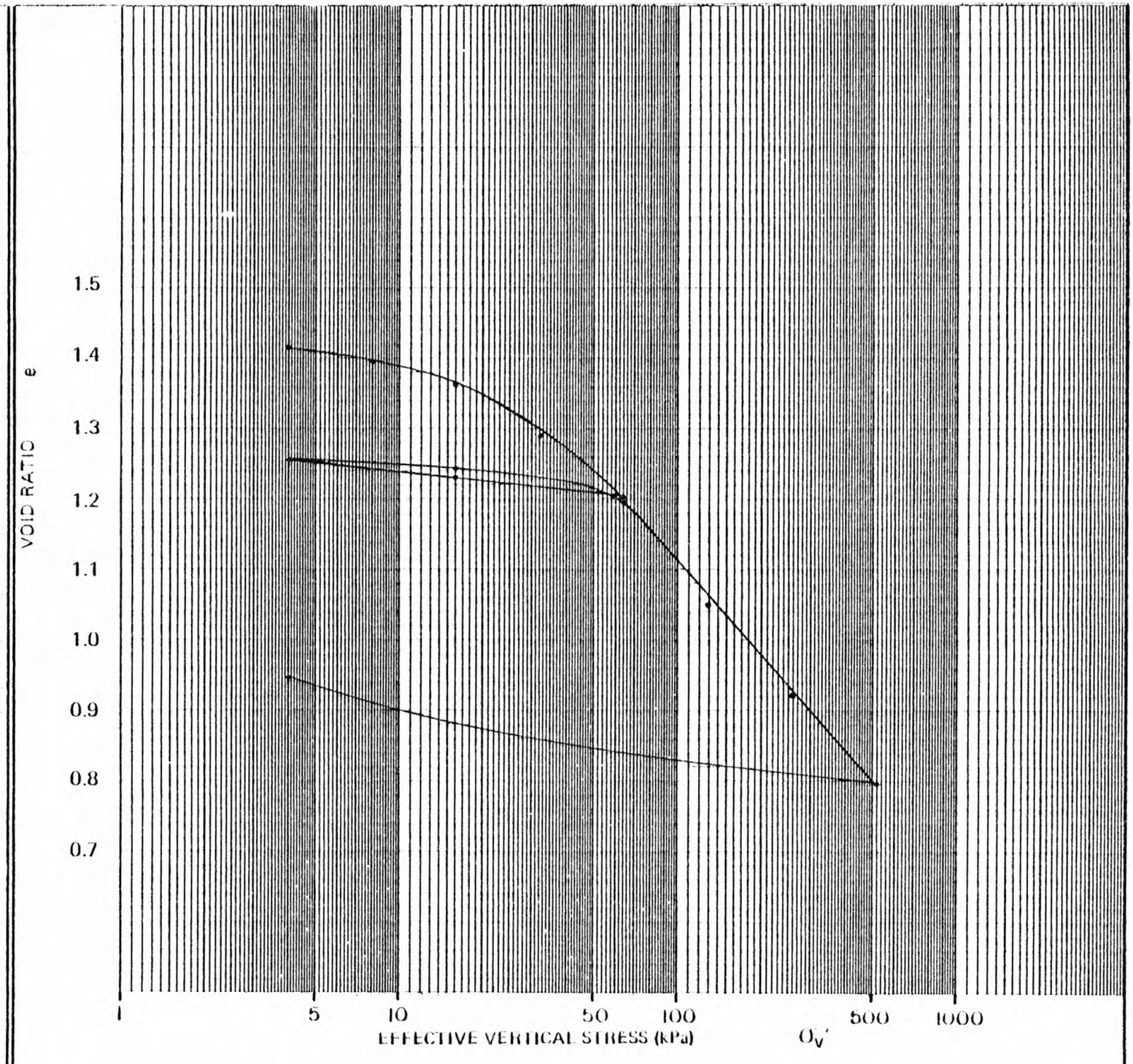
INITIAL SATURATION 100%

SAMPLE IDENTIFICATION

CORE NUMBER CD-22 PC-24

DEPTH 445-460 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.677

SWELLING INDEX 0.112

MAXIMUM PRECONSOLIDATION STRESS (kPa) 32

INITIAL VOID RATIO 1.854

INITIAL WATER CONTENT 62.6%

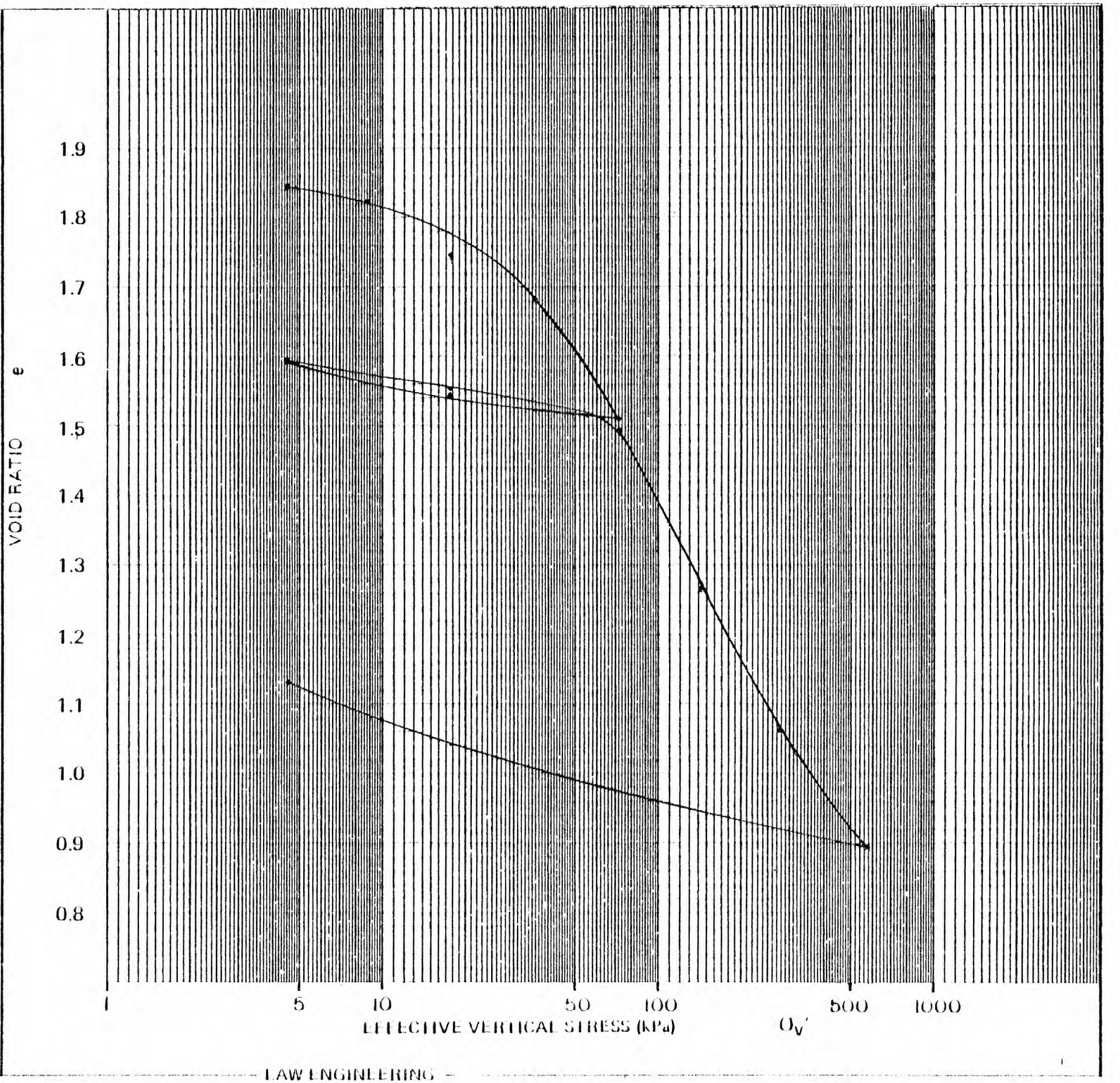
INITIAL SATURATION 94.1%

SAMPLE IDENTIFICATION

CORE NUMBER CD-22 PC-24

DEPTH 543-558 cm

CLASSIFICATION



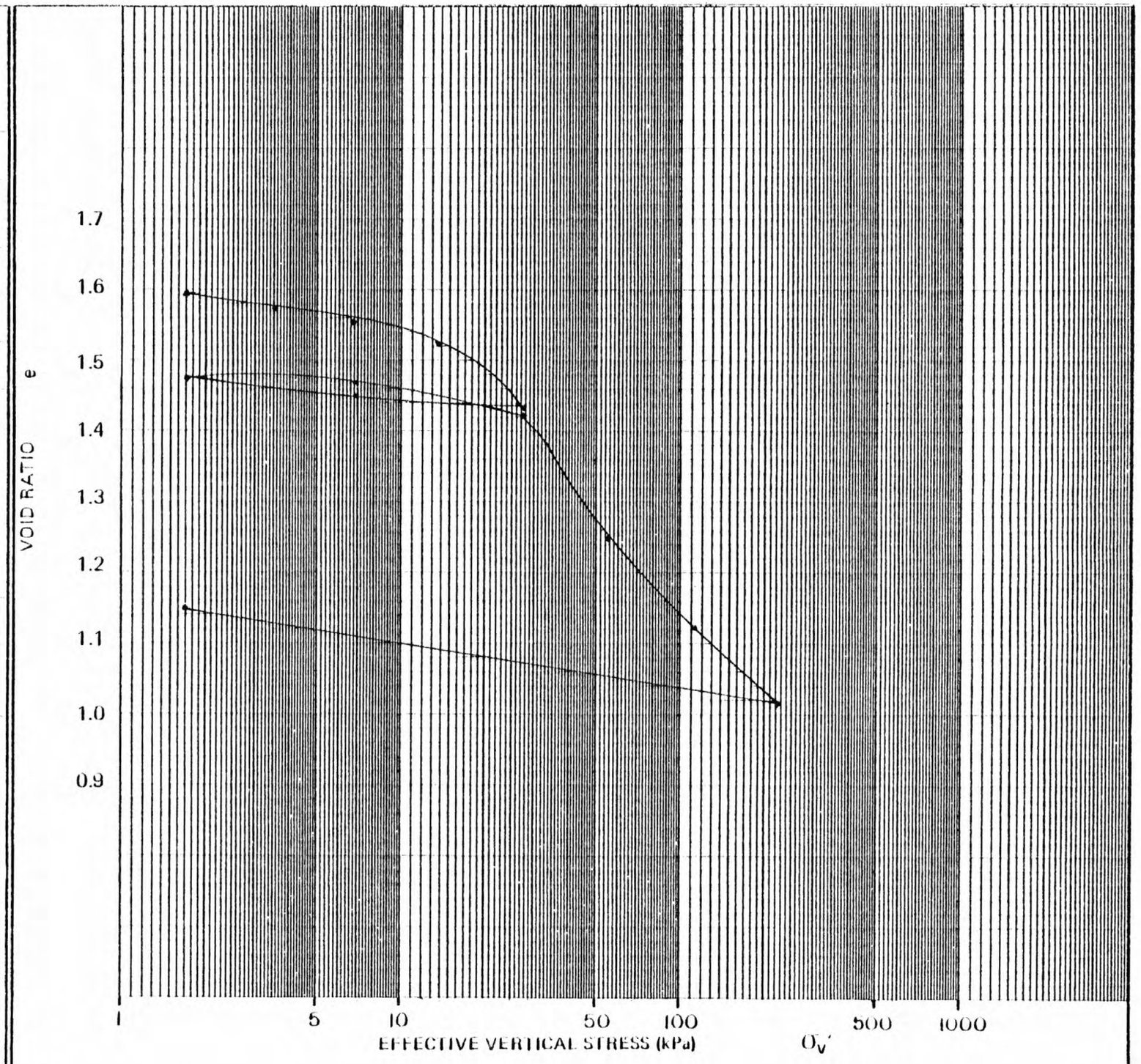
LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX	0.358
SWELLING INDEX	0.063
MAXIMUM PRECONSOLIDATION STRESS (kPa)	20
INITIAL VOID RATIO	1.6042
INITIAL WATER CONTENT	56.2
INITIAL SATURATION	97.2

SAMPLE IDENTIFICATION

CORE NUMBER	CD-22 PC-25
DEPTH	238-253 CM
CLASSIFICATION	CL



LAW ENGINEERING

588

CONSOLIDATION TEST

COMPRESSION INDEX 0.368

SWELLING INDEX 0.038

MAXIMUM PRECONSOLIDATION STRESS (kPa) 60

INITIAL VOID RATIO 1.1914

INITIAL WATER CONTENT 43.10

INITIAL SATURATION 99.5

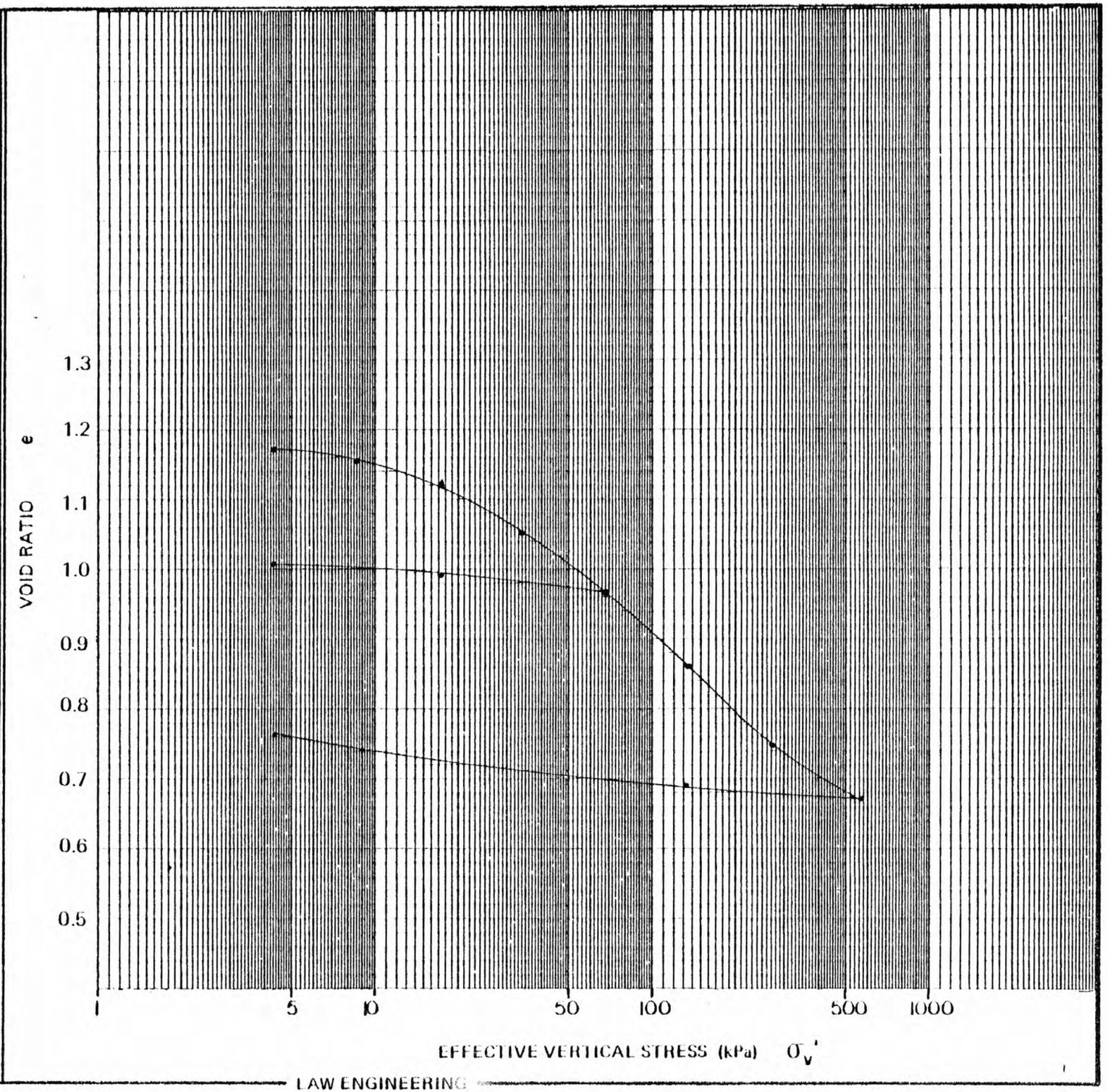
1589

SAMPLE IDENTIFICATION

CORE NUMBER CD-22 PC-25

DEPTH 472-487 CM

CLASSIFICATION



LAW ENGINEERING

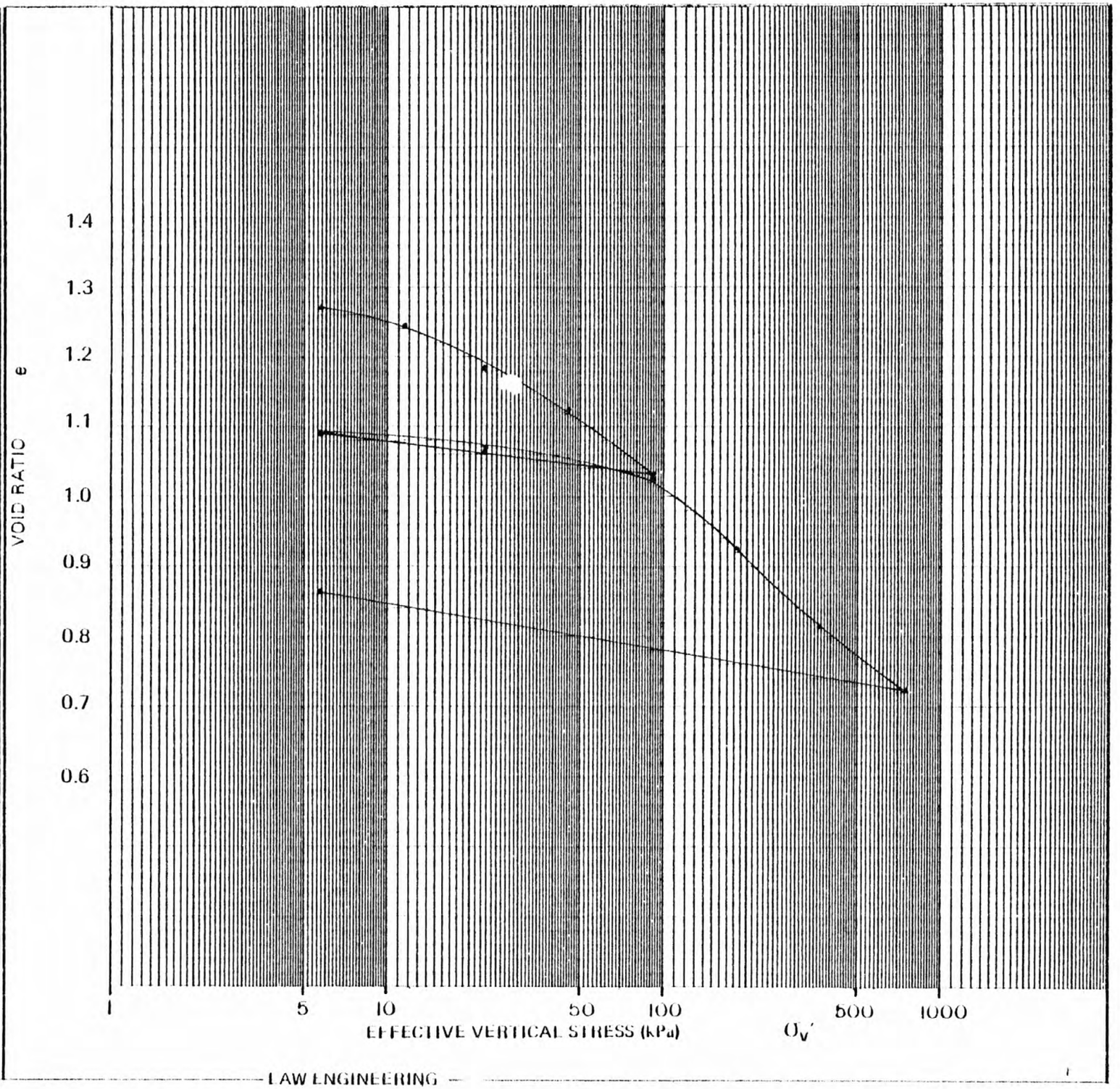
CONSOLIDATION TEST

COMPRESSION INDEX	0.320
SWELLING INDEX	0.068
MAXIMUM PRECONSOLIDATION STRESS (kPa)	60
INITIAL VOID RATIO	1.2926
INITIAL WATER CONTENT	43.0
INITIAL SATURATION	93.0

SAMPLE IDENTIFICATION

CORE NUMBER	CD-22 PC-25
DEPTH	558-573 CM
CLASSIFICATION	

590



CONSOLIDATION TEST

COMPRESSION INDEX 0.089

SWELLING INDEX 0.014

MAXIMUM PRECONSOLIDATION STRESS (kPa) 11

INITIAL VOID RATIO 1.1505

INITIAL WATER CONTENT 41.2

INITIAL SATURATION 97.4

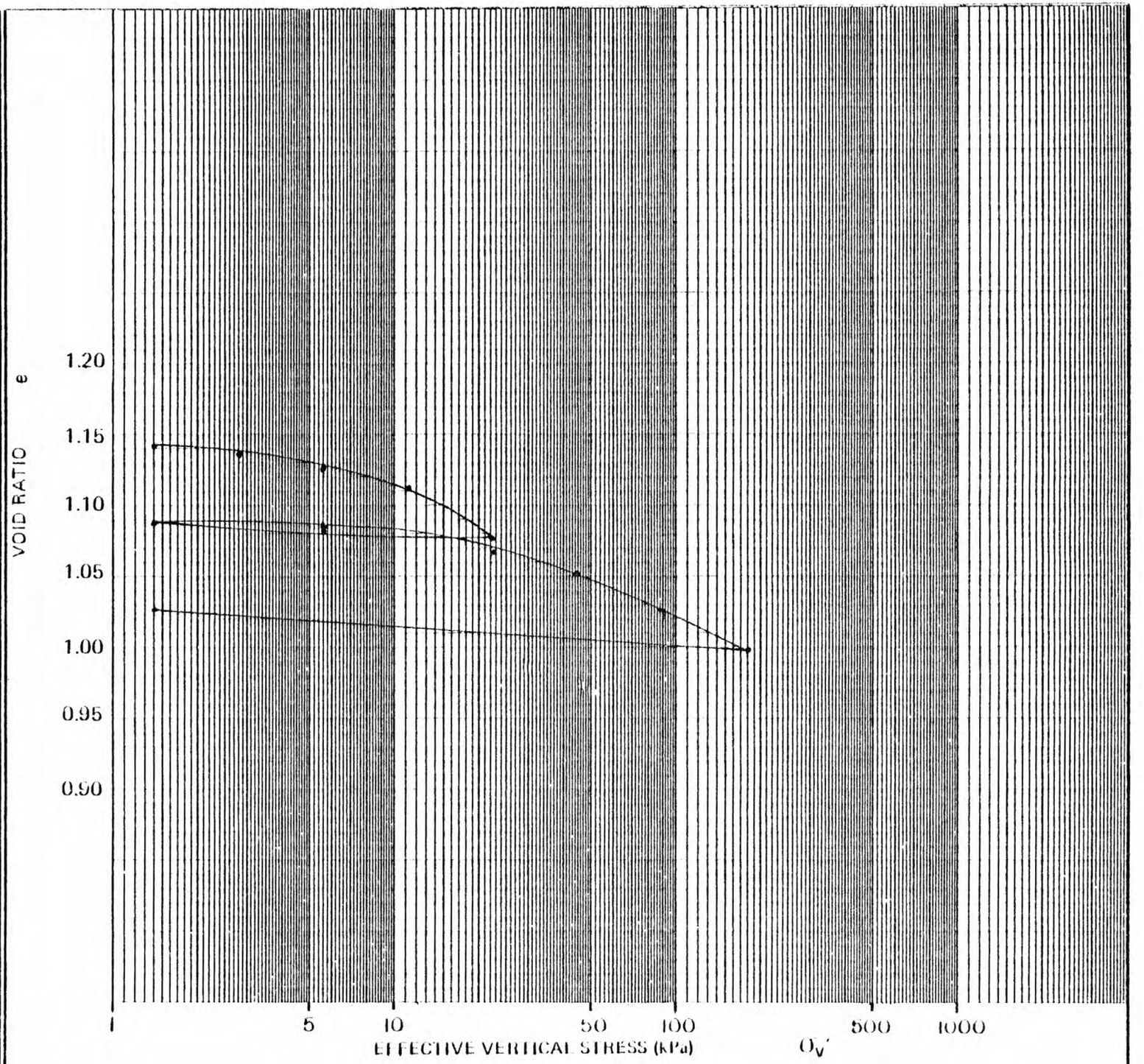
SAMPLE IDENTIFICATION

CORE NUMBER CD-24 PC-28

DEPTH 106-121 CM

CLASSIFICATION

S91



CONSOLIDATION TEST

COMPRESSION INDEX 0.062

SWELLING INDEX 0.016

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 0.7653

INITIAL WATER CONTENT 26.5

INITIAL SATURATION 95.6

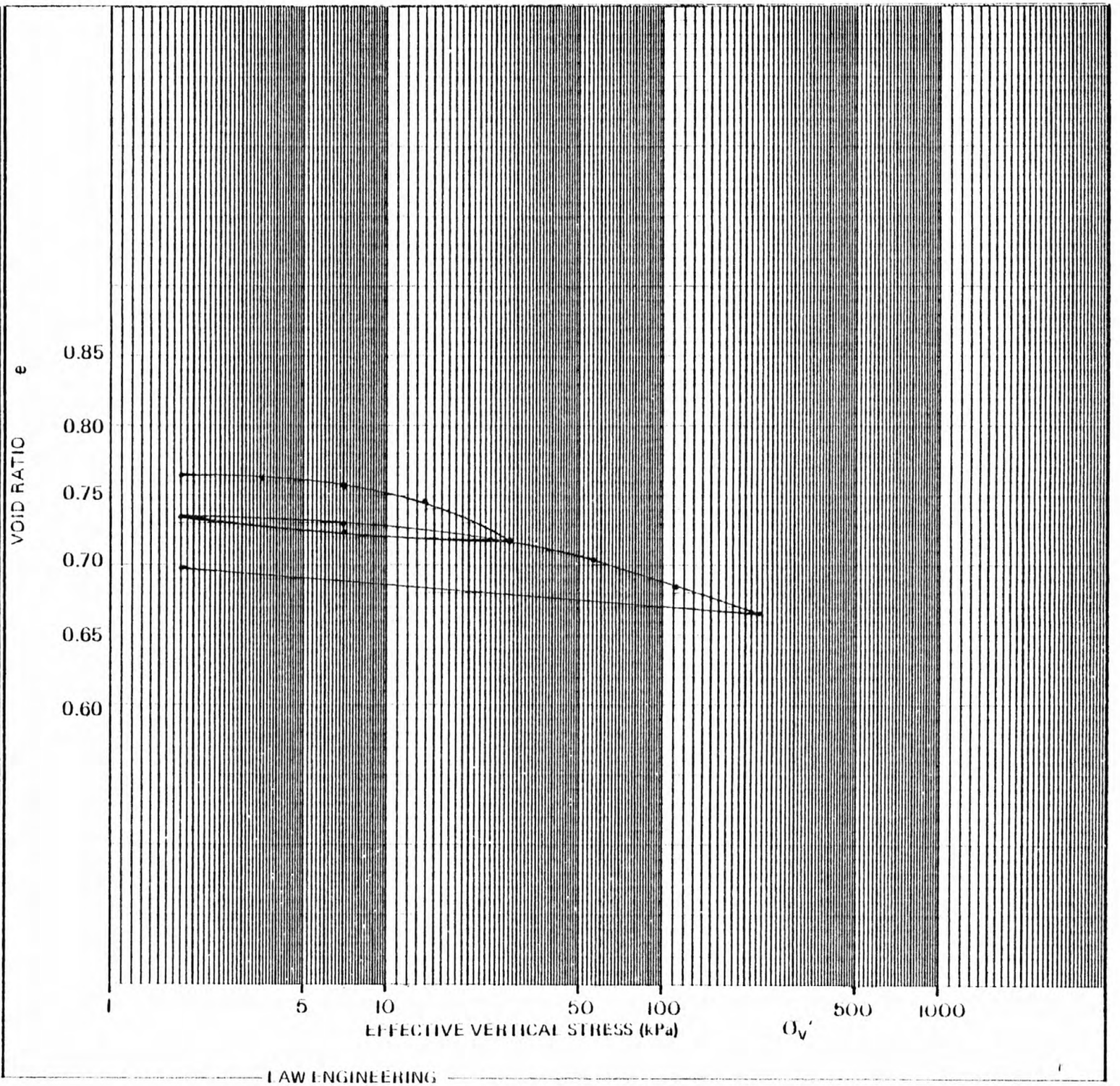
SAMPLE IDENTIFICATION

CORE NUMBER CD-24 PC-28

DEPTH 171-186 CM

CLASSIFICATION

S92



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.281

SWELLING INDEX 0.034

MAXIMUM PRECONSOLIDATION STRESS (kPa) 70

INITIAL VOID RATIO 1.3061

INITIAL WATER CONTENT 44.80

INITIAL SATURATION 95.35

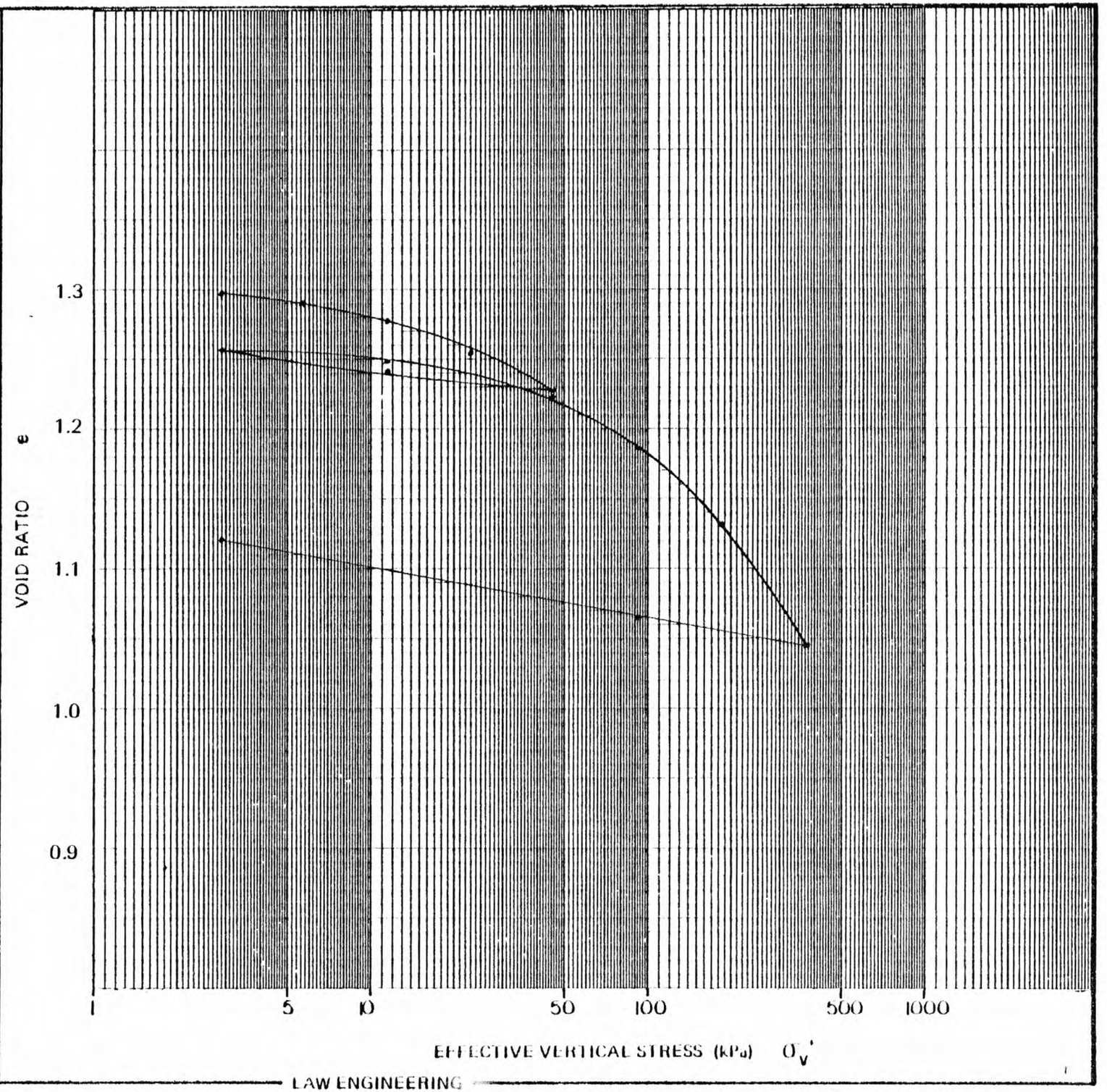
593

SAMPLE IDENTIFICATION

CORE NUMBER CD-25 PC-29

DEPTH 143-164 CM

CLASSIFICATION



LAW ENGINEERING

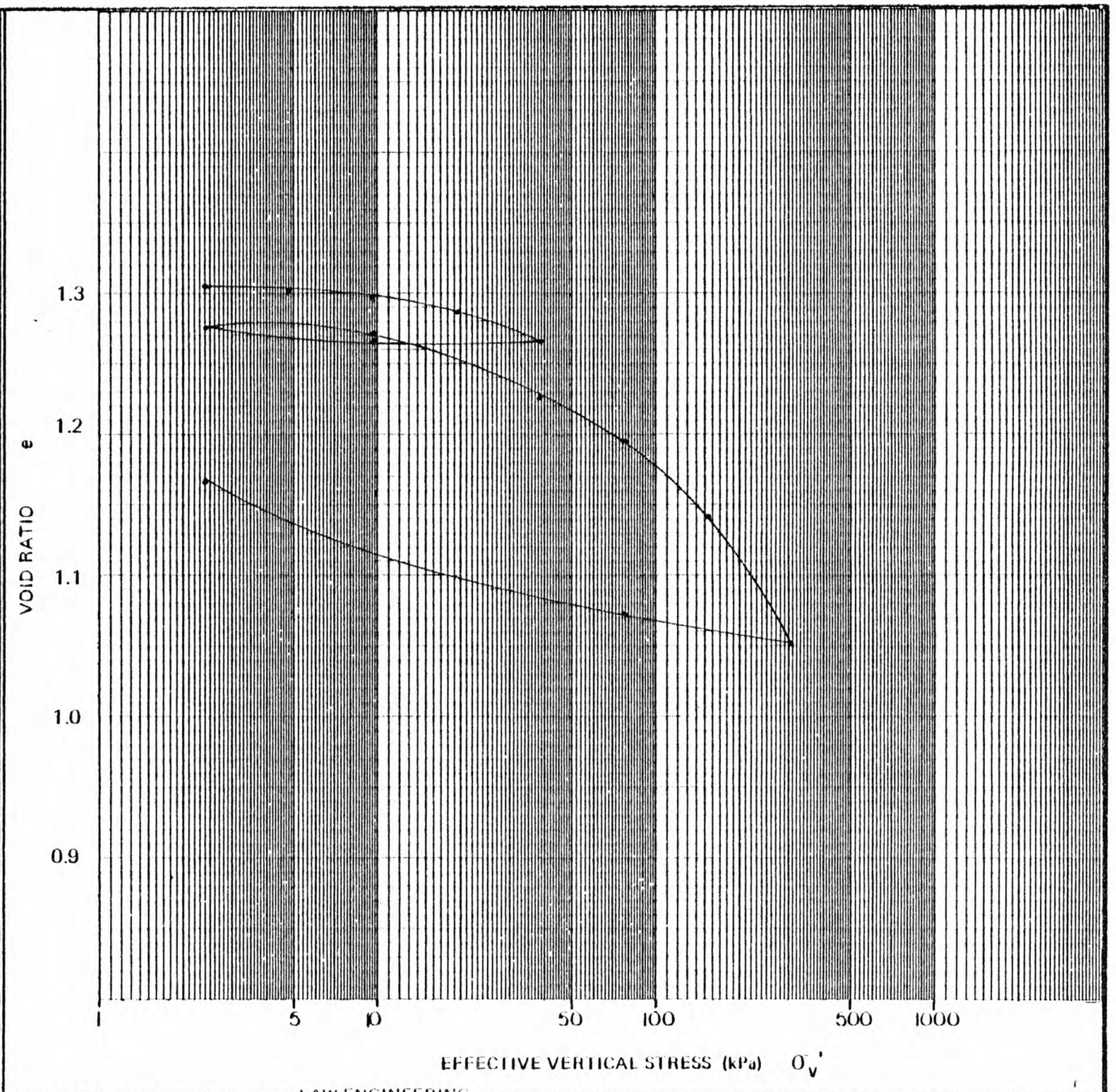
CONSOLIDATION TEST

COMPRESSION INDEX	0.295
SWELLING INDEX	0.049
MAXIMUM PRECONSOLIDATION STRESS (kPa)	55
INITIAL VOID RATIO	1.3043
INITIAL WATER CONTENT	45.10
INITIAL SATURATION	96.82

S94

SAMPLE IDENTIFICATION

CORE NUMBER	CD-25 PC-29
DEPTH	212-227 CM
CLASSIFICATION	



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.394

SWELLING INDEX 0.058

MAXIMUM PRECONSOLIDATION STRESS (kPa) 45

INITIAL VOID RATIO 0.9777

INITIAL WATER CONTENT 38.9

INITIAL SATURATION 95.2

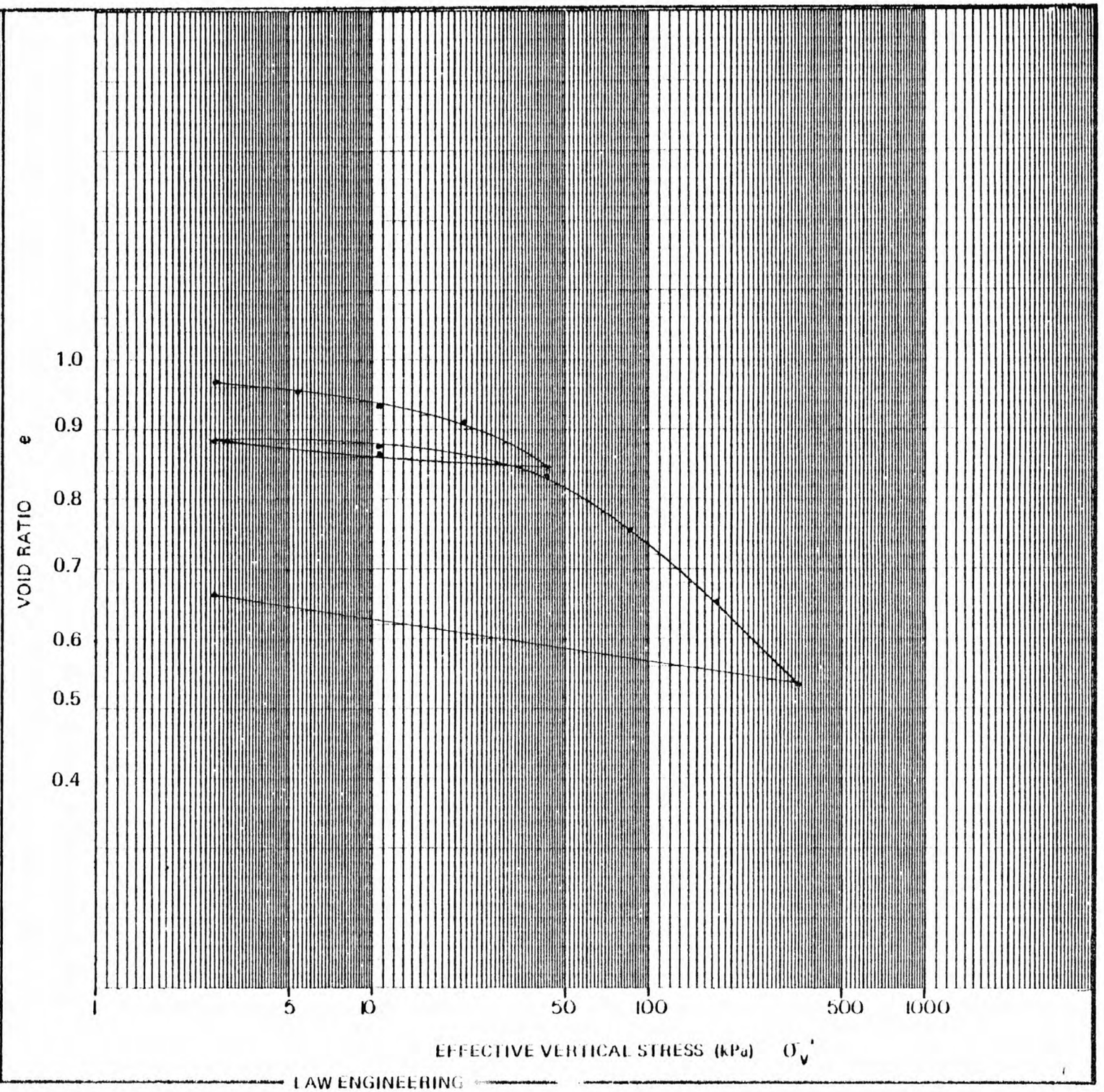
595

SAMPLE IDENTIFICATION

CORE NUMBER CD-26 PC-30

DEPTH 285-300 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.573

SWELLING INDEX 0.077

MAXIMUM PRECONSOLIDATION STRESS (kPa) 32

INITIAL VOID RATIO 1.8050

INITIAL WATER CONTENT 66.60

INITIAL SATURATION 99.99

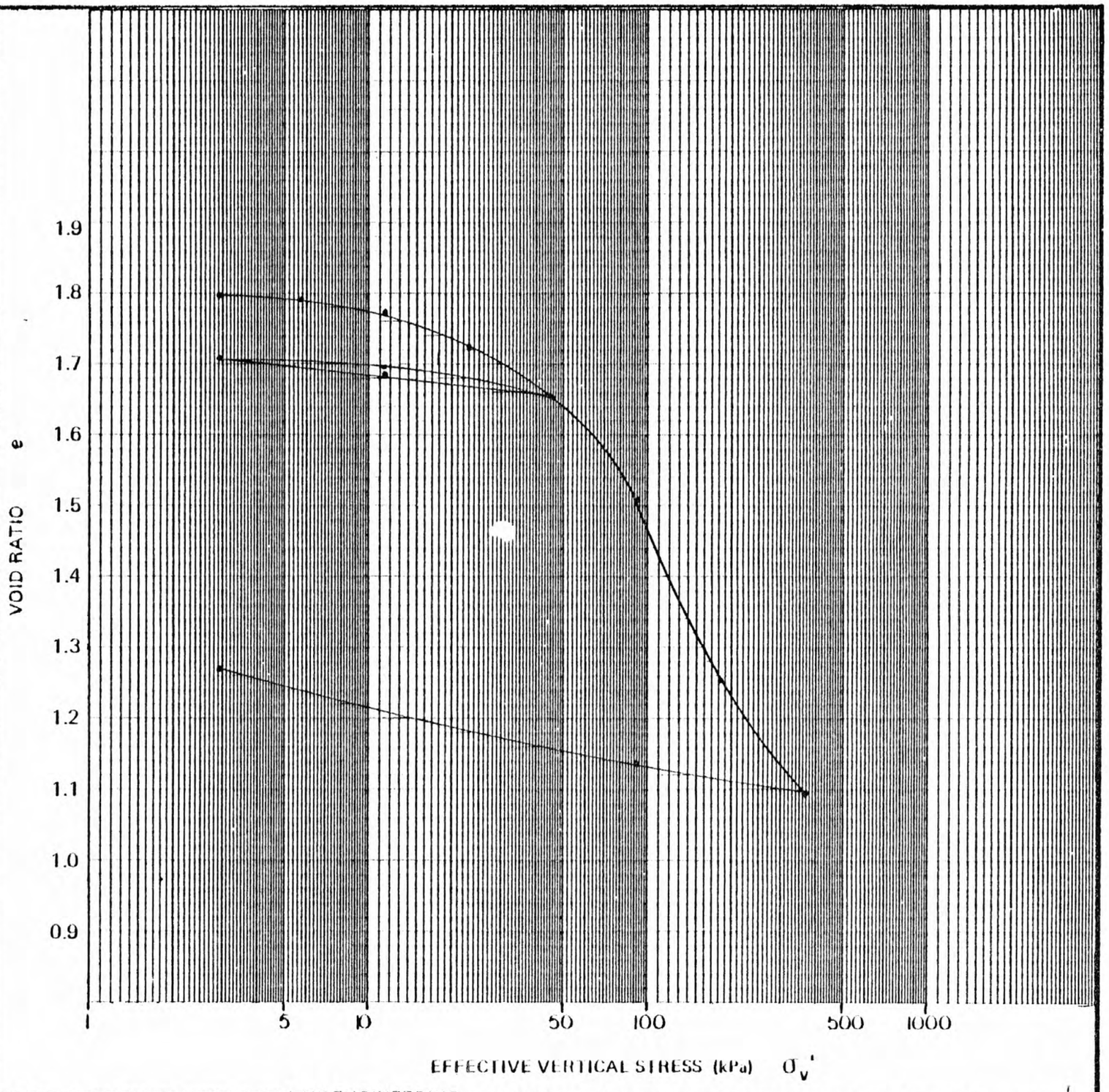
S96

SAMPLE IDENTIFICATION

CORE NUMBER CD-26 PC-30

DEPTH 408-423 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.625

SWELLING INDEX 0.104

MAXIMUM PRECONSOLIDATION STRESS (kPa) 27

INITIAL VOID RATIO 2.1004

INITIAL WATER CONTENT 73.30

INITIAL SATURATION 95.97

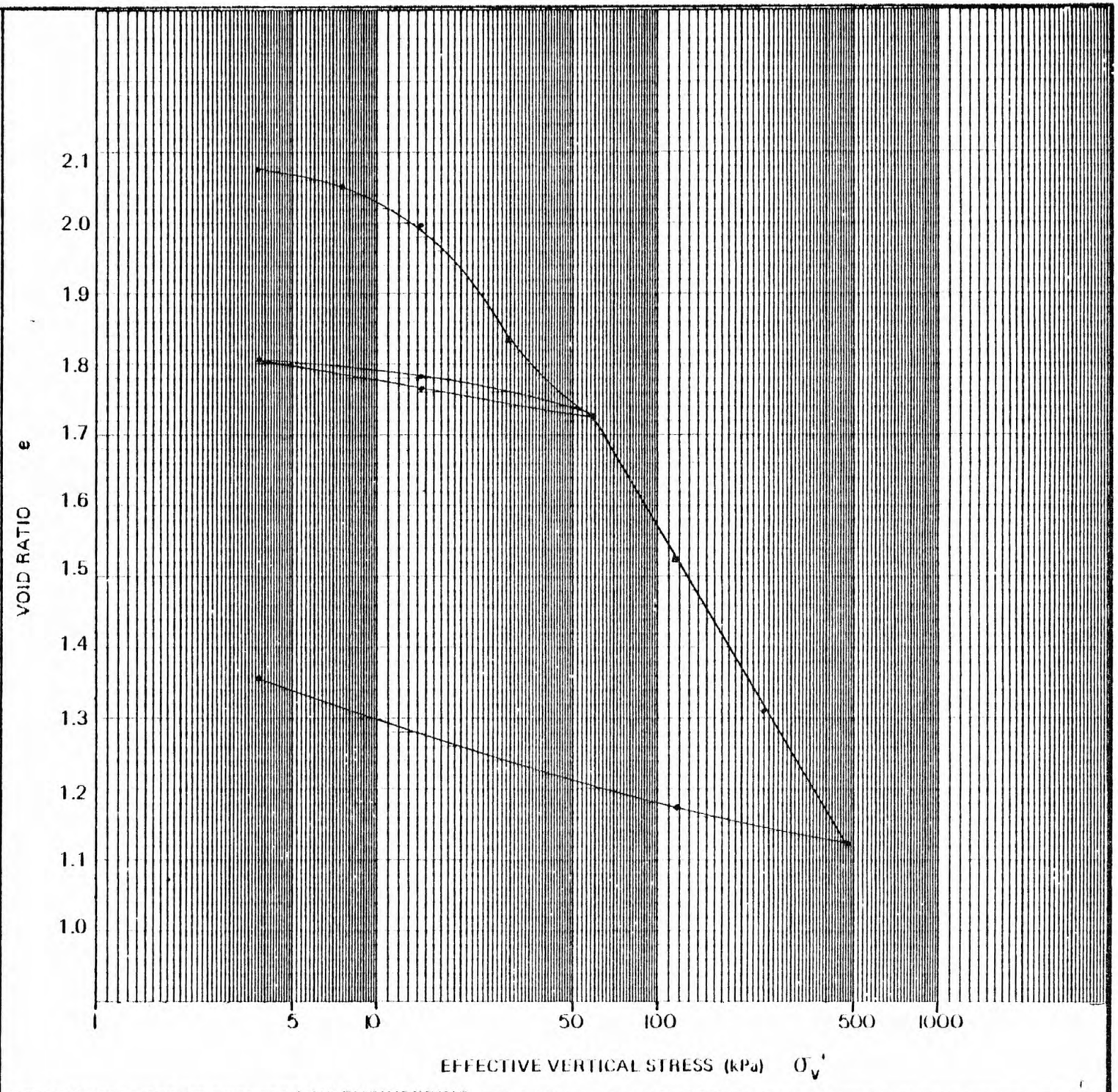
S97

SAMPLE IDENTIFICATION

CORE NUMBER CD-26 PC-30

DEPTH 488-503 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.519

SWELLING INDEX 0.070

MAXIMUM PRECONSOLIDATION STRESS (kPa) 36

INITIAL VOID RATIO 1.7106

INITIAL WATER CONTENT 59.50

INITIAL SATURATION 97.64

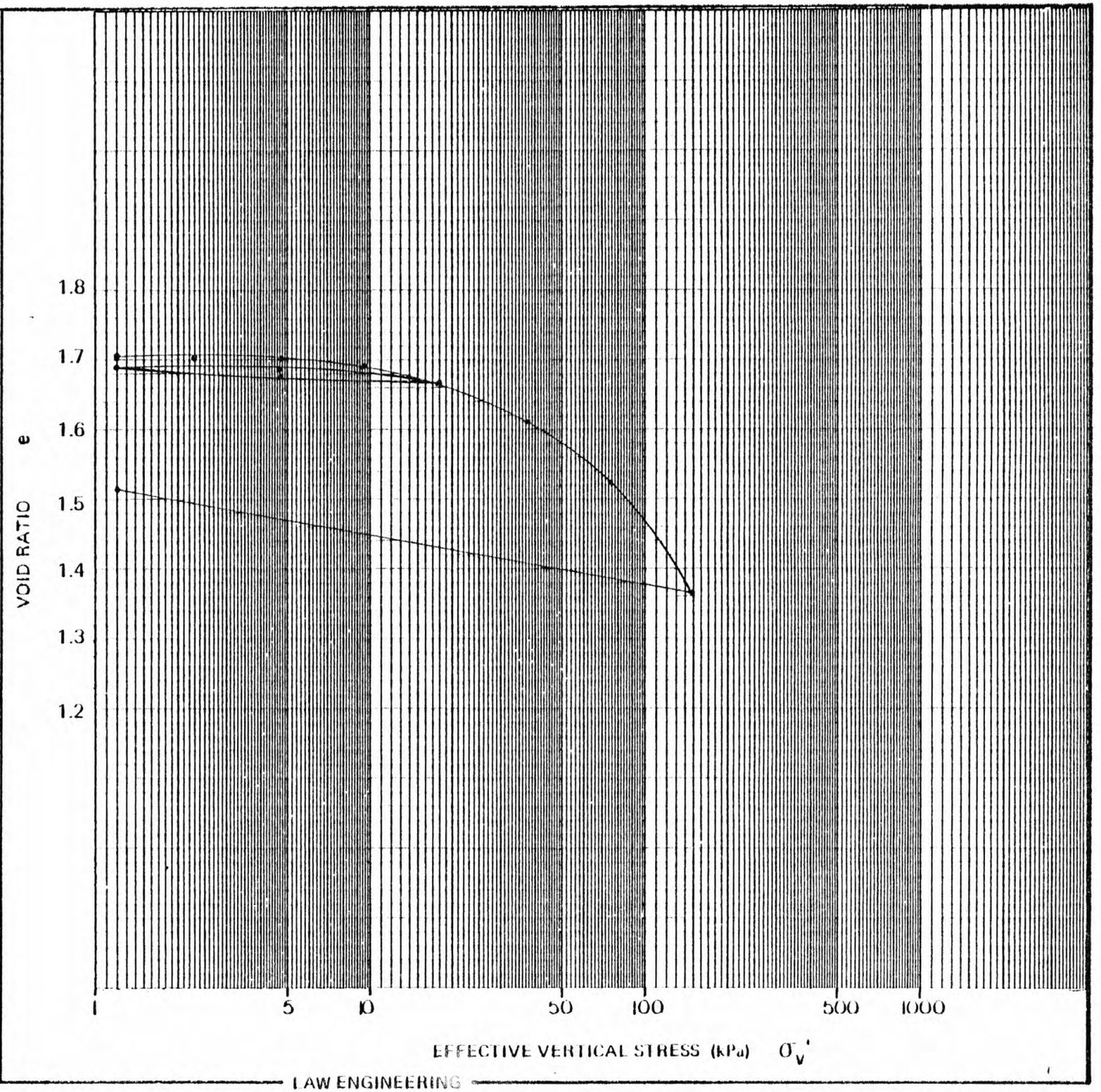
S98

SAMPLE IDENTIFICATION

CORE NUMBER CD-27 PC-31

DEPTH 106-121 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.462

SWELLING INDEX 0.053

MAXIMUM PRECONSOLIDATION STRESS (kPa) 85

INITIAL VOID RATIO 1.2197

INITIAL WATER CONTENT 43.6

INITIAL SATURATION 97.2

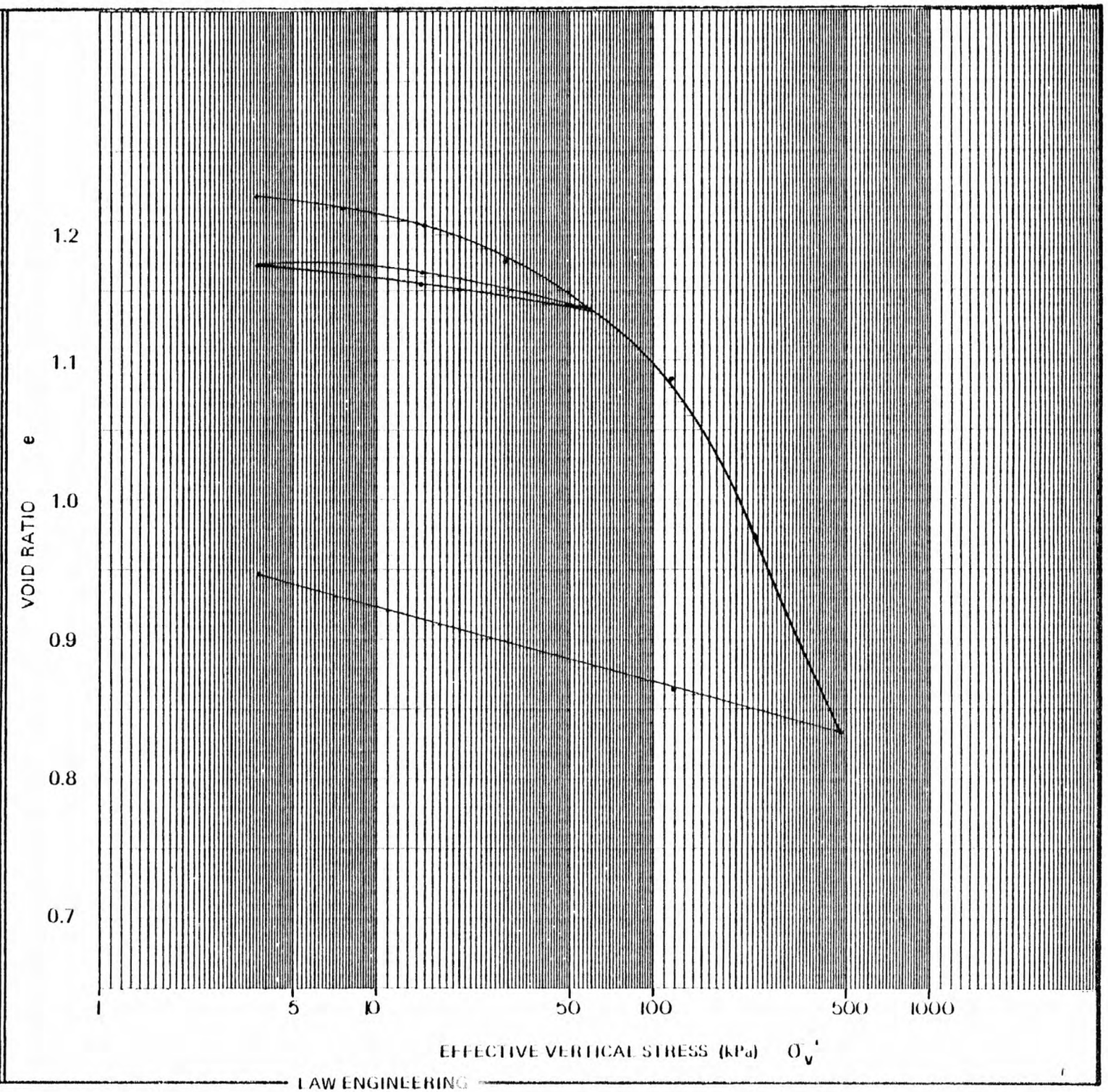
S99

SAMPLE IDENTIFICATION

CORE NUMBER CD-27 PC-31

DEPTH 413-428 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.508

SWELLING INDEX 0.072

MAXIMUM PRECONSOLIDATION STRESS (kPa) 120

INITIAL VOID RATIO 1.2600

INITIAL WATER CONTENT 44.3

INITIAL SATURATION 95.28

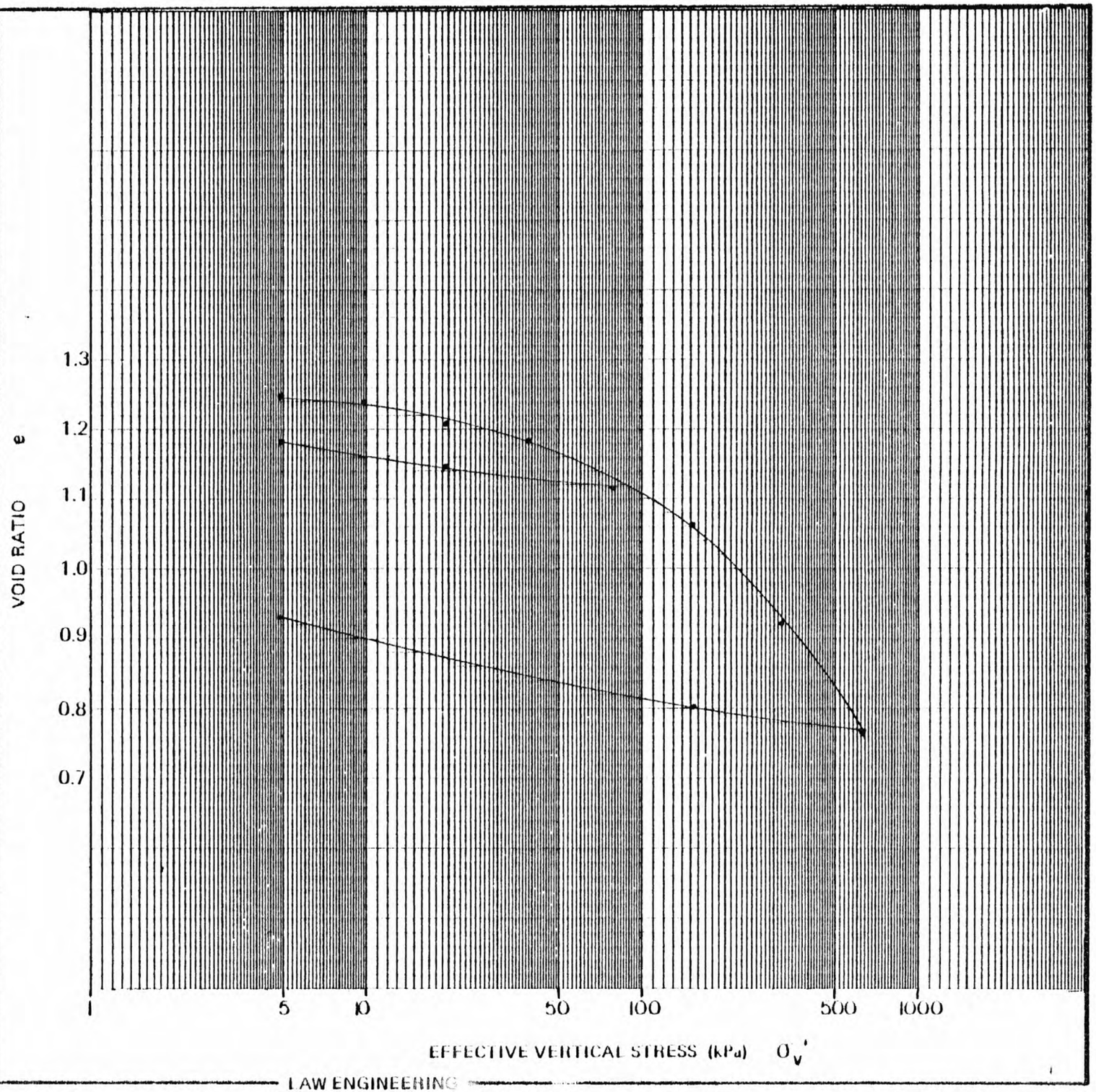
600

SAMPLE IDENTIFICATION

CORE NUMBER CD-27 PC-31

DEPTH 487-502 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.442

SWELLING INDEX 0.083

MAXIMUM PRECONSOLIDATION STRESS (kPa) 10

INITIAL VOID RATIO 1.5618

INITIAL WATER CONTENT 57.04

INITIAL SATURATION 99.89

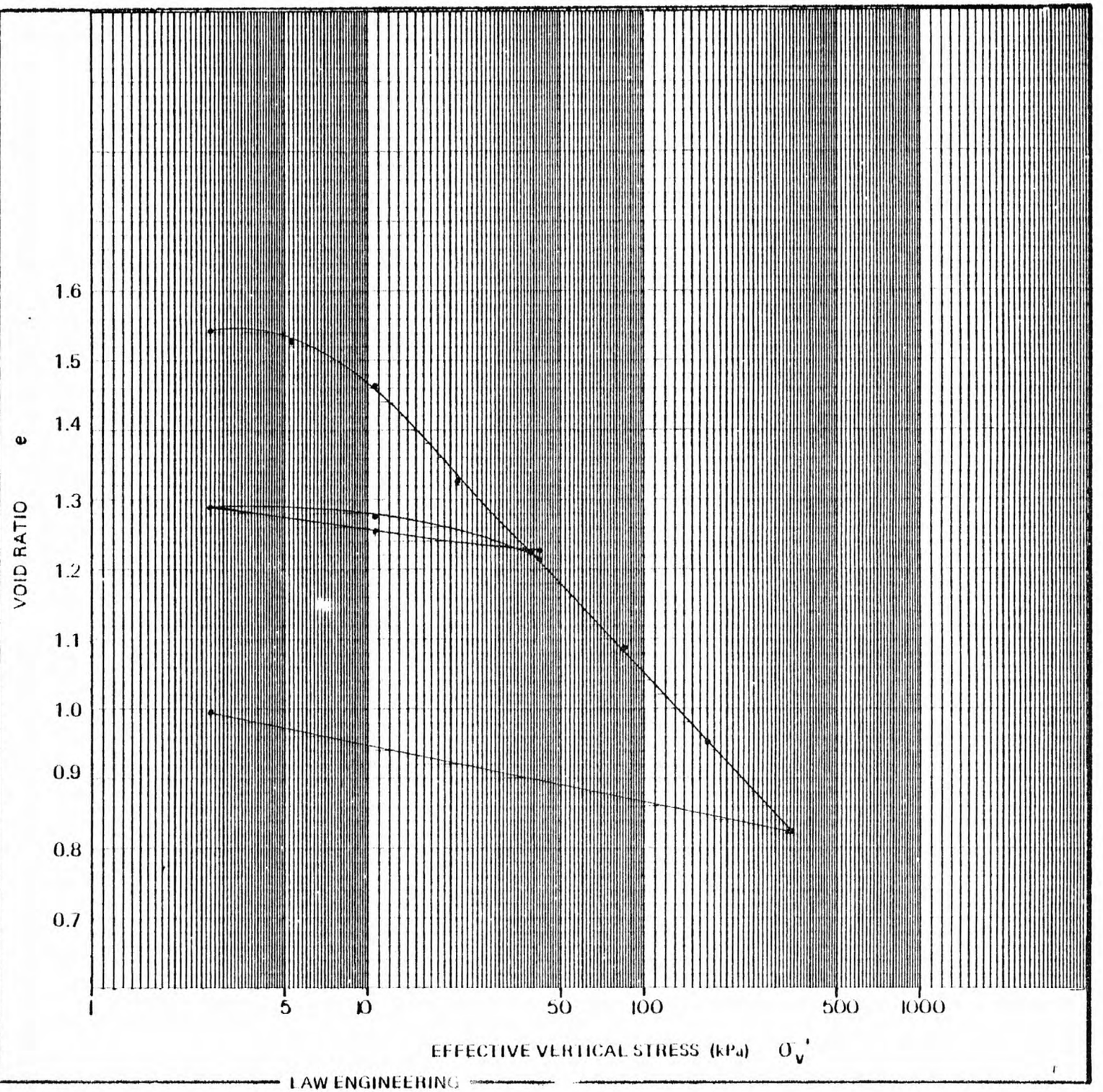
601

SAMPLE IDENTIFICATION

CORE NUMBER CD-32 PC-32

DEPTH 281-296 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.496

SWELLING INDEX 0.077

MAXIMUM PRECONSOLIDATION STRESS (kPa) 40

INITIAL VOID RATIO 1.5003

INITIAL WATER CONTENT 55.0

INITIAL SATURATION 99.4

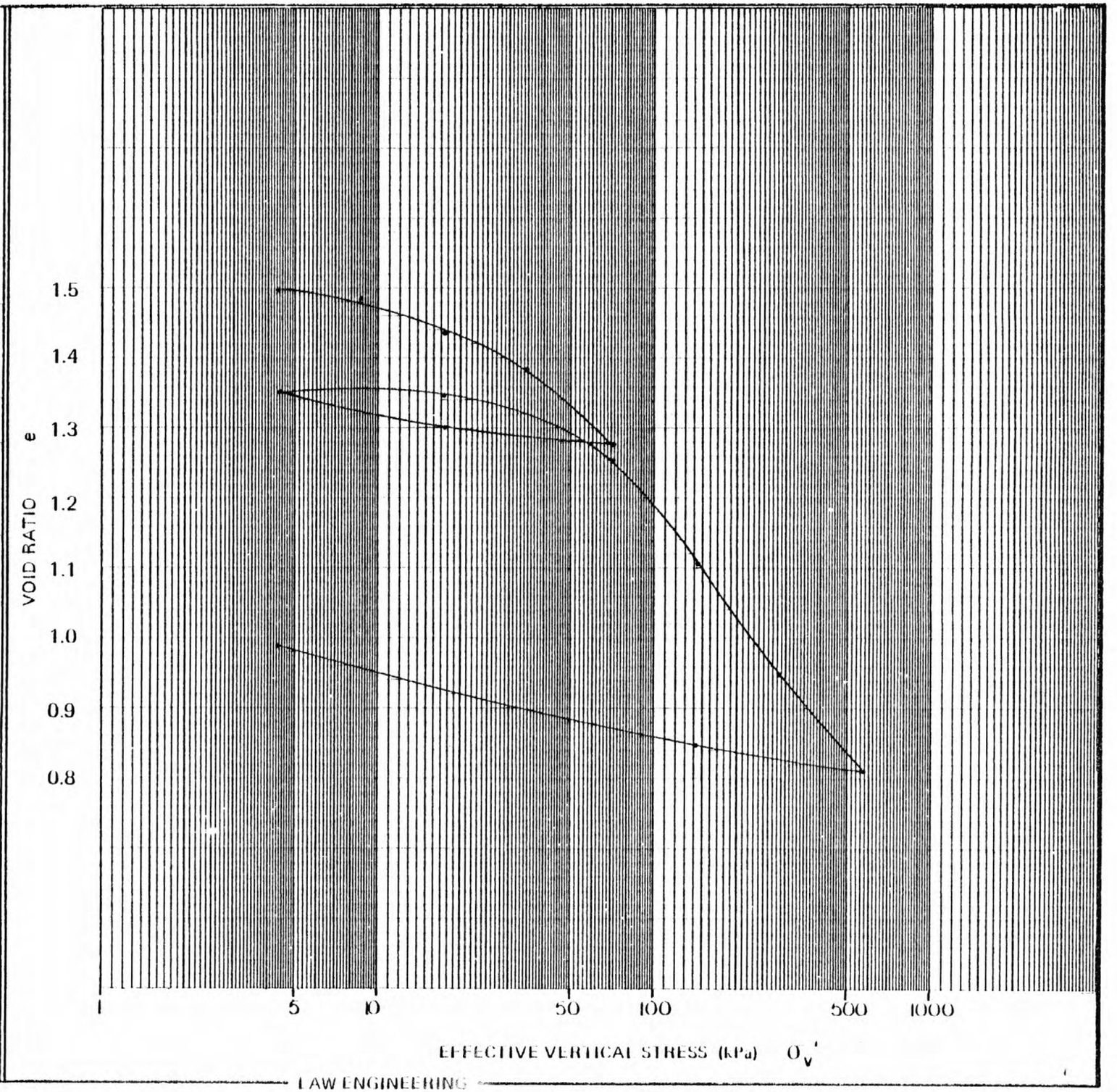
602

SAMPLE IDENTIFICATION

CORE NUMBER CD-32 PC-32

DEPTH 538-553 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.423

SWELLING INDEX 0.074

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 1.4760

INITIAL WATER CONTENT 52.60

INITIAL SATURATION 98.36

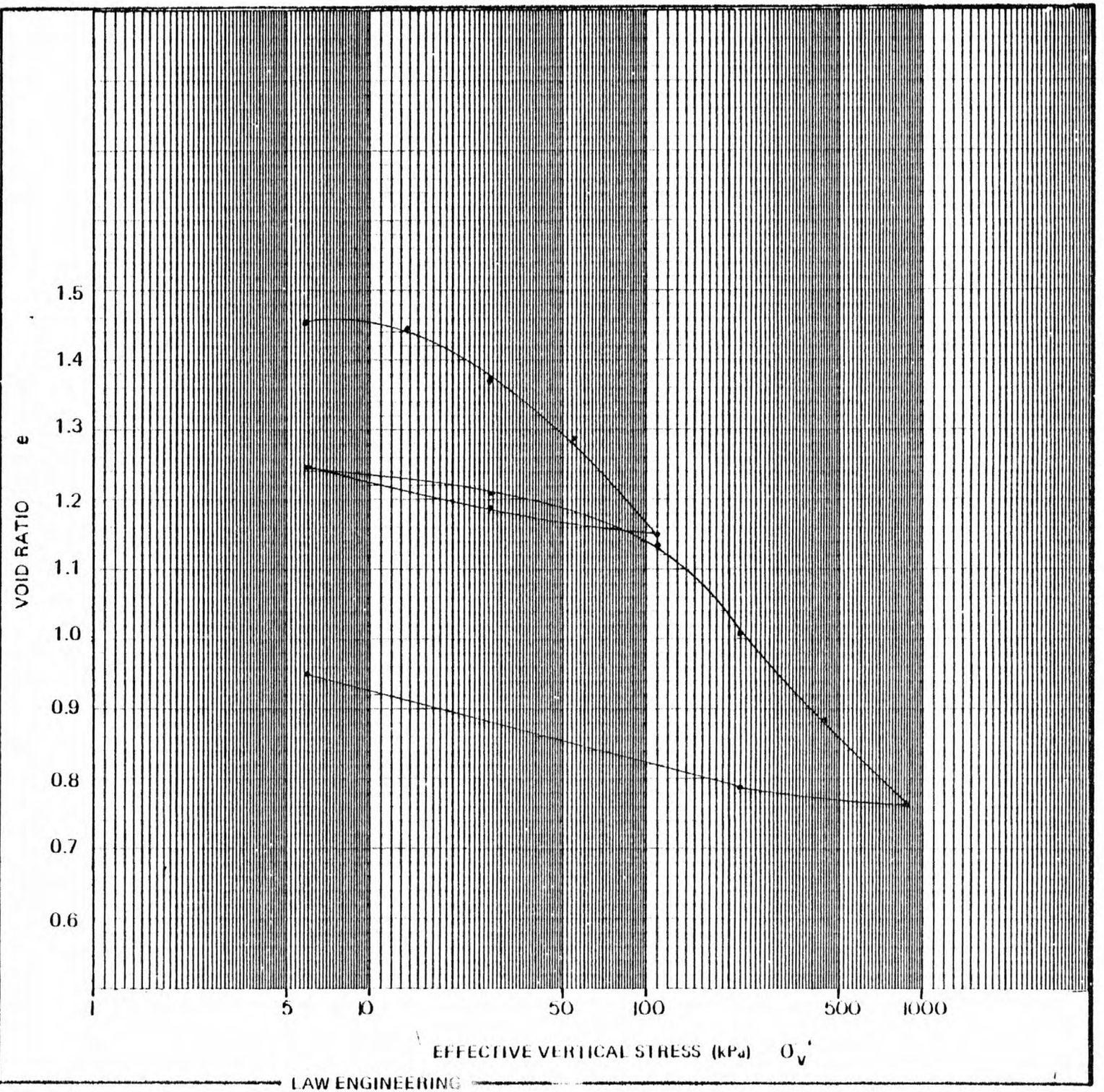
603

SAMPLE IDENTIFICATION

CORE NUMBER CD-32 PC-32

DEPTH 650-665 CM

CLASSIFICATION



LAW ENGINEERING

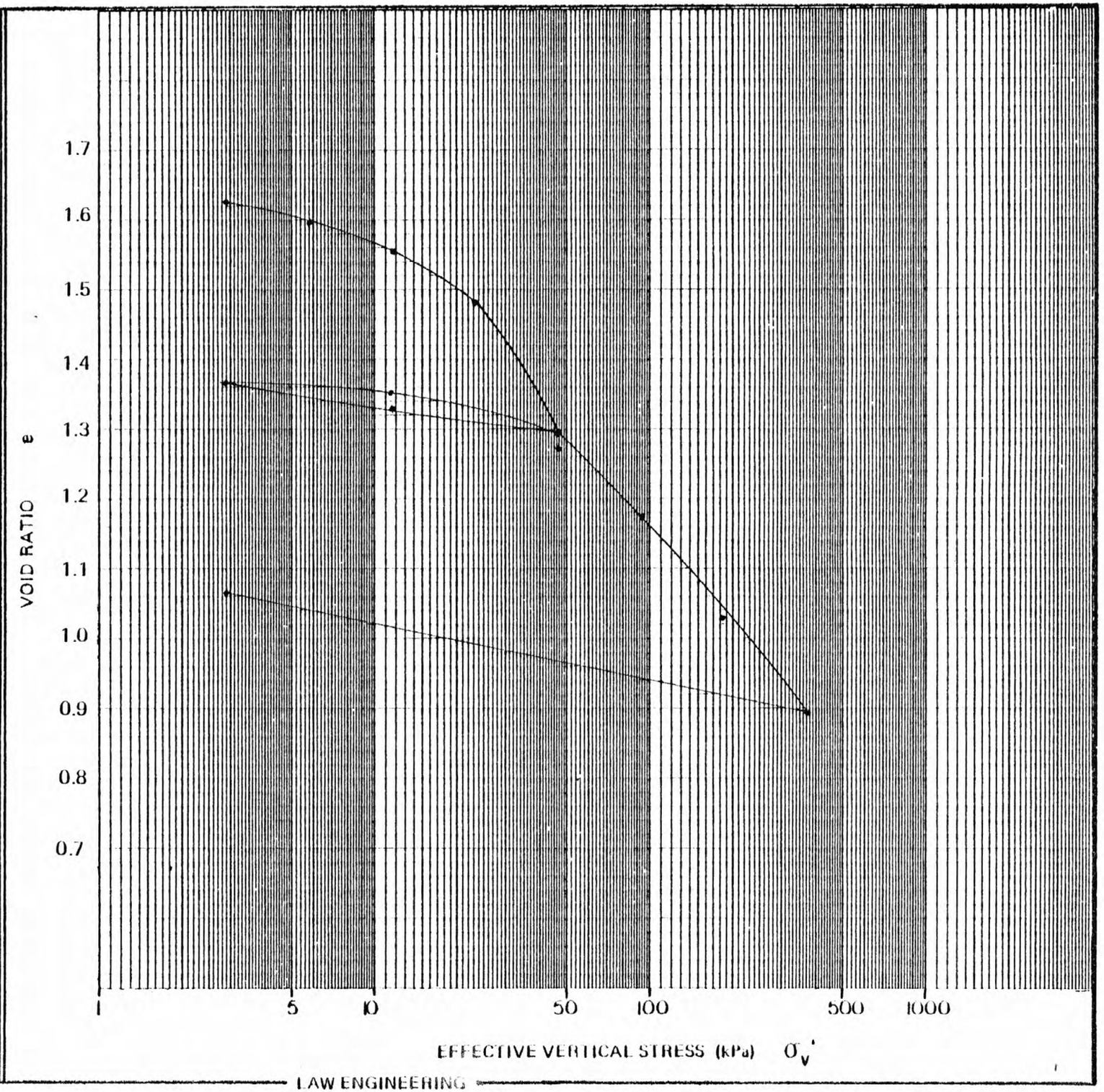
CONSOLIDATION TEST

COMPRESSION INDEX	0.446
SWELLING INDEX	0.080
MAXIMUM PRECONSOLIDATION STRESS (kPa)	25
INITIAL VOID RATIO	1.6414
INITIAL WATER CONTENT	63.00
INITIAL SATURATION	99.57

604

SAMPLE IDENTIFICATION

CORE NUMBER	CD-32A PC-33
DEPTH	421-436 CM
CLASSIFICATION	CH



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.493

SWELLING INDEX 0.084

MAXIMUM PRECONSOLIDATION STRESS (kPa) 17

INITIAL VOID RATIO 1.6807

INITIAL WATER CONTENT 62.2

INITIAL SATURATION 100.0

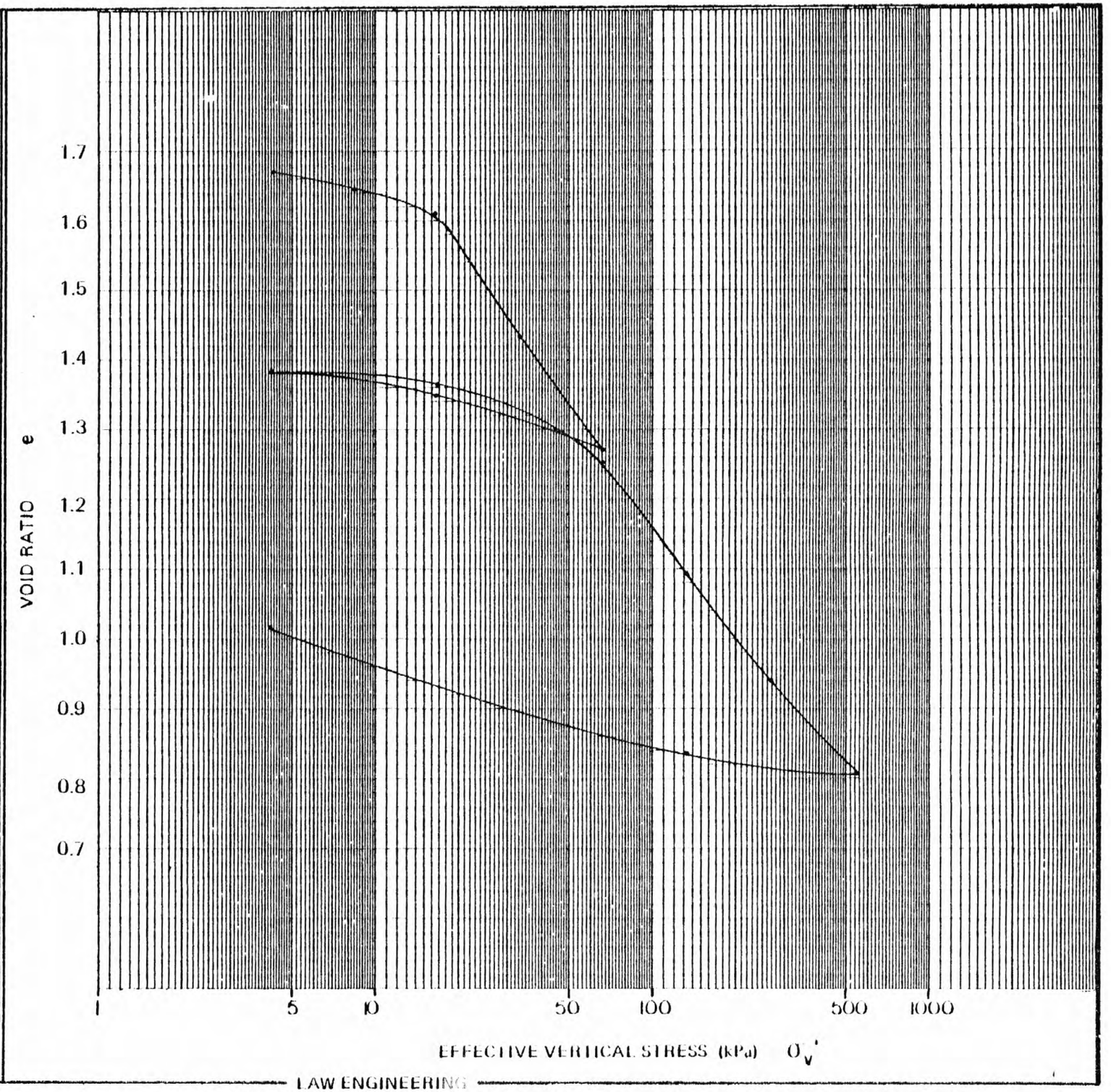
605

SAMPLE IDENTIFICATION

CORE NUMBER CD-32A PC-33

DEPTH 561-576 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.466

SWELLING INDEX 0.055

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 1.5453

INITIAL WATER CONTENT 59.80

INITIAL SATURATION 100.0

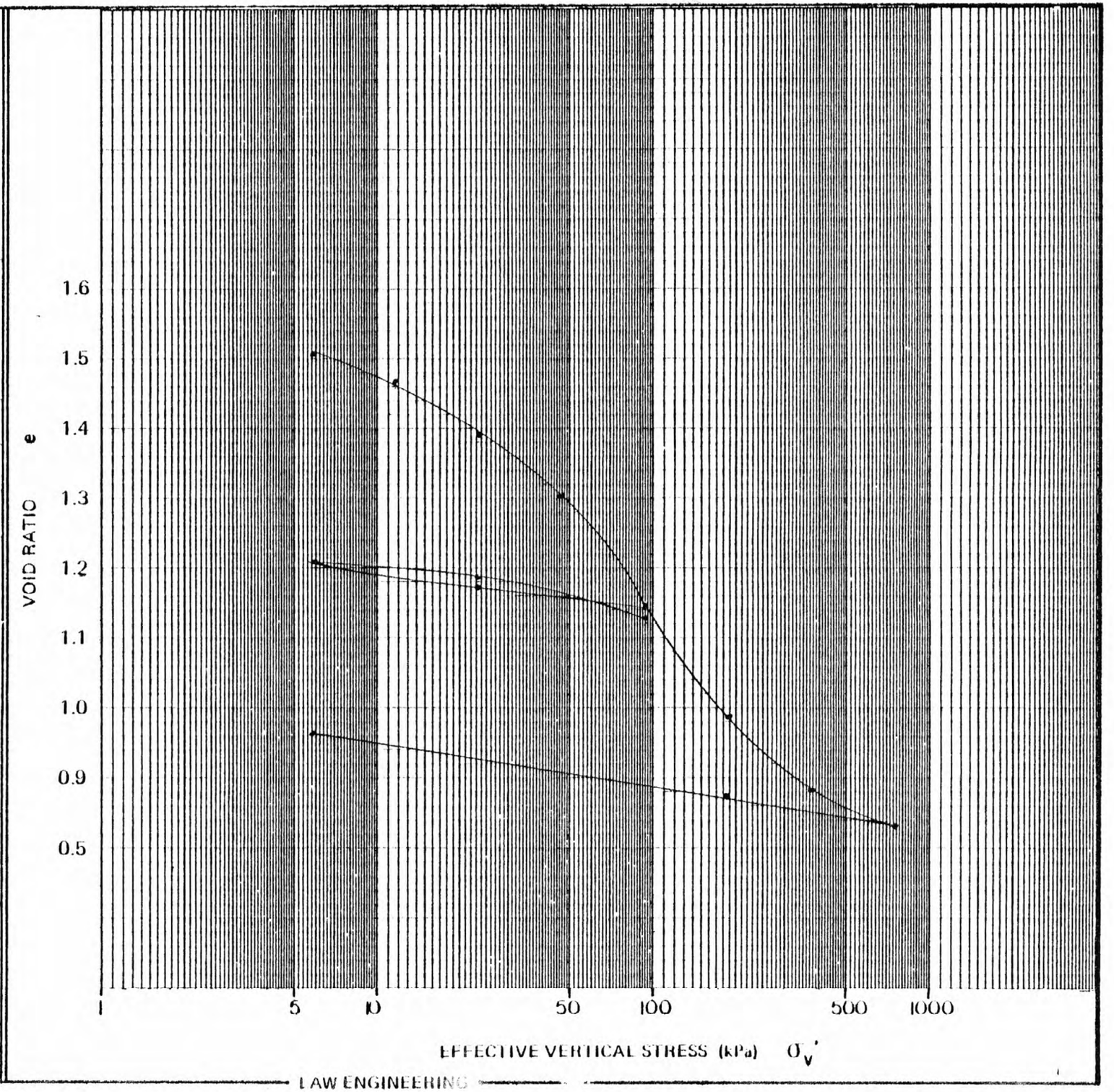
606

SAMPLE IDENTIFICATION

CORE NUMBER CD-32A PC-33

DEPTH 665-680 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.571

SWELLING INDEX 0.097

MAXIMUM PRECONSOLIDATION STRESS (kPa) 14

INITIAL VOID RATIO 1.9508

INITIAL WATER CONTENT 71.0

INITIAL SATURATION 97.9

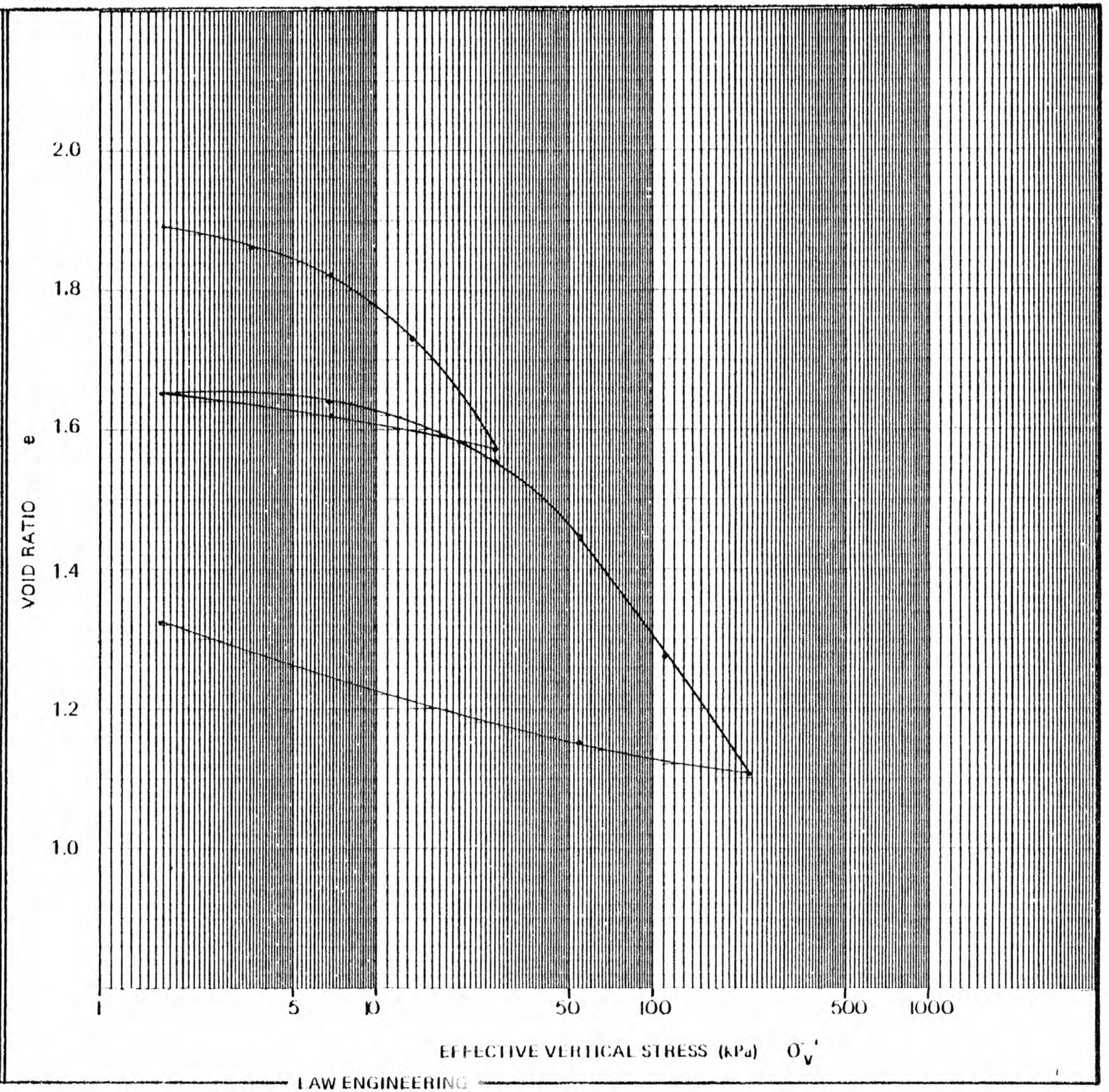
607

SAMPLE IDENTIFICATION

CORE NUMBER CD-34 PC-34

DEPTH 180-195 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.928

SWELLING INDEX 0.146

MAXIMUM PRECONSOLIDATION STRESS (kPa) 22

INITIAL VOID RATIO 2.3854

INITIAL WATER CONTENT 82.5

INITIAL SATURATION 96.25

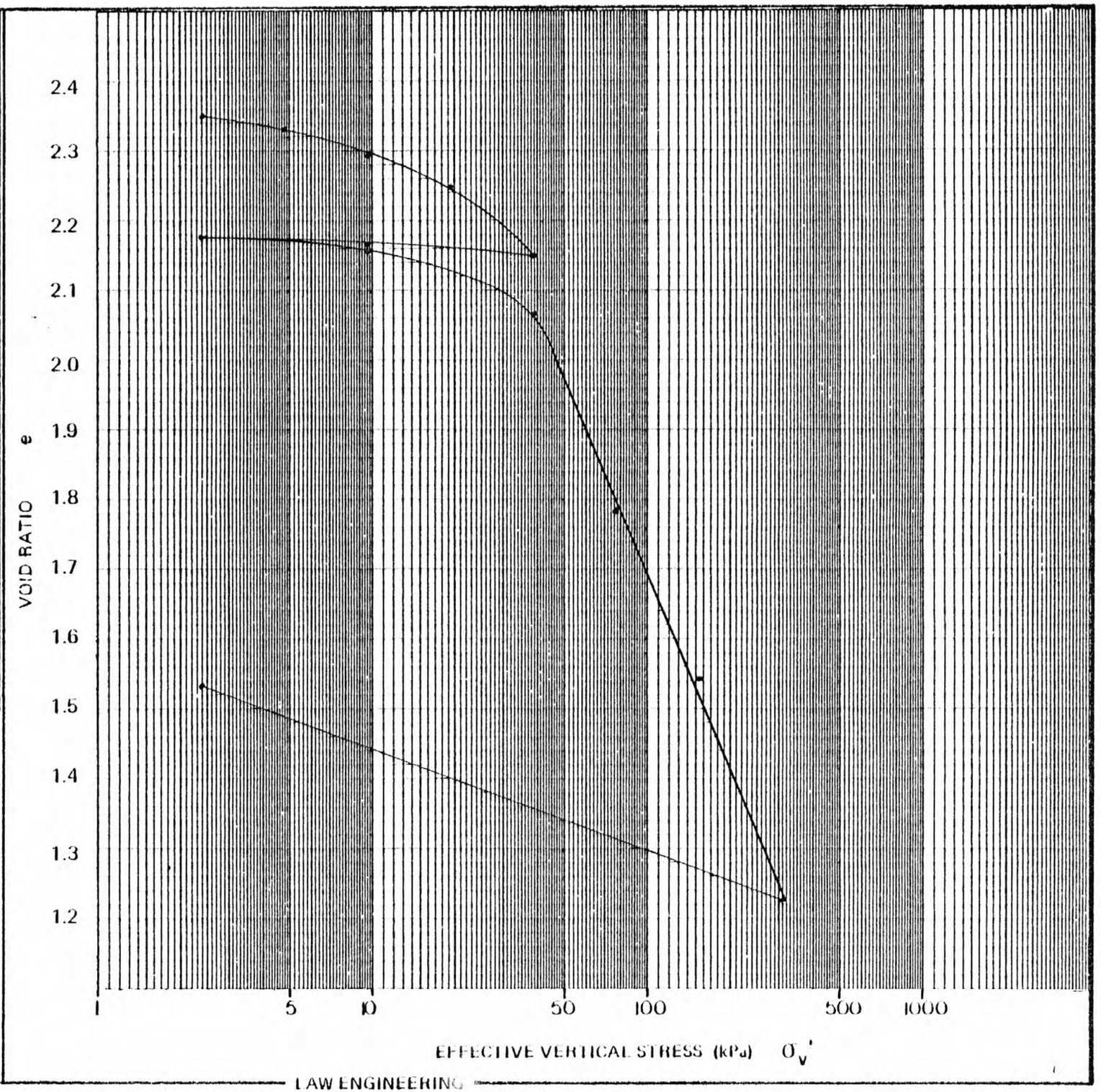
809

SAMPLE IDENTIFICATION

CORE NUMBER CD-34 PC-34

DEPTH 363-378 CM

CLASSIFICATION OH MH



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.640

SWELLING INDEX 0.083

MAXIMUM PRECONSOLIDATION STRESS (kPa) 50

INITIAL VOID RATIO 1.6677

INITIAL WATER CONTENT 60.2%

INITIAL SATURATION 97.1%

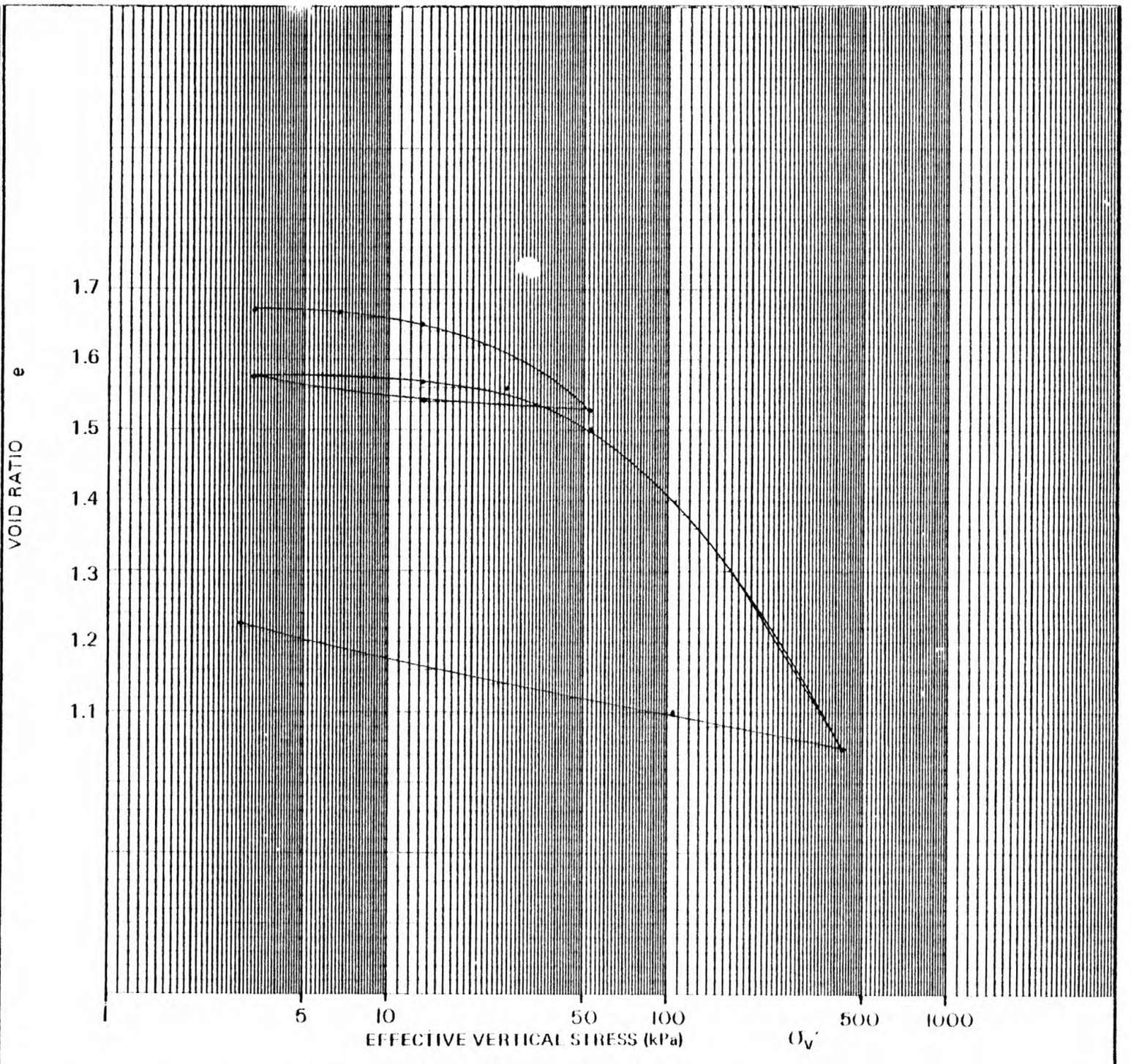
SAMPLE IDENTIFICATION

609

CORE NUMBER CD-34 PC-34

DEPTH 428-443 cm

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.515

SWELLING INDEX 0.084

MAXIMUM PRECONSOLIDATION STRESS (kPa) 30

INITIAL VOID RATIO 1.7975

INITIAL WATER CONTENT 65.7

INITIAL SATURATION 99.4

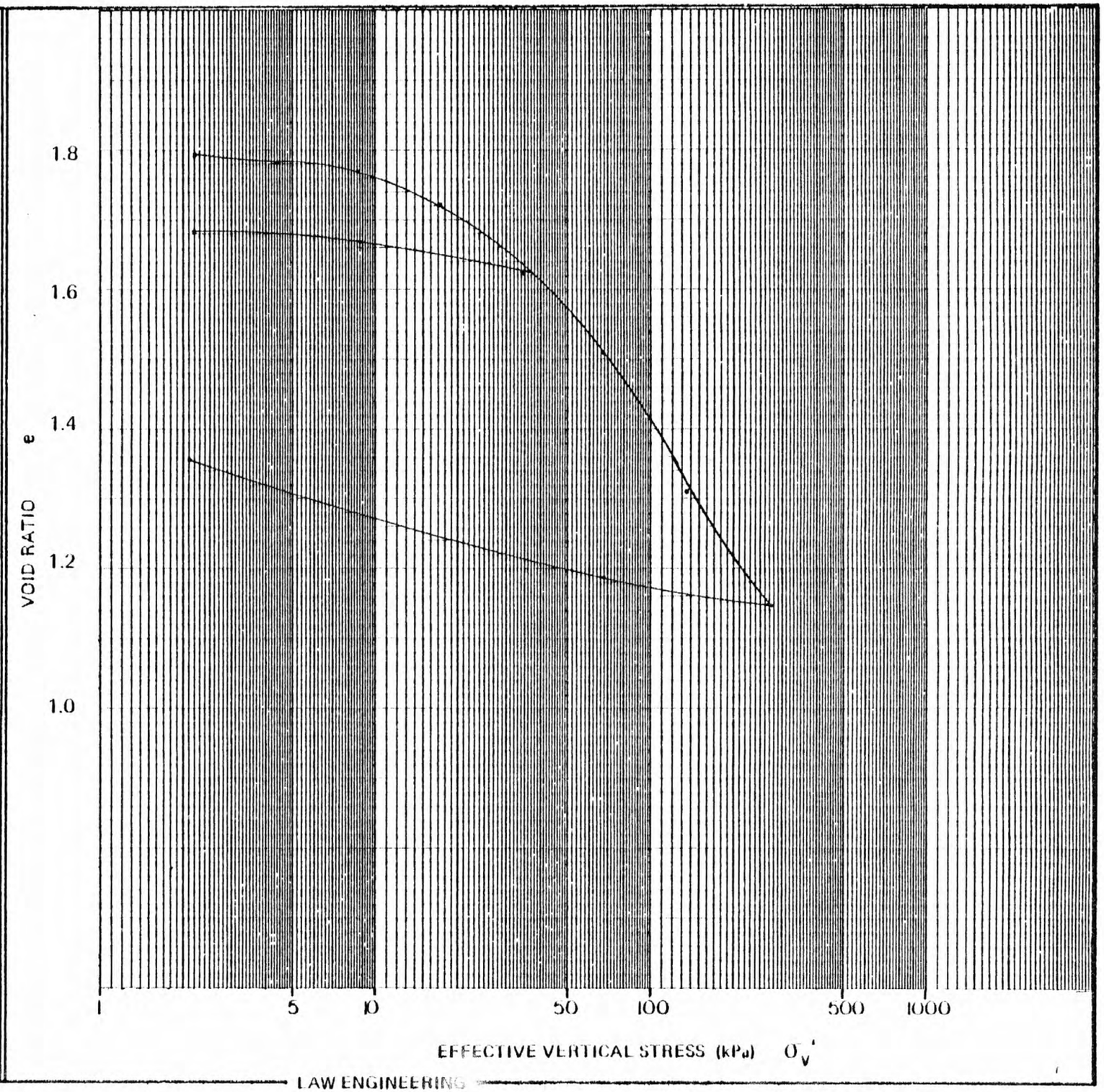
610

SAMPLE IDENTIFICATION

CORE NUMBER CD-35 PC-35

DEPTH 304-319 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.470

SWELLING INDEX 0.099

MAXIMUM PRECONSOLIDATION STRESS (kPa) 40

INITIAL VOID RATIO 1.7489

INITIAL WATER CONTENT 61.30

INITIAL SATURATION 97.30

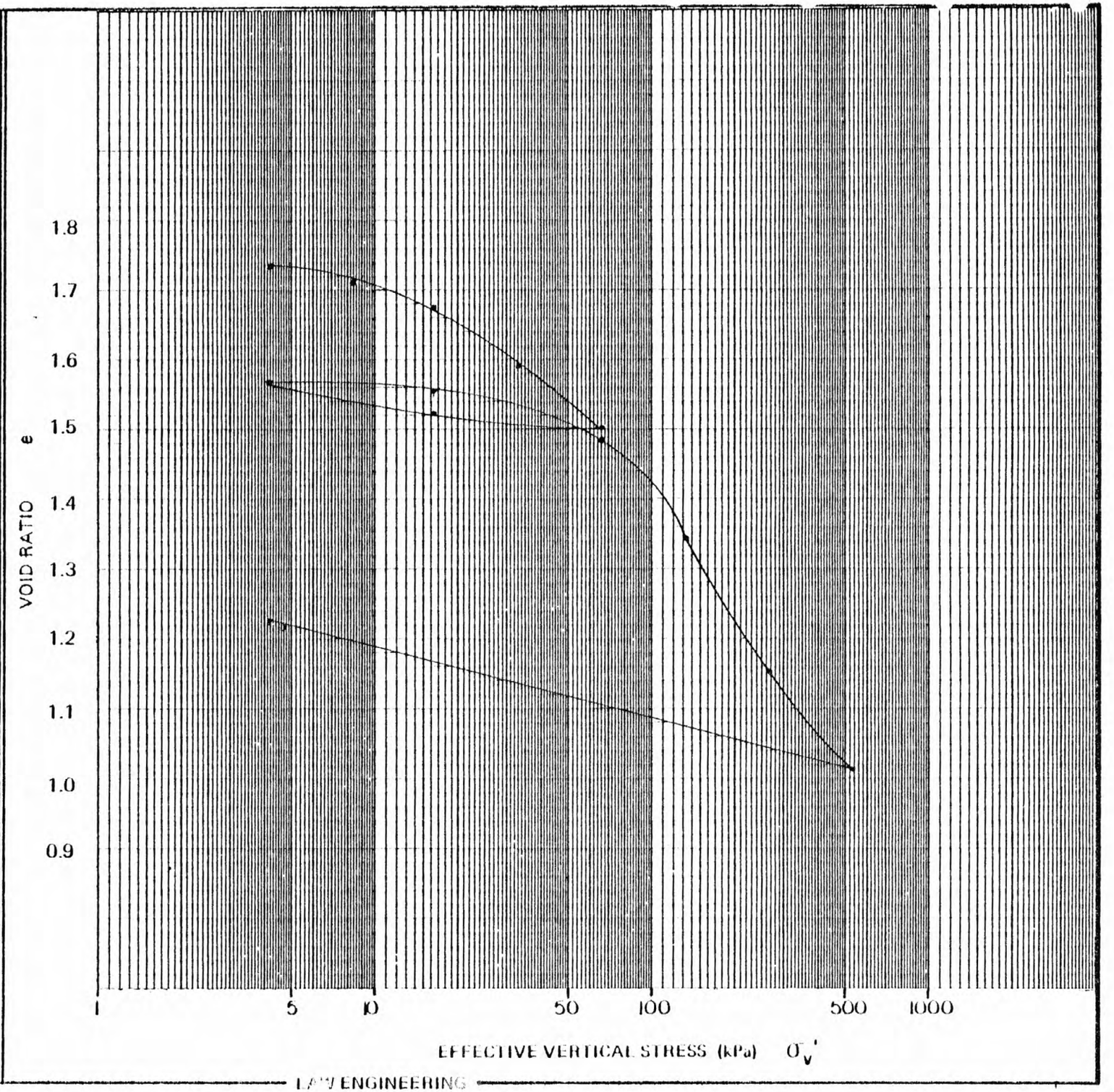
611

SAMPLE IDENTIFICATION

CORE NUMBER CD-35 PC-35

DEPTH 495-510 CM

CLASSIFICATION CH



LAW ENGINEERING

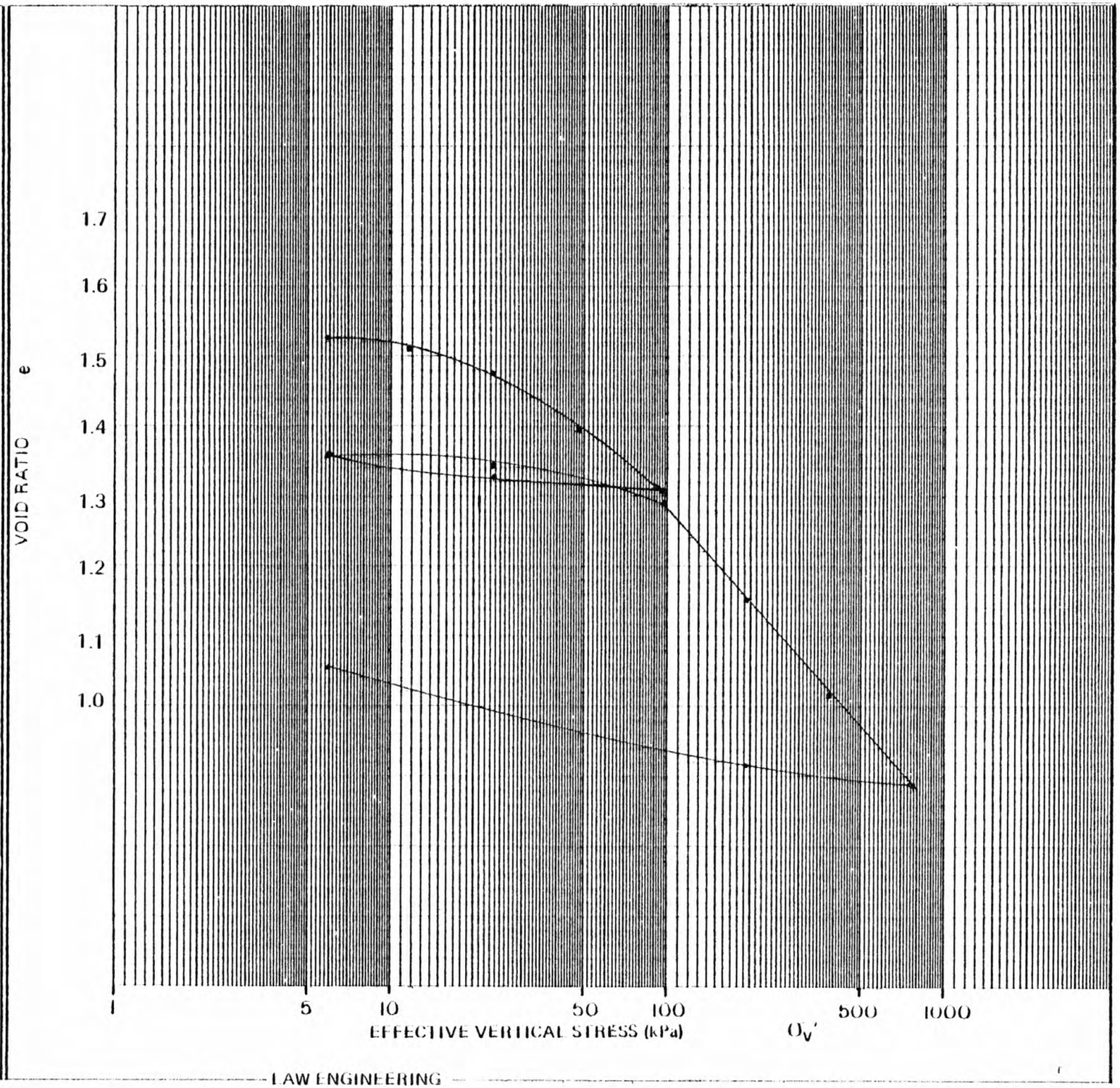
CONSOLIDATION TEST

COMPRESSION INDEX	0.448
SWELLING INDEX	0.075
MAXIMUM PRECONSOLIDATION STRESS (kPa)	44
INITIAL VOID RATIO	1.5489
INITIAL WATER CONTENT	57.9
INITIAL SATURATION	100.0

SAMPLE IDENTIFICATION

CORE NUMBER	CD-35 PC-35
DEPTH	568-583 CM
CLASSIFICATION	

612



CONSOLIDATION TEST

COMPRESSION INDEX 0.765

SWELLING INDEX 0.081

MAXIMUM PRECONSOLIDATION STRESS (kPa) 25

INITIAL VOID RATIO 1.9033

INITIAL WATER CONTENT 68.4

INITIAL SATURATION 98.8

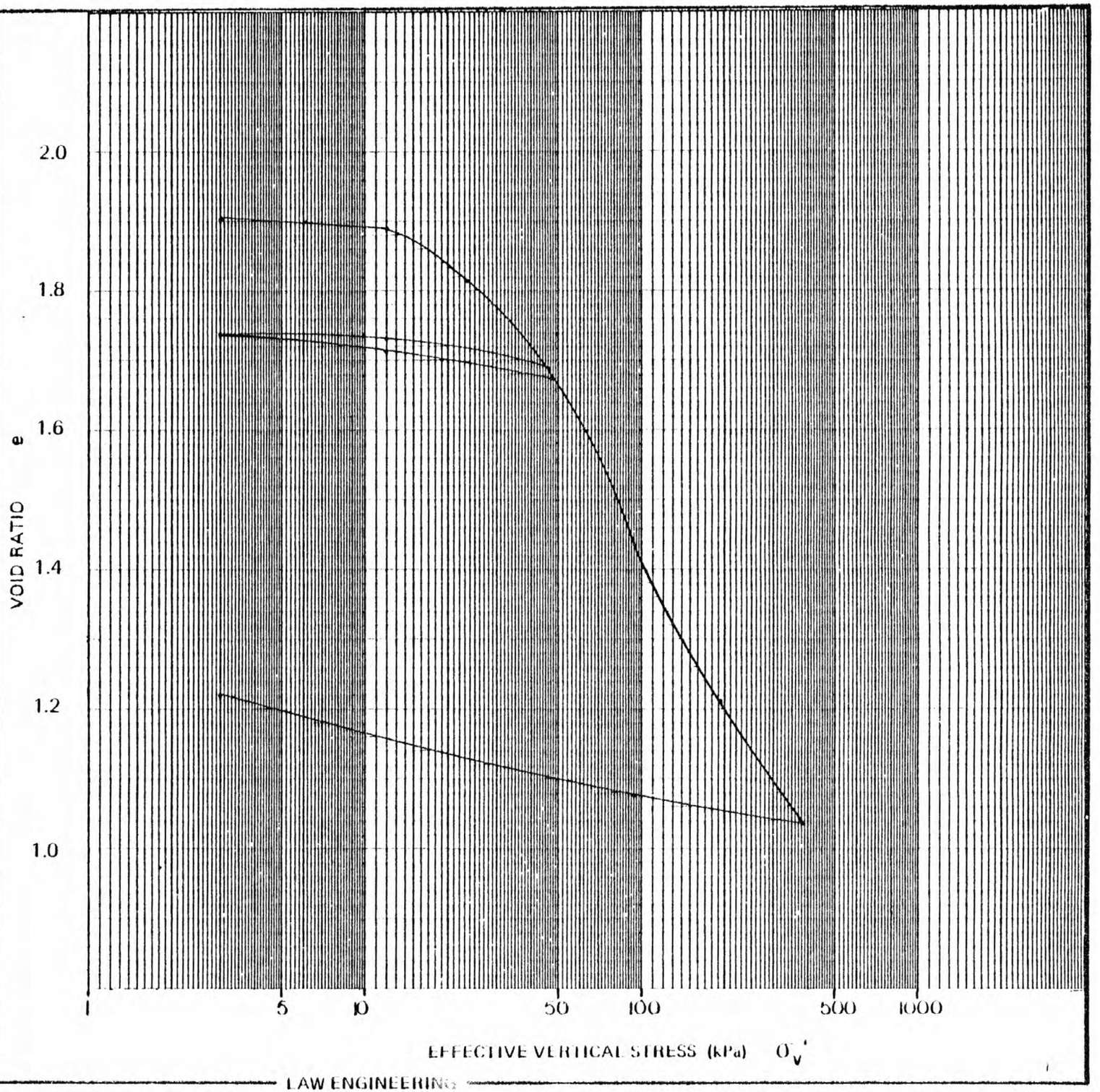
613

SAMPLE IDENTIFICATION

CORE NUMBER CD-36 PC-36

DEPTH 331-346 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.855

SWELLING INDEX 0.142

MAXIMUM PRECONSOLIDATION STRESS (kPa) 10

INITIAL VOID RATIO 2.5898

INITIAL WATER CONTENT 97.5

INITIAL SATURATION 100.0

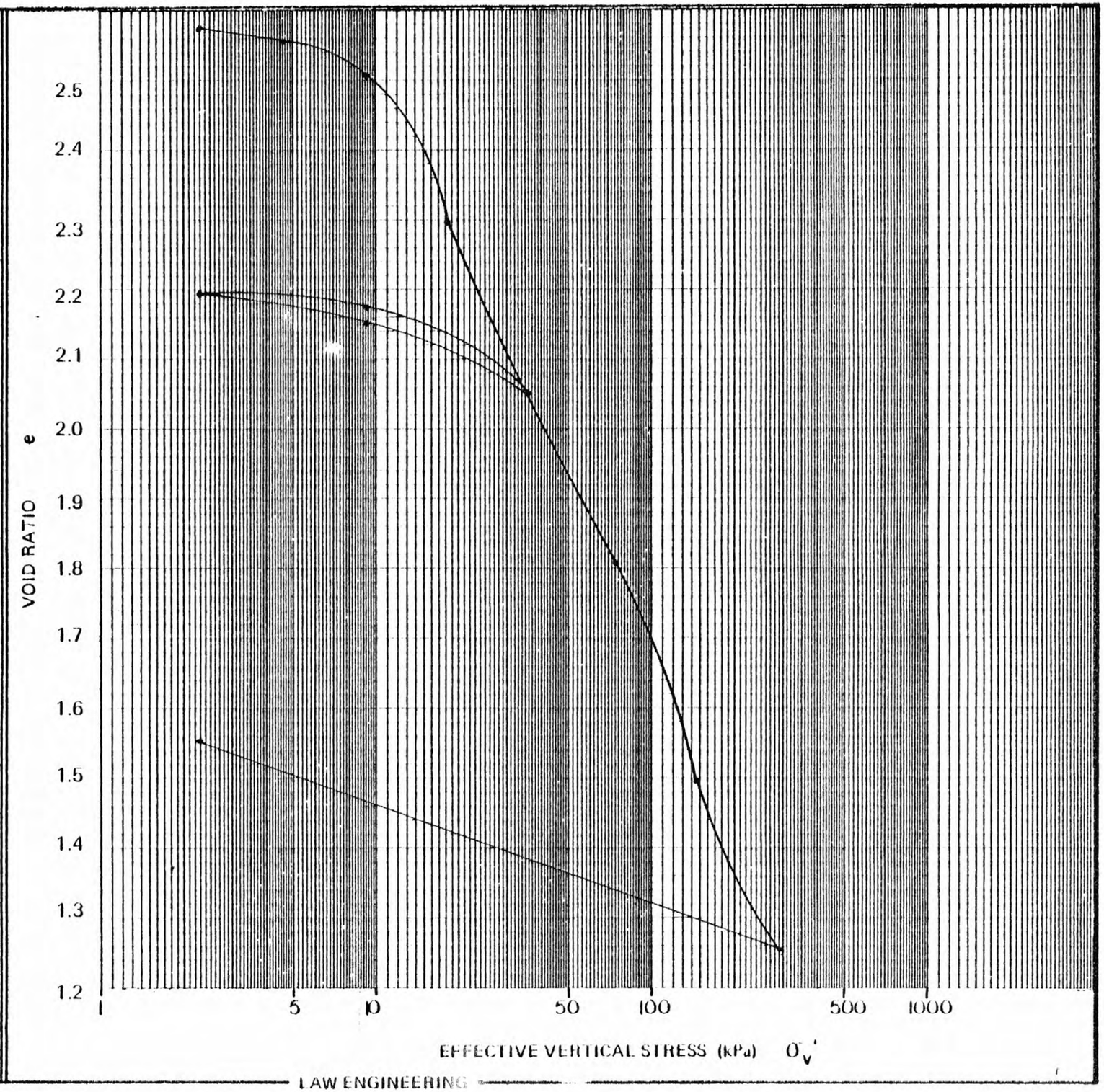
614

SAMPLE IDENTIFICATION

CORE NUMBER CD-36 PC-36

DEPTH 366-381 CM

CLASSIFICATION OH-MH



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.275

SWELLING INDEX 0.059

MAXIMUM PRECONSOLIDATION STRESS (kPa)

INITIAL VOID RATIO 1.1084

INITIAL WATER CONTENT 35.1

INITIAL SATURATION 88.0

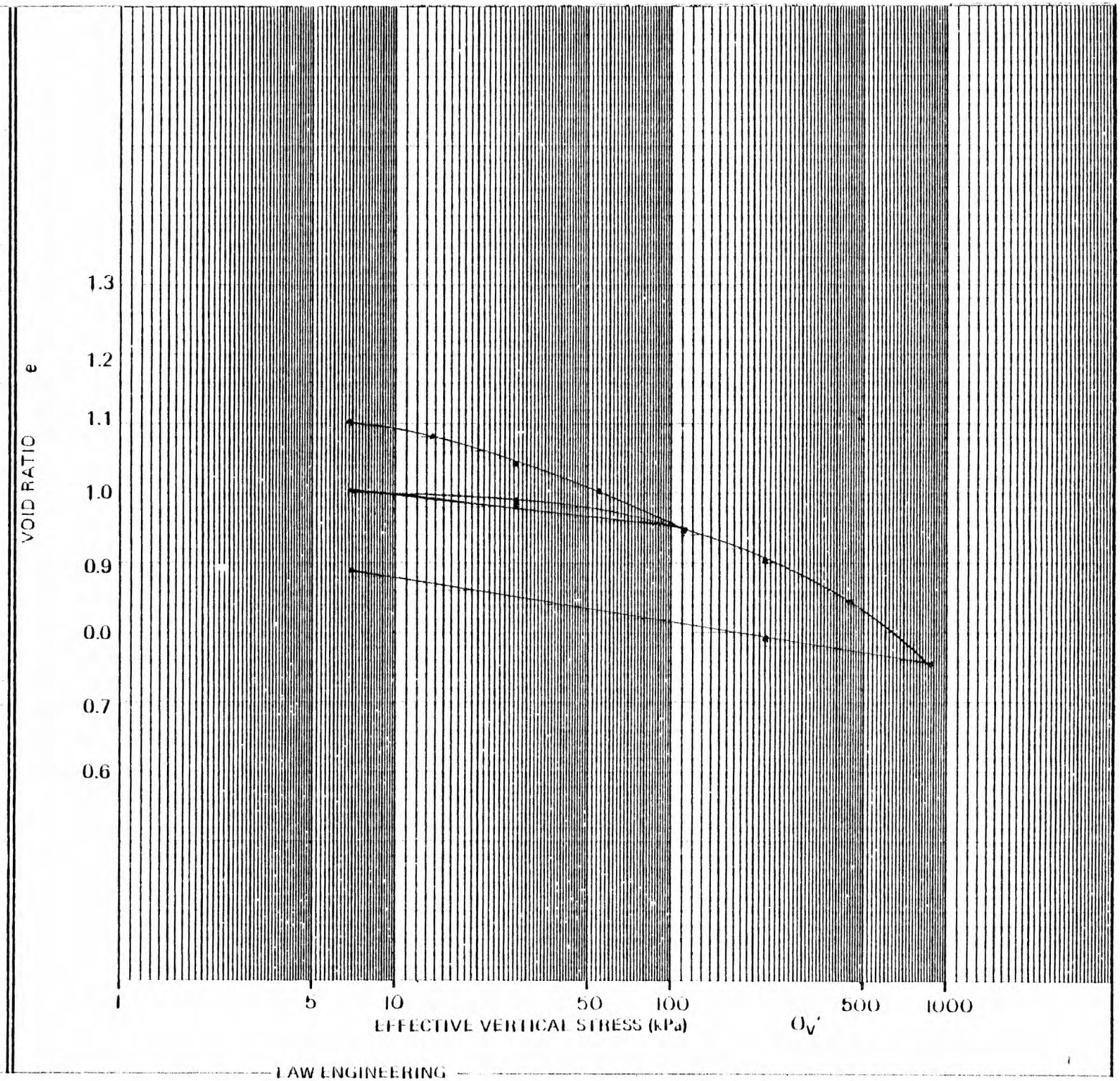
SAMPLE IDENTIFICATION

CORE NUMBER CD-36 PC-36

DEPTH 583-598 CM

CLASSIFICATION

615



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.313

SWELLING INDEX 0.045

MAXIMUM PRECONSOLIDATION STRESS (kPa) 20

INITIAL VOID RATIO 1.4603

INITIAL WATER CONTENT 47.80

INITIAL SATURATION 91.32

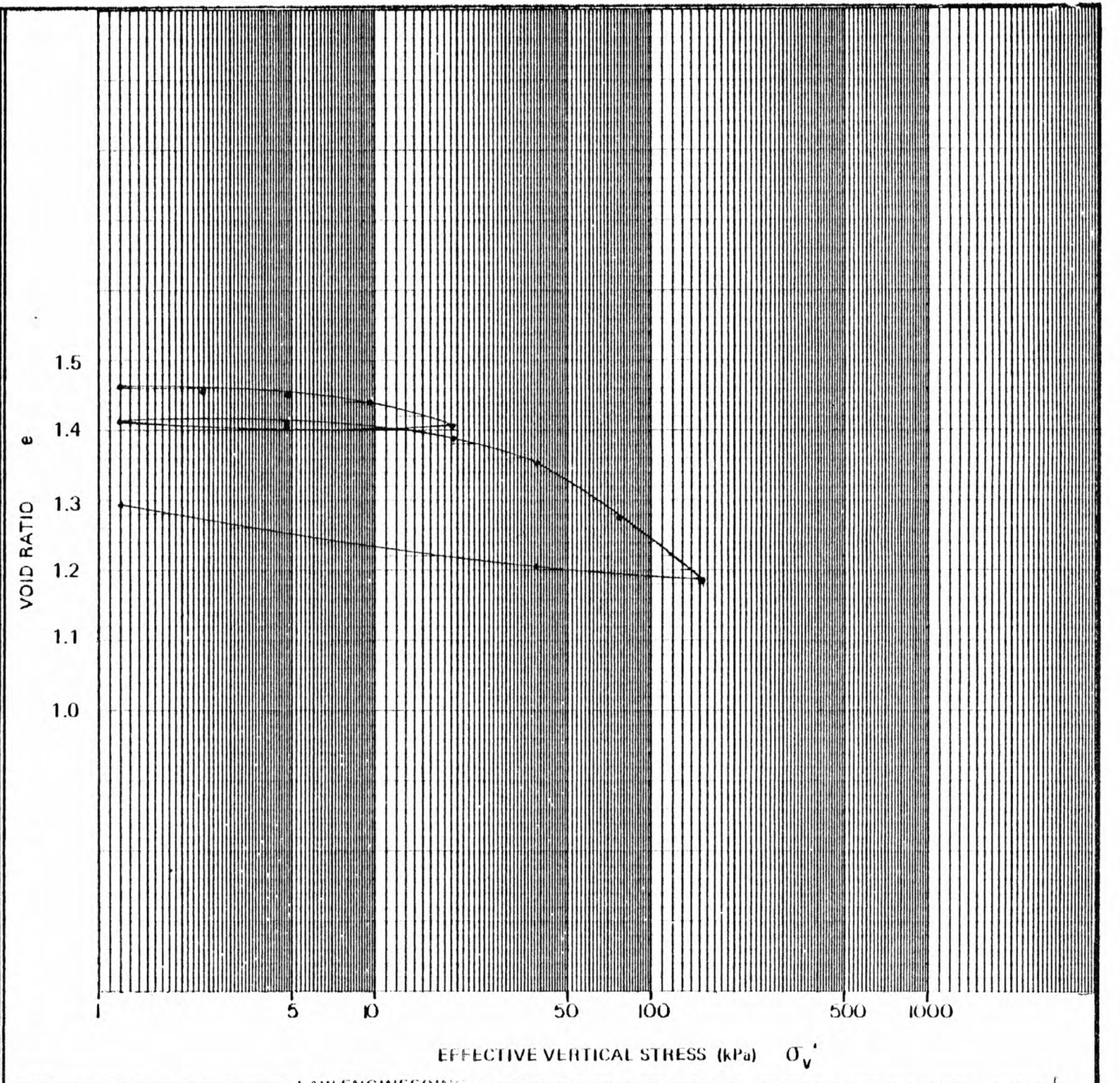
616

SAMPLE IDENTIFICATION

CORE NUMBER CD-37 PC-37

DEPTH 128-143 CM

CLASSIFICATION



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.485

SWELLING INDEX 0.061

MAXIMUM PRECONSOLIDATION STRESS (kPa) 90

INITIAL VOID RATIO 1.2464

INITIAL WATER CONTENT 43.6

INITIAL SATURATION 97.3

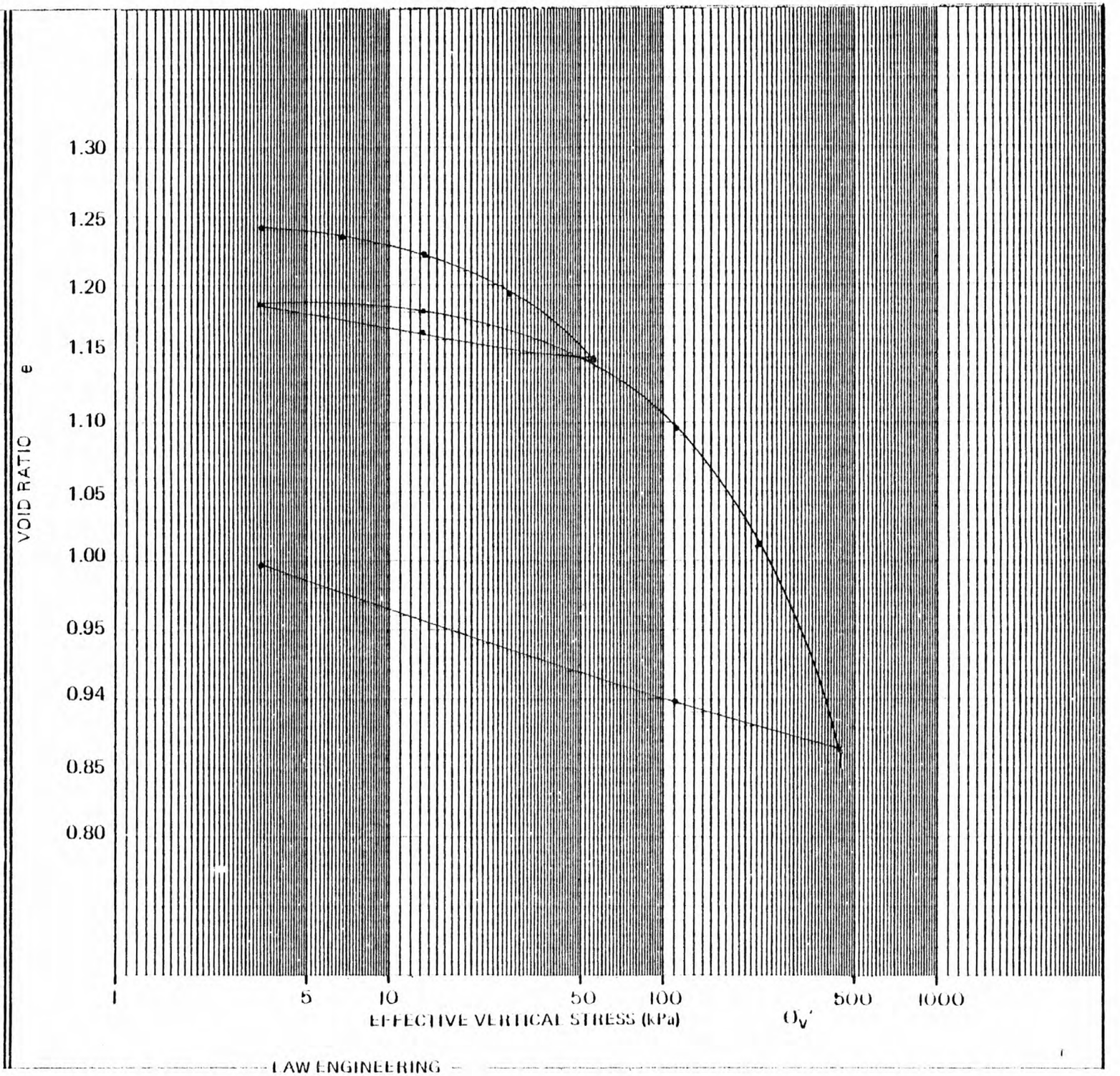
SAMPLE IDENTIFICATION

CORE NUMBER CD-37 PC-37

DEPTH 232-247 CM

CLASSIFICATION

617



CONSOLIDATION TEST

COMPRESSION INDEX 0.226

SWELLING INDEX 0.039

MAXIMUM PRECONSOLIDATION STRESS (kPa) 28

INITIAL VOID RATIO 1.1196

INITIAL WATER CONTENT 40.4

INITIAL SATURATION 100.0

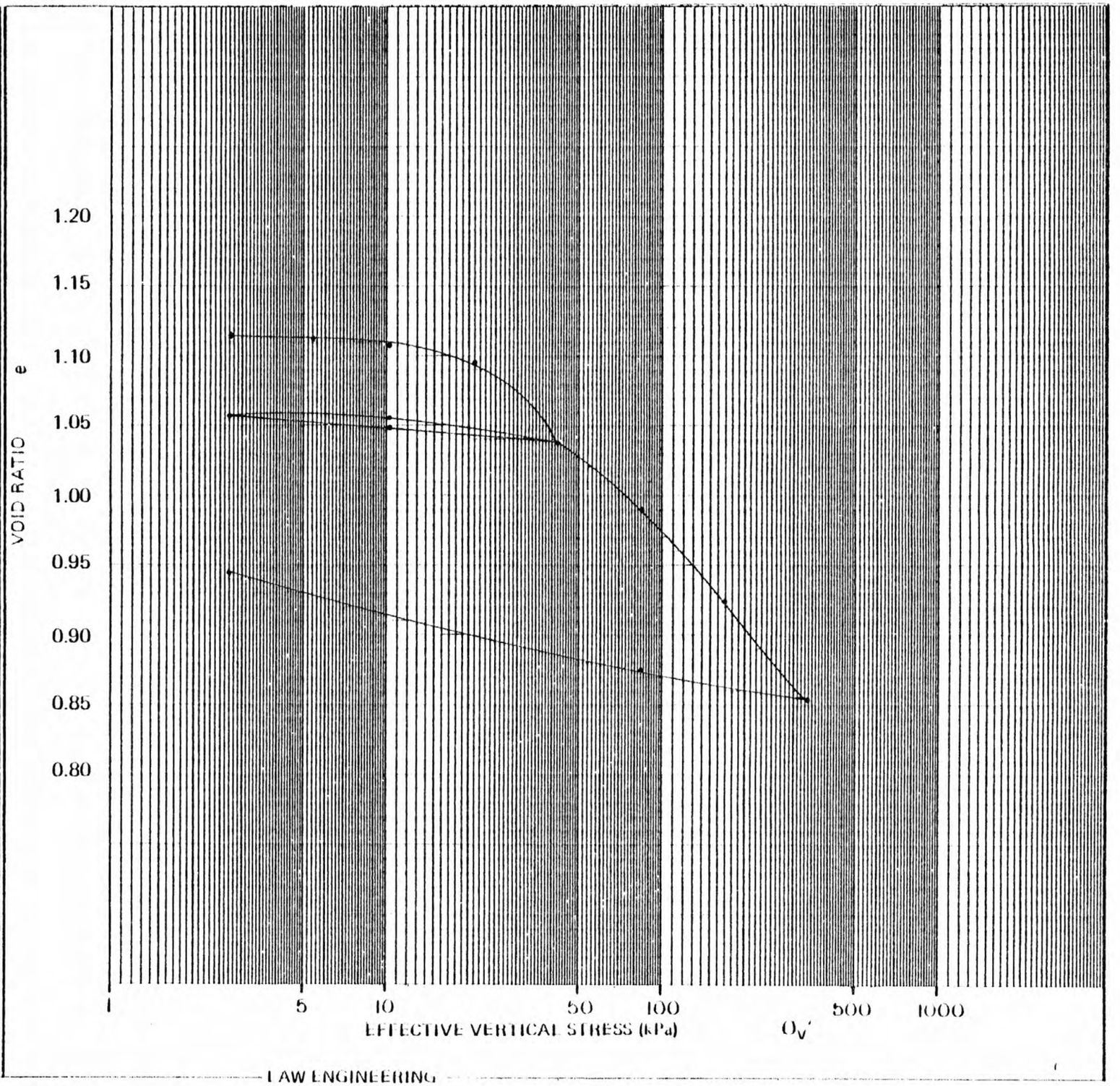
SAMPLE IDENTIFICATION

CORE NUMBER CD-38 PC-38

DEPTH 138-153 CM

CLASSIFICATION

618



LAW ENGINEERING

CONSOLIDATION TEST

COMPRESSION INDEX 0.229

SWELLING INDEX 0.047

MAXIMUM PRECONSOLIDATION STRESS (kPa) 13

INITIAL VOID RATIO 1.2302

INITIAL WATER CONTENT 41.6

INITIAL SATURATION 94.85

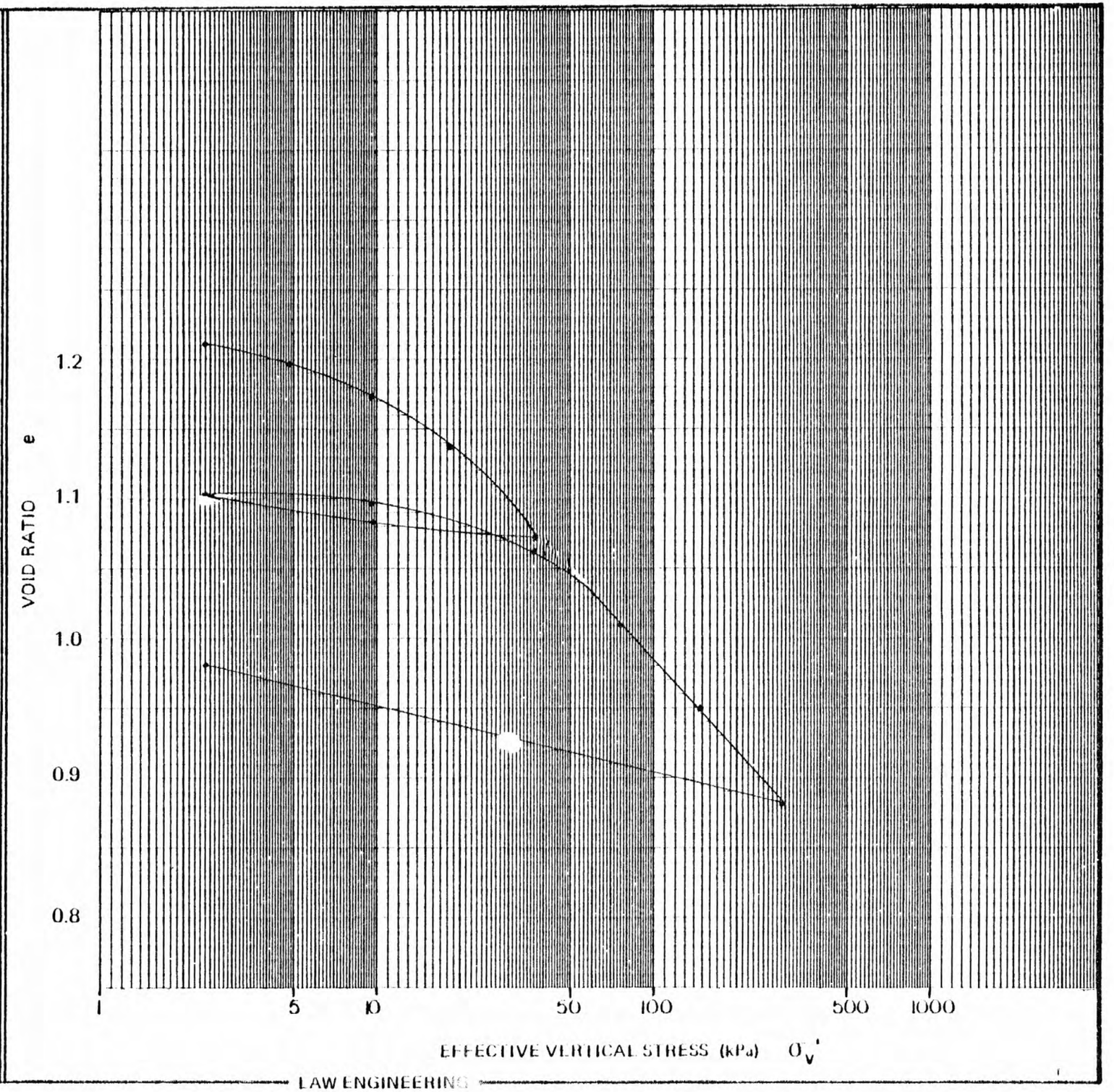
619

SAMPLE IDENTIFICATION

CORE NUMBER CD-38 PC-38

DEPTH 153-168 CM

CLASSIFICATION



LAW ENGINEERING

APPENDIX C

INDEX CLASSIFICATION TEST DATA

LIST OF SYMBOLS

% Fines	=	Material passing by weight the U.S. No. 200 Sieve
CF	=	Clay fraction, percent of material finer than 2 microns in diameter
LL	=	Liquid limit (ASTM D-423)
PI	=	Plasticity index (ASTM D-424)
W_n	=	Natural water content (ASTM D-2216)
LI	=	Liquidity index
Gs	=	Specific gravity of solids (ASTM D-854)
d	=	Penetration of cone (mm)
W_d	=	Water content at cone penetration
LL_d	=	Liquid limit from fall cone penetrometer test

TABLE III.

SUMMARY OF INDEX TESTS

CORE NO.	DEPTH (CM)	% FINES	CF	LL	PI	W_n	LI	G_s	CONE PENETROMETER DATA d(mm) (ud)	W_d (ud)	LL_d (Rem.)
CD14 PC16	174-189	65	23	29	14	33	1.31	2.81			35.5
	197-210	60	22	25	8	35	2.15	2.74	5.1	30.2	29.2
	210-223	61		26	8				4.9	27.9	33.6
	223-237	55		29	11				6.6	28.7	33.1
	295-345	69	23	25	9	20	0.45	2.74			31.8
	374-389	71	36	32	17	35	1.15	2.83			36.3
	457-472	75	33	35	16	41	1.35	2.80			
	472-496	91	30	32	14	37	1.34	2.83			35.3
	496-514	93		33	19						
CD15 PC18	279-294	99	50	42	18	58	1.87	2.70			54.8
	294-306	97	50	45	20	70	2.29	2.75	6.2	47.4	53.7
	318-330								9.4	58.9	57.6
	330-344	94		50	24				7.7	48.7	54.0
	489-504	88	35	38	17	36	0.89	2.80			
	504-517	93	36	38	17	51	1.75	2.76	4.7	36.2	46.5
	517-529	91		32	14				4.9	36.7	46.3
	529-541	91		31	12				4.8	25.6	35.6
	659-674	87	35	43	15	51	1.51	2.80			48.2
	753-766	81	30	34	13	45	1.82	2.77	2.2	29.2	43.0
	766-779	91		43	19				2.2	30.5	43.0
	779-793	88		42	18				3.2	35.5	45.0
CD16 PC17	225-275	99	55	58	24	76	1.53	2.82			
	275-290	99	57	46	23	72	2.12	2.77			58.2
	529-542	98	54	52	28	62	1.38	2.73	5.5	48.3	58.0
	542-555	97		58	26				5.2	50.0	62.5
	555-569	98		57	25				5.6	56.0	62.0
	577-592	95	39	48	34	54	1.30	2.76			68.9
	681-696	100	55	54	27	59	1.19	2.87			60.6
	778-791	99	52	45	32	55	1.45	2.82	2.4	38.4	54.3
	791-804	99		45	16				3.0	37.9	55.6
	804-818	99		51	22				4.0	42.3	59.0
CD17 PC19	191-206	96	40	51	22	48	0.84	2.76			57.9
	335-350	95	48	45	19	32	0.39	2.75			51.9
	350-362	95	56	53	26	47	0.75	2.75	2.9	47.7	65.1
	362-376								3.1	39.7	54.9
	376-388								4.6	37.2	54.4
	388-400	96		54	28				6.0	39.5	53.7
	573-588	95	46	45	18	43	0.86	2.82			
	588-600	96	49	44	18	41	0.86	2.81	2.5	34.8	52.5
	600-612	96		46	21				3.1	35.6	55.5
	612-624	96		46	21				2.8	35.6	53.0
	636-649	96	36	46	22	43	0.90	2.81	1.9	30.8	51.0
	649-662	95		44	18				3.5	36.8	52.0
	662-676	96		49	25				3.5	36.0	54.5
CD18 PC20	159-174	96	50	53	24	40	0.45	2.84			59.3
	183-195	97	44	46	23	45	0.95	2.80	5.0	44.3	52.0
	195-207	97		48	25				5.5	45.7	55.5
	207-223	96		48	25				5.2	40.5	54.7
	310-325	96	48	54	27	50	0.85	2.76			62.4
	333-346	92	46	42	18	40	0.88	2.75	2.8	33.0	47.5
	346-358	94		56	21				3.4	35.5	49.2
	358-373	94		50	23				3.7	39.6	55.1
CD19 PC21	353-368	94	40	40	16	39	0.98	2.84			48.0
	368-380	94	42	42	19	37	0.74	2.84	5.0	38.4	48.8
	380-392	94		53	30				5.9	37.3	52.8
	392-404	94		53	27				3.9	44.6	56.0
	404-418	96		43	24				3.0	30.9	48.8
	429-444	92	38	40	19	34	0.67	2.81			48.4
	452-465	93	45	40	18	34	0.66	2.79	1.0	24.9	46.1
	465-478	94		42	20				1.3	25.5	45.9
	478-492	92		41	18				1.1	25.6	45.1

TABLE III.

SUMMARY OF INDEX TESTS Cont'd.)

CORE NO.	DEPTH (CM)	% FINES	CF	LL	PI	W_n	LI	G_s	CONE PENETROMETER DATA d(mm) (ud)	W_d (ud)	LL_d (Rem.)
CD20 PC22	235-250	99	36	58	29	59	1.05	2.76			57.2
	387-400	53	26	23	9	27	1.39	2.74	3.4	21.9	27.0
	400-413	44		24	9				4.0	22.7	28.2
	413-427	46		25	7				3.5	23.5	30.4
	435-450	62	22	30	12	32	1.24	2.74			36.0
	539-554	68	26	30	13	30	1.06	2.82			33.8
	580-592	77		31	12				4.2	26.7	35.5
	592-604	65	26	30	13	31	1.07	2.81	4.3	29.4	34.1
	635-648	67	26	30	13	32	1.10	2.81	2.6	23.5	34.2
	648-661	71		31	14				1.8	22.3	33.5
	661-675	66		30	13				2.8	21.6	31.7
CD21 PC23	300-312	83	34	40	18	42	1.10	2.85	5.8	38.1	45.3
	312-324	94		40	16				5.1	39.1	45.2
	324-336	92		42	18				5.2	35.7	45.8
	336-350	93		48	25				7.7	48.0	50.5
	350-365	92	44	43	21	43	1.03	2.85			51.5
	434-448	91	26	41	20	38	0.86	2.79	4.0	35.1	46.1
	448-462	91		51	25				3.5	34.4	55.5
	462-476	91		49	23				3.3	33.2	52.5
	482-497	98	43	47	22	43	0.81	2.79			
	591-606	97	40	47	22	45	0.91	2.85			55.0
	686-699	97	48	43	30	44	1.07	2.79	1.7	33.0	53.0
	699-714	97		44	20				0.9	30.0	50.5
	714-726	97		44	20				2.5	33.0	53.0
CD22 PC24	268-283	92	32	40	22	47	1.30	2.73			44.2
	283-295	89	30	37	18	46	1.51	2.80	4.7	31.7	40.3
	295-307	87		39	20				4.7	30.8	38.7
	307-323	90		37	19				4.8	31.8	38.2
	323-334	84	27	36	16	29	1.21	2.72			
	334-351	88		36	16				5.9	36.8	42.4
	352-363	88		34	14				5.0	32.6	38.7
	361-373	91		41	20				8.4	21.2	43.5
	445-460	97	36	45	21	54	1.40	2.73			60.6
	543-558	92	44	52	27	63	1.38	2.79			58.0
	566-579	96	47	50	24	63	1.54	2.77	3.9	45.0	57.5
	579-594	96		51	24				4.0	43.0	57.0
	594-606	96		52	25				3.3	43.0	57.5
CD22 PC25	188-200	95	40	49	24	60	1.45	2.77	9.6	54.2	54.0
	200-212	97		48	22				7.3	50.1	58.2
	212-224	97		46	21				5.6	47.5	57.8
	226-238	99	49	59	30	66	1.25	2.72	6.6	47.4	52.5
	238-253	90	35	43	19	56	1.69	2.77			51.9
	425-438	93	28	35	16	43	1.48	2.81	2.7	27.8	39.5
	437-450	92		36	16				4.1	27.5	36.5
	452-464	93		37	16				3.7	31.1	42.0
	472-487	93	28	38	20	43	1.28	2.75			41.3
	558-573	98	24	39	17	43	1.21	2.79			43.4
	581-594	98	30	47	20	49	1.14	2.79			
	594-606	98		43	15				2.3	28.0	42.5
	606-620	99		43	19				3.3	34.0	46.5
CD24 PC28	106-121	25	8	30	NP	41	N/A	2.72			38.3
	121-133	27	6	27	NP	31	N/A	2.72	5.6	32.2	36.0
	133-145	39		26	NP				5.1	25.8	32.8
	145-157	31		25	NP				5.7	25.5	30.8
	157-171	33		23	NP				8.5	24.3	29.1
	171-186	35	10	28	NP	27		2.76			27.7
	271-284	51	10	18	NP	33		2.75	4.1	20.0	23.3
	284-296	55		25	6				5.3	20.2	23.8
	296-311	62		24	7				2.5	26.7	29.2
CD25 PC29	149-184	99	45	49	22	45	0.79	2.78			54.7
	172-184	99	50	45	20	44	0.93	2.83	4.8	45.8	55.2
	184-196	99		45	15				4.8	43.3	51.8
	196-212	99		46	16				4.9	47.1	55.0
	212-227	98	43	46	19	45	0.98	2.80			51.3
	235-248	97	38	38	15	37	0.90	2.72	4.5	36.1	42.8
	248-261	98		39	15				2.8	31.7	40.0
	261-275	98		47	26				2.6	36.5	52.2

TABLE III.
SUMMARY OF INDEX TESTS (Cont'd.)

CORE NO.	DEPTH (CM)	% FINES	CF	LL	PI	W_n	LI	G_s	CONE PENETROMETER DATA d(mm)	W_d	LL_d
									(ud)	(ud)	(Rem.)
CD26 PC30	285-300	99	34	53	26	39	0.46	2.80			57.7
	300-312	99	38	48	22	56	1.34	2.76	7.0	33.7	56.0
	312-324	98		49	22				5.5	48.8	57.1
	324-336	99		52	25				5.3	47.8	53.5
	338-350	94		44	20				6.1	44.8	42.0
	360-372	99	53	57	30	72	1.49	2.65	5.2	51.4	59.0
	372-384	99		52	28				7.1	52.9	58.0
	384-400	99		54	29				4.3	45.8	52.7
	408-423	99	52	59	28	67	1.28	2.71			67.6
	488-503	99	51	68	32	73	1.16	2.75			78.0
	511-524	99	49	62	32	71	1.26	2.72	2.9	53.3	68.4
	524-537	99		50	17				4.2	51.1	63.0
	537-551	99		67	34				5.0	52.9	65.4
CD27 PC31	106-121	90	48	57	29	60	1.08	2.81			59.0
	121-133	99	46	55	25	54	0.95	2.82	5.0	58.4	59.8
	133-145	99		56	26				5.7	48.8	60.6
	145-157	99		51	25				4.0	48.7	58.9
	157-171	98		49	23				3.7	42.3	55.0
	365-377	99	42	39	19	43	1.21	2.76	4.0	32.1	46.6
	377-392	97		43	22				3.1	33.2	45.7
	392-405	98		46	23				3.3	39.2	46.7
	413-428	99	40	45	22	44	0.95	2.72			48.7
	487-502	99	39	47	23	44	0.89	2.71			51.1
	510-523	99	39	48	24	47	0.95	2.76	3.1	34.7	51.3
	523-536	99		49	23				2.6	34.8	55.4
	536-550	99		50	26				2.3	34.2	52.9
CD32 PC32	281-296	99	36	39	17	57	2.07	2.74			63.4
	296-308	82	27	33	14	49	2.20	2.77	8.1	43.0	44.3
	308-320	84		32	11				9.0	44.6	47.0
	320-332	86		38	17				8.0	37.6	42.7
	334-346	88		42	19				7.5	45.4	45.0
	498-511	89	35	45	23	54	1.37	2.78	5.0	41.7	47.5
	511-524	86		45	22				5.2	42.4	51.7
	524-538	85		46	22				5.7	42.9	48.0
	538-553	93	42	46	21	55	1.44	2.71			53.0
	650-655	94	34	44	20	53	1.42	2.76			52.8
	751-764	96	45	44	19	55	1.56	2.74	5.6	43.0	52.0
	764-777	96		49	23				5.3	43.6	55.3
	777-791	95		50	24				4.1	41.5	55.1
CD32A PC33	371-383	94	35	60	28	67	1.27	2.80	8.9	34.0	61.5
	383-395	93		48	25				8.3	56.5	60.4
	395-407	91		50	23				6.2	32.0	55.3
	407-421	94		49	24				7.2	57.7	53.5
	421-436	93	47	51	26	63	1.44	2.60			66.9
	513-525	99	30	42	19	53	1.58	2.74	3.5	33.8	45.8
	525-540	98		39	19				1.4	29.2	41.0
	540-553	98		45	22				3.1	34.6	50.6
	561-576	99	29	47	26	62	1.58	2.72			54.4
	665-680	100	35	48	20	60	1.60	2.71			46.4
	765-780	100		63	30				4.2	54.4	65.9
	780-794	100		62	31				5.6	49.1	59.2
	794-806	100	35	59	28	71	1.42	2.78	4.3	47.3	58.2
CD34 PC34	180-195	98	33	69	45	71	1.04	2.69			74.8
	236-276	N/A	(samples gelled - untested)								57.8
	363-378	100	53	61	28	83	1.74	2.78			75.5
	378-390	100	60	70	39	86	1.40	2.81	7.9	44.4	82.0
	390-402	99		54	24				9.4	72.6	82.5
	402-414	99		59	28				6.9	65.0	99.5
	414-428	99		61	32				7.0	66.7	84.0
	428-443	99	47	58	28	60	1.07	2.69			66.4
	528-542	99	49	56	28	60	1.13	2.71	2.8	40.8	63.0
	542-555	99		58	30				2.7	43.6	64.6
	555-568	99		58	30				4.8	45.8	62.2

TABLE III.

SUMMARY OF INDEX TESTS (Cont'd.)

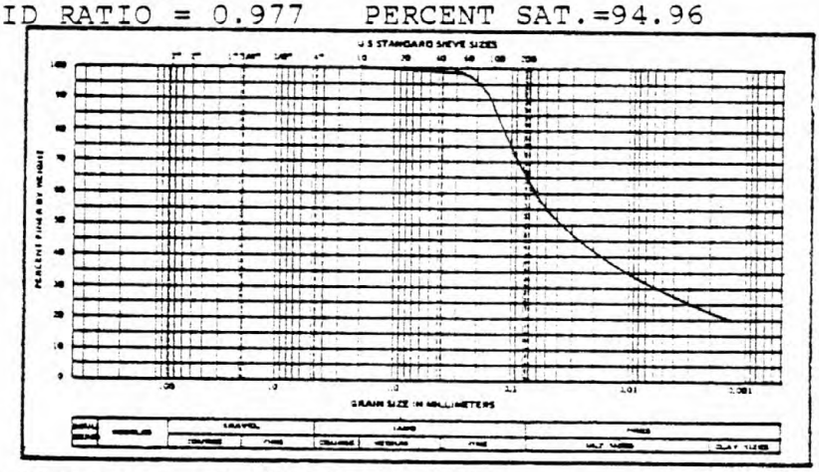
CORE NO.	DEPTH (CM)	% FINES	CF	LL	PI	W_n	LI	G_s	CONE PENETROMETER DATA d(mm) (ud)	W_d (ud)	LL_d (Rem.)
CD35 PC35	264-277	99	40	52	22	57	1.24	2.76	4.5	40.8	52.0
	277-290	96		52	22				3.6	47.9	60.6
	290-304	93		56	29				4.1	48.7	60.5
	304-319	99	54	59	30	66	1.25	2.72			66.5
	495-510	99	37	59	29	61	1.08	2.78			80.0
	510-522	99	52	57	28	63	1.22	2.73	3.4	37.3	71.5
	522-534	98		57	27						
	534-546	99		57	27				3.8	34.3	72.0
	546-560	97		55	29				7.5	57.0	62.0
	568-583	99	52	54	28	58	1.13	2.75			
	670-682	99	48	56	27	60	1.14	2.75	3.6	45.0	61.5
	682-695	99		57	28				3.3	44.0	60.8
	695-710	99		58	29				3.9	47.0	63.5
CD36 PC36	331-346	96	46	57	28	68	1.40	2.75			65.8
	366-381	100	48	73	38	97	1.63	2.66			81.4
	381-393	100	43	74	41	96	1.56	2.80	8.2	86.7	88.7
	393-405	99		74	41				8.0	86.1	80.6
	405-417	100		64	36				6.8	64.0	70.0
	417-431	99		66	38				8.6	82.4	70.0
	535-548	98	52	48	21	47	0.93	2.76	1.7	28.4	52.0
	548-560	97		49	23				1.4	33.8	51.8
	560-575	96		48	22				2.5	37.3	52.5
	583-598	99	38	44	20	35	0.54	2.78			49.0
	663-676	99	42	41	18	36	0.70	2.74	2.2	29.4	45.3
	676-688	99		46	10				2.1	30.4	47.8
	688-703	99		46	10				2.3	34.3	52.5
CD37 PC37	80-92	90	39	45	21	48	1.14	2.84	8.2	46.2	51.9
	92-106	96		46	22				6.1	50.3	56.1
	106-120	95		47	22				4.7	46.7	53.1
	129-143	99	43	49	24	48	0.96	2.79			
	232-247	99	30	42	17	44	1.11	2.78			51.0
	344-356	98	30	37	16	37	1.00	2.81	1.6	26.3	41.0
	356-369	98		39	16				1.7	27.4	40.5
	372-384	98		37	15				2.0	27.5	49.9
CD38 PC38	138-153	100	37	46	20	40	0.71	2.81			53.0
	153-168	97	37	46	19	42	0.77	2.81			52.3
	180-192	99	40	51	25	45	0.77	2.76	7.6	48.7	58.2
	192-204	100		50	27				6.7	40.5	50.5
	204-216	100		44	21				5.8	42.3	52.6
	216-230	99		48	22				6.8	44.8	52.7
	238-251	99	33	46	21	35	0.50	2.83	3.3	33.8	50.8
	251-264	99		47	11				3.2	35.4	54.0
	264-278	99		46	21				3.6	35.8	51.8

CD-14 PC-16
174-189 CM

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 174-189 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.54KN/M3
NATURAL MOISTURE CONTENT = 33.0 PERCENT
DRY UNIT WT =13.94KN/M3 VOID RATIO = 0.977 PERCENT SAT.=94.96



SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.1	100.0
0.840	0.3	99.9
0.420	1.3	99.4
0.250	3.6	98.3
0.149	28.4	86.9
0.075	75.1	65.2

HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	31.0	27.7	26.	0.0578	53.5
1.0	29.0	25.7	26.	0.0415	49.7
2.0	27.0	23.7	26.	0.0297	45.8
5.0	24.0	20.7	26.	0.0192	40.0
15.0	21.0	17.7	26.	0.0113	34.2
30.0	20.0	16.7	26.	0.0080	32.3
60.0	19.0	15.7	26.	0.0057	30.3
250.0	17.0	13.7	26.	0.0028	26.5
1440.0	14.0	10.5	25.	0.0012	20.4

PLASTIC LIMIT IS 15
LIQUID LIMIT IS 29
PLASTICITY INDEX IS 14
LIQUIDITY INDEX IS 1.31

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 7 CLAYEY SOILS

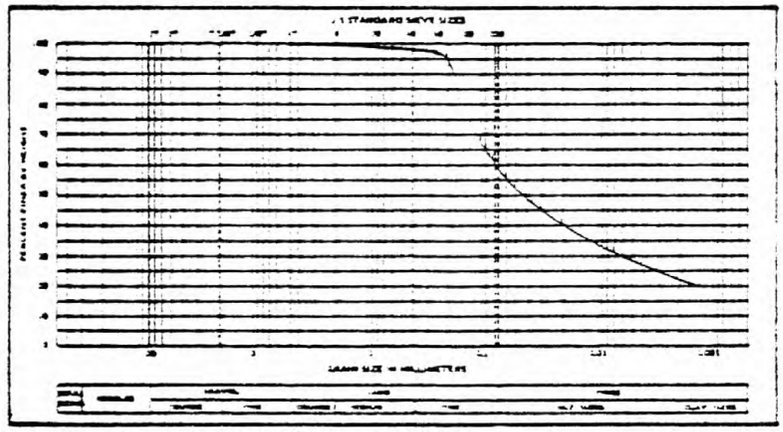
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 197-210 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 18.35KN/M3
NATURAL MOISTURE CONTENT = 35.2 PERCENT
DRY UNIT WT =13.58KN/M3 VOID RATIO = 0.979 PERCENT SAT.=98.40

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.7	99.7
0.840	1.4	99.3
0.420	2.8	98.6
0.250	7.8	96.2
0.149	50.2	75.7
0.075	82.1	60.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	33.0	28.8	24.	0.0595	56.3
1.0	30.0	25.8	24.	0.0430	50.4
2.0	27.5	23.3	24.	0.0309	45.5
5.0	25.0	20.8	24.	0.0199	40.6
15.0	23.0	18.8	24.	0.0116	36.7
30.0	22.0	17.8	24.	0.0083	34.8
60.0	20.0	15.8	24.	0.0059	30.9
250.0	17.0	12.9	25.	0.0029	25.2
1440.0	14.5	10.2	23.	0.0013	19.9

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 17
LIQUID LIMIT IS 25
PLASTICITY INDEX IS 8
LIQUIDITY INDEX IS 2.15

UNIFIED SOIL CLASSIFICATION IS
CL

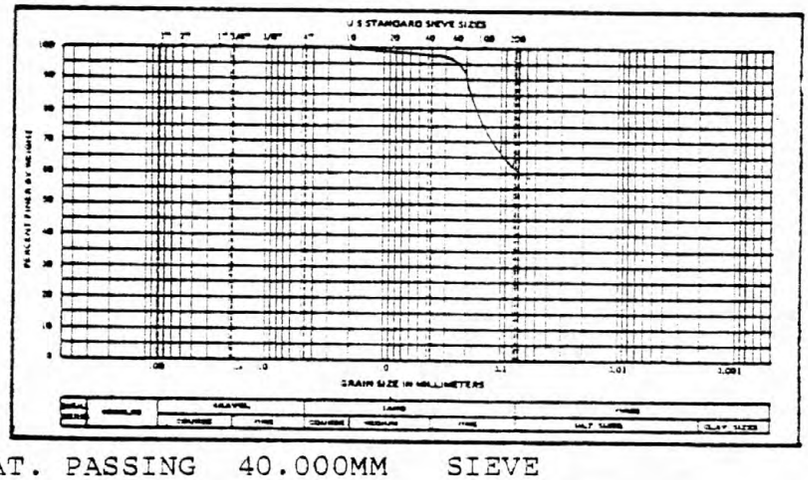
AASHO SOIL CLASSIFICATION IS
A-4 WITH GROUP INDEX OF 5 SILTY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 210-223 CM

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.6	99.7
0.840	1.5	99.2
0.420	2.9	98.5
0.250	7.6	96.2
0.149	51.3	74.2
0.075	78.1	60.7



PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 26
PLASTICITY INDEX IS 8

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 39.3% SAND 60.7% FINES

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-4 WITH GROUP INDEX OF 5 SILTY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 223-237 CM

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	1.0	99.5
0.840	3.1	98.5
0.420	4.7	97.8
0.250	8.1	96.2
0.149	53.7	74.7
0.075	95.3	55.1

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 29
PLASTICITY INDEX IS 11

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 44.9% SAND 55.1% FINES

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-4 WITH GROUP INDEX OF 4 SILTY SOILS

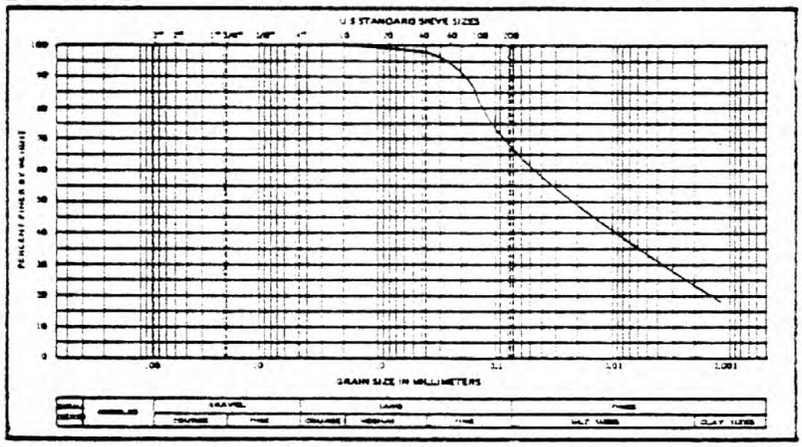
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 295-345 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 20.70KN/M3
NATURAL MOISTURE CONTENT = 20.0 PERCENT
DRY UNIT WT =17.25KN/M3 VOID RATIO = 0.557 PERCENT SAT.=98.30

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.6	99.7
0.840	1.1	99.4
0.420	2.9	98.4
0.250	8.2	95.5
0.149	30.5	83.3
0.075	57.1	68.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	36.0	31.9	18.	0.0620	62.4
1.0	34.0	29.9	18.	0.0445	58.4
2.0	31.5	27.4	18.	0.0321	53.6
5.0	29.5	25.4	18.	0.0206	49.7
15.0	27.5	23.5	19.	0.0119	45.9
30.0	25.5	21.5	19.	0.0086	42.0
60.0	24.0	20.0	19.	0.0061	39.1
250.0	20.5	16.6	20.	0.0030	32.4
1440.0	12.5	8.6	20.	0.0013	16.8

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 16
LIQUID LIMIT IS 25
PLASTICITY INDEX IS 9
LIQUIDITY INDEX IS 0.45

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-4 WITH GROUP INDEX OF 6 SILTY SOILS

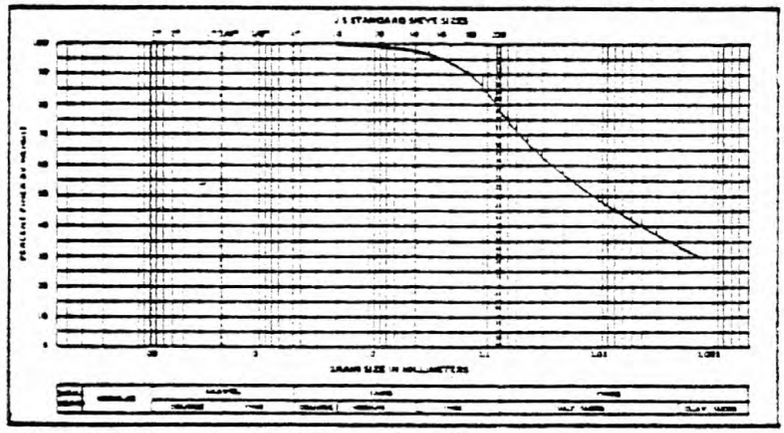
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 374-389 CM

SPECIFIC GRAVITY = 2.83
WET UNIT WEIGHT = 18.10KN/M3
NATURAL MOISTURE CONTENT = 34.7 PERCENT
DRY UNIT WT =13.44KN/M3 VOID RATIO = 1.065 PERCENT SAT.=92.20

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.0	100.0
0.840	0.3	99.7
0.420	1.6	98.6
0.250	5.5	95.2
0.149	18.7	83.6
0.075	33.6	70.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	40.0	36.3	22.	0.0561	69.9
1.0	38.5	34.8	22.	0.0402	67.0
2.0	35.5	31.8	22.	0.0291	61.2
5.0	33.0	29.3	22.	0.0188	56.4
15.0	30.0	26.3	22.	0.0111	50.6
30.0	28.0	24.3	22.	0.0079	46.8
60.0	26.0	22.3	22.	0.0057	42.9
447.0	23.0	19.3	22.	0.0021	37.2
1486.0	19.0	15.2	21.	0.0012	29.3

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 15
LIQUID LIMIT IS 32
PLASTICITY INDEX IS 17
LIQUIDITY INDEX IS 1.15

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 9 CLAYEY SOILS

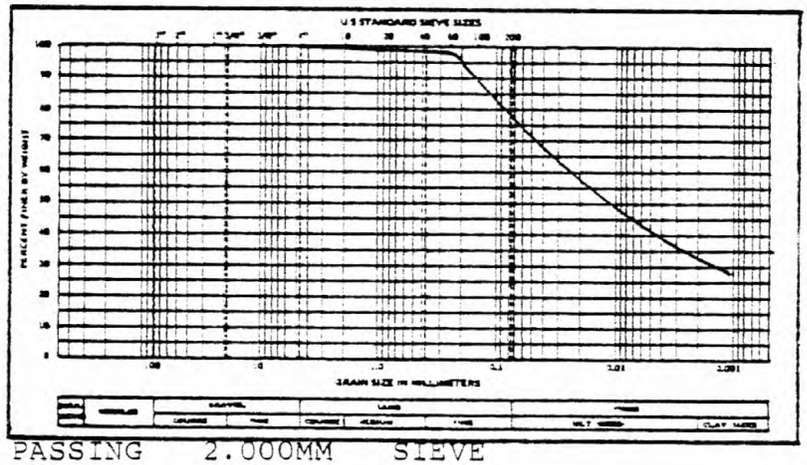
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 457-472 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 18.20KN/M3
NATURAL MOISTURE CONTENT = 40.8 PERCENT
DRY UNIT WT =12.93KN/M3 VOID RATIO = 1.121 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.1	99.9
0.840	0.8	99.5
0.420	2.3	98.5
0.250	4.2	97.2
0.149	15.4	89.8
0.075	37.5	75.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	42.5	38.3	22.	0.0554	74.3
1.0	40.0	35.8	22.	0.0400	69.5
2.0	35.5	31.3	22.	0.0294	60.7
5.0	32.5	28.3	22.	0.0190	54.9
15.0	30.0	25.8	22.	0.0112	50.1
30.0	28.0	23.8	22.	0.0080	46.2
60.0	26.0	21.8	22.	0.0057	42.3
250.0	23.0	18.8	22.	0.0029	36.5
1440.0	19.0	14.8	21.	0.0012	28.6

PLASTIC LIMIT IS 19
LIQUID LIMIT IS 35
PLASTICITY INDEX IS 16
LIQUIDITY INDEX IS 1.35

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

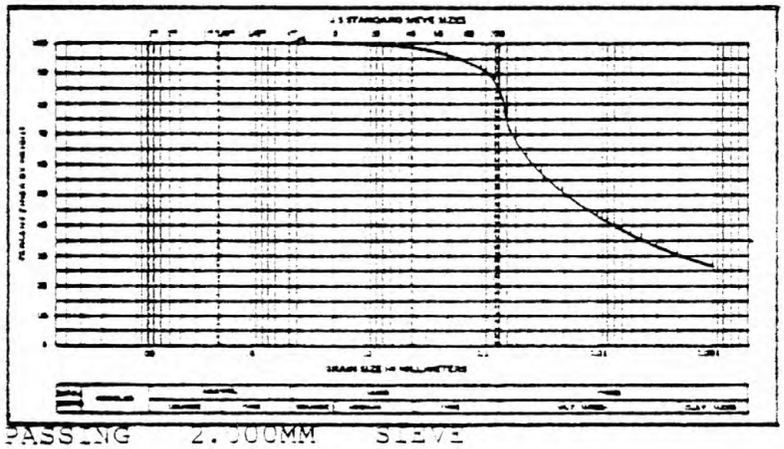
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-14 PC-16
SAMPLE IDENTIFICATION IS UD @ 472-484 CM

SPECIFIC GRAVITY = 2.83
WET UNIT WEIGHT = 18.67KN/M3
NATURAL MOISTURE CONTENT = 37.1 PERCENT
DRY UNIT WT =13.62KN/M3 VOID RATIO = 1.038 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.0	100.0
0.840	0.2	99.9
0.420	0.8	99.6
0.250	2.1	99.0
0.149	9.8	95.3
0.075	23.3	88.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	42.0	35.7	20.	0.0563	68.7
1.0	39.0	32.7	20.	0.0409	63.0
2.0	36.0	29.7	20.	0.0296	57.2
5.0	33.0	26.7	20.	0.0192	51.4
15.0	30.0	23.7	20.	0.0113	45.6
30.0	29.0	22.6	19.	0.0081	43.6
60.0	27.0	20.7	20.	0.0058	39.9
250.0	23.5	17.3	21.	0.0029	33.3
1440.0	20.0	13.7	20.	0.0012	26.4

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 32
PLASTICITY INDEX IS 14
LIQUIDITY INDEX IS 1.34

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 9 CLAYEY SOILS

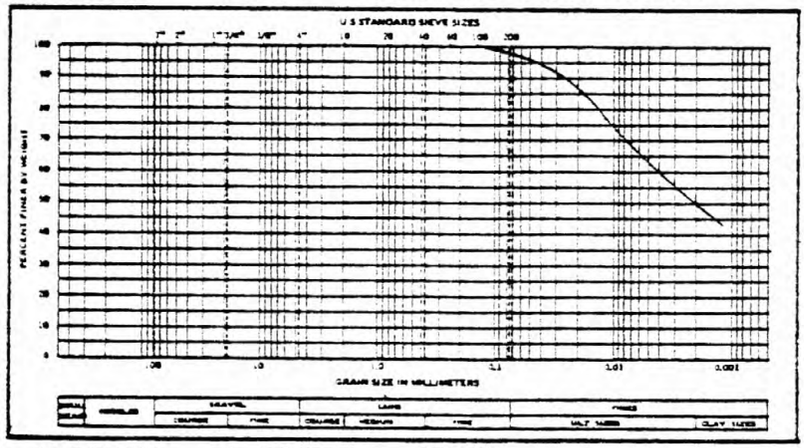
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 279-294 CM

SPECIFIC GRAVITY = 2.70
WET UNIT WEIGHT = 16.24KN/M3
NATURAL MOISTURE CONTENT = 58.0 PERCENT
DRY UNIT WT =10.28KN/M3 VOID RATIO = 1.576 PERCENT SAT.=99.39

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.2	98.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	45.4	23.	0.0530	89.8
1.0	48.0	44.4	23.	0.0379	87.8
2.0	46.5	42.9	23.	0.0272	84.8
5.0	45.0	41.4	23.	0.0174	81.9
15.0	42.0	38.4	23.	0.0103	75.9
30.0	40.0	36.4	23.	0.0074	72.0
60.0	37.0	33.3	22.	0.0054	65.9
250.0	32.0	28.3	22.	0.0028	56.0
1440.0	25.0	21.3	22.	0.0012	42.1

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 42
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 1.87

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 11 CLAYEY SOILS

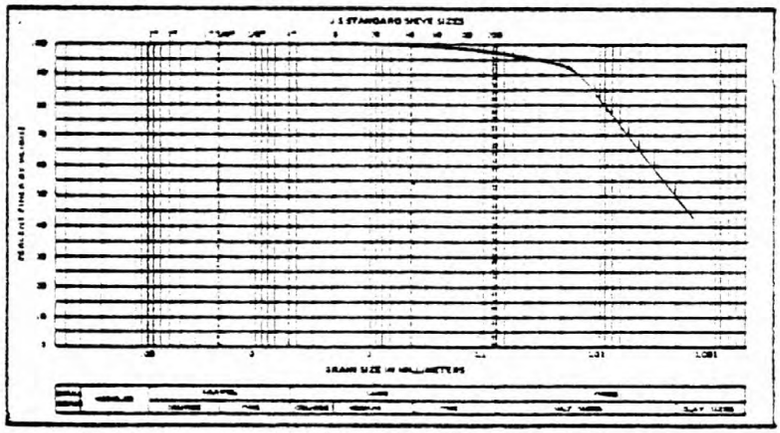
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 294-306 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 16.00KN/M3
NATURAL MOISTURE CONTENT = 69.9 PERCENT
DRY UNIT WT = 9.42KN/M3 VOID RATIO = 1.863 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.9	97.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	55.0	50.8	21.	0.0354	99.4
2.0	54.5	50.3	21.	0.0252	98.4
5.0	52.0	47.8	21.	0.0164	93.5
15.0	48.5	44.3	21.	0.0098	86.6
30.0	44.5	40.3	21.	0.0072	78.8
60.0	40.5	36.3	21.	0.0053	71.0
250.0	33.5	29.3	21.	0.0027	57.3
1440.0	26.5	22.3	21.	0.0012	43.6

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 2.29

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

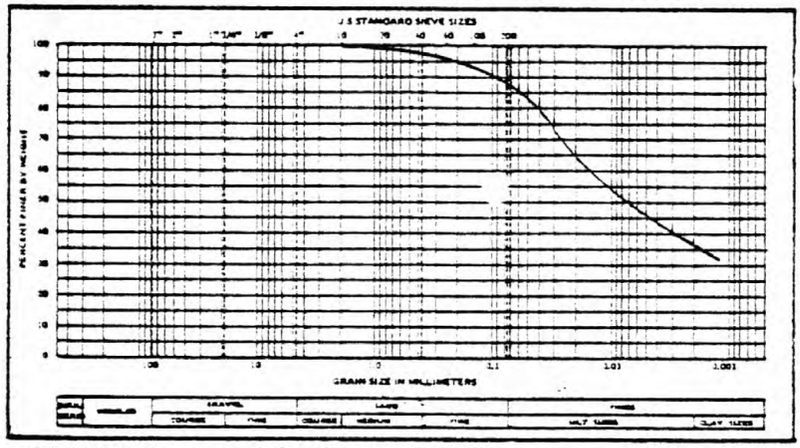
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 489-504 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 18.00KN/M3
NATURAL MOISTURE CONTENT = 36.3 PERCENT
DRY UNIT WT =13.21KN/M3 VOID RATIO = 1.079 PERCENT SAT.=94.21

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	11.5	88.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	44.0	40.2	26.	0.0522	77.8
1.0	41.0	37.2	26.	0.0379	72.0
2.0	39.0	35.2	26.	0.0272	68.1
5.0	36.0	32.2	26.	0.0176	62.3
15.0	32.0	28.2	26.	0.0105	54.5
30.0	30.0	26.2	26.	0.0075	50.7
60.0	28.0	24.2	26.	0.0054	46.8
250.0	24.0	20.2	26.	0.0027	39.0
1440.0	20.0	15.9	23.	0.0012	30.8

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 38
PLASTICITY INDEX IS 17
LIQUIDITY INDEX IS 0.89

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

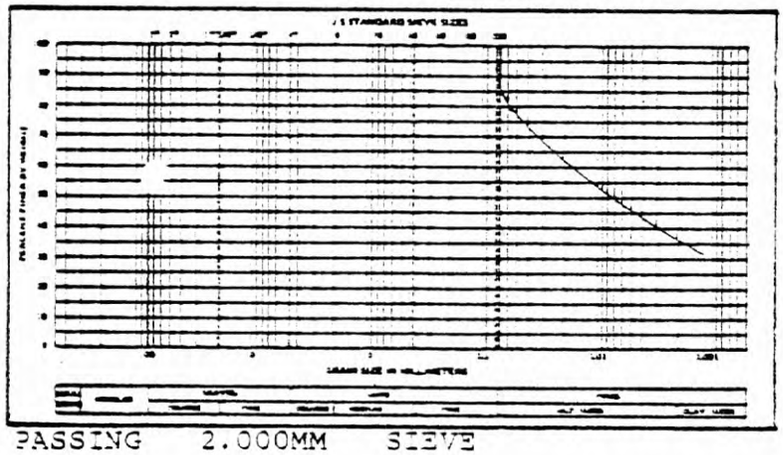
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 504-517 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 17.06KN/M3
NATURAL MOISTURE CONTENT = 50.8 PERCENT
DRY UNIT WT =11.31KN/M3 VOID RATIO = 1.392 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	13.1	92.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	44.0	40.2	26.	0.0528	78.4
1.0	41.0	37.2	26.	0.0383	72.5
2.0	39.5	35.7	26.	0.0274	69.6
5.0	36.0	32.2	26.	0.0178	62.8
15.0	32.0	28.2	26.	0.0106	55.0
30.0	30.0	26.2	26.	0.0076	51.1
60.0	28.0	24.2	26.	0.0055	47.2
250.0	24.0	20.2	26.	0.0028	39.3
1440.0	21.0	16.9	23.	0.0012	33.0

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 38
PLASTICITY INDEX IS 17
LIQUIDITY INDEX IS 1.75

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

PROJECT NAME & NO. ARE W9-2679 USGS
BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 529-544 CM

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	14.1	90.7

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS	19
LIQUID LIMIT IS	31
PLASTICITY INDEX IS	12

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 8 CLAYEY SOILS

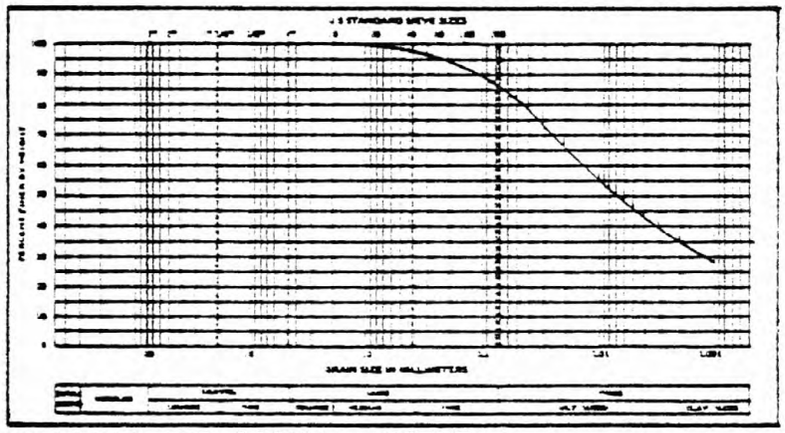
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 659-674 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 16.77KN/M3
NATURAL MOISTURE CONTENT = 51.1 PERCENT
DRY UNIT WT =11.10KN/M3 VOID RATIO = 1.474 PERCENT SAT.=97.09

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.420	10.2	95.9
0.075	30.9	87.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	48.0	43.6	19.	0.0543	84.5
1.0	44.0	39.6	19.	0.0399	76.8
2.0	41.0	36.6	19.	0.0289	70.9
5.0	38.0	33.6	19.	0.0188	65.1
15.0	33.5	29.1	19.	0.0112	56.4
30.0	31.0	26.6	19.	0.0081	51.6
60.0	29.0	24.7	20.	0.0057	47.8
250.0	24.0	20.0	24.	0.0028	38.7
1440.0	18.5	14.6	25.	0.0012	28.2

PLASTIC LIMIT IS 28
LIQUID LIMIT IS 43
PLASTICITY INDEX IS 15
LIQUIDITY INDEX IS 1.51

UNIFIED SOIL CLASSIFICATION IS
ML

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 10 CLAYEY SOILS

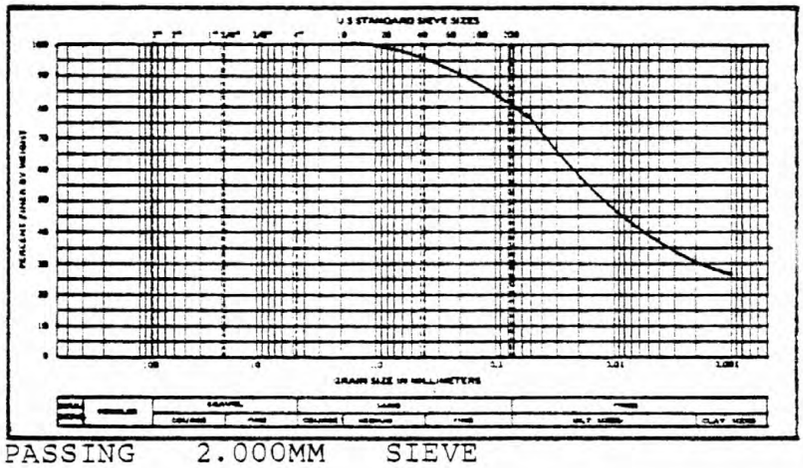
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-15 PC-18
SAMPLE IDENTIFICATION IS UD @ 753-766 CM

SPECIFIC GRAVITY = 2.77
WET UNIT WEIGHT = 17.49KN/M3
NATURAL MOISTURE CONTENT = 44.9 PERCENT
DRY UNIT WT =12.07KN/M3 VOID RATIO = 1.250 PERCENT SAT.=99.49

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.840	0.2	99.9
0.420	1.6	99.3
0.250	14.5	93.8
0.149	24.6	89.6
0.075	32.2	86.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	46.0	39.9	23.	0.0535	77.8
1.0	42.0	35.9	23.	0.0392	70.0
2.0	38.0	31.9	23.	0.0287	62.2
5.0	34.0	27.9	23.	0.0187	54.4
15.0	31.0	24.9	23.	0.0111	48.6
30.0	29.0	22.9	23.	0.0079	44.7
60.0	27.0	21.0	24.	0.0056	40.9
280.0	22.0	16.2	26.	0.0026	31.5
1430.0	19.5	13.5	24.	0.0012	26.3

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 34
PLASTICITY INDEX IS 13
LIQUIDITY INDEX IS 1.82

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 9 CLAYEY SOILS

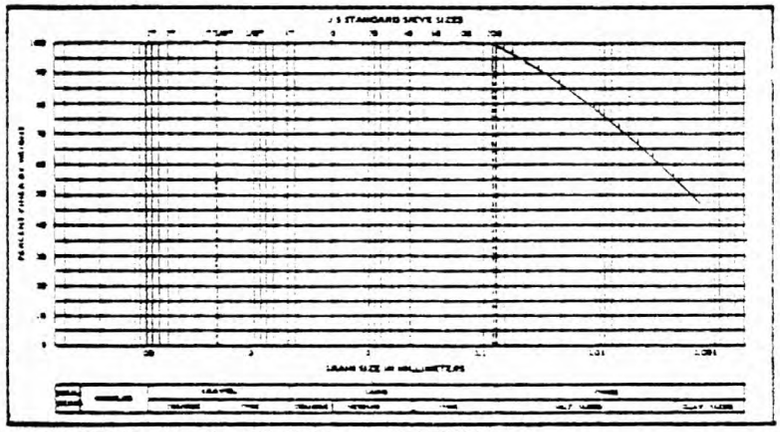
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 225-275 CM

SPECIFIC GRAVITY = 2.82
WET UNIT WEIGHT = 15.30KN/M3
NATURAL MOISTURE CONTENT = 75.8 PERCENT
DRY UNIT WT = 8.70KN/M3 VOID RATIO = 2.177 PERCENT SAT.=98.18

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.0	99.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	48.9	23.	0.0481	94.4
1.0	53.5	47.4	23.	0.0346	91.5
2.0	53.0	46.9	23.	0.0246	90.5
5.0	50.5	44.3	22.	0.0161	85.6
15.0	47.0	40.8	22.	0.0096	78.8
30.0	44.0	37.8	22.	0.0070	73.0
60.0	41.5	35.3	22.	0.0051	68.2
250.0	37.0	30.8	22.	0.0026	59.5
1440.0	31.0	24.8	21.	0.0011	47.8

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 58
PLASTICITY INDEX IS 34
LIQUIDITY INDEX IS 1.53

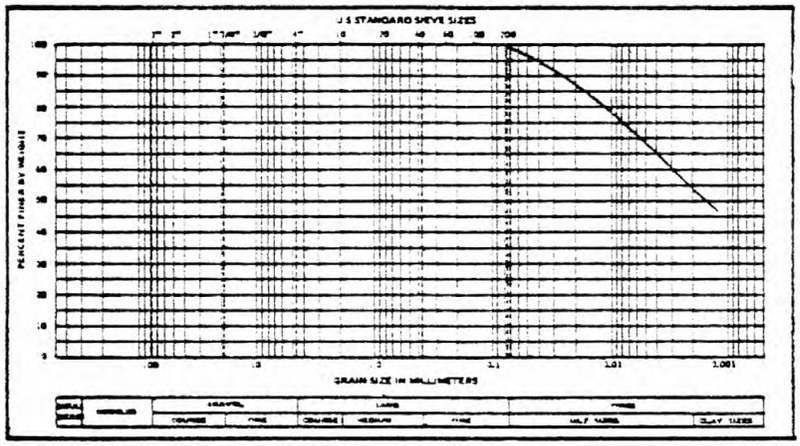
UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 276-290 CM

SPECIFIC GRAVITY = 2.77
WET UNIT WEIGHT = 15.50KN/M3
NATURAL MOISTURE CONTENT = 72.0 PERCENT
DRY UNIT WT = 9.01KN/M3 VOID RATIO = 2.014 PERCENT SAT.=99.03



SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0 075	0.6	99.4

HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	48.9	23.	0.0488	95.3
1.0	54.0	47.9	23.	0.0349	93.4
2.0	52.5	46.4	23.	0.0251	90.5
5.0	49.5	43.4	23.	0.0163	84.6
18.0	45.0	38.9	23.	0.0090	75.9
30.0	43.0	36.9	23.	0.0071	72.0
72.0	41.0	34.8	22.	0.0047	67.9
215.0	36.0	29.8	22.	0.0028	58.2
1540.0	30.0	23.8	22.	0.0011	46.5

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 23
LIQUIDITY INDEX IS 2.12

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

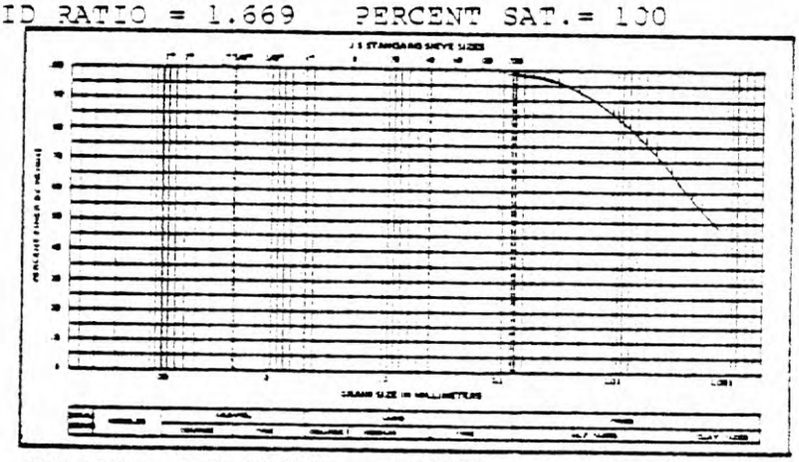
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 529-542 CM

SPECIFIC GRAVITY = 2.73
WET UNIT WEIGHT = 16.24KN/M3
NATURAL MOISTURE CONTENT = 61.9 PERCENT
DRY UNIT WT =10.03KN/M3 VOID RATIO = 1.669 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.3	98.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	51.2	27.	0.0471	100.7
1.0	53.0	49.2	27.	0.0340	96.7
2.0	52.0	48.2	27.	0.0243	94.8
5.0	50.0	46.2	27.	0.0157	90.8
15.0	47.0	43.2	27.	0.0093	84.9
30.0	44.5	40.7	27.	0.0068	80.0
60.0	41.5	37.7	26.	0.0050	74.0
250.0	36.0	32.0	24.	0.0026	62.9
1440.0	29.0	25.1	25.	0.0011	49.3

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 52
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.38

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

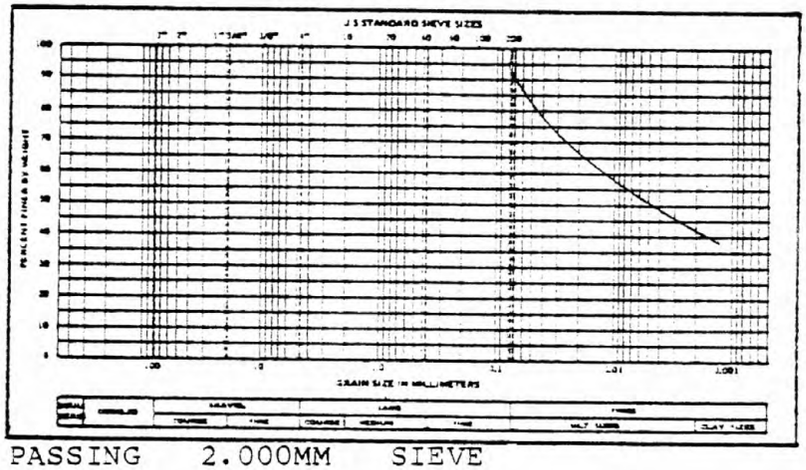
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 577-592 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.20KN/M3
NATURAL MOISTURE CONTENT = 54.4 PERCENT
DRY UNIT WT =10.49KN/M3 VOID RATIO = 1.579 PERCENT SAT.=95.07

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	13.7	94.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	46.0	41.7	26.	0.0518	81.3
1.0	44.0	39.7	26.	0.0373	77.4
2.0	40.5	36.2	26.	0.0272	70.6
5.0	38.0	33.7	26.	0.0176	65.7
15.0	35.0	30.7	26.	0.0104	59.9
30.0	33.0	28.7	26.	0.0075	55.9
60.0	32.0	27.6	25.	0.0054	53.8
250.0	28.5	23.9	23.	0.0028	46.7
1440.0	24.0	19.4	23.	0.0012	37.9

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 48
PLASTICITY INDEX IS 23
LIQUIDITY INDEX IS 1.30

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

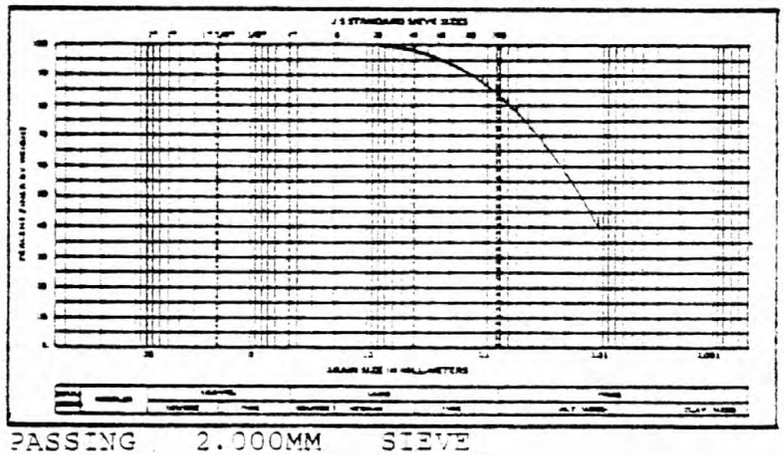
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 681-696 CM

SPECIFIC GRAVITY = 2.87
WET UNIT WEIGHT = 16.10KN/M3
NATURAL MOISTURE CONTENT = 58.7 PERCENT
DRY UNIT WT =10.14KN/M3 VOID RATIO = 1.774 PERCENT SAT.=94.97

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.1	99.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	58.0	53.2	18.	0.0483	101.7
1.0	56.5	51.7	18.	0.0348	98.8
2.0	55.0	50.2	18.	0.0250	95.9
5.0	53.5	48.7	18.	0.0161	93.1
15.0	50.0	45.2	19.	0.0096	86.5
30.0	47.0	42.3	19.	0.0069	80.8
125.0	37.0	32.7	23.	0.0036	62.5
295.0	34.0	29.8	24.	0.0023	57.0
1455.0	26.0	21.9	25.	0.0011	41.9

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 54
PLASTICITY INDEX IS 27
LIQUIDITY INDEX IS 1.19

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

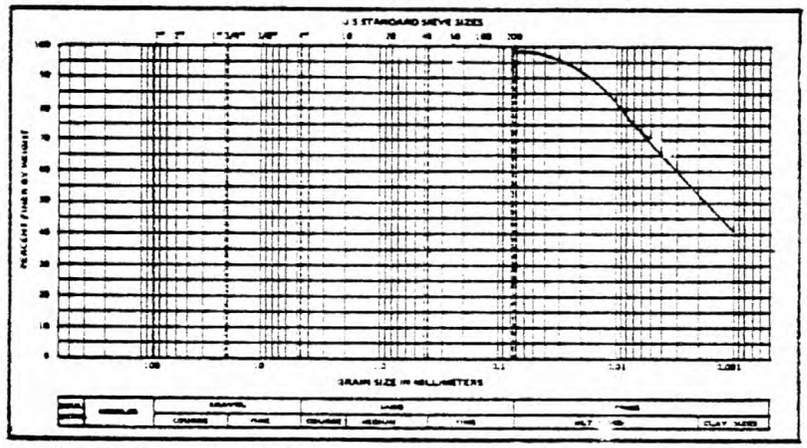
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-16 PC-17
SAMPLE IDENTIFICATION IS UD @ 778-791 CM

SPECIFIC GRAVITY = 2.82
WET UNIT WEIGHT = 16.82KN/M3
NATURAL MOISTURE CONTENT = 55.2 PERCENT
DRY UNIT WT =10.84KN/M3 VOID RATIO = 1.551 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.9	98.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	56.0	52.7	26.	0.0459	101.7
1.0	54.0	50.7	26.	0.0332	97.8
2.0	52.0	48.7	26.	0.0240	94.0
5.0	49.5	46.2	26.	0.0156	89.1
15.0	46.0	42.7	26.	0.0093	82.4
30.0	43.0	39.7	26.	0.0068	76.6
60.0	39.5	36.2	26.	0.0049	69.8
250.0	33.0	29.5	24.	0.0026	56.9
1440.0	24.5	21.2	26.	0.0011	40.8

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 1.45

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

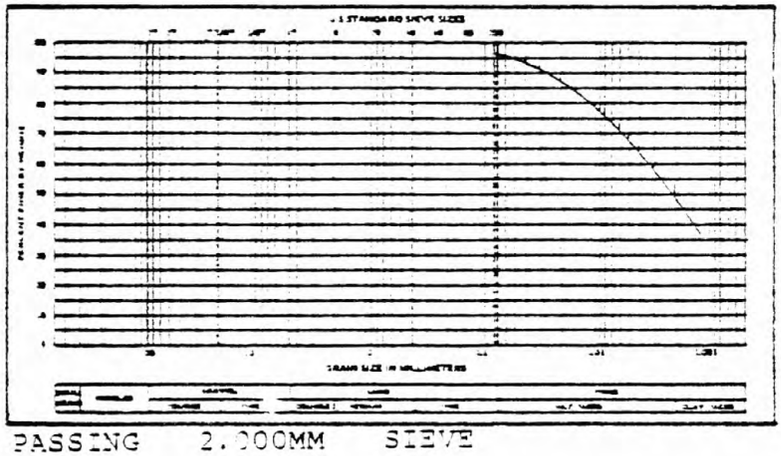
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 191-206 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.71KN/M3
NATURAL MOISTURE CONTENT = 47.5 PERCENT
DRY UNIT WT =11.33KN/M3 VOID RATIO = 1.389 PERCENT SAT.=94.40

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	6.5	95.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	49.6	25.	0.0489	96.9
1.0	51.0	47.6	25.	0.0353	92.9
2.0	48.0	44.6	25.	0.0257	87.1
5.0	46.0	42.6	25.	0.0166	83.2
15.0	43.0	39.6	25.	0.0098	77.3
30.0	41.0	37.6	25.	0.0071	73.3
60.0	38.0	34.5	24.	0.0052	67.4
250.0	32.5	28.9	23.	0.0027	56.4
1440.0	22.5	18.9	23.	0.0012	36.9

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 51
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 0.84

UNIFIED SOIL CLASSIFICATION IS
OH OR MH

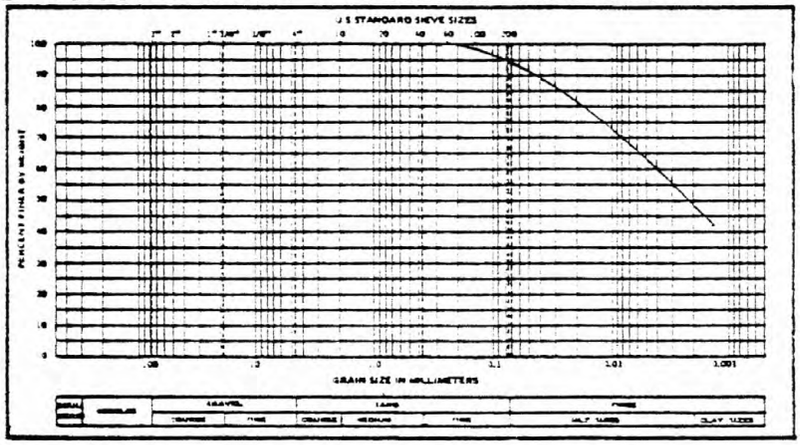
AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 15 CLAYEY SOILS

CD-17 PC-19
335-350 CM

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 335-350 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 17.60KN/M3
NATURAL MOISTURE CONTENT = 33.2 PERCENT
DRY UNIT WT =13.21KN/M3 VOID RATIO = 0.877 PERCENT SAT.=95.73



SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	6.2	94.6

HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	44.1	25.	0.0541	90.8
1.0	49.0	43.1	25.	0.0386	88.7
2.0	47.5	41.6	25.	0.0277	85.6
5.0	45.0	39.1	25.	0.0179	80.5
15.0	41.5	35.6	25.	0.0107	73.3
32.0	39.5	33.6	25.	0.0077	69.1
72.0	37.0	31.0	24.	0.0056	63.8
250.0	33.0	26.9	23.	0.0029	55.4
1440.0	27.0	20.7	20.	0.0013	42.6

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 0.39

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

CD-17 PC-19
350-400 CM

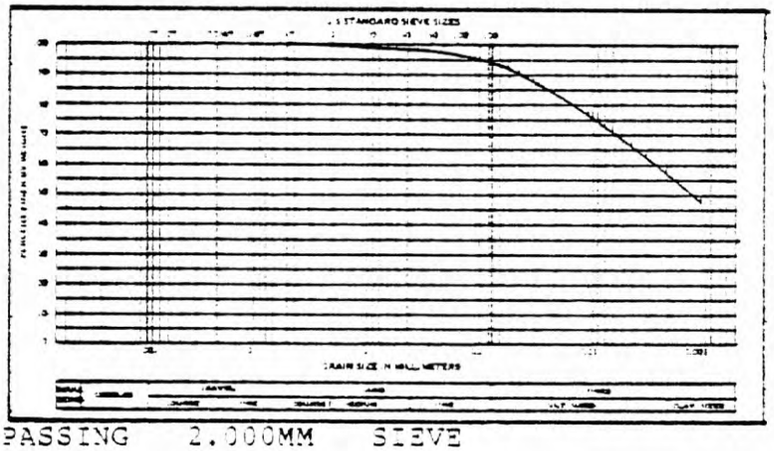
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-17 ; PC-19
SAMPLE IDENTIFICATION IS UD @ 350-400 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 17.30KN/M3
NATURAL MOISTURE CONTENT = 46.8 PERCENT
DRY UNIT WT =11.78KN/M3 VOID RATIO = 1.288 PERCENT SAT.=99.92

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.2	99.9
0.420	1.7	99.1
0.075	8.7	95.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.5	46.4	23.	0.0515	90.7
1.0	49.0	44.9	23.	0.0369	87.8
2.0	48.0	43.9	23.	0.0264	85.9
5.0	47.0	42.9	23.	0.0168	83.9
15.0	45.0	40.9	23.	0.0099	80.0
30.0	43.0	38.9	23.	0.0071	76.1
55.0	40.5	36.4	23.	0.0054	71.2
237.0	36.0	31.8	22.	0.0027	62.3
1442.0	28.5	24.3	22.	0.0012	47.6

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 53
PLASTICITY INDEX IS 26
LIQUIDITY INDEX IS 0.75

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 4.7% SAND 39.9% SILT 55.4% CLAY

UNIFIED SOIL CLASSIFICATION IS CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

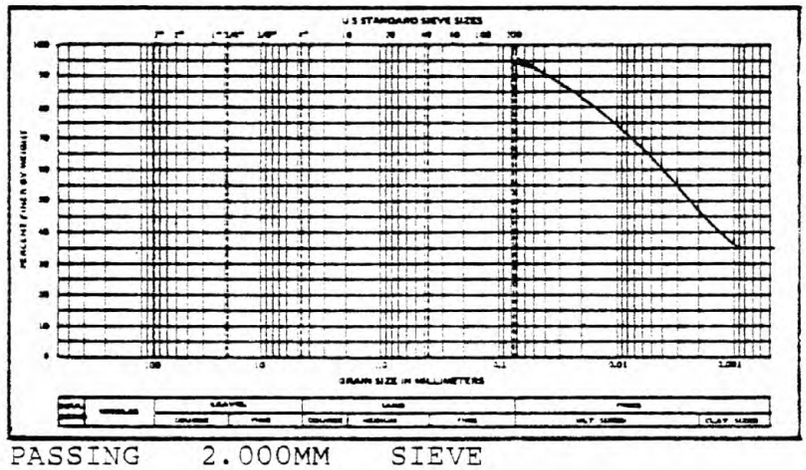
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD 573-588 CM

SPECIFIC GRAVITY = 2.82
WET UNIT WEIGHT = 17.45KN/M3
NATURAL MOISTURE CONTENT = 42.8 PERCENT
DRY UNIT WT =12.22KN/M3 VOID RATIO = 1.263 PERCENT SAT.=95.58

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	8.9	95.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	48.6	19.	0.0513	93.8
1.0	50.5	46.1	19.	0.0373	89.0
2.0	48.0	43.6	19.	0.0270	84.2
5.0	45.0	40.6	19.	0.0176	78.4
15.0	42.0	37.6	19.	0.0104	72.6
30.0	39.0	34.7	20.	0.0075	66.9
60.0	36.5	32.2	20.	0.0054	62.1
245.0	30.0	26.0	24.	0.0027	50.2
1450.0	22.5	18.6	25.	0.0011	35.8

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 0.86

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

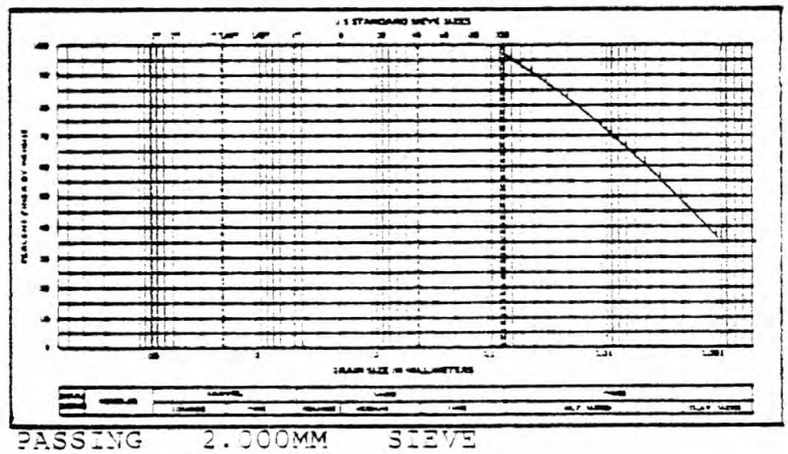
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 588-600 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.07KN/M3
NATURAL MOISTURE CONTENT = 41.1 PERCENT
DRY UNIT WT. =12.81KN/M3 VOID RATIO = 1.151 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	8.7	96.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	48.2	21.	0.0507	93.3
1.0	51.5	46.7	21.	0.0364	90.4
2.0	49.0	44.2	21.	0.0264	85.5
5.0	46.0	41.2	21.	0.0172	79.7
15.0	42.5	37.7	21.	0.0102	73.0
30.0	40.0	35.2	21.	0.0074	68.1
60.0	37.0	32.2	21.	0.0054	62.3
265.0	30.5	26.0	24.	0.0026	50.3
1465.0	23.0	18.5	25.	0.0011	35.8

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 44
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 0.86

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

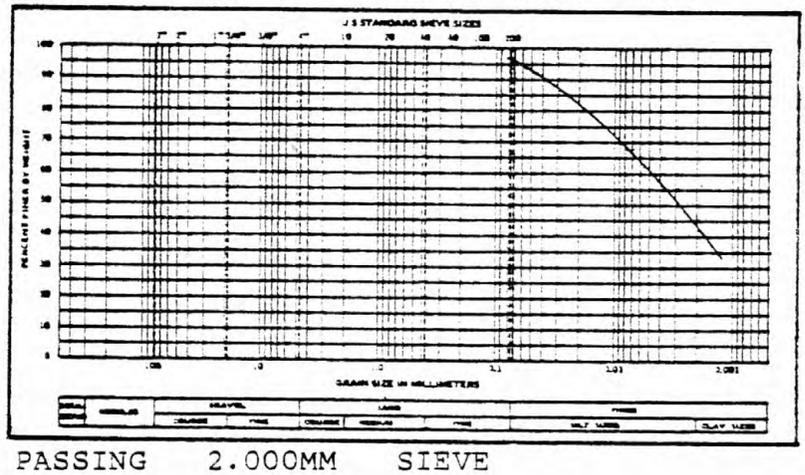
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-17 PC-19
SAMPLE IDENTIFICATION IS UD @ 636-649 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.05KN/M3
NATURAL MOISTURE CONTENT = 43.4 PERCENT
DRY UNIT WT =12.58KN/M3 VOID RATIO = 1.190 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.6	96.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	48.2	26.	0.0481	93.1
1.0	49.5	45.7	26.	0.0349	88.2
2.0	47.5	43.7	26.	0.0252	84.4
5.0	45.0	41.2	26.	0.0163	79.5
15.0	41.5	37.7	26.	0.0097	72.8
30.0	38.5	34.7	26.	0.0070	67.0
60.0	36.0	32.2	26.	0.0051	62.2
250.0	29.0	25.2	26.	0.0026	48.6
1440.0	21.0	16.9	23.	0.0012	32.7

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 0.90

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 13 CLAYEY SOILS

CD-18 PC-20
159-174 CM

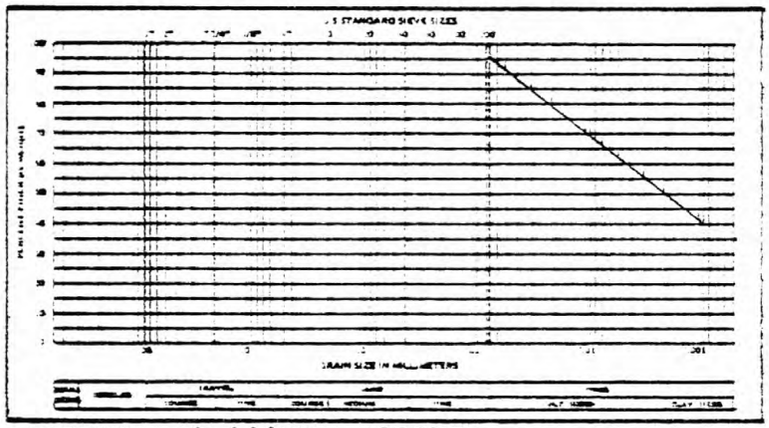
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-18;PC-20
SAMPLE IDENTIFICATION IS UD @ 159-174 CM

SPECIFIC GRAVITY = 2.84
WET UNIT WEIGHT = 16.10KN/M3
NATURAL MOISTURE CONTENT = 40.1 PERCENT
DRY UNIT WT =11.49KN/M3 VOID RATIO = 1.423 PERCENT SAT.=80.02

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	4.1	95.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	46.7	26.	0.0482	88.8
1.0	49.0	44.7	26.	0.0348	85.0
2.0	46.5	42.2	26.	0.0252	80.2
5.0	44.0	39.7	26.	0.0163	75.5
18.0	41.0	36.7	26.	0.0088	69.7
30.0	39.5	35.2	26.	0.0069	66.9
60.0	37.5	33.2	26.	0.0050	63.1
255.0	32.0	27.7	26.	0.0025	52.6
1472.0	26.0	21.5	25.	0.0011	41.0

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 53
PLASTICITY INDEX IS 24
LIQUIDITY INDEX IS 0.45

UNIFIED SOIL CLASSIFICATION IS OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 16 CLAYEY SOILS

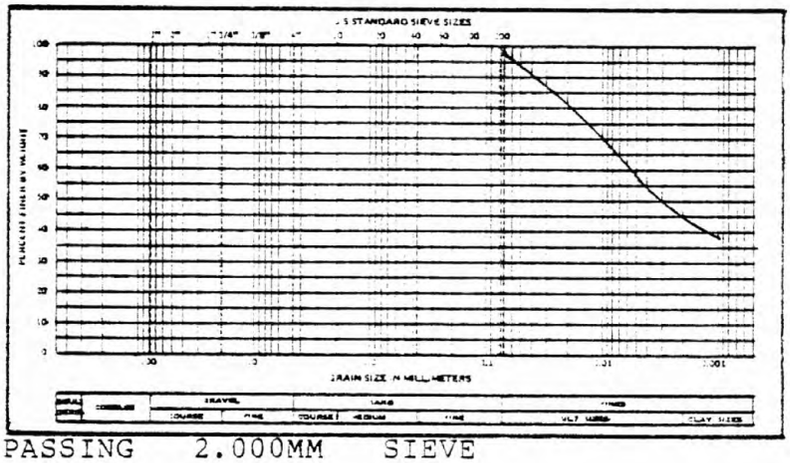
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-18; PC-20
SAMPLE IDENTIFICATION IS UD @ 183-195 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 17.50KN/M3
NATURAL MOISTURE CONTENT = 45.3 PERCENT
DRY UNIT WT =12.04KN/M3 VOID RATIO = 1.280 PERCENT SAT.=99.13

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	7.1	97.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	48.1	25.	0.0488	92.0
1.0	50.0	46.0	25.	0.0355	88.1
2.0	47.0	43.0	25.	0.0258	82.4
5.0	44.0	40.0	25.	0.0168	76.6
15.0	40.5	36.5	25.	0.0100	69.9
30.0	38.0	34.0	25.	0.0072	65.1
60.0	35.0	31.0	25.	0.0052	59.4
250.0	29.0	25.2	26.	0.0026	48.1
1525.0	23.5	19.6	25.	0.0011	37.5

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 23
LIQUIDITY INDEX IS 0.95

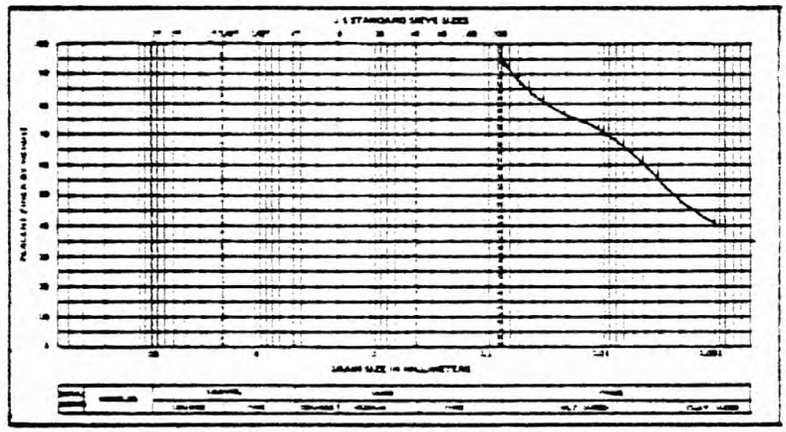
UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 310-325

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.67KN/M3
NATURAL MOISTURE CONTENT = 50.1 PERCENT
DRY UNIT WT =11.11KN/M3 VOID RATIO = 1.437 PERCENT SAT.=96.24



SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.0	95.7

HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.7	23.	0.0516	89.2
1.0	47.0	42.7	23.	0.0376	83.4
2.0	45.0	40.7	23.	0.0271	79.5
5.0	43.0	38.7	23.	0.0174	75.6
15.0	40.5	36.2	23.	0.0103	70.7
30.0	39.0	34.7	23.	0.0074	67.8
61.0	37.0	32.8	24.	0.0052	64.0
255.0	31.0	27.0	26.	0.0026	52.7
1405.0	25.0	20.8	24.	0.0012	40.6

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 54
PLASTICITY INDEX IS 27
LIQUIDITY INDEX IS 0.85

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

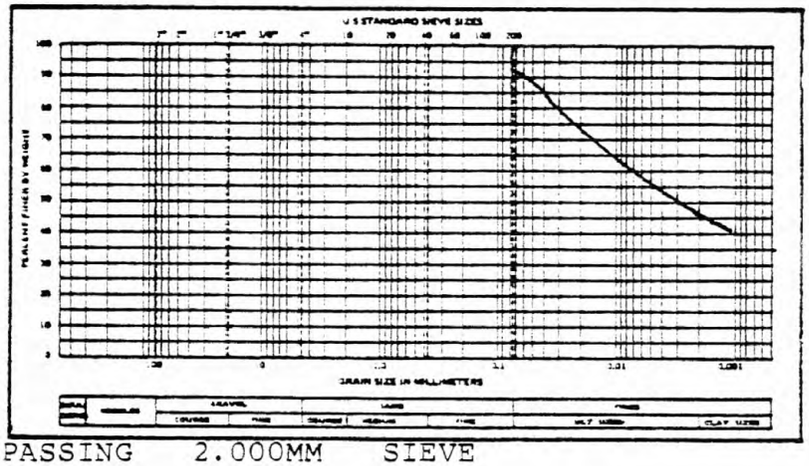
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-18 PC-20
SAMPLE IDENTIFICATION IS UD @ 333-346 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 18.21KN/M3
NATURAL MOISTURE CONTENT = 40.1 PERCENT
DRY UNIT WT =13.00KN/M3 VOID RATIO = 1.075 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	13.9	92.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.6	26.	0.0503	89.3
1.0	46.5	42.1	26.	0.0368	82.4
3.0	43.0	38.6	26.	0.0219	75.6
5.0	41.0	36.6	26.	0.0173	71.6
15.0	38.0	33.6	26.	0.0102	65.8
30.0	36.0	31.6	26.	0.0074	61.9
62.0	34.0	29.6	25.	0.0052	57.9
250.0	30.0	25.4	23.	0.0028	49.7
1440.0	26.0	21.1	19.	0.0012	41.3

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 42
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 0.88

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 11 CLAYEY SOILS

CD-19 PC-21
353-368 CM

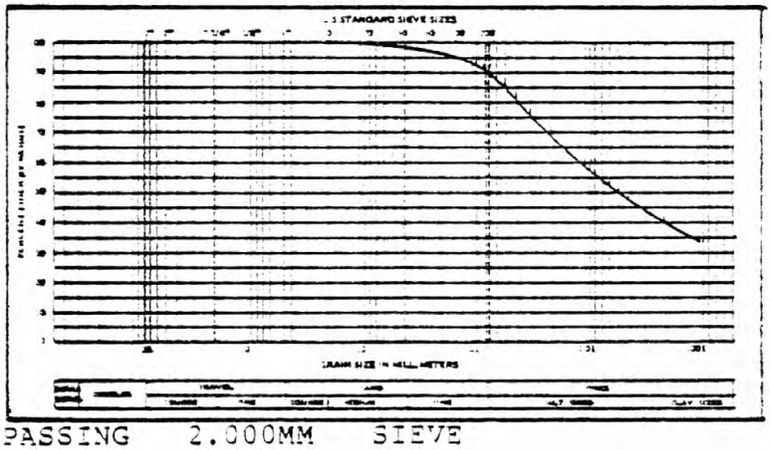
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-19;PC-21
SAMPLE IDENTIFICATION IS UD @ 353-368 CM

SPECIFIC GRAVITY = 2.84
WET UNIT WEIGHT = 18.40KN/M3
NATURAL MOISTURE CONTENT = 39.5 PERCENT
DRY UNIT WT =13.19KN/M3 VOID RATIO = 1.111 PERCENT SAT.= 100.

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.420	6.3	97.3
0.075	13.6	94.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	47.0	41.3	28.	0.0490	79.4
1.0	46.0	40.3	28.	0.0349	77.5
2.0	43.0	37.3	28.	0.0254	71.7
6.0	39.5	33.8	28.	0.0151	65.0
15.0	36.5	30.8	28.	0.0098	59.2
30.0	34.5	28.8	28.	0.0070	55.4
62.0	32.0	26.3	28.	0.0050	50.5
250.0	28.0	22.0	24.	0.0027	42.3
1440.0	24.5	18.1	19.	0.0012	34.8

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 40
PLASTICITY INDEX IS 16
LIQUIDITY INDEX IS 0.98

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 5.9% SAND 55.3% SILT 38.8% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

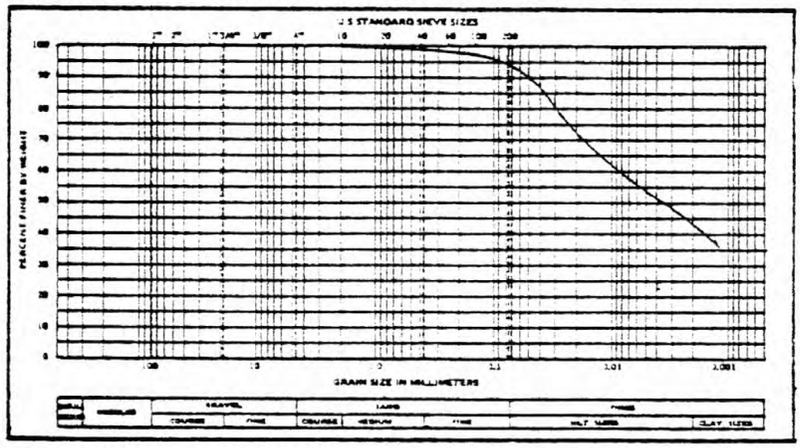
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 368-380 CM

SPECIFIC GRAVITY = 2.84
WET UNIT WEIGHT = 18.20KN/M3
NATURAL MOISTURE CONTENT = 36.9 PERCENT
DRY UNIT WT =13.29KN/M3 VOID RATIO = 1.095 PERCENT SAT.=95.74

SIEVE ANALYSIS

SIEVE MM	.#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.420	6.3	97.5
0.075	14.8	94.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	48.0	44.2	26.	0.0497	84.0
1.0	46.5	42.7	26.	0.0357	81.2
2.0	44.0	40.2	26.	0.0258	76.4
5.0	41.5	37.7	26.	0.0167	71.6
15.0	37.0	33.2	26.	0.0100	63.1
30.0	35.5	31.7	26.	0.0072	60.2
60.0	33.0	29.2	26.	0.0052	55.5
250.0	28.0	24.2	26.	0.0026	46.0
1440.0	23.0	18.8	22.	0.0012	35.9

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 42
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 0.74

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 11 CLAYEY SOILS

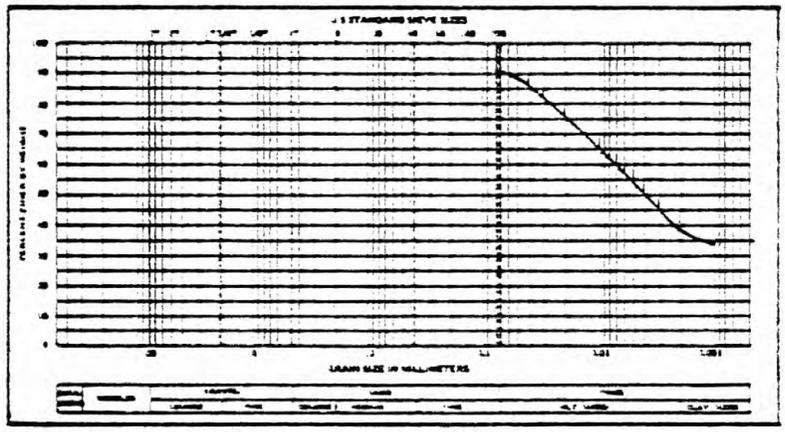
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 429-444 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.02KN/M3
NATURAL MOISTURE CONTENT = 33.7 PERCENT
DRY UNIT WT =13.47KN/M3 VOID RATIO = 1.045 PERCENT SAT.=90.72

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	14.1	91.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.7	23.	0.0509	88.3
1.0	47.0	42.7	23.	0.0370	82.5
2.0	44.0	39.7	23.	0.0269	76.7
5.0	41.0	36.7	23.	0.0175	70.9
15.0	38.0	33.7	23.	0.0104	65.1
30.0	35.0	30.7	23.	0.0075	59.3
57.0	33.0	28.7	23.	0.0055	55.5
305.0	26.0	21.9	25.	0.0025	42.3
1440.0	22.0	17.7	23.	0.0012	34.1

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 40
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 0.67

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

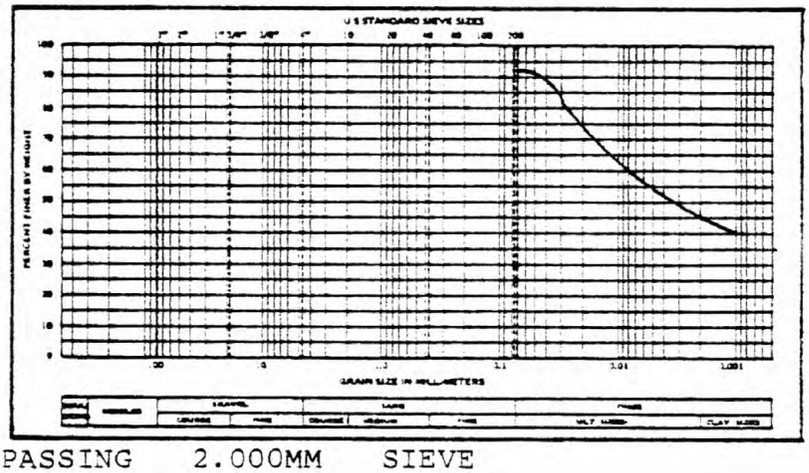
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-19 PC-21
SAMPLE IDENTIFICATION IS UD @ 452-465 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 18.50KN/M3
NATURAL MOISTURE CONTENT = 34.0 PERCENT
DRY UNIT WT =13.81KN/M3 VOID RATIO = 0.981 PERCENT SAT.=96.65

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	10.8	92.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	47.1	25.	0.0495	91.4
1.0	48.0	44.1	25.	0.0361	85.5
2.0	45.0	41.1	25.	0.0262	79.7
5.0	41.0	37.1	25.	0.0172	72.0
15.0	37.0	33.1	25.	0.0103	64.2
30.0	35.0	31.1	25.	0.0074	60.3
60.0	32.0	28.0	25.	0.0054	54.4
250.0	29.0	24.9	23.	0.0027	48.3
1440.0	25.0	20.6	19.	0.0012	40.0

PLASTIC LIMIT IS 22
LIQUID LIMIT IS 40
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 0.66

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

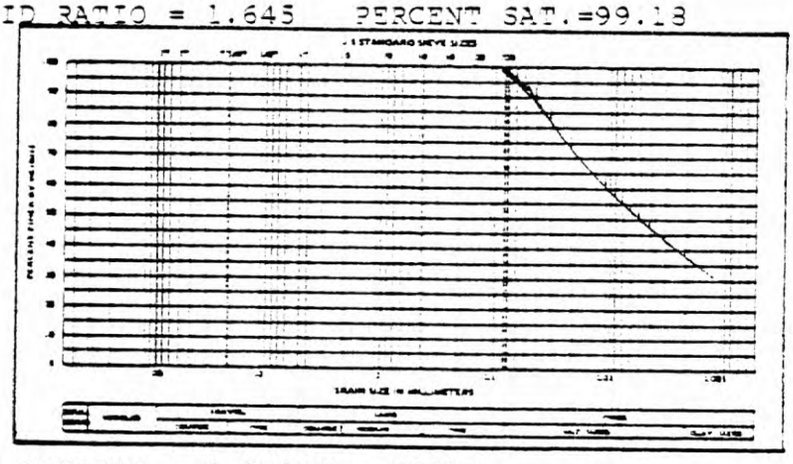
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 235-250 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.28KN/M3
NATURAL MOISTURE CONTENT = 59.1 PERCENT
DRY UNIT WT =10.23KN/M3 VOID RATIO = 1.645 PERCENT SAT.=99.18

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.4	98.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	47.2	26.	0.0493	92.1
1.0	48.0	44.1	26.	0.0361	86.1
2.0	44.0	40.1	26.	0.0265	78.3
5.0	39.0	35.1	26.	0.0175	68.6
15.0	36.0	32.1	26.	0.0104	62.7
30.0	33.0	29.2	26.	0.0075	56.9
60.0	30.0	26.2	26.	0.0054	51.1
250.0	27.0	22.9	23.	0.0028	44.7
1440.0	21.0	16.7	21.	0.0012	32.7

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 58
PLASTICITY INDEX IS 29
LIQUIDITY INDEX IS 1.05

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

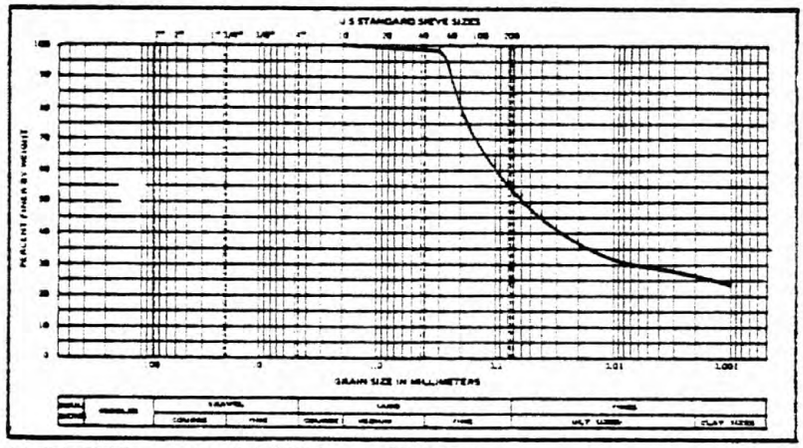
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 387-400 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 19.80KN/M3
NATURAL MOISTURE CONTENT = 26.7 PERCENT
DRY UNIT WT =15.62KN/M3 VOID RATIO = 0.719 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.840	0.2	99.9
0.420	0.9	99.5
0.250	3.4	98.3
0.149	65.2	67.3
0.075	111.3	44.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	31.0	26.9	25.	0.0597	52.7
1.0	27.5	23.4	25.	0.0433	45.9
2.0	25.0	20.9	25.	0.0311	41.0
5.0	22.0	17.9	25.	0.0201	35.1
15.0	21.0	16.9	25.	0.0117	33.1
30.0	20.0	15.9	25.	0.0083	31.2
60.0	19.0	14.9	25.	0.0059	29.1
250.0	18.0	13.6	22.	0.0030	26.7
1440.0	17.0	12.2	19.	0.0013	24.0

PLASTIC LIMIT IS 14
LIQUID LIMIT IS 23
PLASTICITY INDEX IS 9
LIQUIDITY INDEX IS 1.39

UNIFIED SOIL CLASSIFICATION IS
SC CLAYEY SANDS

AASHO SOIL CLASSIFICATION IS
A-4 WITH GROUP INDEX OF 1 SILTY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 413-427 CM

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.840	0.2	99.9
0.420	0.9	99 4
0.250	1.8	98.7
0.149	34.1	75.7
0.075	75.9	45.9

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 25
PLASTICITY INDEX IS 7

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 54.1% SAND 45.9% FINES

UNIFIED SOIL CLASSIFICATION IS
SC CLAYEY SANDS

AASHO SOIL CLASSIFICATION IS
A-4 WITH GROUP INDEX OF 2 SILTY SOILS

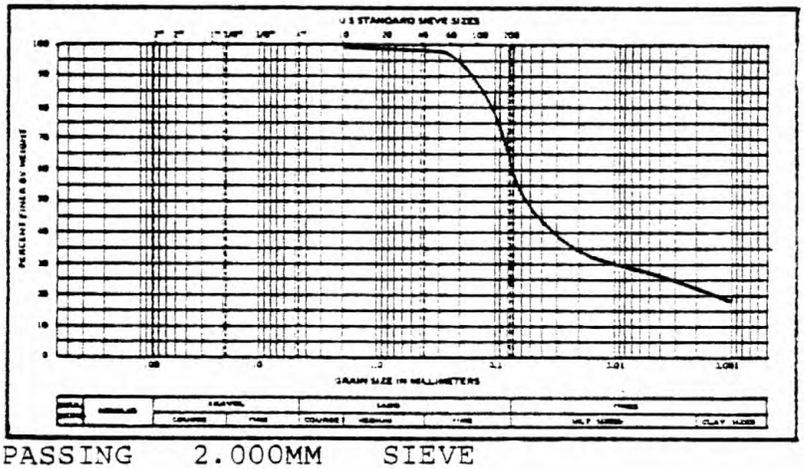
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 435-450

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 17.62KN/M3
NATURAL MOISTURE CONTENT = 32.5 PERCENT
DRY UNIT WT =13.30KN/M3 VOID RATIO = 1.020 PERCENT SAT.=87.28

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	1.0	99.4
0.840	0.1	99.9
0.420	0.6	99.7
0.250	1.9	98.9
0.149	23.4	86.4
0.075	66.1	61.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	32.0	26.2	27.	0.0578	51.1
1.0	28.0	22.2	27.	0.0421	43.3
2.0	25.5	19.7	27.	0.0303	38.5
5.0	23.5	17.7	27.	0.0194	34.6
15.0	21.5	15.7	27.	0.0113	30.7
30.0	20.5	14.7	27.	0.0081	28.7
60.0	19.5	13.7	27.	0.0057	26.8
250.0	18.0	12.1	25.	0.0029	23.5
1440.0	15.0	9.1	26.	0.0012	17.8

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 30
PLASTICITY INDEX IS 12
LIQUIDITY INDEX IS 1.24

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 6 CLAYEY SOILS

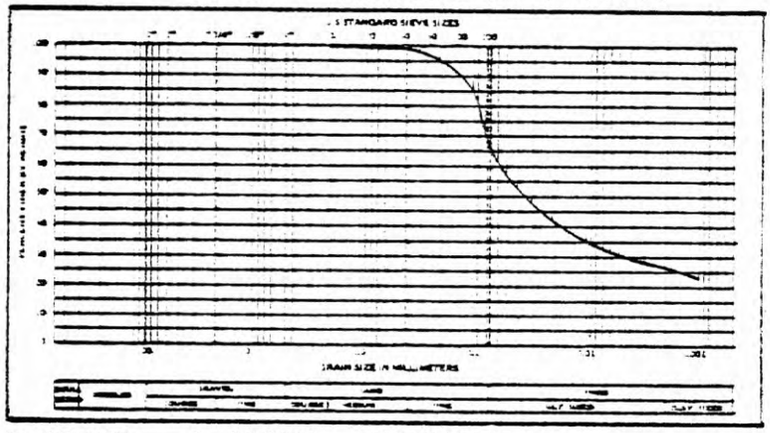
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20; PC-22
SAMPLE IDENTIFICATION IS UD @ 539-554 CM

SPECIFIC GRAVITY = 2.82
WET UNIT WEIGHT = 18.70KN/M3
NATURAL MOISTURE CONTENT = 30.4 PERCENT
DRY UNIT WT =14.34KN/M3 VOID RATIO = 0.928 PERCENT SAT.=92.36

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.2	99.9
0.840	0.4	99.8
0.420	1.1	99.5
0.250	2.2	98.9
0.149	13.1	93.7
0.075	65.4	68.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	37.0	30.6	19.	0.0595	59.0
1.0	34.0	27.6	19.	0.0431	53.3
2.0	31.0	24.6	19.	0.0312	47.5
5.0	28.0	21.6	19.	0.0201	41.7
15.0	26.0	19.6	19.	0.0118	37.8
30.0	25.0	18.6	19.	0.0084	35.9
60.0	23.5	17.1	19.	0.0060	33.0
250.0	21.0	14.8	21.	0.0029	28.5
1431.0	18.0	11.7	20.	0.0013	22.6

PLASTIC LIMIT IS 17
LIQUID LIMIT IS 30
PLASTICITY INDEX IS 13
LIQUIDITY INDEX IS 1.06

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 31.3% SAND 43.5% SILT 25.2% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 7 CLAYEY SOILS

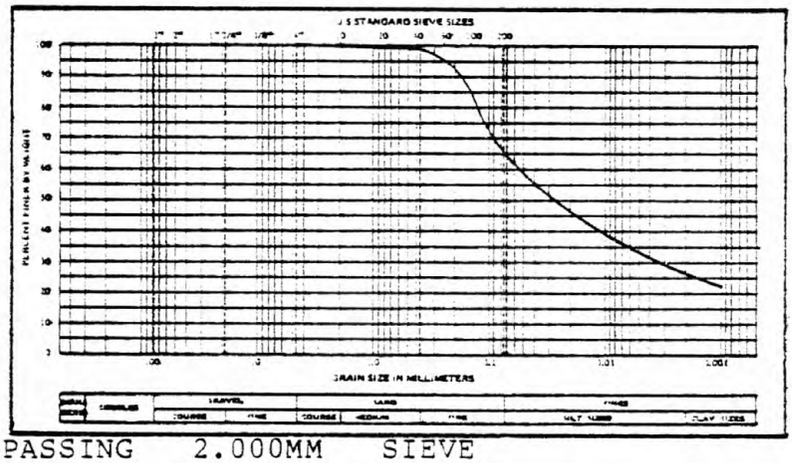
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20; PC-22
SAMPLE IDENTIFICATION IS UD @ 592-604 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.80KN/M3
NATURAL MOISTURE CONTENT = 31.4 PERCENT
DRY UNIT WT =14.31KN/M3 VOID RATIO = 0.926 PERCENT SAT.=95.31

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.0	100.0
0.840	0.2	99.9
0.420	0.8	99.7
0.250	3.4	98.5
0.149	33.2	85.4
0.075	94.2	58.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	34.0	29.6	22.	0.0592	57.2
1.0	33.0	28.6	22.	0.0422	55.3
2.0	30.5	26.1	22.	0.0304	50.4
5.0	28.5	24.1	22.	0.0195	46.6
15.0	26.5	22.1	22.	0.0114	42.7
30.0	25.5	21.1	22.	0.0081	40.8
60.0	24.0	19.6	22.	0.0058	37.9
250.0	20.0	15.9	25.	0.0028	30.7
1457.0	16.0	11.9	25.	0.0012	23.0

PLASTIC LIMIT IS 17
LIQUID LIMIT IS 30
PLASTICITY INDEX IS 13
LIQUIDITY INDEX IS 1.07

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 41.3% SAND 31.9% SILT 26.8% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 6 CLAYEY SOILS

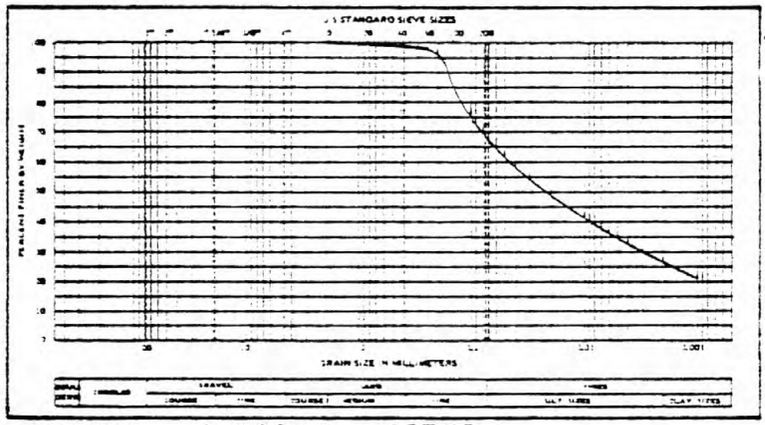
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-20 PC-22
SAMPLE IDENTIFICATION IS UD @ 635-648 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 19.30KN/M3
NATURAL MOISTURE CONTENT = 31.7 PERCENT
DRY UNIT WT =14.65KN/M3 VOID RATIO = 0.880 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.840	0.1	99.9
0.420	0.5	99.7
0.250	1.5	99.0
0.149	22.2	85.2
0.075	49.4	67.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	36.0	31.9	23.	0.0576	61.7
1.0	33.0	28.9	23.	0.0417	55.9
2.0	31.0	26.9	23.	0.0299	52.1
5.0	29.0	24.9	23.	0.0192	48.2
15.0	26.5	22.4	23.	0.0113	43.4
30.0	25.0	20.9	23.	0.0081	40.5
60.0	24.0	19.9	23.	0.0057	38.5
250.0	20.0	16.0	24.	0.0029	30.9
1440.0	15.0	11.0	24.	0.0012	21.3

PLASTIC LIMIT IS 17
LIQUID LIMIT IS 30
PLASTICITY INDEX IS 13
LIQUIDITY INDEX IS 1.10

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 7 CLAYEY SOILS

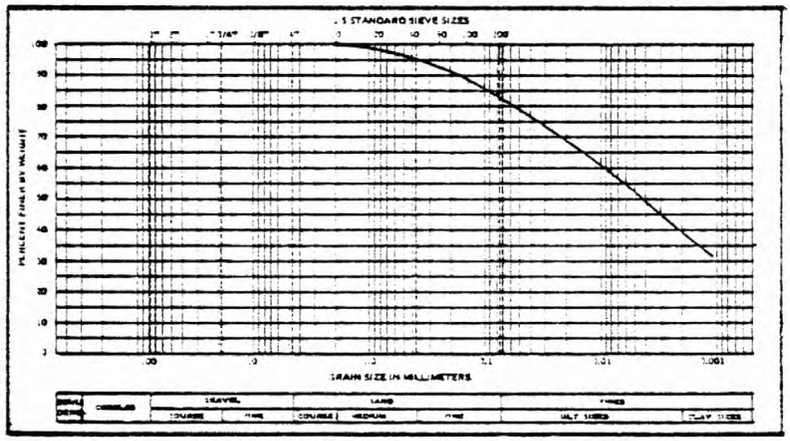
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-21; PC-23
SAMPLE IDENTIFICATION IS UD @ 300-312 CM

SPECIFIC GRAVITY = 2.85
WET UNIT WEIGHT = 17.90KN/M3
NATURAL MOISTURE CONTENT = 42.2 PERCENT
DRY UNIT WT =12.59KN/M3 VOID RATIO = 1.220 PERCENT SAT.=98.58

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.420	10.1	96.6
0.075	23.7	92.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	46.0	41.7	20.	0.0540	80.0
1.0	45.0	40.7	20.	0.0386	78.1
2.0	42.0	37.7	20.	0.0280	72.3
5.0	39.0	34.7	20.	0.0182	66.6
15.0	36.0	31.7	20.	0.0108	60.8
30.0	34.0	29.7	20.	0.0077	57.0
68.0	31.5	27.9	29.	0.0047	53.5
242.0	27.0	22.8	21.	0.0028	43.7
1475.0	21.0	17.0	24.	0.0012	32.6

PLASTIC LIMIT IS 22
LIQUID LIMIT IS 40
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 1.10

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 8.0% SAND 53.8% SILT 38.2% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

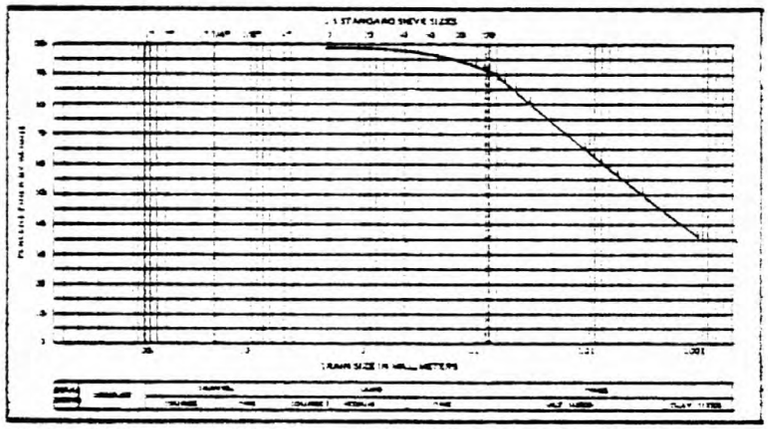
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-21;PC-23
SAMPLE IDENTIFICATION IS UD @ 350-365 CM

SPECIFIC GRAVITY = 2.85
WET UNIT WEIGHT = 17.30KN/M3
NATURAL MOISTURE CONTENT = 43.4 PERCENT
DRY UNIT WT =12.06KN/M3 VOID RATIO = 1.316 PERCENT SAT.=93.97

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	8.0	94.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	45.3	22.	0.0514	86.9
1.0	48.0	44.2	21.	0.0371	84.8
2.0	44.5	40.7	21.	0.0271	78.1
5.0	42.0	38.2	21.	0.0175	73.3
15.0	38.5	34.6	20.	0.0105	66.4
30.0	36.5	32.6	20.	0.0076	62.5
63.0	34.0	30.1	20.	0.0053	57.7
237.0	29.0	25.2	21.	0.0028	48.3
1470.0	22.0	18.5	24.	0.0011	35.5

PLASTIC LIMIT IS 22
LIQUID LIMIT IS 43
PLASTICITY INDEX IS 21
LIQUIDITY INDEX IS 1.03

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 5.9% SAND 52.0% SILT 42.0% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

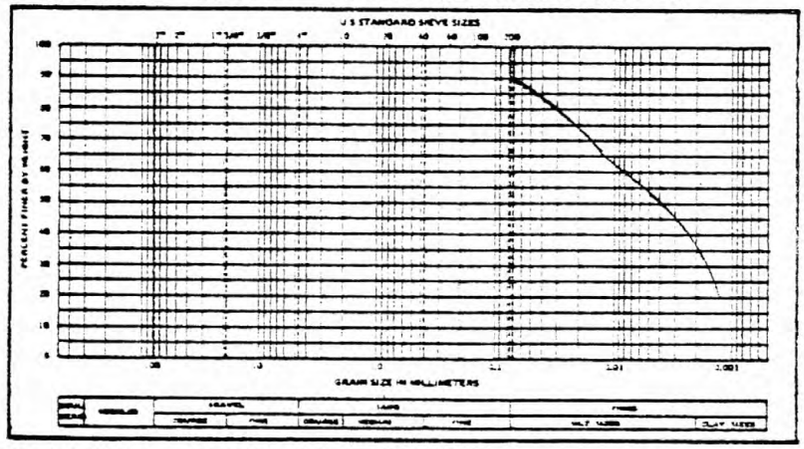
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 434-448 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 17.15KN/M3
NATURAL MOISTURE CONTENT = 38.4 PERCENT
DRY UNIT WT =12.39KN/M3 VOID RATIO = 1.207 PERCENT SAT.=88.70

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	13.6	91.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	48.5	44.5	24.	0.0513	86.4
1.0	46.5	42.5	24.	0.0370	82.5
2.0	44.0	40.0	24.	0.0268	77.6
5.0	40.5	36.5	24.	0.0175	70.8
15.0	36.5	32.5	24.	0.0104	63.1
30.0	34.0	30.0	24.	0.0075	58.2
60.0	31.0	27.0	24.	0.0054	52.4
250.0	26.5	22.5	24.	0.0027	43.7
1440.0	14.5	10.5	24.	0.0012	20.4

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 41
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 0.86

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

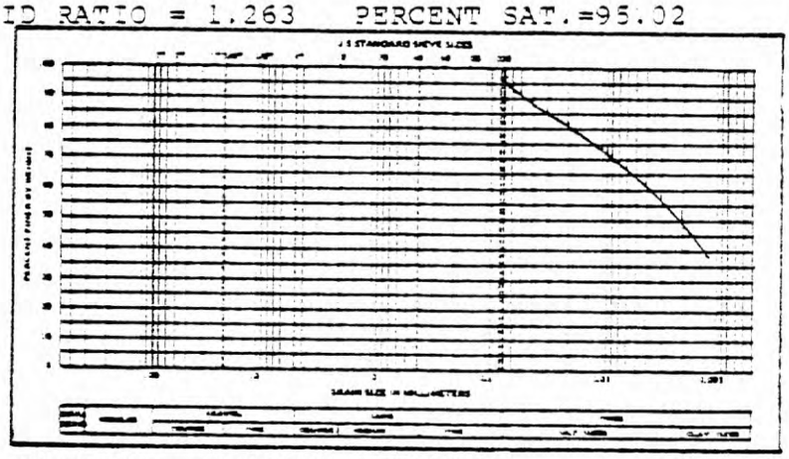
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 482-497 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 17.29KN/M3
NATURAL MOISTURE CONTENT = 43.0 PERCENT
DRY UNIT WT =12.09KN/M3 VOID RATIO = 1.263 PERCENT SAT.=95.02

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	4.6	97.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	47.2	26.	0.0479	91.5
1.0	51.0	45.2	26.	0.0346	87.6
2.0	49.5	43.7	26.	0.0248	84.7
5.0	46.5	40.7	26.	0.0162	78.9
15.0	43.0	37.2	26.	0.0096	72.1
30.0	41.0	35.1	25.	0.0070	68.1
60.0	38.0	32.1	25.	0.0051	62.3
250.0	34.0	27.9	23.	0.0026	54.1
1440.0	26.0	19.7	21.	0.0012	38.3

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 47
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 0.81

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

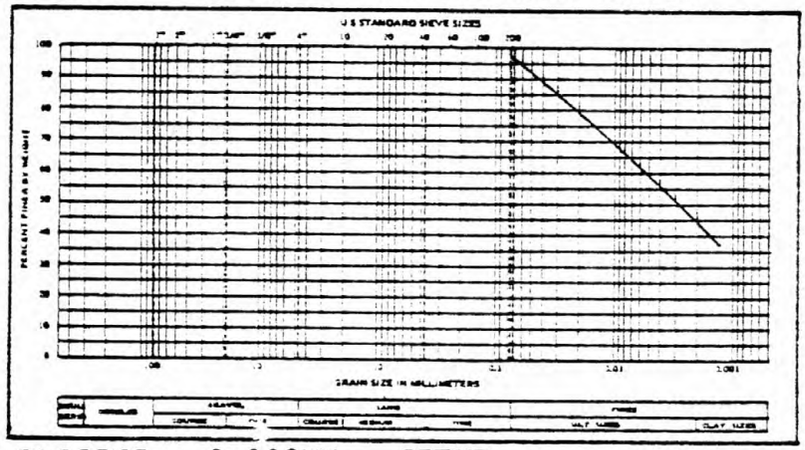
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 591-606 CM

SPECIFIC GRAVITY = 2.85
WET UNIT WEIGHT = 17.55KN/M3
NATURAL MOISTURE CONTENT = 44.9 PERCENT
DRY UNIT WT =12.11KN/M3 VOID RATIO = 1.307 PERCENT SAT.=97.89

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	4.3	96.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.5	47.2	26.	0.0483	90.5
1.0	47.5	44.2	26.	0.0352	84.8
2.0	44.5	41.1	25.	0.0259	78.8
5.0	42.0	38.7	26.	0.0166	74.2
15.0	39.0	35.7	26.	0.0098	68.5
30.0	37.0	33.7	26.	0.0071	64.6
60.0	34.5	31.2	27.	0.0051	59.9
265.0	28.5	25.3	27.	0.0025	48.5
1410.0	22.5	19.0	25.	0.0012	36.5

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 47
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 0.91

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

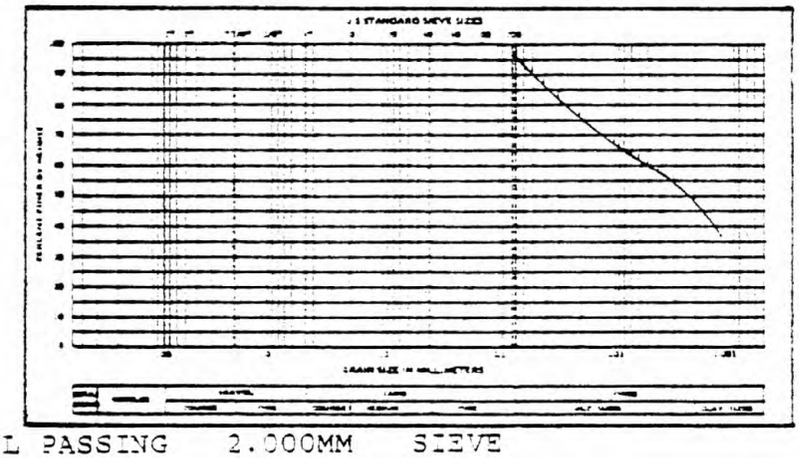
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-21 PC-23
SAMPLE IDENTIFICATION IS UD @ 686-699 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 18.00KN/M3
NATURAL MOISTURE CONTENT = 43.9 PERCENT
DRY UNIT WT =12.51KN/M3 VOID RATIO = 1.187 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.0	97.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	45.1	25.	0.0495	87.5
1.0	49.0	43.1	25.	0.0357	83.6
2.0	47.0	41.1	25.	0.0257	79.7
5.0	44.0	38.1	25.	0.0167	73.9
15.0	41.0	35.1	25.	0.0099	68.1
33.0	39.0	33.1	25.	0.0068	64.2
85.0	36.0	30.1	25.	0.0043	58.4
260.0	33.5	27.6	25.	0.0025	53.5
1440.0	25.0	19.0	24.	0.0012	36.9

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 43
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 1.07

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

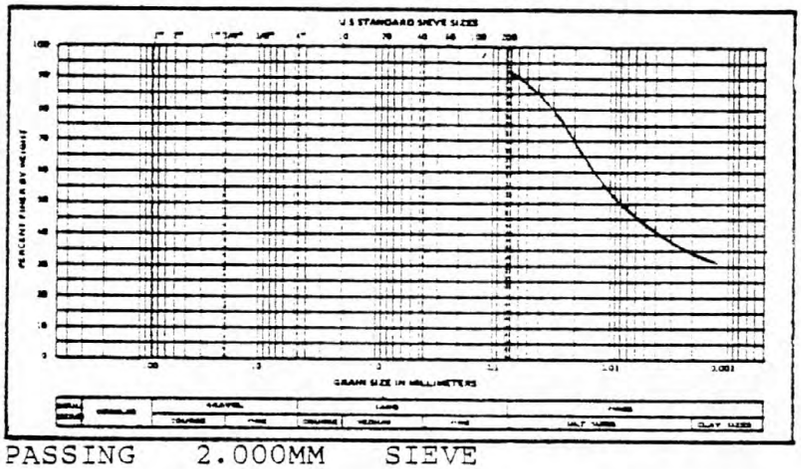
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 268-283 CM

SPECIFIC GRAVITY = 2.73
WET UNIT WEIGHT = 17.43KN/M3
NATURAL MOISTURE CONTENT = 46.7 PERCENT
DRY UNIT WT =11.88KN/M3 VOID RATIO = 1.253 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	12.8	92.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	48.0	44.6	25.	0.0519	87.6
1.0	46.0	42.6	25.	0.0374	83.7
2.0	42.0	38.6	25.	0.0274	75.8
5.0	36.0	32.6	25.	0.0182	64.1
15.0	31.0	27.6	25.	0.0109	54.2
30.0	29.0	25.6	25.	0.0078	50.3
60.0	26.5	23.0	25.	0.0057	45.3
250.0	24.0	20.3	22.	0.0029	39.9
1440.0	19.0	15.5	24.	0.0012	30.5

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 40
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 1.30

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 12 CLAYEY SOILS

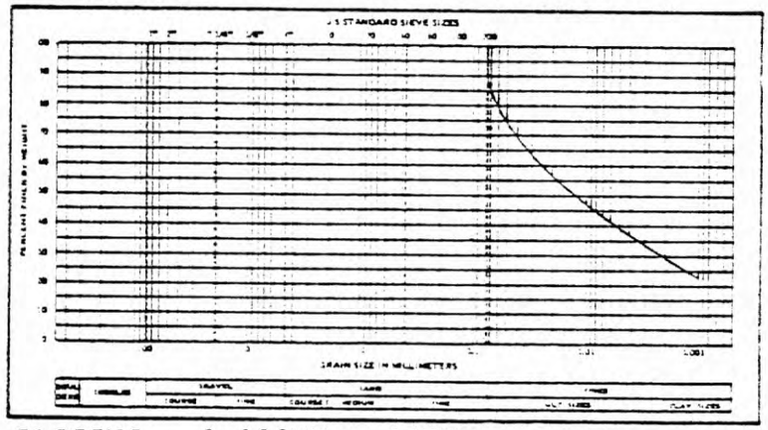
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 283-295 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 16.40KN/M3
NATURAL MOISTURE CONTENT = 45.7 PERCENT
DRY UNIT WT =11.26KN/M3 VOID RATIO = 1.439 PERCENT SAT.=88.92

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	15.2	89.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE .

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	43.0	38.7	23.	0.0545	75.0
1.0	40.0	35.7	23.	0.0396	69.2
2.0	38.0	33.7	23.	0.0284	65.3
5.0	34.0	29.7	23.	0.0186	57.5
15.0	30.0	25.7	23.	0.0110	49.8
30.0	27.0	22.7	23.	0.0080	44.0
60.0	25.0	20.7	23.	0.0057	40.1
250.0	21.0	16.8	24.	0.0028	32.5
1440.0	16.0	11.8	24.	0.0012	22.9

PLASTIC LIMIT IS 19
LIQUID LIMIT IS 37
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 1.51

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

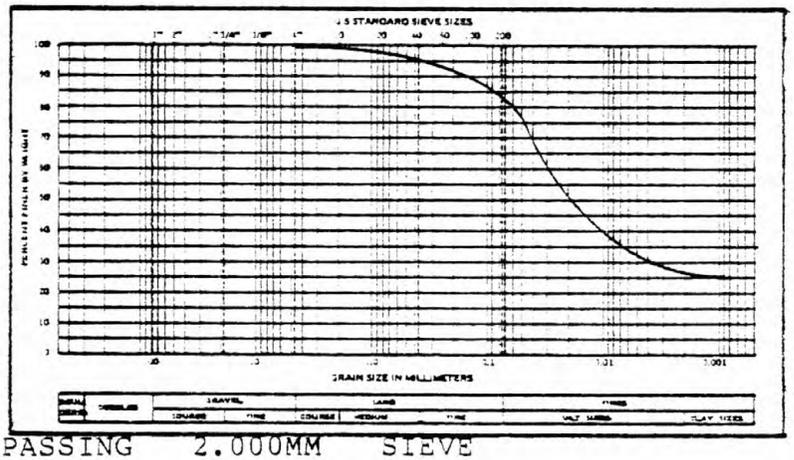
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22; PC-24
SAMPLE IDENTIFICATION IS UD @ 323-334 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 18.00KN/M3
NATURAL MOISTURE CONTENT = 39.4 PERCENT
DRY UNIT WT =12.91KN/M3 VOID RATIO = 1.065 PERCENT SAT.= 100.

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	1.4	99.3
0.420	13.6	93.6
0.075	29.7	85.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	39.0	35.2	27.	0.0550	68.9
1.0	37.5	33.7	27.	0.0394	66.0
2.0	33.0	29.2	27.	0.0289	57.2
5.0	29.0	25.2	27.	0.0188	49.3
15.0	25.0	21.2	27.	0.0112	41.5
30.0	22.5	18.7	27.	0.0080	36.6
60.0	20.5	16.7	27.	0.0057	32.7
250.0	18.5	14.5	24.	0.0030	28.4
1440.0	17.5	13.0	18.	0.0013	25.5

PLASTIC LIMIT IS 20
LIQUID LIMIT IS 36
PLASTICITY INDEX IS 16
LIQUIDITY INDEX IS 1.21

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 14.1% SAND 59.2% SILT 26.7% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

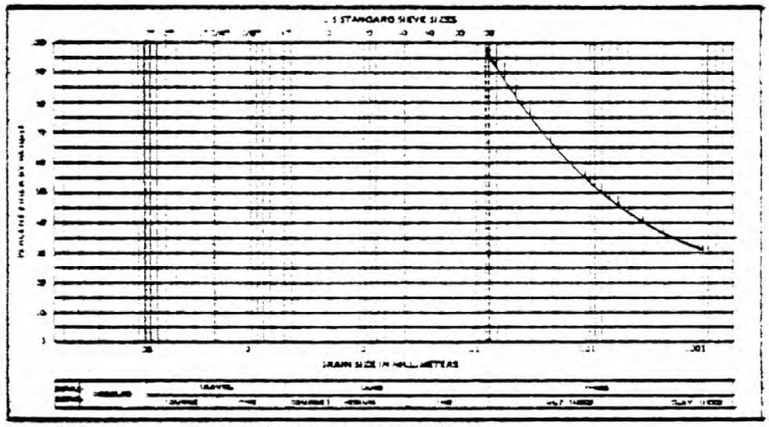
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22; PC-24
SAMPLE IDENTIFICATION IS UD @ 445-460 CM

SPECIFIC GRAVITY = 2.73
WET UNIT WEIGHT = 16.90KN/M3
NATURAL MOISTURE CONTENT = 53.6 PERCENT
DRY UNIT WT =11.00KN/M3 VOID RATIO = 1.433 PERCENT SAT.=02.12

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.9	97.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	43.2	27.	0.0501	84.9
1.0	47.0	41.2	27.	0.0362	81.0
2.0	43.5	37.7	27.	0.0264	74.1
5.0	38.5	32.7	27.	0.0174	64.3
16.0	34.0	28.2	27.	0.0101	55.5
30.0	31.5	25.7	27.	0.0075	50.5
60.0	29.0	23.2	26.	0.0055	45.5
215.0	25.5	19.6	25.	0.0030	38.5
1440.0	22.0	16.2	26.	0.0012	31.7

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 21
LIQUIDITY INDEX IS 1.40

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

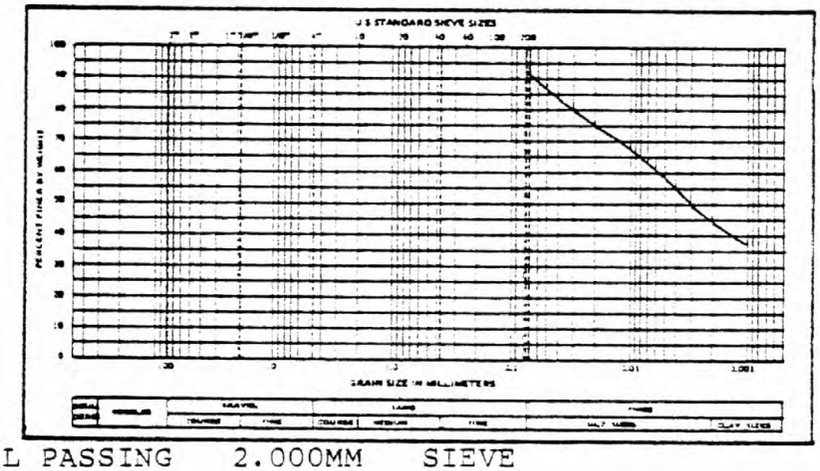
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 543-558 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 15.58KN/M3
NATURAL MOISTURE CONTENT = 62.6 PERCENT
DRY UNIT WT = 9.58KN/M3 VOID RATIO = 1.854 PERCENT SAT.=94.12

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	8.0	91.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.6	25.	0.0500	88.5
1.0	47.5	43.1	25.	0.0362	83.6
2.0	45.0	40.6	25.	0.0262	78.7
5.0	42.0	37.6	25.	0.0170	72.9
15.0	39.0	34.6	25.	0.0101	67.1
30.0	36.0	31.6	25.	0.0073	61.3
60.0	34.0	29.5	25.	0.0053	57.3
285.0	28.5	24.2	26.	0.0025	46.9
1495.0	24.0	19.6	25.	0.0011	38.0

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 52
PLASTICITY INDEX IS 27
LIQUIDITY INDEX IS 1.38

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

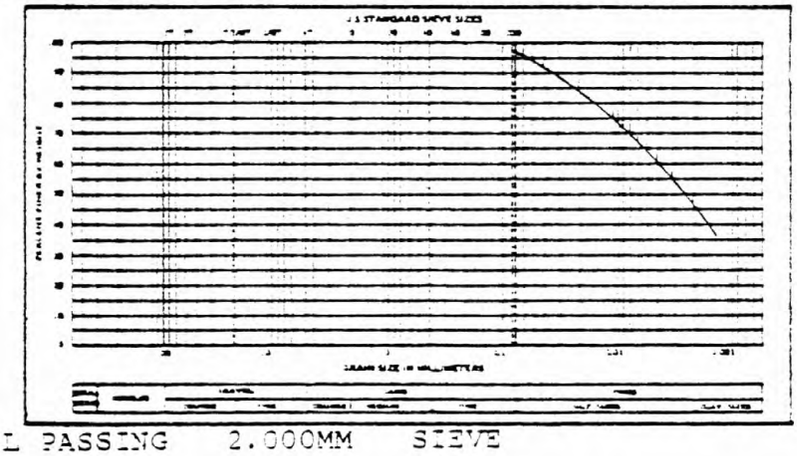
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-24
SAMPLE IDENTIFICATION IS UD @ 566-579 CM

SPECIFIC GRAVITY = 2.77
WET UNIT WEIGHT = 15.98KN/M3
NATURAL MOISTURE CONTENT = 63.0 PERCENT
DRY UNIT WT = 9.80KN/M3 VOID RATIO = 1.770 PERCENT SAT.=98.57

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	7.8	95.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.5	47.5	25.	0.0498	92.6
1.0	50.5	46.5	25.	0.0356	90.7
2.0	48.5	44.5	25.	0.0257	86.8
5.0	46.0	42.0	25.	0.0166	81.9
15.0	42.0	38.0	25.	0.0100	74.1
30.0	39.0	35.0	24.	0.0073	68.2
60.0	36.0	32.0	24.	0.0053	62.4
250.0	30.5	26.4	23.	0.0027	51.5
1440.0	22.5	18.5	24.	0.0012	36.1

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 50
PLASTICITY INDEX IS 24
LIQUIDITY INDEX IS 1.54

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 15 CLAYEY SOILS

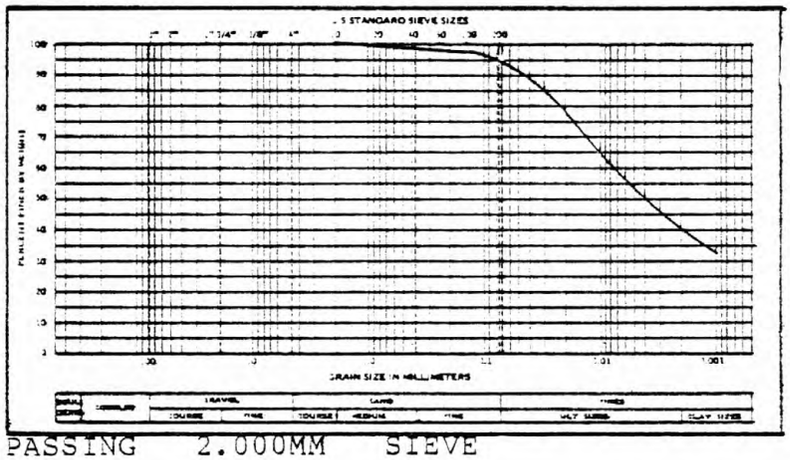
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22;PC-25
SAMPLE IDENTIFICATION IS UD @ 188-200 cm

SPECIFIC GRAVITY = 2.77
WET UNIT WEIGHT = 16.00KN/M3
NATURAL MOISTURE CONTENT = 60.0 PERCENT
DRY UNIT WT =10.00KN/M3 VOID RATIO = 1.716 PERCENT SAT.=96.85

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	11.4	95.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	46.8	21.	0.0520	91.2
1.0	49.5	45.3	21.	0.0374	88.2
2.0	26.5	22.3	21.	0.0319	43.4
5.0	42.0	37.8	21.	0.0179	73.6
15.0	37.5	33.3	21.	0.0107	64.8
30.0	35.0	30.8	21.	0.0078	60.0
55.0	33.0	28.8	21.	0.0058	56.1
250.0	27.0	22.8	21.	0.0028	44.4
1446.0	21.5	17.2	20.	0.0012	33.5

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 49
PLASTICITY INDEX IS 24
LIQUIDITY INDEX IS 1.45

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 4.7% SAND 56.6% SILT 38.7% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 15 CLAYEY SOILS

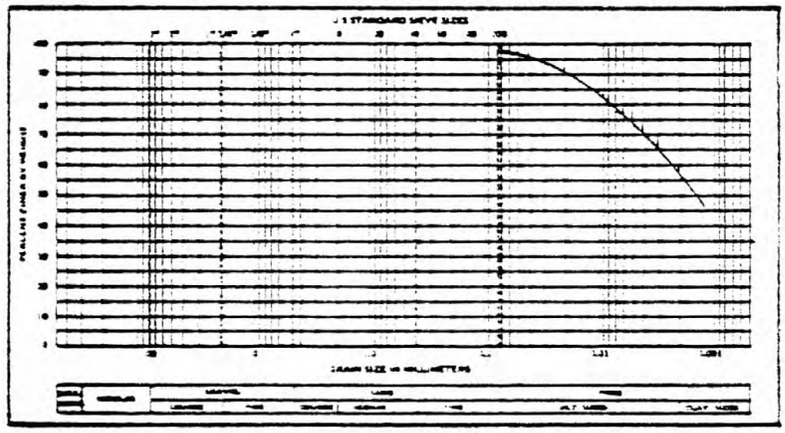
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 304-319 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 15.80KN/M3
NATURAL MOISTURE CONTENT = 65.7 PERCENT
DRY UNIT WT = 9.54KN/M3 VOID RATIO = 1.797 PERCENT SAT.=99.45

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.7	98.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	52.0	48.5	24.	0.0357	95.5
2.0	50.0	46.5	24.	0.0258	91.6
5.0	48.0	44.5	24.	0.0166	87.6
15.0	45.0	41.5	24.	0.0099	81.7
30.0	43.0	39.5	24.	0.0071	77.8
60.0	41.0	37.5	24.	0.0051	73.8
250.0	33.0	29.5	25.	0.0027	58.2
1440.0	26.5	22.9	23.	0.0012	45.1

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 59
PLASTICITY INDEX IS 30
LIQUIDITY INDEX IS 1.25

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

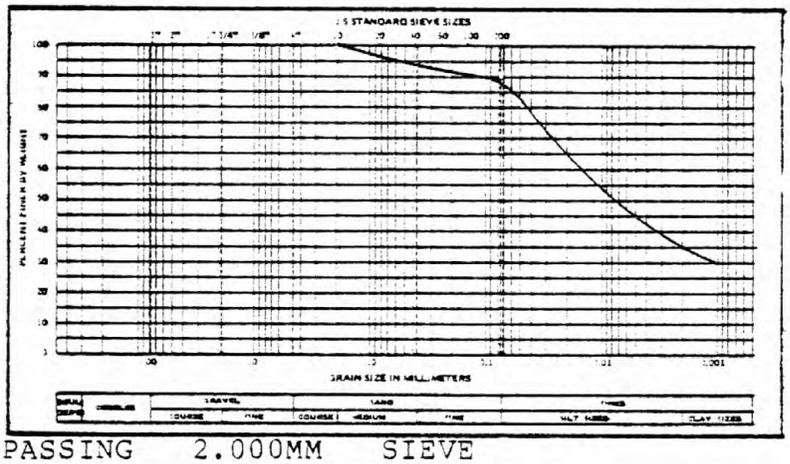
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22;PC-25
SAMPLE IDENTIFICATION IS UD @ 238-253 CM

SPECIFIC GRAVITY = 2.77
WET UNIT WEIGHT = 16.30KN/M3
NATURAL MOISTURE CONTENT = 56.2 PERCENT
DRY UNIT WT =10.44KN/M3 VOID RATIO = 1.603 PERCENT SAT.=97.13

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.420	10.1	94.4
0.075	18.0	90.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	45.0	41.2	27.	0.0515	80.3
1.0	43.0	39.2	27.	0.0371	76.4
2.0	40.0	36.2	27.	0.0269	70.6
6.0	35.0	31.2	27.	0.0162	60.8
15.0	32.0	28.2	27.	0.0105	55.0
30.0	30.0	26.2	27.	0.0075	51.1
60.0	28.0	24.2	26.	0.0055	47.1
250.0	24.0	20.1	25.	0.0028	39.1
1440.0	19.5	15.6	26.	0.0012	30.5

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 43
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 1.69

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 9.9% SAND 55.2% SILT 34.9% CLAY

UNIFIED SOIL CLASSIFICATION IS CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

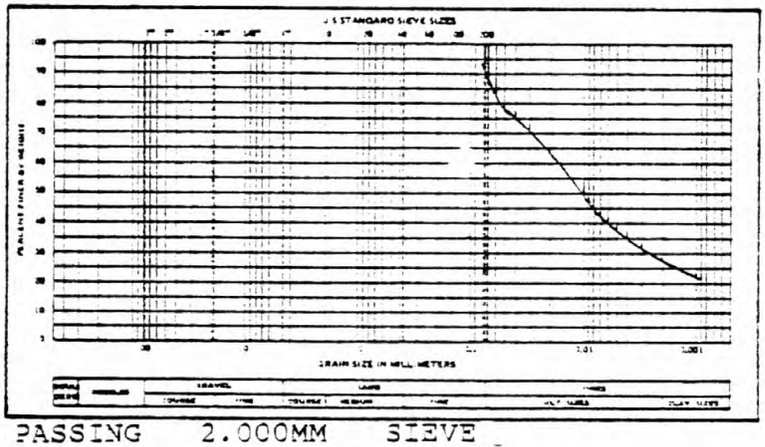
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 425-438 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 17.90KN/M3
NATURAL MOISTURE CONTENT = 42.6 PERCENT
DRY UNIT WT =12.55KN/M3 VOID RATIO = 1.195 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	12.1	92.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	45.0	40.5	24.	0.0528	78.3
1.0	42.0	37.5	24.	0.0383	72.5
2.0	39.0	34.5	24.	0.0278	66.7
5.0	36.0	31.5	24.	0.0180	60.9
15.0	29.0	24.5	24.	0.0110	47.4
30.0	27.0	22.5	24.	0.0079	43.5
60.0	25.0	20.5	24.	0.0056	39.6
250.0	21.0	16.5	24.	0.0028	31.9
1440.0	17.0	12.5	24.	0.0012	24.2

PLASTIC LIMIT IS 19
LIQUID LIMIT IS 35
PLASTICITY INDEX IS 16
LIQUIDITY INDEX IS 1.48

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

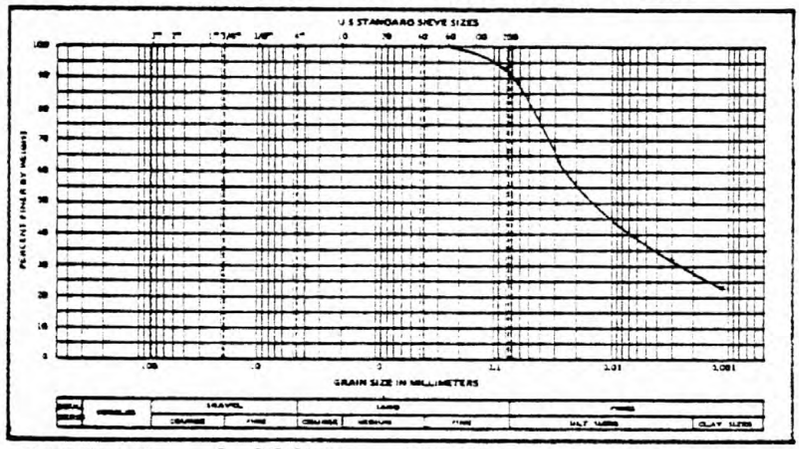
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 472-487 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 17.61KN/M3
NATURAL MOISTURE CONTENT = 43.1 PERCENT
DRY UNIT WT =12.31KN/M3 VOID RATIO = 1.191 PERCENT SAT.=99.51

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	12.3	93.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	43.0	38.7	23.	0.0553	75.7
1.0	41.5	37.2	23.	0.0396	72.8
2.0	37.0	32.7	23.	0.0291	64.0
5.0	32.0	27.7	23.	0.0191	54.2
15.0	28.0	23.7	23.	0.0114	46.4
30.0	26.0	21.7	23.	0.0081	42.5
60.0	24.0	19.6	22.	0.0059	38.4
250.0	20.5	16.1	22.	0.0030	31.5
1440.0	16.0	11.8	24.	0.0012	23.1

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 38
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 1.28

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

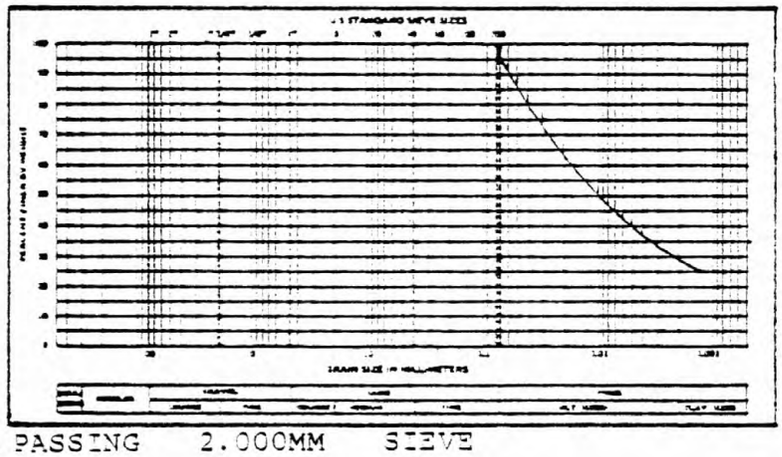
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 558-573 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 17.09KN/M3
NATURAL MOISTURE CONTENT = 43.0 PERCENT
DRY UNIT WT =11.95KN/M3 VOID RATIO = 1.289 PERCENT SAT.=93.07

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.3	98.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.9	26.	0.0497	89.2
1.0	45.0	40.9	26.	0.0369	79.5
2.0	40.0	35.9	26.	0.0272	69.8
5.0	35.5	31.5	26.	0.0179	61.0
15.0	30.0	25.9	25.	0.0108	50.3
30.0	27.0	22.9	25.	0.0078	44.4
60.0	25.0	20.9	25.	0.0056	40.6
250.0	21.0	17.0	26.	0.0028	33.0
1440.0	17.0	12.9	25.	0.0012	25.0

PLASTIC LIMIT IS 22
LIQUID LIMIT IS 39
PLASTICITY INDEX IS 17
LIQUIDITY INDEX IS 1.21

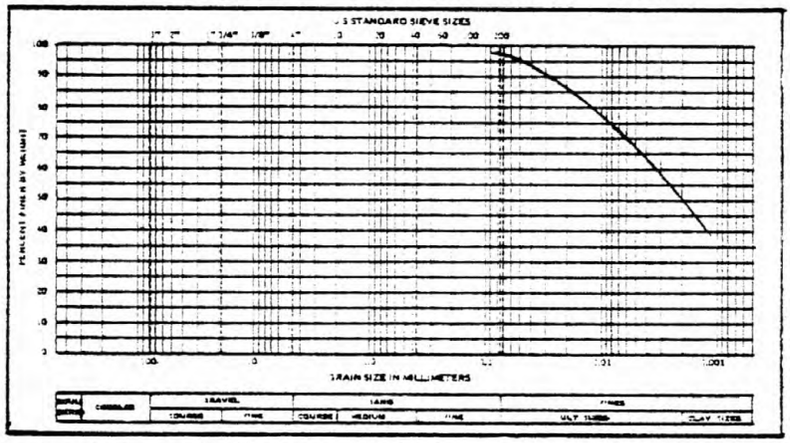
UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 568-583 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 16.70KN/M3
NATURAL MOISTURE CONTENT = 57.9 PERCENT
DRY UNIT WT =10.58KN/M3 VOID RATIO = 1.549 PERCENT SAT.= 100



SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.9	98.8

HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	49.1	25.	0.0490	96.0
1.0	51.0	47.1	25.	0.0354	92.1
2.0	48.5	44.6	25.	0.0257	87.2
5.0	46.5	42.6	25.	0.0165	83.3
15.0	43.0	39.1	25.	0.0099	76.5
30.0	41.0	37.1	25.	0.0071	72.5
60.0	36.5	32.6	25.	0.0052	63.7
250.0	34.0	30.1	25.	0.0026	58.8
1440.0	24.0	20.0	24.	0.0012	39.1

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 54
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.13

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

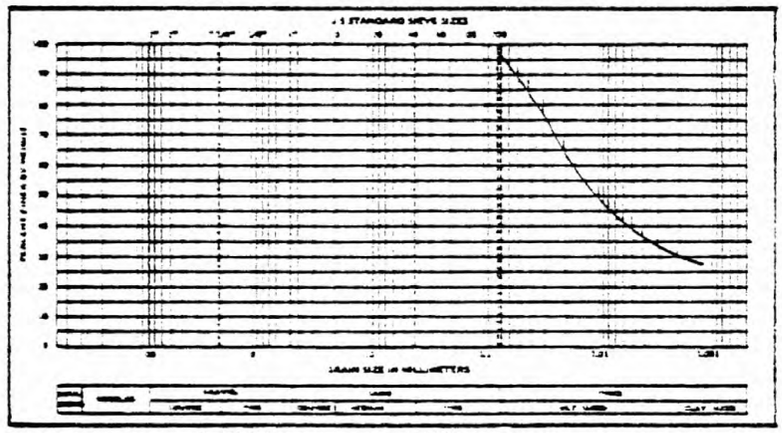
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-22 PC-25
SAMPLE IDENTIFICATION IS UD @ 581-594 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 17.19KN/M3
NATURAL MOISTURE CONTENT = 49.3 PERCENT
DRY UNIT WT =11.51KN/M3 VOID RATIO = 1.376 PERCENT SAT.=99.99

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.8	98.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	46.6	25.	0.0495	90.4
1.0	46.0	41.6	25.	0.0368	80.7
2.0	42.0	37.6	25.	0.0269	72.9
6.0	35.0	30.6	25.	0.0165	59.3
16.0	31.0	26.6	25.	0.0104	51.6
30.0	27.5	23.1	25.	0.0078	44.8
76.0	24.5	20.1	26.	0.0050	39.0
130.0	23.0	18.6	25.	0.0039	36.1
1455.0	18.0	13.5	24.	0.0012	26.2

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 47
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 1.14

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

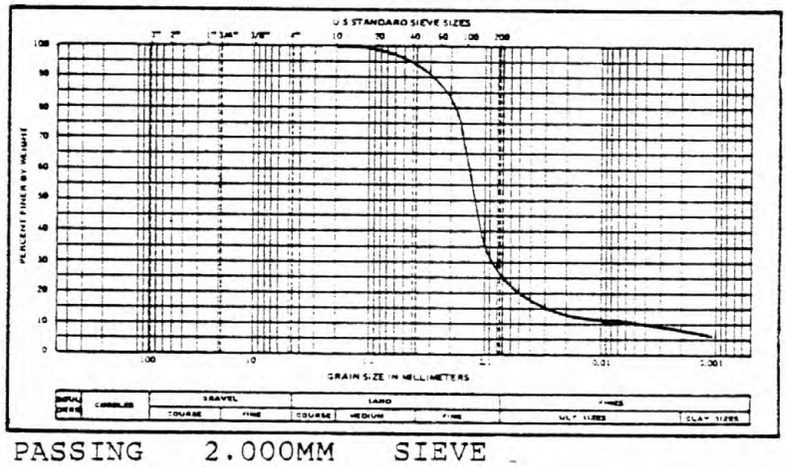
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 106-121 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 17.50KN/M3
NATURAL MOISTURE CONTENT = 41.2 PERCENT
DRY UNIT WT =12.39KN/M3 VOID RATIO = 1.152 PERCENT SAT.=97.29

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.1	100.0
0.840	1.1	99.6
0.420	8.2	97.0
0.250	29.1	89.4
0.145	90.3	67.2
0.075	205.5	25.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	15.0	11.0	26.	0.0659	21.7
1.0	14.0	10.0	26.	0.0469	19.7
2.0	12.0	8.0	26.	0.0335	15.7
5.0	11.0	7.0	26.	0.0213	13.8
15.0	10.5	6.5	26.	0.0123	12.8
30.0	10.0	6.0	26.	0.0088	11.8
60.0	9.5	5.5	26.	0.0062	10.8
250.0	8.5	4.5	26.	0.0031	8.9
1440.0	7.0	2.9	25.	0.0013	5.6

SOIL SAMPLE IS NON-PLASTIC
LIQUID LIMIT IS 30

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 74.7% SAND 18.4% SILT 6.9% CLAY
UNIFORMITY COEF = 34.82 COEF OF CURVATURE = 9.44

UNIFIED SOIL CLASSIFICATION IS
SM SILTY SANDS

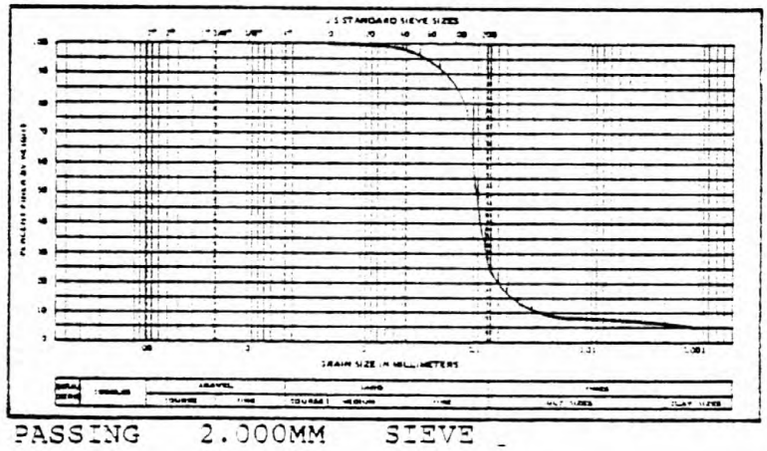
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 121-133 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 19.10KN/M3
NATURAL MOISTURE CONTENT = 30.9 PERCENT
DRY UNIT WT =14.59KN/M3 VOID RATIO = 0.828 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.1	100.0
0.840	0.8	99.7
0.420	3.8	98.4
0.250	12.2	95.1
0.149	37.4	84.9
0.075	179.6	27.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	14.0	10.2	27.	0.0655	20.1
1.0	12.0	8.2	27.	0.0468	16.2
2.0	10.0	6.2	27.	0.0335	12.3
5.0	9.0	5.2	27.	0.0213	10.3
15.0	8.5	4.7	27.	0.0123	9.3
30.0	8.5	4.7	26.	0.0088	9.2
60.0	8.5	4.7	26.	0.0062	9.2
250.0	7.0	3.1	26.	0.0031	6.1
1440.0	6.0	2.0	25.	0.0013	4.0

SOIL SAMPLE IS NON-PLASTIC
LIQUID LIMIT IS 27

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 72.7% SAND 22.5% SILT 4.8% CLAY
UNIFORMITY COEF = 6.25 COEF OF CURVATURE = 2.80

UNIFIED SOIL CLASSIFICATION IS
SM SILTY SANDS

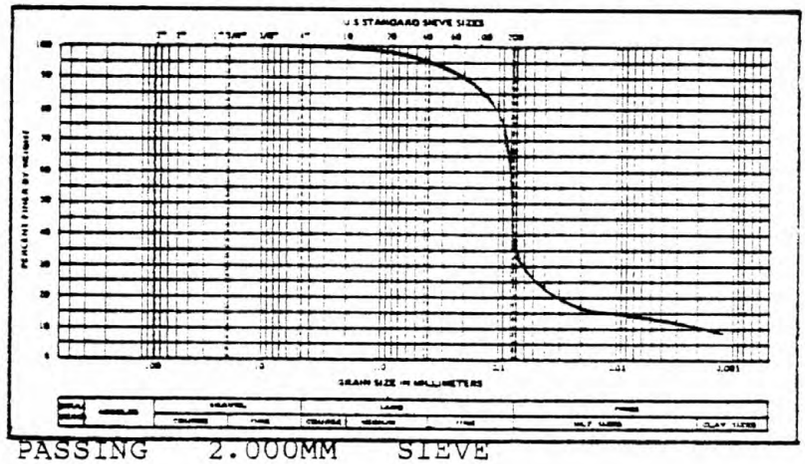
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 171-186 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 19.42KN/M3
NATURAL MOISTURE CONTENT = 26.5 PERCENT
DRY UNIT WT =15.35KN/M3 VOID RATIO = 0.763 PERCENT SAT.=95.85

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
9.530	0.0	100.0
4.760	0.4	99.9
2.000	1.1	99.7
0.840	3.8	98.8
0.420	11.2	96.5
0.250	21.9	93.2
0.149	47.6	85.1
0.075	208.6	34.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	18.0	14.3	22.	0.0670	27.8
1.0	16.0	12.3	22.	0.0479	23.9
2.0	13.0	9.3	22.	0.0345	18.1
5.0	12.0	8.3	22.	0.0219	16.2
15.0	11.5	7.7	21.	0.0128	15.0
30.0	11.0	7.2	21.	0.0091	14.0
60.0	10.5	6.7	21.	0.0065	13.0
250.0	10.0	6.2	21.	0.0032	12.1
1440.0	8.5	4.6	20.	0.0013	9.0

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

SOIL SAMPLE IS NON-PLASTIC
LIQUID LIMIT IS 28

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 65.2% SAND 24.7% SILT 10.1% CLAY
UNIFORMITY COEF = 57.61 COEF OF CURVATURE = 22.14

UNIFIED SOIL CLASSIFICATION IS
SM SILTY SANDS

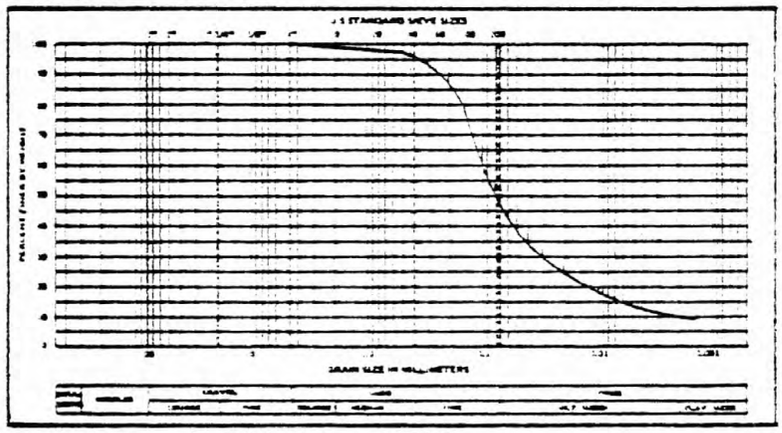
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-24 PC-28
SAMPLE IDENTIFICATION IS UD @ 271-284 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 20.46KN/M3
NATURAL MOISTURE CONTENT = 23.1 PERCENT
DRY UNIT WT =16.62KN/M3 VOID RATIO = 0.622 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.6	99.7
0.840	2.2	98.8
0.420	7.4	96.0
0.240	15.1	91.8
0.149	38.2	79.3
0.075	90.2	51.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	26.0	21.4	23.	0.0631	41.8
1.0	24.0	19.4	23.	0.0452	37.9
2.0	20.0	15.4	23.	0.0328	30.1
5.0	17.5	12.9	23.	0.0211	25.2
15.0	15.0	10.4	23.	0.0123	20.3
30.0	14.0	9.4	23.	0.0088	18.4
60.0	13.0	8.4	23.	0.0062	16.4
250.0	12.0	7.4	22.	0.0031	14.3
1440.0	9.5	5.0	24.	0.0013	9.8

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 18
LIQUID LIMIT IS 18
PLASTICITY INDEX IS 0

UNIFIED SOIL CLASSIFICATION IS
ML

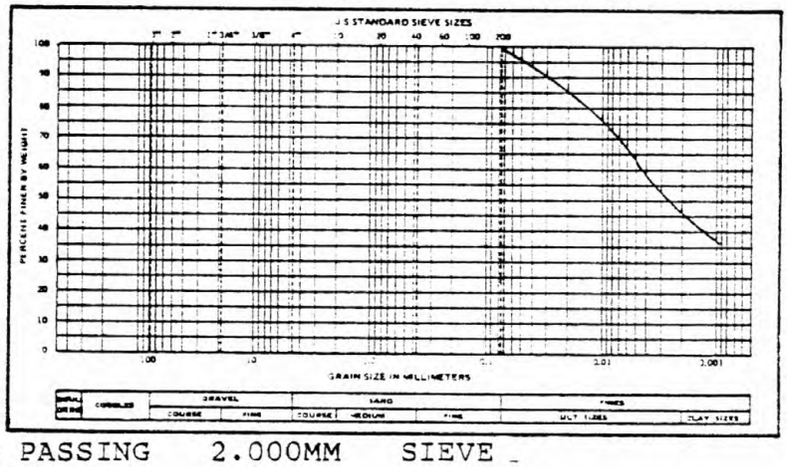
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 149-164 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 17.12KN/M3
NATURAL MOISTURE CONTENT = 44.8 PERCENT
DRY UNIT WT =11.82KN/M3 VOID RATIO = 1.305 PERCENT SAT.=95.40

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.2	99.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	48.8	28.	0.0468	94.9
1.0	51.0	46.8	28.	0.0338	91.0
2.0	49.0	44.8	28.	0.0244	87.1
5.0	46.5	42.3	28.	0.0158	82.3
15.0	42.0	37.8	28.	0.0095	73.5
30.0	40.0	35.8	28.	0.0069	69.5
60.0	36.5	32.3	28.	0.0050	62.7
250.0	29.5	25.2	26.	0.0026	48.9
1440.0	24.0	19.5	24.	0.0012	37.9

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 49
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 0.79

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

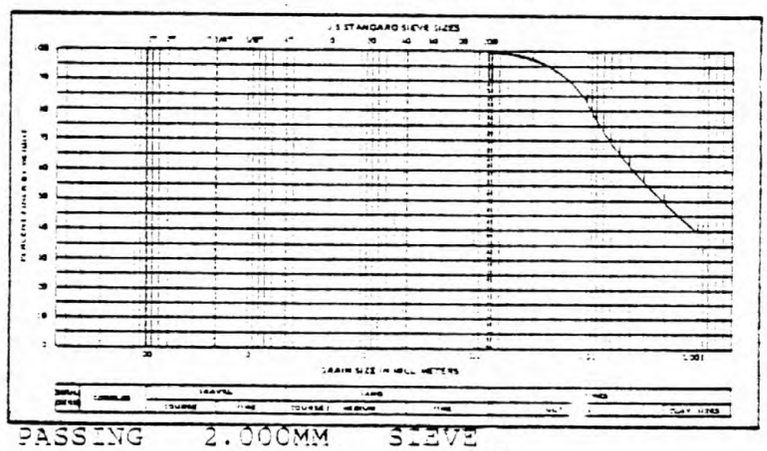
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 172-184 CM

SPECIFIC GRAVITY = 2.83
WET UNIT WEIGHT = 17.80KN/M3
NATURAL MOISTURE CONTENT = 43.6 PERCENT
DRY UNIT WT =12.40KN/M3 VOID RATIO = 1.239 PERCENT SAT.=99.62

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.8	99.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	55.0	51.5	24.	0.0335	99.2
2.0	53.0	49.5	24.	0.0242	95.3
5.0	50.5	47.0	24.	0.0157	90.5
15.0	46.0	42.5	24.	0.0095	81.8
30.0	42.5	39.0	24.	0.0069	75.1
60.0	39.0	35.5	24.	0.0050	68.4
250.0	30.5	27.2	26.	0.0026	52.4
1440.0	24.0	20.6	25.	0.0011	39.7

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 0.93

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 12 CLAYEY SOILS

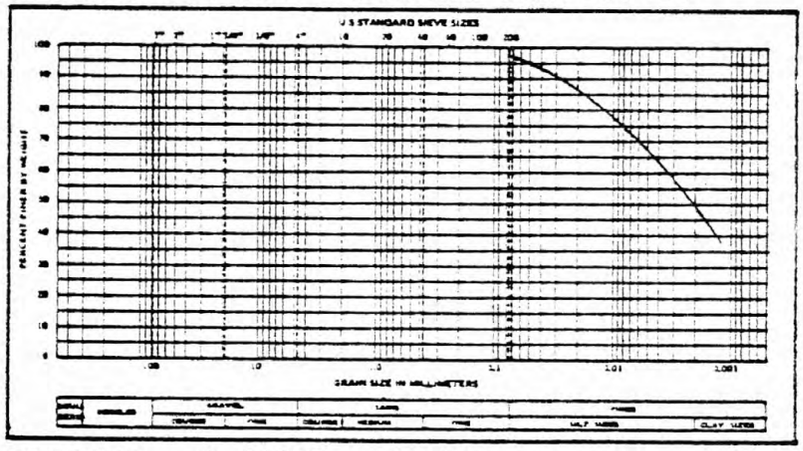
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 212-227 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 17.29KN/M3
NATURAL MOISTURE CONTENT = 45.1 PERCENT
DRY UNIT WT =11.92KN/M3 VOID RATIO = 1.304 PERCENT SAT.=96.84

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.8	98.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	54.0	48.0	24.	0.0483	93.0
1.0	53.0	47.0	24.	0.0346	91.0
2.0	52.0	46.0	24.	0.0247	89.1
5.0	49.0	43.0	24.	0.0161	83.3
15.0	45.0	39.0	24.	0.0097	75.5
30.0	42.0	36.0	24.	0.0070	69.7
60.0	39.0	32.9	23.	0.0051	63.8
250.0	33.5	27.3	22.	0.0027	53.0
1440.0	25.5	19.5	24.	0.0011	37.8

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 0.98

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

CD-25 PC-29
235-248 CM

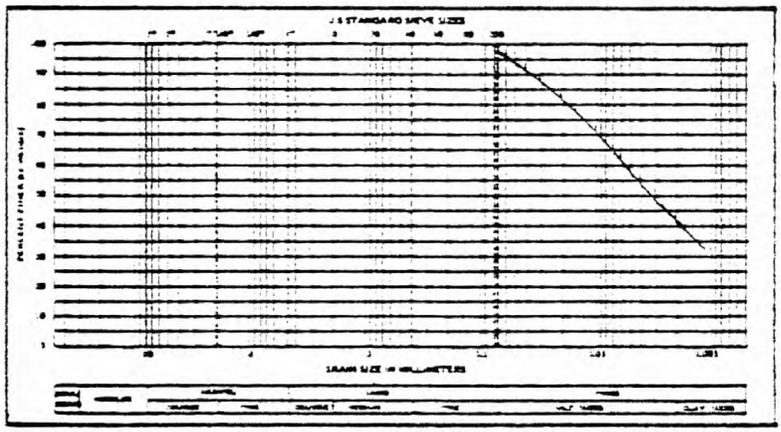
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-25 PC-29
SAMPLE IDENTIFICATION IS UD @ 235-248 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 18.63KN/M3
NATURAL MOISTURE CONTENT = 36.9 PERCENT
DRY UNIT WT =13.61KN/M3 VOID RATIO = 0.959 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.0	96.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.5	46.2	26.	0.0501	90.9
1.0	49.5	45.2	26.	0.0358	88.9
2.0	47.0	42.7	26.	0.0260	84.0
5.0	44.5	40.2	26.	0.0168	79.1
15.0	39.0	34.7	26.	0.0102	68.2
30.0	36.5	32.2	26.	0.0073	63.3
60.0	33.0	28.7	26.	0.0053	56.4
250.0	27.0	22.7	26.	0.0027	44.6
1440.0	22.0	17.4	23.	0.0012	34.3

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 38
PLASTICITY INDEX IS 15
LIQUIDITY INDEX IS 0.90

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

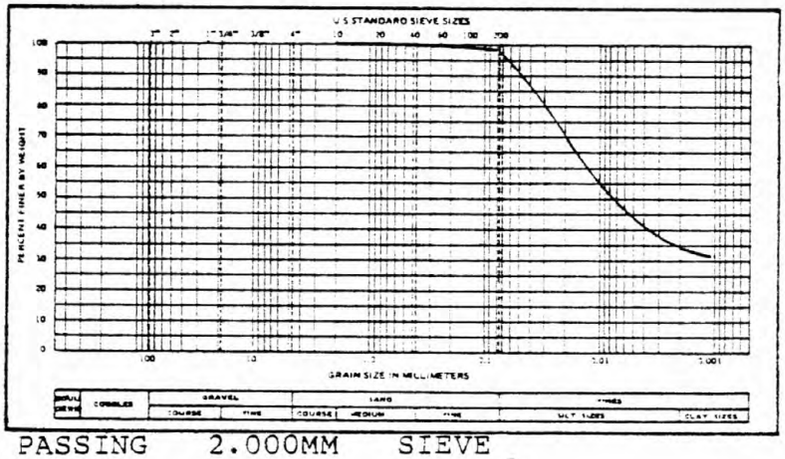
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 285-300 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 16.50KN/M3
NATURAL MOISTURE CONTENT = 38.9 PERCENT
DRY UNIT WT =11.88KN/M3 VOID RATIO = 1.311 PERCENT SAT.=83.07

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	2.1	98.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	43.2	26.	0.0498	83.2
1.0	48.0	42.2	26.	0.0355	81.3
2.0	45.0	39.2	26.	0.0258	75.5
5.0	40.5	34.7	26.	0.0170	66.8
15.0	35.0	29.1	26.	0.0103	56.2
30.0	33.0	27.1	25.	0.0075	52.2
60.0	30.0	24.1	25.	0.0054	46.4
250.0	25.0	19.2	26.	0.0027	36.9
1440.0	22.0	15.9	22.	0.0012	30.6

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 53
PLASTICITY INDEX IS 26
LIQUIDITY INDEX IS 0.46

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

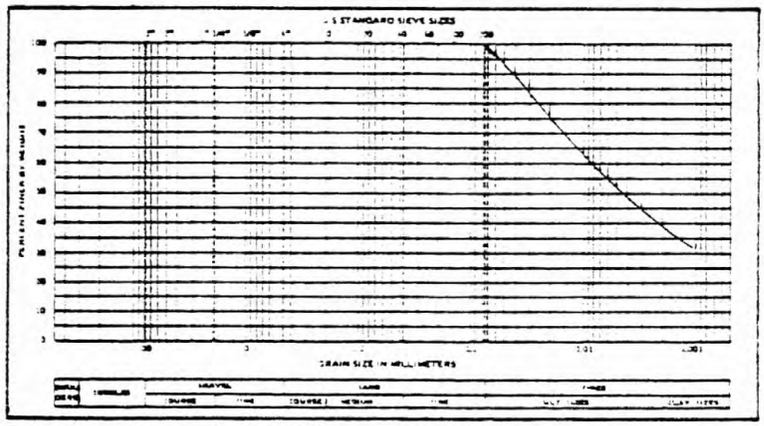
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 300-312 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.70KN/M3
NATURAL MOISTURE CONTENT = 55.6 PERCENT
DRY UNIT WT =10.73KN/M3 VOID RATIO = 1.521 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.0	98.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE-

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.6	25.	0.0504	89.0
1.0	49.0	44.5	25.	0.0362	87.0
2.0	45.0	40.5	25.	0.0266	79.2
5.0	41.5	37.0	25.	0.0174	72.3
15.0	36.5	32.0	25.	0.0104	62.6
30.0	33.5	29.0	25.	0.0076	56.7
60.0	30.5	26.0	25.	0.0055	50.8
250.0	26.0	21.5	24.	0.0028	42.0
1440.0	20.5	16.1	25.	0.0012	31.4

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 48
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 1.34

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

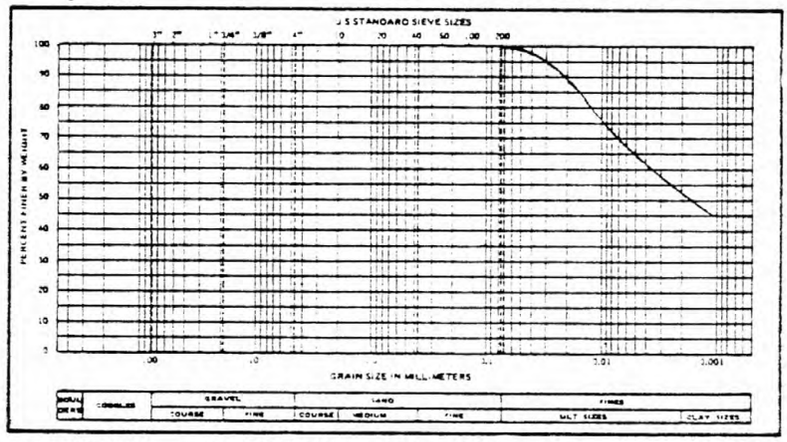
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 360-372 CM

SPECIFIC GRAVITY = 2.65
WET UNIT WEIGHT = 15.10KN/M3
NATURAL MOISTURE CONTENT = 71.5 PERCENT
DRY UNIT WT = 8.80KN/M3 VOID RATIO = 1.951 PERCENT SAT.=97.11

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.028	0.6	99.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	50.4	23.	0.0505	100.8
1.0	53.0	48.4	23.	0.0365	96.8
2.0	51.5	46.9	23.	0.0262	93.8
5.0	48.5	43.9	23.	0.0171	87.8
15.0	43.0	38.4	23.	0.0104	76.8
30.0	41.0	36.4	23.	0.0075	72.8
60.0	38.0	33.4	23.	0.0054	66.8
250.0	32.0	27.4	23.	0.0028	54.8
1440.0	28.5	23.6	19.	0.0012	47.2

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 57
PLASTICITY INDEX IS 30
LIQUIDITY INDEX IS 1.49

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

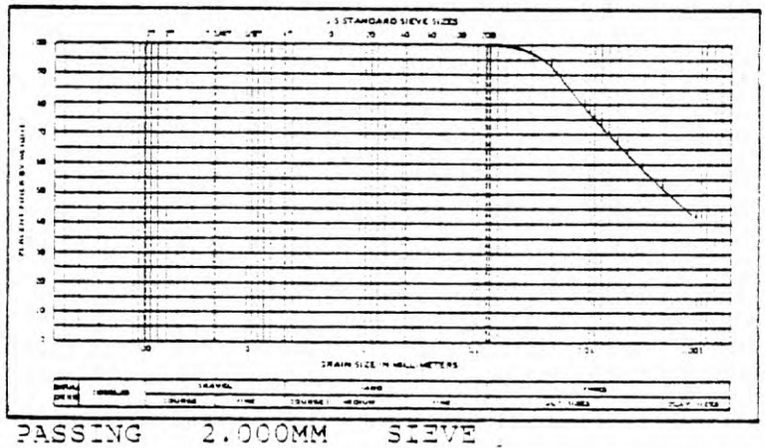
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 408-423 CM

SPECIFIC GRAVITY = 2.71
WET UNIT WEIGHT = 15.78KN/M3
NATURAL MOISTURE CONTENT = 66.6 PERCENT
DRY UNIT WT = 9.47KN/M3 VOID RATIO = 1.805 PERCENT SAT.=99.97

SIEVE ANALYSIS

SIEVE MM	+CUM WT RET(GM)	PERCENT FINER
0.075	0.3	99.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	54.0	49.9	23.	0.0355	98.5
2.0	52.5	48.4	23.	0.0255	95.6
5.0	48.5	44.4	23.	0.0168	87.7
15.0	44.0	39.9	23.	0.0101	78.8
30.0	42.0	37.8	22.	0.0074	74.7
60.0	38.0	33.8	22.	0.0054	66.8
250.0	33.5	29.3	22.	0.0027	57.9
1440.0	26.0	22.0	24.	0.0012	43.4

PLASTIC LIMIT IS 31
LIQUID LIMIT IS 59
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.28

UNIFIED SOIL CLASSIFICATION IS
OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

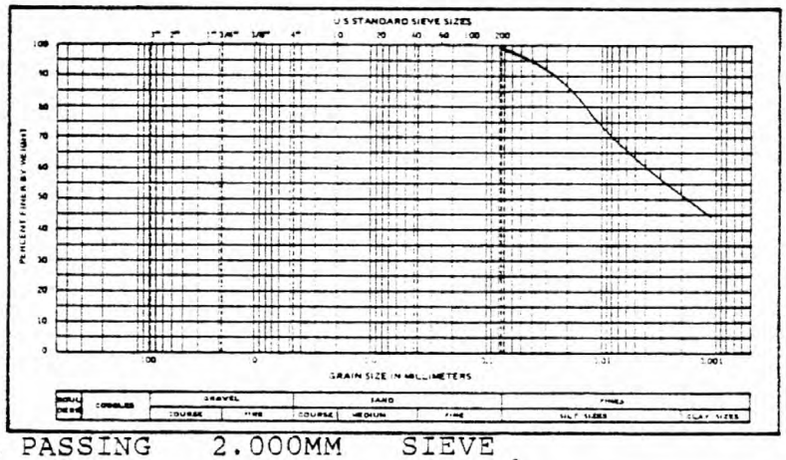
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 488-503 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 15.07KN/M3
NATURAL MOISTURE CONTENT = 73.3 PERCENT
DRY UNIT WT = 8.70KN/M3 VOID RATIO = 2.101 PERCENT SAT.=95.95

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.4	99.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	52.0	48.2	27.	0.0342	94.4
2.0	48.0	44.2	27.	0.0252	86.5
5.0	45.0	41.2	27.	0.0164	80.7
15.0	41.0	37.2	27.	0.0098	72.8
30.0	38.5	34.7	27.	0.0071	67.9
60.0	36.0	32.2	27.	0.0051	63.1
250.0	32.0	28.1	25.	0.0026	54.9
1440.0	26.5	22.6	26.	0.0011	44.2

PLASTIC LIMIT IS 36
LIQUID LIMIT IS 68
PLASTICITY INDEX IS 32
LIQUIDITY INDEX IS 1.16

UNIFIED SOIL CLASSIFICATION IS
OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

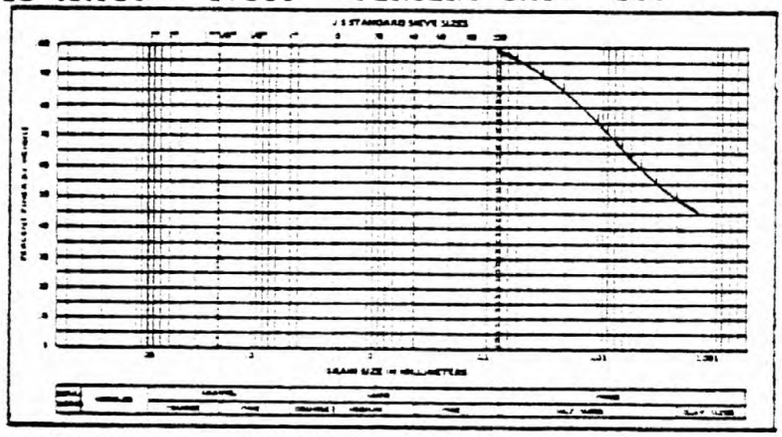
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-26 PC-30
SAMPLE IDENTIFICATION IS UD @ 511-524 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 15.81KN/M3
NATURAL MOISTURE CONTENT = 70.9 PERCENT
DRY UNIT WT = 9.25KN/M3 VOID RATIO = 1.883 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.4	99.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	48.1	27.	0.0488	94.7
1.0	50.0	46.1	27.	0.0352	90.8
2.0	48.0	44.1	27.	0.0254	86.8
5.0	45.0	41.1	27.	0.0165	80.9
15.0	41.5	37.6	27.	0.0098	74.0
30.0	39.0	35.1	27.	0.0071	69.1
60.0	36.0	32.0	26.	0.0052	63.0
250.0	31.5	27.5	26.	0.0026	54.2
1440.0	27.5	23.2	23.	0.0012	45.7

PLASTIC LIMIT IS 30
LIQUID LIMIT IS 62
PLASTICITY INDEX IS 32
LIQUIDITY INDEX IS 1.26

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

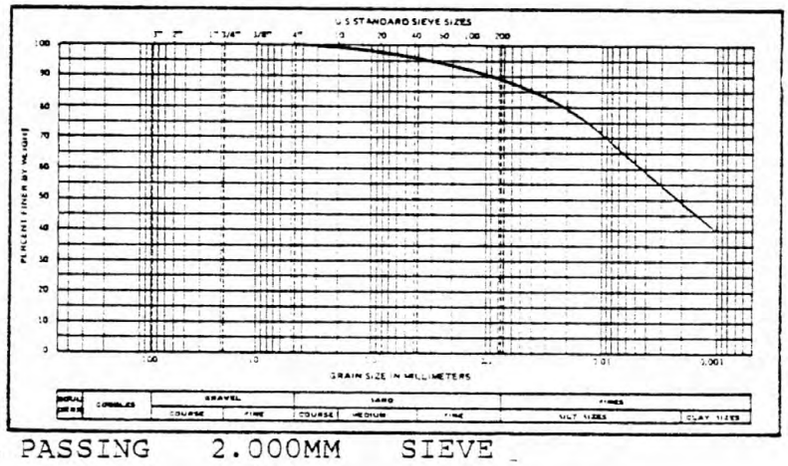
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 106-121 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 16.20KN/M3
NATURAL MOISTURE CONTENT = 59.5 PERCENT
DRY UNIT WT =10.16KN/M3 VOID RATIO = 1.713 PERCENT SAT.=97.62

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	1.4	99.3
0.420	9.3	95.4
0.075	20.1	90.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	45.5	24.	0.0508	87.3
1.0	48.0	44.5	24.	0.0363	85.4
2.0	45.5	42.0	24.	0.0263	80.6
5.0	43.0	39.5	24.	0.0170	75.8
15.0	41.0	37.5	24.	0.0100	72.0
30.0	38.0	34.5	24.	0.0072	66.2
60.0	35.5	32.0	24.	0.0052	61.4
250.0	29.5	26.2	27.	0.0026	50.4
1440.0	25.0	21.3	22.	0.0012	40.9

PLASTIC LIMIT IS 28
LIQUID LIMIT IS 57
PLASTICITY INDEX IS 29
LIQUIDITY INDEX IS 1.08

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF - 19 CLAYEY SOILS

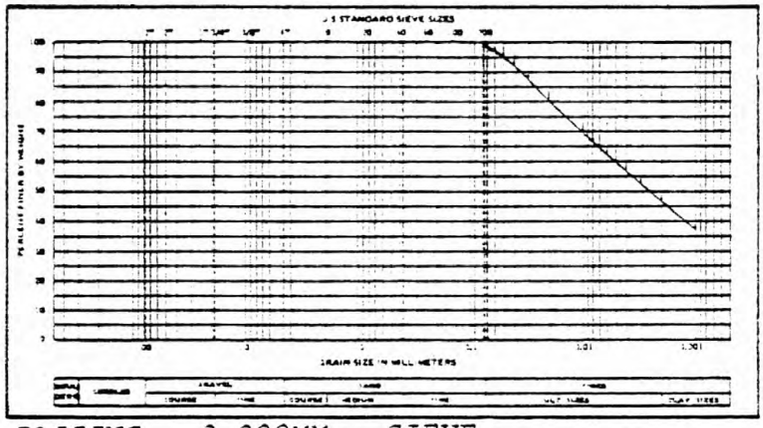
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 121-133 CM

SPECIFIC GRAVITY = 2.82
WET UNIT WEIGHT = 16.60KN/M3
NATURAL MOISTURE CONTENT = 53.7 PERCENT
DRY UNIT WT =10.80KN/M3 VOID RATIO = 1.560 PERCENT SAT.=97.06

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.2	99.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	47.2	26.	0.0485	91.0
1.0	50.5	46.6	26.	0.0347	89.9
2.0	47.0	43.1	26.	0.0254	83.2
5.0	44.0	40.1	26.	0.0165	77.4
15.0	40.5	36.6	26.	0.0098	70.6
30.0	38.5	34.6	26.	0.0071	66.8
60.0	33.5	29.7	26.	0.0052	57.2
250.0	29.5	25.7	26.	0.0026	49.5
1440.0	23.5	19.6	25.	0.0011	37.8

PLASTIC LIMIT IS 30
LIQUID LIMIT IS 55
PLASTICITY INDEX IS 25
LIQUIDITY INDEX IS 0.95

UNIFIED SOIL CLASSIFICATION IS
OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF - 17 CLAYEY SOILS

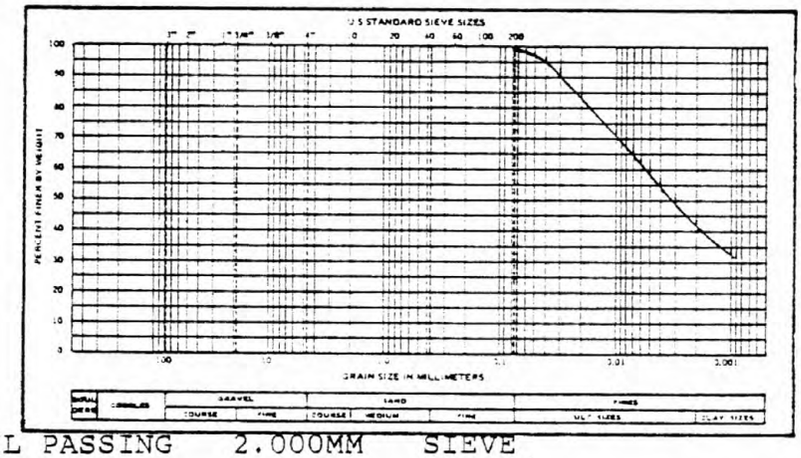
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 365-377 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 17.90KN/M3
NATURAL MOISTURE CONTENT = 43.2 PERCENT
DRY UNIT WT =12.50KN/M3 VOID RATIO = 1.165 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.5	98.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	54.0	49.7	23.	0.0495	97.0
1.0	52.0	47.7	23.	0.0357	93.1
2.0	49.0	44.7	23.	0.0261	87.3
5.0	45.0	40.7	23.	0.0171	79.5
15.0	41.0	36.7	23.	0.0102	71.7
30.0	38.0	33.7	23.	0.0074	65.8
60.0	35.0	30.7	23.	0.0054	59.9
250.0	28.0	23.7	23.	0.0028	46.3
1440.0	22.5	17.8	19.	0.0013	34.8

PLASTIC LIMIT IS 20
LIQUID LIMIT IS 39
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 1.21

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 11 CLAYEY SOILS

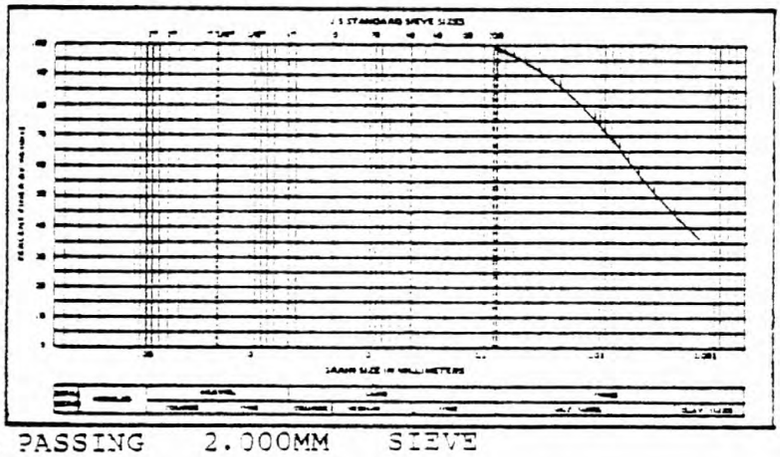
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 413-428 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 17.25KN/M3
NATURAL MOISTURE CONTENT = 43.6 PERCENT
DRY UNIT WT =12.01KN/M3 VOID RATIO = 1.220 PERCENT SAT.=97.19

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.7	98.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	49.2	27.	0.0482	96.9
1.0	51.0	47.2	27.	0.0348	93.0
2.0	48.5	44.7	27.	0.0253	88.1
5.0	44.5	40.7	27.	0.0166	80.2
15.0	40.0	36.2	27.	0.0100	71.3
30.0	37.0	33.2	27.	0.0072	65.4
60.0	34.5	30.7	26.	0.0053	60.4
250.0	28.5	24.7	26.	0.0027	48.5
1440.0	23.0	18.9	23.	0.0012	37.3

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 0.95

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 13 CLAYEY SOILS

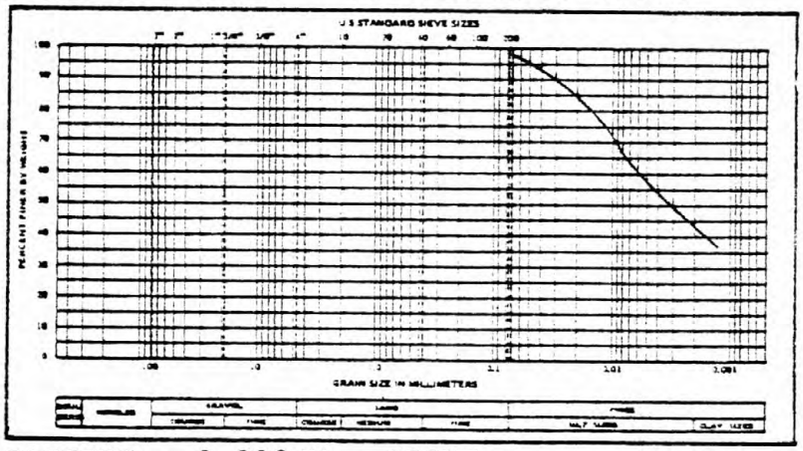
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 487-502 CM

SPECIFIC GRAVITY = 2.71
WET UNIT WEIGHT = 16.97KN/M3
NATURAL MOISTURE CONTENT = 44.3 PERCENT
DRY UNIT WT =11.76KN/M3 VOID RATIO = 1.259 PERCENT SAT.=95.32

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.2	99.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	47.7	26.	0.0495	94.0
1.0	50.0	45.7	26.	0.0357	90.1
2.0	48.0	43.7	26.	0.0258	86.1
5.0	46.0	41.7	26.	0.0166	82.2
15.0	41.5	37.2	26.	0.0100	73.3
30.0	37.0	32.7	26.	0.0073	64.4
60.0	34.5	30.2	26.	0.0053	59.5
250.0	29.0	24.7	26.	0.0027	48.6
1440.0	22.5	18.0	24.	0.0012	35.5

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 47
PLASTICITY INDEX IS 23
LIQUIDITY INDEX IS 0.89

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

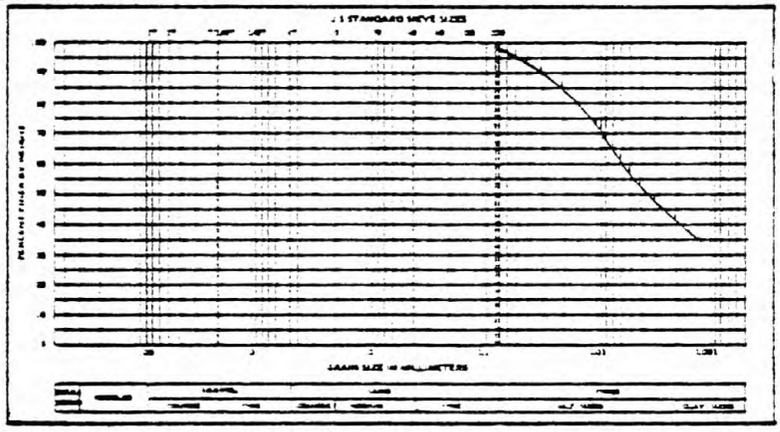
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-27 PC-31
SAMPLE IDENTIFICATION IS UD @ 510-523 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 17.42KN/M3
NATURAL MOISTURE CONTENT = 46.5 PERCENT
DRY UNIT WT =11.89KN/M3 VOID RATIO = 1.276 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.6	98.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	54.0	48.2	26.	0.0478	94.0
1.0	52.0	46.2	26.	0.0345	90.1
2.0	50.0	44.2	26.	0.0249	86.2
5.0	47.0	41.2	26.	0.0162	80.4
15.0	43.0	37.2	26.	0.0097	72.5
30.0	39.0	33.2	26.	0.0071	64.7
60.0	36.0	30.2	26.	0.0052	58.9
250.0	30.0	24.2	26.	0.0026	47.2
1440.0	24.0	17.9	23.	0.0012	35.0

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 48
PLASTICITY INDEX IS 24
LIQUIDITY INDEX IS 0.95

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

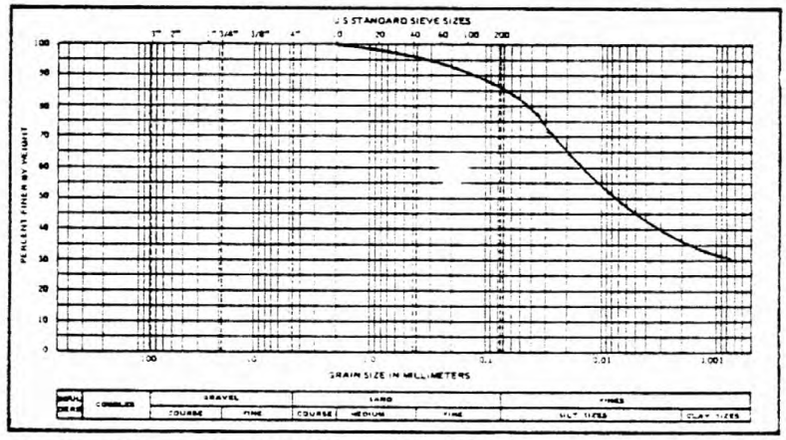
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 281-296 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 16.40KN/M3
NATURAL MOISTURE CONTENT = 57.0 PERCENT
DRY UNIT WT =10.45KN/M3 VOID RATIO = 1.572 PERCENT SAT.=99.35

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.420	12.0	95.3
0.075	26.9	89.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE -

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	42.0	38.1	26.	0.0543	74.7
1.0	41.5	37.6	26.	0.0386	73.8
2.0	37.5	33.6	26.	0.0282	65.9
5.0	34.0	30.1	26.	0.0183	59.0
15.0	31.0	27.1	25.	0.0109	53.1
30.0	29.5	25.6	25.	0.0078	50.1
60.0	27.0	23.0	25.	0.0056	45.2
250.0	24.5	20.3	22.	0.0029	39.9
1440.0	20.0	15.9	23.	0.0012	31.2

PLASTIC LIMIT IS 22
LIQUID LIMIT IS 39
PLASTICITY INDEX IS 17
LIQUIDITY INDEX IS 2.07

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

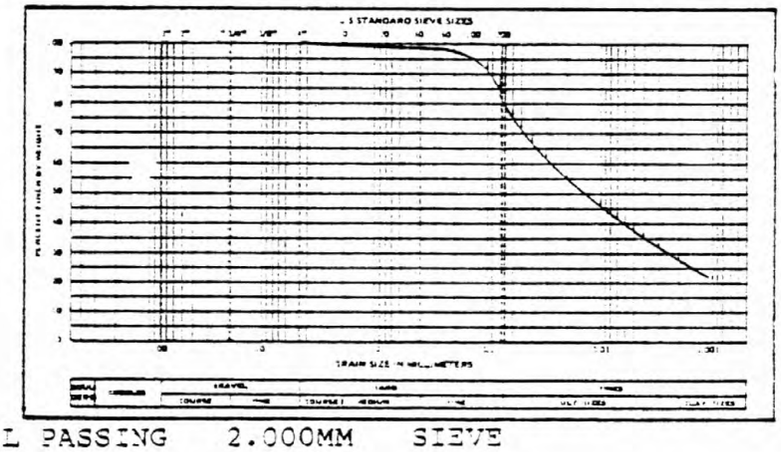
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 296-308 CM

SPECIFIC GRAVITY = 2.77
WET UNIT WEIGHT = 16.70KN/M3
NATURAL MOISTURE CONTENT = 49.2 PERCENT
DRY UNIT WT =11.19KN/M3 VOID RATIO = 1.427 PERCENT SAT.=95.53

SIEVE ANALYSIS

SIEVE MM	%CUM WT RET(GM)	PERCENT FINER
4.760	0.0	100.0
2.000	0.4	99.9
0.840	1.1	99.7
0.420	2.3	99.4
0.250	5.1	98.6
0.149	10.5	97.2
0.075	67.1	81.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	40.0	36.1	25.	0.0551	70.2
1.0	39.0	35.1	25.	0.0393	68.3
2.0	35.0	31.1	25.	0.0287	60.5
5.0	32.0	28.1	25.	0.0186	54.6
15.0	28.0	24.0	25.	0.0111	46.8
30.0	25.0	21.0	25.	0.0080	40.9
60.0	22.5	18.5	24.	0.0058	36.0
250.0	20.0	16.1	26.	0.0028	31.4
1440.0	16.0	12.1	25.	0.0012	23.5

PLASTIC LIMIT IS 19
LIQUID LIMIT IS 33
PLASTICITY INDEX IS 14
LIQUIDITY INDEX IS 2.20

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 9 CLAYEY SOILS

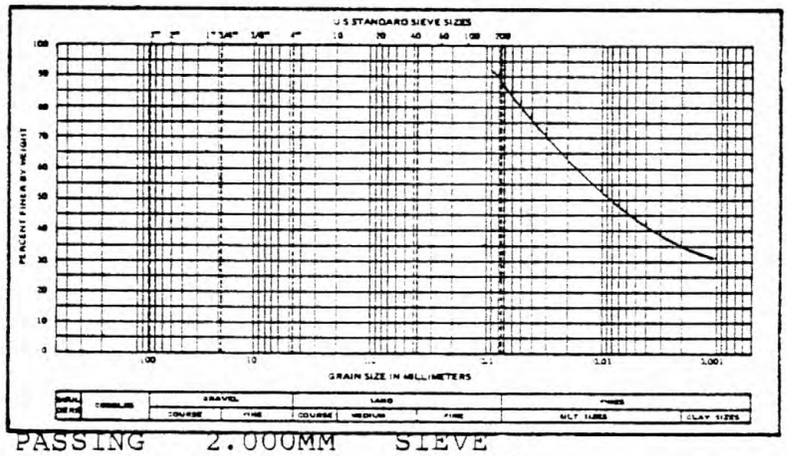
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 498-511 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 16.70KN/M3
NATURAL MOISTURE CONTENT = 53.9 PERCENT
DRY UNIT WT =10.85KN/M3 VOID RATIO = 1.512 PERCENT SAT.=99.10

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	19.4	88.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	46.0	41.9	23.	0.0533	81.5
1.0	43.0	38.9	23.	0.0388	75.7
2.0	39.0	34.9	23.	0.0284	67.9
5.0	36.0	31.9	23.	0.0184	62.1
15.0	33.0	28.9	23.	0.0109	56.3
30.0	31.0	26.9	23.	0.0078	52.4
60.0	25.0	20.9	23.	0.0057	40.7
250.0	23.0	18.9	23.	0.0029	36.8
1440.0	22.0	17.6	19.	0.0012	34.3

PLASTIC LIMIT IS 22
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 23
LIQUIDITY INDEX IS 1.37

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

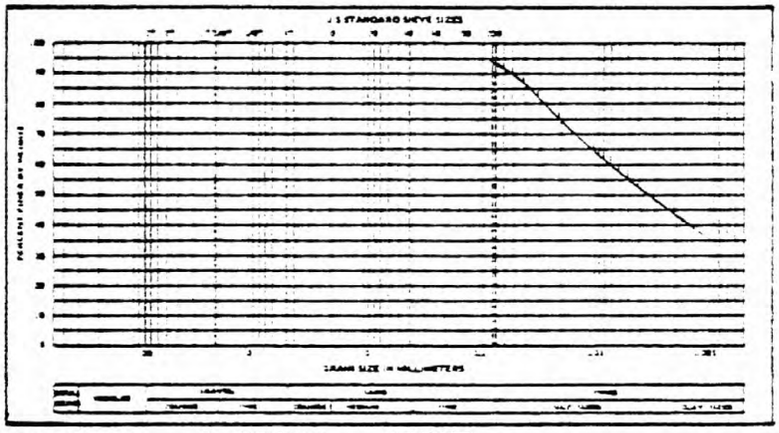
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 538-553 CM

SPECIFIC GRAVITY = 2.71
WET UNIT WEIGHT = 16.47KN/M3
NATURAL MOISTURE CONTENT = 55.0 PERCENT
DRY UNIT WT =10.63KN/M3 VOID RATIO = 1.501 PERCENT SAT.=99.32

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	13.4	92.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	46.6	25.	0.0511	92.0
1.0	47.0	43.6	25.	0.0372	86.0
2.0	43.5	40.1	25.	0.0272	79.1
5.0	40.5	37.1	25.	0.0177	73.2
15.0	37.0	33.6	25.	0.0105	66.3
30.0	34.5	31.1	25.	0.0076	61.4
60.0	32.0	28.6	25.	0.0055	56.4
250.0	27.0	23.6	25.	0.0028	46.6
1440.0	23.0	19.4	23.	0.0012	38.3

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 21
LIQUIDITY INDEX IS 1.44

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

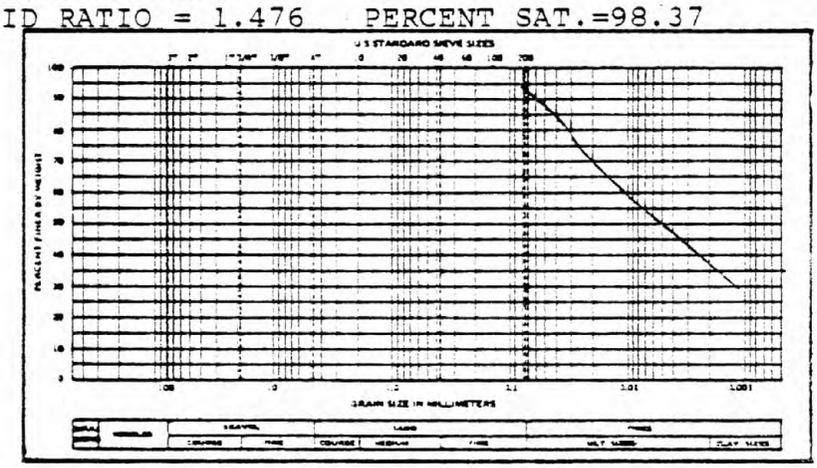
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 650-665 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.68KN/M3
NATURAL MOISTURE CONTENT = 52.6 PERCENT
DRY UNIT WT =10.93KN/M3 VOID RATIO = 1.476 PERCENT SAT.=98.37

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.8	93.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	45.5	24.	0.0515	88.8
1.0	46.0	42.5	24.	0.0375	83.0
2.0	42.0	38.5	24.	0.0275	75.2
5.0	38.0	34.5	24.	0.0180	67.4
15.0	34.0	30.5	24.	0.0107	59.6
30.0	32.0	28.5	24.	0.0077	55.7
60.0	30.0	26.6	25.	0.0055	51.9
250.0	24.0	20.7	26.	0.0028	40.4
1440.0	18.0	14.5	24.	0.0012	28.3

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 44
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 1.42

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

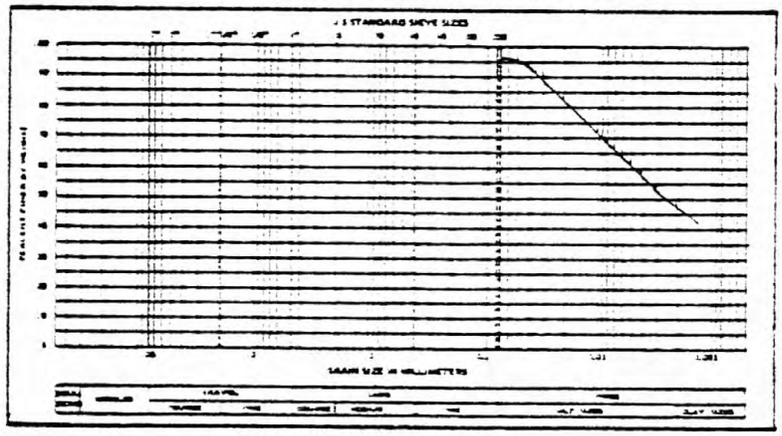
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32 PC-32
SAMPLE IDENTIFICATION IS UD @ 751-764 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 16.84KN/M3
NATURAL MOISTURE CONTENT = 55.2 PERCENT
DRY UNIT WT =10.85KN/M3 VOID RATIO = 1.476 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	8.1	95.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	49.1	25.	0.0491	96.2
1.0	51.0	47.1	25.	0.0355	92.3
2.0	48.0	44.1	25.	0.0259	86.4
5.0	45.0	41.1	25.	0.0168	80.5
15.0	41.0	37.1	25.	0.0101	72.7
30.0	38.5	34.6	25.	0.0073	67.8
60.0	35.5	31.6	25.	0.0053	61.9
250.0	30.5	26.6	25.	0.0027	52.1
1440.0	25.0	20.9	23.	0.0012	41.0

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 44
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 1.56

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

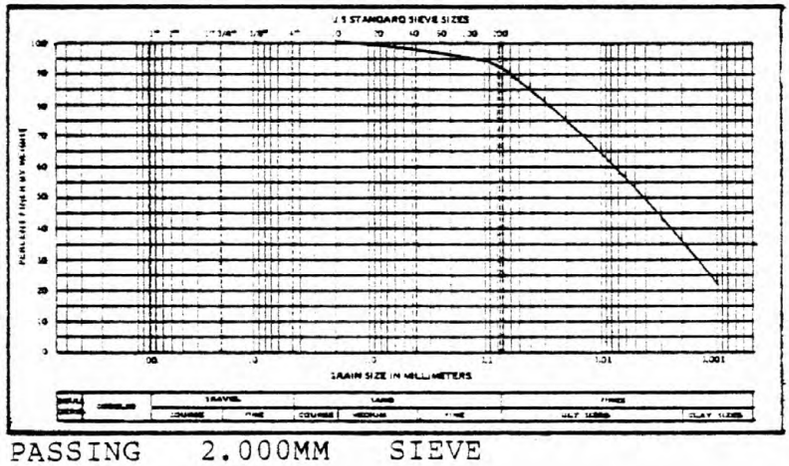
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32; PC-33
SAMPLE IDENTIFICATION IS UD @ 371-383 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 15.10KN/M3
NATURAL MOISTURE CONTENT = 67.0 PERCENT
DRY UNIT WT = 9.04KN/M3 VOID RATIO = 2.036 PERCENT SAT.=92.13

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	21.3	93.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	44.6	19.	0.0527	85.9
1.0	49.5	43.1	19.	0.0378	83.0
2.0	47.5	41.1	19.	0.0273	79.2
5.0	44.0	37.6	19.	0.0178	72.4
15.0	40.0	33.6	19.	0.0107	64.7
30.0	37.0	30.6	19.	0.0077	59.0
60.0	34.0	27.6	19.	0.0056	53.2
260.0	27.5	21.5	24.	0.0027	41.3
1440.0	18.0	12.0	25.	0.0012	23.2

PLASTIC LIMIT IS 32
LIQUID LIMIT IS 60
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.27

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 6.3% SAND 60.8% SILT 33.0% CLAY

UNIFIED SOIL CLASSIFICATION IS OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

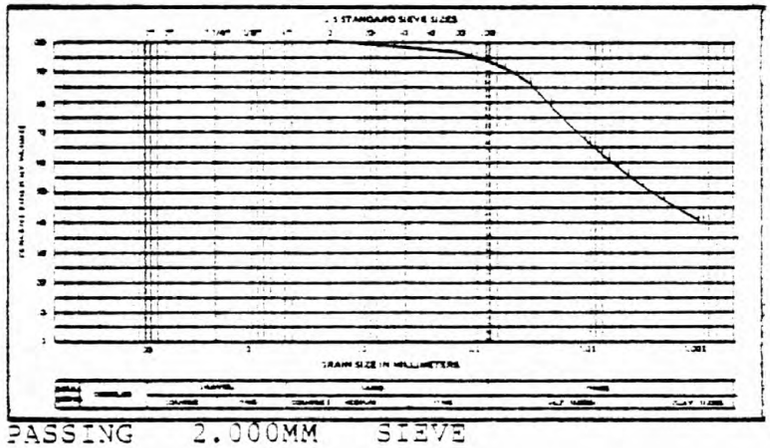
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32A; PC-33
SAMPLE IDENTIFICATION IS UD @ 421-436 CM

SPECIFIC GRAVITY = 2.60
WET UNIT WEIGHT = 15.70KN/M3
NATURAL MOISTURE CONTENT = 63.0 PERCENT
DRY UNIT WT = 9.63KN/M3 VOID RATIO = 1.647 PERCENT SAT.=99.47

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	9.9	93.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	45.0	26.	0.0528	91.1
1.0	48.0	44.0	26.	0.0377	89.0
2.0	45.5	41.5	26.	0.0273	84.0
5.0	42.5	38.5	26.	0.0177	77.9
16.0	38.0	34.0	26.	0.0103	68.8
30.0	36.0	32.0	26.	0.0076	64.8
70.0	33.0	28.9	25.	0.0052	58.5
308.0	29.5	25.1	22.	0.0026	50.8
1440.0	24.5	20.2	23.	0.0012	40.9

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 51
PLASTICITY INDEX IS 26
LIQUIDITY INDEX IS 1.44

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 6.6% SAND 47.1% SILT 46.3% CLAY

UNIFIED SOIL CLASSIFICATION IS CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 16 CLAYEY SOILS

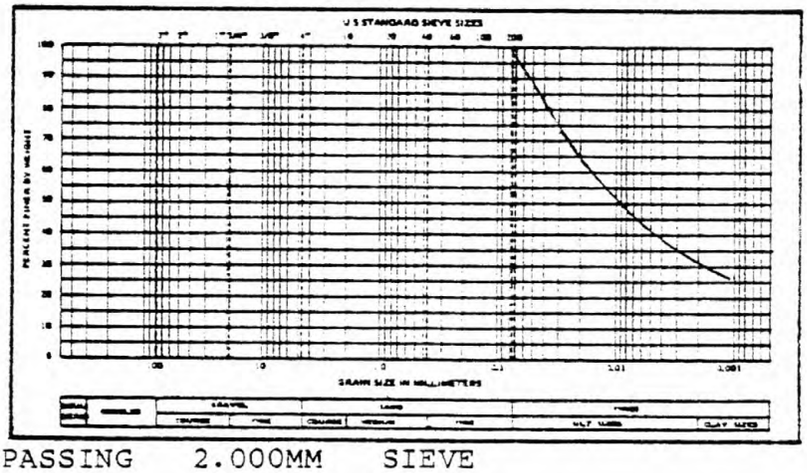
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 513-525 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 16.66KN/M3
NATURAL MOISTURE CONTENT = 52.9 PERCENT
DRY UNIT WT =10.90KN/M3 VOID RATIO = 1.466 PERCENT SAT.=98.89

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.1	98.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	44.6	22.	0.0530	87.5
1.0	47.0	42.6	22.	0.0382	83.5
2.0	42.0	37.7	23.	0.0280	73.9
5.0	36.0	31.7	23.	0.0186	62.2
15.0	32.0	27.7	23.	0.0111	54.3
30.0	28.0	23.7	23.	0.0081	46.5
60.0	26.0	21.7	23.	0.0058	42.6
250.0	22.0	17.8	24.	0.0029	34.9
1440.0	19.0	14.6	23.	0.0012	28.7

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 42
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 1.58

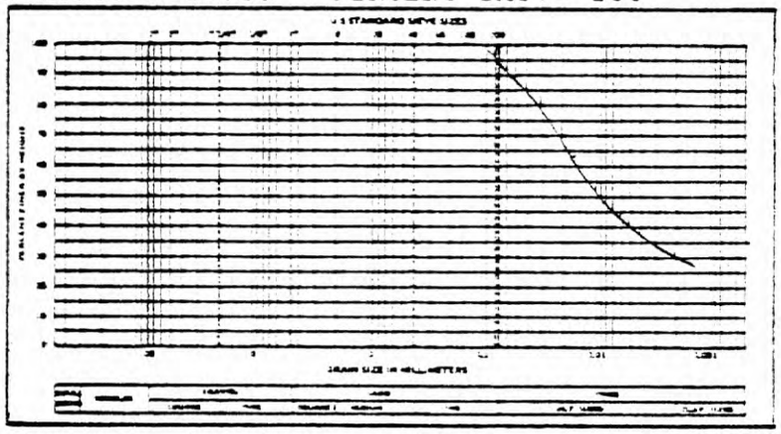
UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 11 CLAYEY SOILS

LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 561-576 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 16.14KN/M3
NATURAL MOISTURE CONTENT = 62.2 PERCENT
DRY UNIT WT = 9.95KN/M3 VOID RATIO = 1.680 PERCENT SAT.= 100



SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.4	98.7

HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.5	45.4	25.	0.0513	89.4
1.0	47.0	42.9	25.	0.0371	84.5
2.0	42.0	37.9	25.	0.0275	74.6
5.0	37.0	32.9	25.	0.0181	64.8
15.0	31.0	26.9	25.	0.0110	53.0
30.0	28.0	23.9	25.	0.0079	47.1
60.0	26.0	21.8	25.	0.0057	43.0
250.0	22.0	17.8	25.	0.0029	35.1
1440.0	18.0	13.7	23.	0.0012	27.0

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 47
PLASTICITY INDEX IS 26
LIQUIDITY INDEX IS 1.58

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 15 CLAYEY SOILS

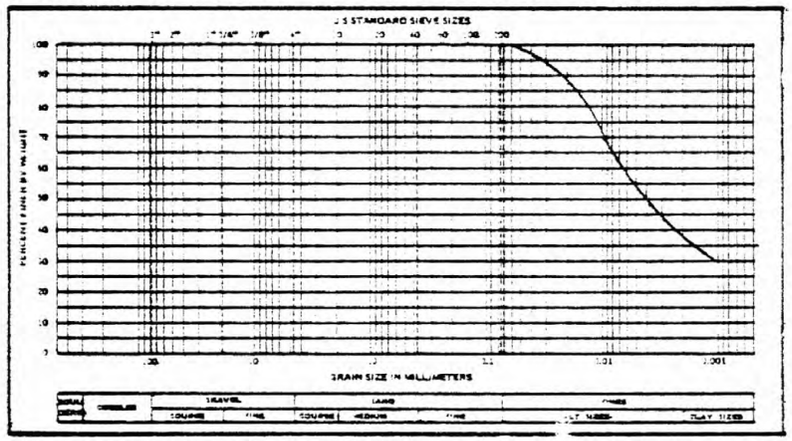
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 665-680 CM

SPECIFIC GRAVITY = 2.71
WET UNIT WEIGHT = 16.68KN/M3
NATURAL MOISTURE CONTENT = 59.8 PERCENT
DRY UNIT WT =10.44KN/M3 VOID RATIO = 1.546 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.1	99.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	54.0	49.4	23.	0.0355	97.5
2.0	51.0	46.4	23.	0.0259	91.6
5.0	48.0	43.4	23.	0.0169	85.7
15.0	41.5	36.9	23.	0.0103	72.9
30.0	37.5	32.9	23.	0.0076	65.0
60.0	33.5	29.0	24.	0.0055	57.2
250.0	25.5	21.2	26.	0.0028	41.7
1440.0	20.0	15.5	24.	0.0012	30.6

PLASTIC LIMIT IS 28
LIQUID LIMIT IS 48
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 1.60

UNIFIED SOIL CLASSIFICATION IS
ML

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

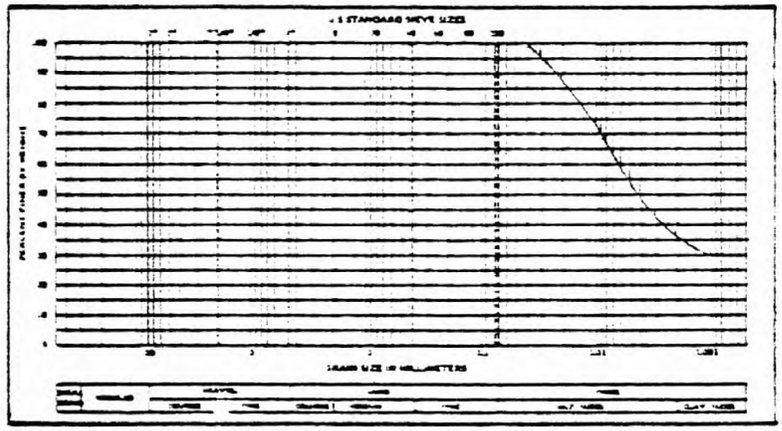
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-32A PC-33
SAMPLE IDENTIFICATION IS UD @ 794-806 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 15.48KN/M3
NATURAL MOISTURE CONTENT = 71.2 PERCENT
DRY UNIT WT = 9.04KN/M3 VOID RATIO = 2.015 PERCENT SAT.=98.27

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.5	99.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	57.0	52.5	24.	0.0470	102.1
1.0	55.0	50.5	24.	0.0340	98.2
2.0	52.0	47.5	24.	0.0248	92.4
5.0	48.0	43.5	24.	0.0164	84.6
15.0	42.0	37.5	24.	0.0100	72.9
30.0	37.0	32.5	24.	0.0074	63.2
60.0	34.0	29.6	25.	0.0053	57.5
250.0	25.0	20.6	25.	0.0028	40.0
1440.0	20.0	15.5	24.	0.0012	30.1

PLASTIC LIMIT IS 31
LIQUID LIMIT IS 59
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.42

UNIFIED SOIL CLASSIFICATION IS
OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

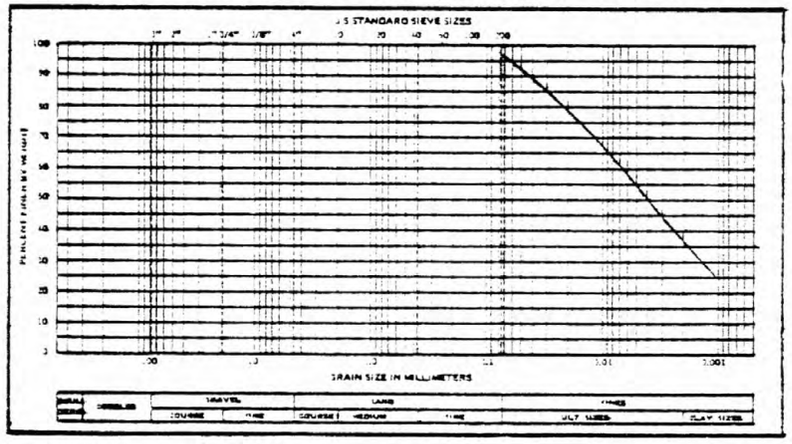
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 180-195 CM

SPECIFIC GRAVITY = 2.69
WET UNIT WEIGHT = 15.29KN/M3
NATURAL MOISTURE CONTENT = 71.0 PERCENT
DRY UNIT WT = 8.94KN/M3 VOID RATIO = 1.950 PERCENT SAT.=97.95

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.3	98.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	46.5	24.	0.0515	92.2
1.0	49.0	44.5	24.	0.0372	88.2
2.0	47.0	42.5	24.	0.0268	84.2
5.0	43.0	38.5	24.	0.0176	76.3
15.0	39.0	34.5	24.	0.0105	68.4
30.0	36.5	32.0	24.	0.0076	63.4
60.0	33.0	29.2	34.	0.0048	58.0
250.0	26.0	21.6	25.	0.0028	42.8
1440.0	19.0	14.4	23.	0.0013	28.6

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 69
PLASTICITY INDEX IS 45
LIQUIDITY INDEX IS 1.04

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

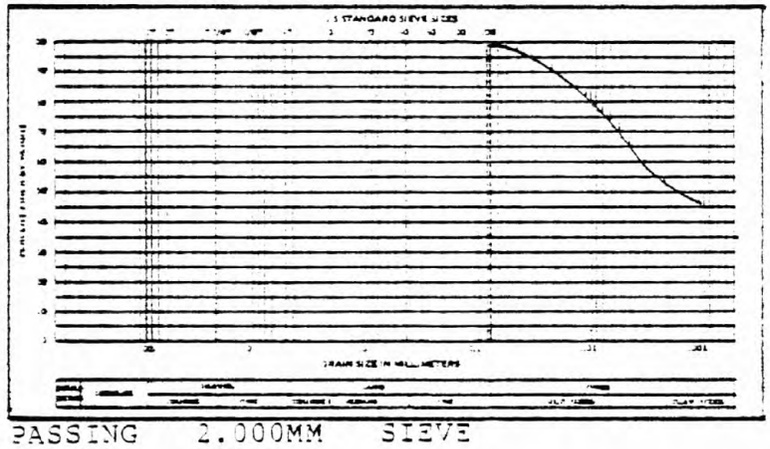
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-34;PC-34
SAMPLE IDENTIFICATION IS UD @ 363-378 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 14.70KN/M3
NATURAL MOISTURE CONTENT = 32.5 PERCENT
DRY UNIT WT = 8.05KN/M3 VOID RATIO = 2.384 PERCENT SAT.=96.20

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.6	99.6



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	50.7	26.	0.0470	98.5
1.0	54.0	49.7	26.	0.0336	96.6
2.0	52.0	47.7	26.	0.0243	92.7
5.0	49.0	44.7	26.	0.0158	86.8
15.0	46.0	41.7	26.	0.0094	81.0
30.0	43.0	38.7	26.	0.0068	75.2
70.0	39.0	34.6	25.	0.0047	67.2
253.0	34.0	29.6	25.	0.0026	57.5
1373.0	28.0	23.5	25.	0.0012	45.8

PLASTIC LIMIT IS 33
LIQUID LIMIT IS 61
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.74

UNIFIED SOIL CLASSIFICATION IS OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

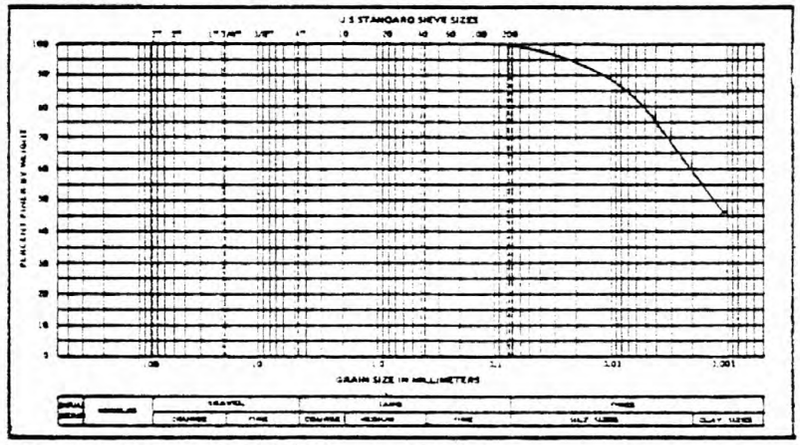
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 378-390 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 14.60KN/M3
NATURAL MOISTURE CONTENT = 85.5 PERCENT
DRY UNIT WT = 7.87KN/M3 VOID RATIO = 2.501 PERCENT SAT.=96.08

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.7	99.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	56.0	52.1	20.	0.0493	99.3
1.0	55.0	51.0	19.	0.0356	97.2
2.0	54.0	50.0	19.	0.0255	95.3
5.0	53.0	49.0	19.	0.0163	93.4
15.0	50.0	46.0	19.	0.0097	87.7
30.0	48.0	44.1	20.	0.0069	84.1
60.0	44.5	40.7	21.	0.0050	77.6
250.0	37.0	33.6	25.	0.0025	64.1
1440.0	27.5	24.1	25.	0.0011	45.9

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 31
LIQUID LIMIT IS 70
PLASTICITY INDEX IS 39
LIQUIDITY INDEX IS 1.40

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

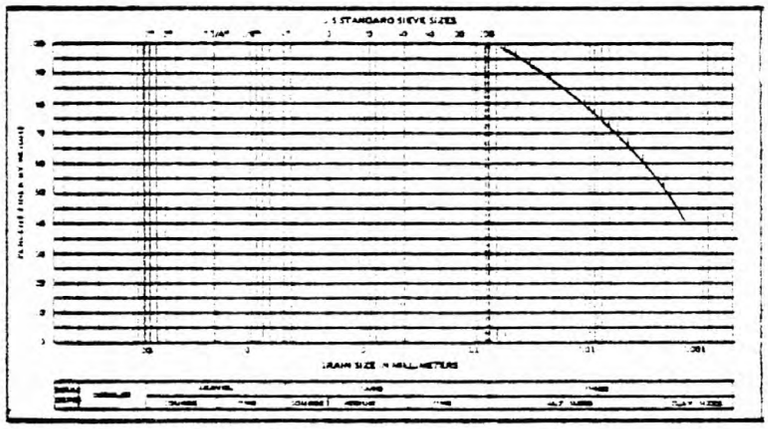
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 428-443 CM

SPECIFIC GRAVITY = 2.69
WET UNIT WEIGHT = 15.84KN/M3
NATURAL MOISTURE CONTENT = 60.2 PERCENT
DRY UNIT WT = 9.89KN/M3 VOID RATIO = 1.668 PERCENT SAT.=97.11

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.5	99.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	54.0	49.9	23.	0.0505	99.0
1.0	52.0	47.9	23.	0.0365	95.0
2.0	50.0	45.9	23.	0.0263	91.0
5.0	48.0	43.9	23.	0.0170	87.1
15.0	44.5	40.4	23.	0.0101	80.1
30.0	42.5	38.4	23.	0.0073	76.2
60.0	40.0	36.0	24.	0.0052	71.4
250.0	33.0	29.2	26.	0.0026	57.8
1440.0	26.0	22.0	24.	0.0012	43.6

PLASTIC LIMIT IS 30
LIQUID LIMIT IS 58
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.07

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

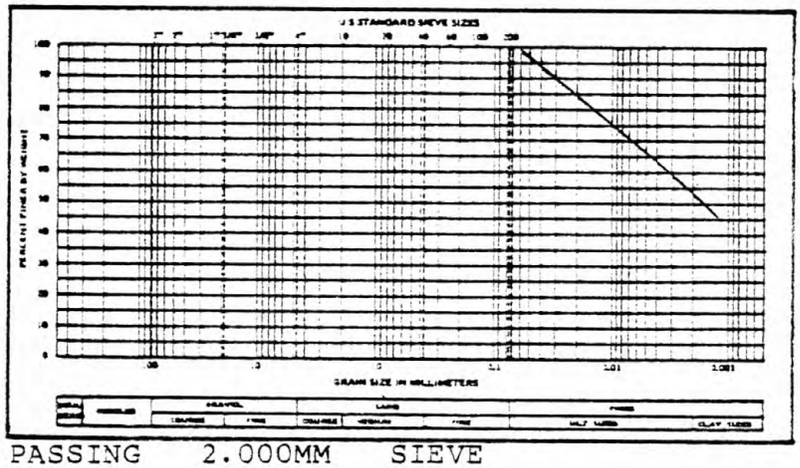
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-34 PC-34
SAMPLE IDENTIFICATION IS UD @ 528-542 CM

SPECIFIC GRAVITY = 2.71
WET UNIT WEIGHT = 16.41KN/M3
NATURAL MOISTURE CONTENT = 59.6 PERCENT
DRY UNIT WT =10.28KN/M3 VOID RATIO = 1.584 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.8	99.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	54.0	50.0	24.	0.0496	98.7
1.0	52.0	48.0	24.	0.0358	94.7
2.0	48.0	44.0	24.	0.0264	86.8
5.0	46.0	42.0	24.	0.0170	82.9
15.0	43.0	39.0	24.	0.0101	77.0
30.0	41.0	37.0	24.	0.0073	73.0
60.0	39.0	35.0	24.	0.0052	69.1
250.0	33.0	29.0	24.	0.0027	57.2
1440.0	27.0	22.9	23.	0.0012	45.2

PLASTIC LIMIT IS 28
LIQUID LIMIT IS 56
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.13

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

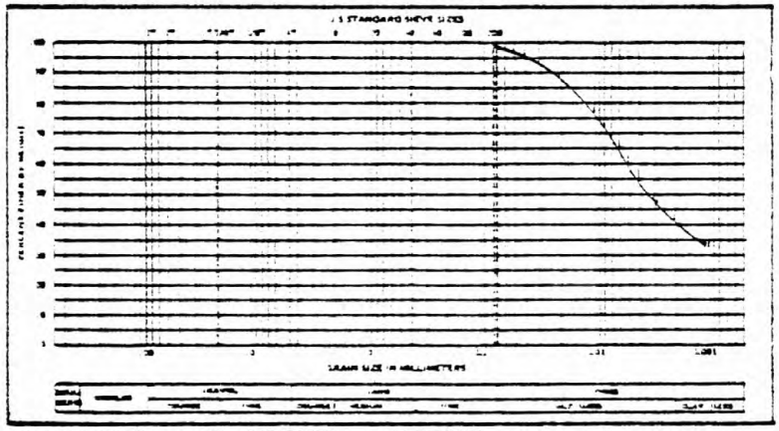
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 264-277 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.45KN/M3
NATURAL MOISTURE CONTENT = 57.2 PERCENT
DRY UNIT WT =10.46KN/M3 VOID RATIO = 1.587 PERCENT SAT.=99.57

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.1	98.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	50.5	25.	0.0481	98.7
1.0	53.0	48.5	25.	0.0348	94.8
2.0	50.5	46.0	25.	0.0252	89.9
5.0	48.0	43.5	25.	0.0164	85.0
15.0	43.0	38.5	25.	0.0099	75.3
30.0	39.5	35.0	24.	0.0073	68.3
60.0	36.0	31.4	23.	0.0054	61.3
250.0	28.5	23.7	20.	0.0029	46.3
1440.0	22.0	17.2	20.	0.0012	33.6

PLASTICITY PROPERTIES OF MAT. PASSING 40.000MM SIEVE

PLASTIC LIMIT IS 30
LIQUID LIMIT IS 52
PLASTICITY INDEX IS 22
LIQUIDITY INDEX IS 1.24

UNIFIED SOIL CLASSIFICATION IS
OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 15 CLAYEY SOILS

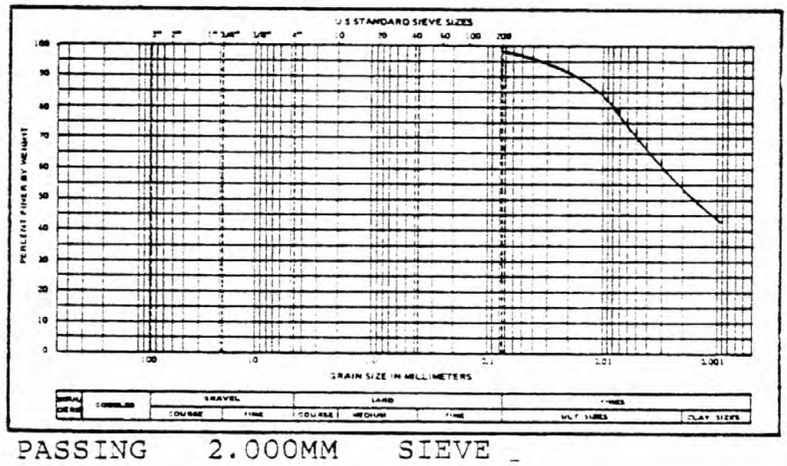
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 304-319 CM

SPECIFIC GRAVITY = 2.72
WET UNIT WEIGHT = 15.80KN/M3
NATURAL MOISTURE CONTENT = 65.7 PERCENT
DRY UNIT WT = 9.54KN/M3 VOID RATIO = 1.797 PERCENT SAT.=99.45

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.7	98.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE _

ELAPSED TIME	HYDRO READING	CORR HYDFO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	51.5	24.	0.0489	101.4
1.0	53.0	49.5	24.	0.0354	97.5
2.0	50.5	47.0	24.	0.0257	92.6
5.0	48.0	44.5	24.	0.0166	87.6
15.0	45.0	41.5	24.	0.0099	81.7
30.0	43.0	39.5	24.	0.0071	77.8
60.0	41.0	37.5	24.	0.0051	73.8
250.0	33.0	29.5	25.	0.0027	58.2
1440.0	26.5	22.9	23.	0.0012	45.1

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 59
PLASTICITY INDEX IS 30
LIQUIDITY INDEX IS 1.25

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

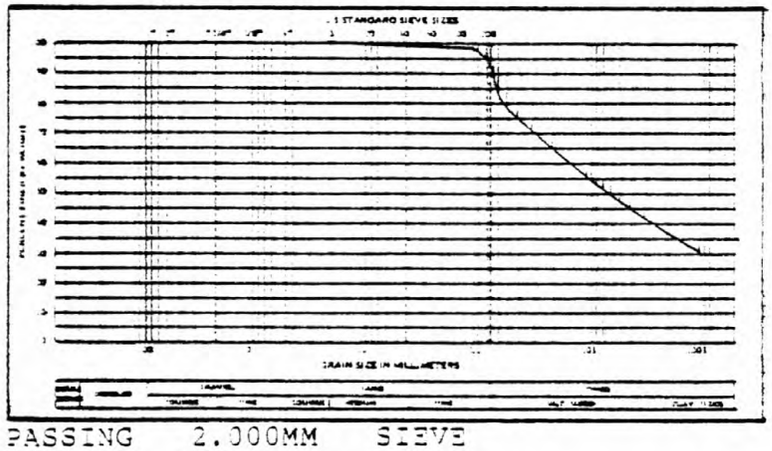
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35; PC-35
SAMPLE IDENTIFICATION IS UD @ 495-510 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 16.00KN/M3
NATURAL MOISTURE CONTENT = 61.3 PERCENT
DRY UNIT WT = 9.92KN/M3 VOID RATIO = 1.748 PERCENT SAT.=97.49

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	1.9	98.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	43.0	38.9	25.	0.0536	75.7
1.0	42.0	37.8	25.	0.0384	73.6
2.0	40.0	35.8	25.	0.0276	69.7
5.0	37.0	32.8	25.	0.0179	63.9
15.0	34.5	30.3	25.	0.0106	59.0
30.0	33.0	28.8	25.	0.0075	56.1
60.0	30.5	26.3	25.	0.0054	51.2
315.0	26.0	21.9	25.	0.0024	42.6
1440.0	20.0	15.8	24.	0.0012	30.7

PLASTIC LIMIT IS 30
LIQUID LIMIT IS 59
PLASTICITY INDEX IS 29
LIQUIDITY INDEX IS 1.08

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 1.2% SAND 60.4% SILT 38.4% CLAY

UNIFIED SOIL CLASSIFICATION IS CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 19 CLAYEY SOILS

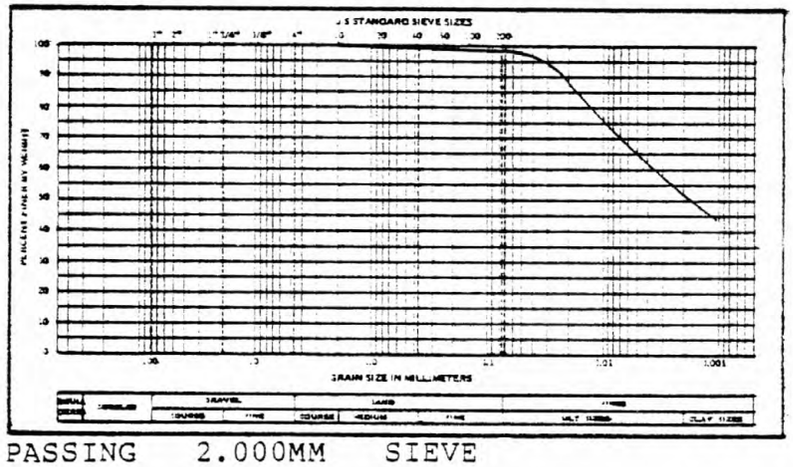
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35; PC-35
SAMPLE IDENTIFICATION IS UD @ 510-522 CM

SPECIFIC GRAVITY = 2.73
WET UNIT WEIGHT = 16.00KN/M3
NATURAL MOISTURE CONTENT = 63.1 PERCENT
DRY UNIT WT = 9.81KN/M3 VOID RATIO = 1.729 PERCENT SAT.=99.65

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
2.000	0.0	100.0
0.075	3.9	98.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
1.0	53.0	49.2	26.	0.0344	96.6
2.0	50.0	46.2	26.	0.0251	90.7
5.0	47.5	43.7	26.	0.0163	85.8
15.0	42.0	38.2	26.	0.0099	75.0
30.0	38.0	34.2	26.	0.0072	67.1
60.0	37.0	33.2	26.	0.0052	65.1
260.0	31.5	27.7	27.	0.0026	54.5
1405.0	26.0	22.0	25.	0.0012	43.3

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 57
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.22

GRAIN SIZE DISTRIBUTION
0.0% GRAVEL 1.2% SAND 48.8% SILT 50.0% CLAY

UNIFIED SOIL CLASSIFICATION IS CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

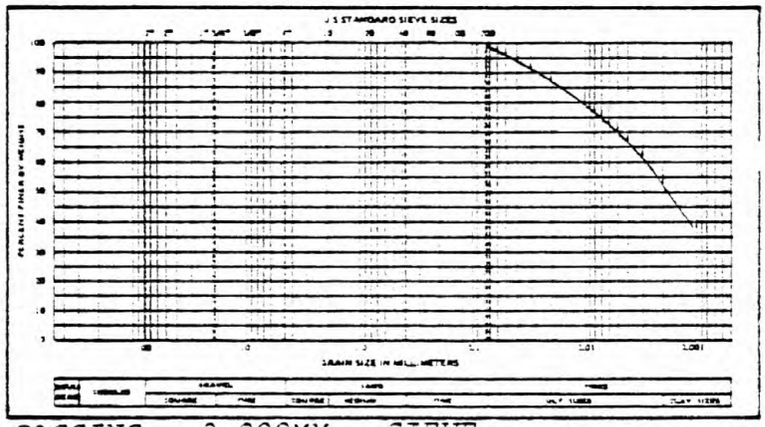
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 568-583 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 16.70KN/M3
NATURAL MOISTURE CONTENT = 57.9 PERCENT
DRY UNIT WT =10.58KN/M3 VOID RATIO = 1.549 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.9	98.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	49.1	25.	0.0490	96.0
1.0	51.0	47.1	25.	0.0354	92.1
2.0	48.5	44.6	25.	0.0257	87.2
5.0	46.5	42.6	25.	0.0165	83.3
15.0	43.0	39.1	25.	0.0099	76.5
30.0	41.0	37.1	25.	0.0071	72.5
60.0	36.5	32.6	25.	0.0052	63.7
250.0	34.0	30.1	25.	0.0026	58.8
1440.0	24.0	20.0	24.	0.0012	39.1

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 54
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.13

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

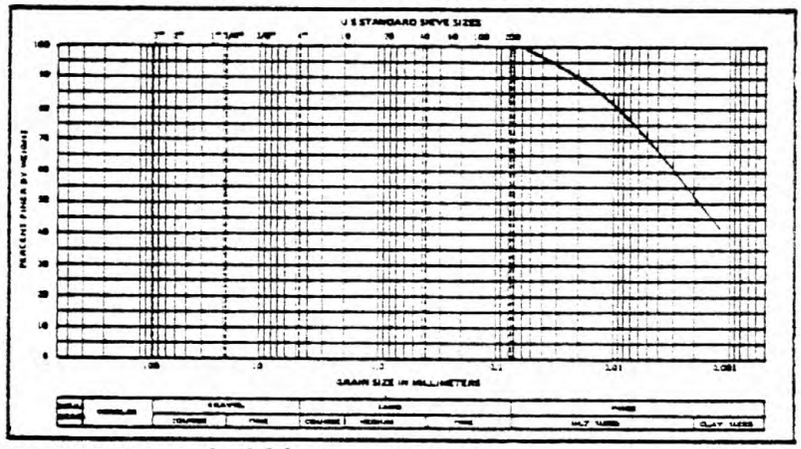
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-35 PC-35
SAMPLE IDENTIFICATION IS UD @ 670-682 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 16.00KN/M3
NATURAL MOISTURE CONTENT = 59.5 PERCENT
DRY UNIT WT =10.03KN/M3 VOID RATIO = 1.687 PERCENT SAT.=96.91

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.5	99.0



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	55.0	50.5	24.	0.0485	98.8
1.0	53.0	48.5	24.	0.0351	94.9
2.0	51.0	46.5	24.	0.0253	91.0
5.0	48.5	44.0	24.	0.0164	86.1
15.0	46.0	41.5	24.	0.0097	81.2
30.0	43.0	38.5	24.	0.0071	75.3
60.0	40.5	36.0	24.	0.0051	70.4
250.0	33.5	29.0	25.	0.0026	56.8
1440.0	27.0	22.4	23.	0.0012	43.9

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 56
PLASTICITY INDEX IS 27
LIQUIDITY INDEX IS 1.14

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 17 CLAYEY SOILS

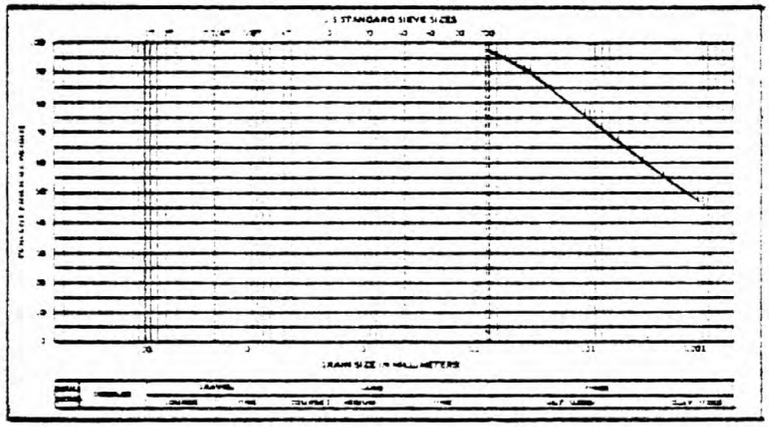
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 331-346 CM

SPECIFIC GRAVITY = 2.75
WET UNIT WEIGHT = 15.64KN/M3
NATURAL MOISTURE CONTENT = 68.4 PERCENT
DRY UNIT WT = 9.29KN/M3 VOID RATIO = 1.903 PERCENT SAT.=98.83

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.8	95.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.5	48.5	24.	0.0498	94.9
1.0	50.5	46.5	24.	0.0360	91.0
2.0	48.5	44.5	24.	0.0260	87.1
5.0	46.0	42.0	24.	0.0168	82.2
15.0	43.0	39.0	24.	0.0100	76.3
30.0	40.5	36.5	24.	0.0072	71.4
60.0	38.0	34.0	24.	0.0052	66.5
250.0	32.0	28.1	25.	0.0026	54.9
1440.0	25.5	21.4	23.	0.0012	41.9

PLASTIC LIMIT IS 29
LIQUID LIMIT IS 57
PLASTICITY INDEX IS 28
LIQUIDITY INDEX IS 1.40

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 18 CLAYEY SOILS

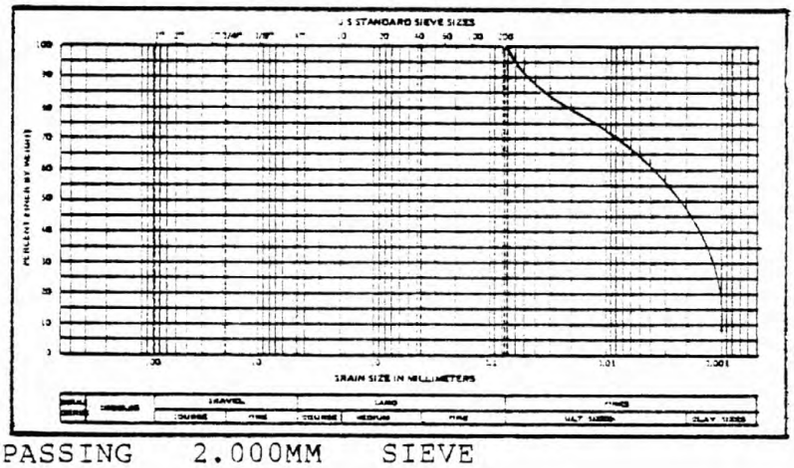
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-36; PC-36
SAMPLE IDENTIFICATION IS UD @ 366-381 cm

SPECIFIC GRAVITY = 2.66
WET UNIT WEIGHT = 14.30KN/M3
NATURAL MOISTURE CONTENT = 97.5 PERCENT
DRY UNIT WT = 7.24KN/M3 VOID RATIO = 2.602 PERCENT SAT.=99.67

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.1	99.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	48.1	25.	0.0508	95.9
1.0	46.5	42.6	25.	0.0380	85.0
2.0	44.0	40.1	25.	0.0275	80.0
5.0	43.0	39.1	25.	0.0175	78.0
15.0	40.5	36.6	25.	0.0103	73.0
30.0	38.5	34.6	25.	0.0074	69.0
65.0	36.0	32.1	25.	0.0052	64.0
255.0	31.5	27.6	25.	0.0027	55.0
1550.0	8.0	4.1	25.	0.0013	8.1

PLASTIC LIMIT IS 35
LIQUID LIMIT IS 73
PLASTICITY INDEX IS 38
LIQUIDITY INDEX IS 1.63

UNIFIED SOIL CLASSIFICATION IS OH OR MH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

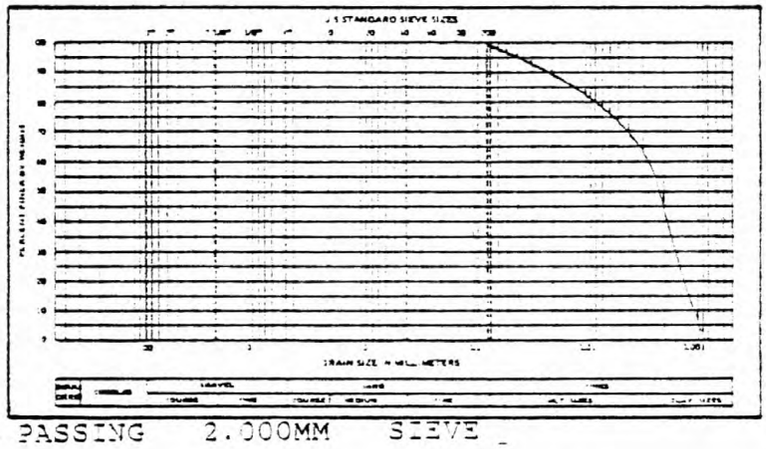
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 381-393 CM

SPECIFIC GRAVITY = 2.80
WET UNIT WEIGHT = 14.64KN/M3
NATURAL MOISTURE CONTENT = 95.8 PERCENT
DRY UNIT WT = 7.48KN/M3 VOID RATIO = 2.671 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.3	99.9



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.5	49.2	27.	0.0469	95.3
1.0	52.5	48.2	27.	0.0335	93.4
2.0	51.5	47.2	27.	0.0240	91.5
5.0	49.0	44.7	27.	0.0155	86.6
15.0	47.0	42.7	27.	0.0092	82.8
30.0	43.0	38.7	27.	0.0068	74.9
60.0	41.0	36.7	27.	0.0048	71.1
250.0	35.5	31.2	27.	0.0025	60.5
1440.0	7.5	3.1	25.	0.0013	6.0

PLASTIC LIMIT IS 33
LIQUID LIMIT IS 74
PLASTICITY INDEX IS 41
LIQUIDITY INDEX IS 1.56

UNIFIED SOIL CLASSIFICATION IS
CH

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 19 CLAYEY SOILS

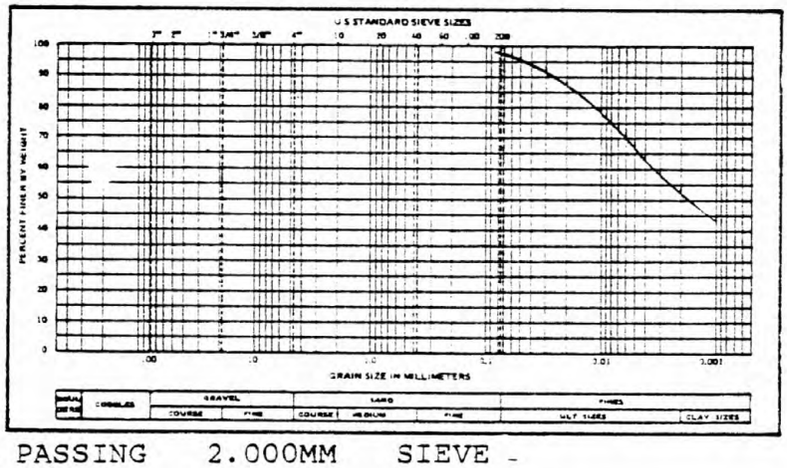
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 535-548 CM

SPECIFIC GRAVITY = 2.76
WET UNIT WEIGHT = 16.80KN/M3
NATURAL MOISTURE CONTENT = 46.8 PERCENT
DRY UNIT WT =11.44KN/M3 VOID RATIO = 1.365 PERCENT SAT.=94.65

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.5	97.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	48.9	23.	0.0500	95.5
1.0	51.5	47.4	23.	0.0359	92.6
2.0	50.0	45.9	23.	0.0258	89.7
5.0	48.0	43.9	23.	0.0166	85.8
15.0	44.0	39.9	23.	0.0100	78.0
30.0	42.0	37.9	23.	0.0072	74.1
60.0	39.0	34.9	23.	0.0052	68.2
250.0	32.0	27.9	23.	0.0027	54.5
1440.0	27.0	22.6	19.	0.0012	44.2

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 48
PLASTICITY INDEX IS 21
LIQUIDITY INDEX IS 0.93

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 14 CLAYEY SOILS

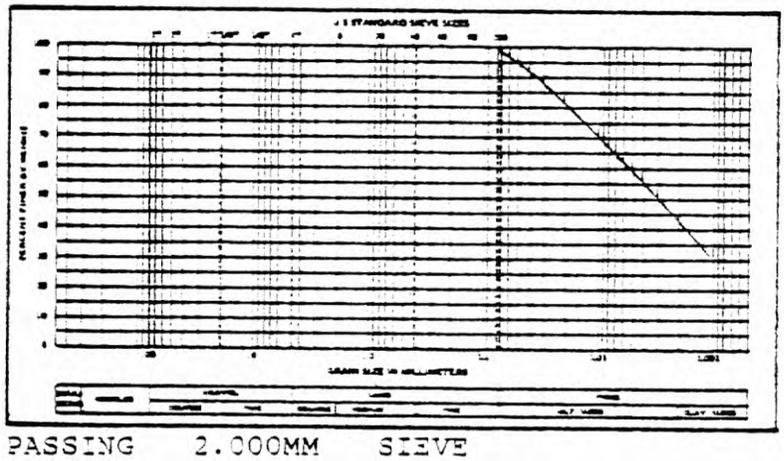
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 583-596 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 17.47KN/M3
NATURAL MOISTURE CONTENT = 35.1 PERCENT
DRY UNIT WT =12.93KN/M3 VOID RATIO = 1.108 PERCENT SAT.=88.07

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.0	99.1



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	48.0	26.	0.0485	93.3
1.0	50.5	46.5	26.	0.0349	90.4
2.0	48.0	44.0	26.	0.0253	85.6
5.0	44.0	40.0	26.	0.0166	77.8
15.0	41.0	37.0	26.	0.0098	72.0
30.0	38.0	34.0	26.	0.0071	66.1
60.0	35.0	31.0	26.	0.0052	60.3
250.0	29.0	24.7	23.	0.0027	48.0
1440.0	21.0	16.8	24.	0.0012	32.7

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 44
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 0.54

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

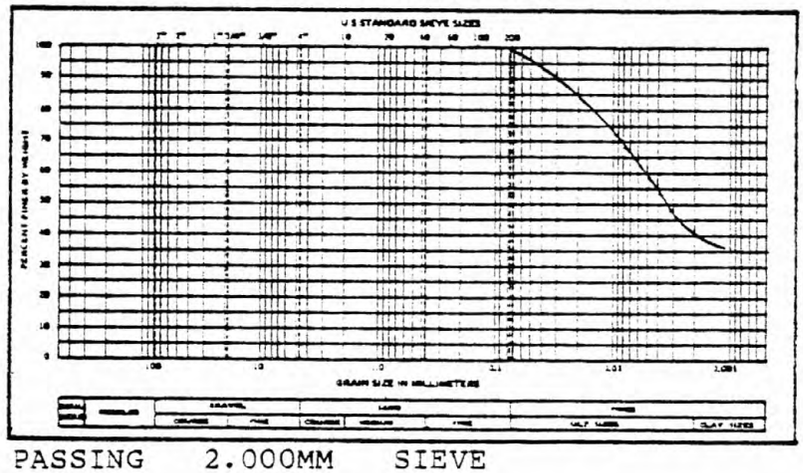
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-36 PC-36
SAMPLE IDENTIFICATION IS UD @ 663-676 CM

SPECIFIC GRAVITY = 2.74
WET UNIT WEIGHT = 18.70KN/M3
NATURAL MOISTURE CONTENT = 35.7 PERCENT
DRY UNIT WT =13.78KN/M3 VOID RATIO = 0.950 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.3	99.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.5	48.5	26.	0.0488	95.1
1.0	51.0	47.0	26.	0.0351	92.2
2.0	48.6	44.6	26.	0.0254	87.5
5.0	45.0	41.0	26.	0.0166	80.4
15.0	41.0	37.0	26.	0.0099	72.6
30.0	38.5	34.5	26.	0.0072	67.6
60.0	35.5	31.5	26.	0.0052	61.8
250.0	29.0	24.0	16.	0.0030	47.1
1440.0	24.0	19.8	24.	0.0012	38.8

PLASTIC LIMIT IS 23
LIQUID LIMIT IS 41
PLASTICITY INDEX IS 18
LIQUIDITY INDEX IS 0.70

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 11 CLAYEY SOILS

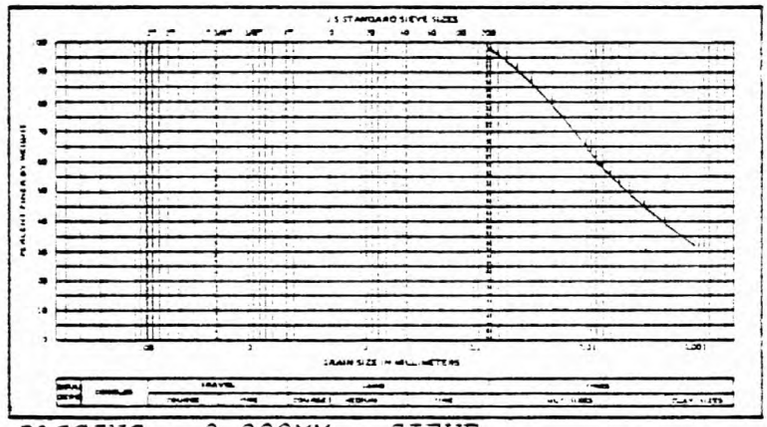
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 80-92 CM

SPECIFIC GRAVITY = 2.84
WET UNIT WEIGHT = 17.30KN/M3
NATURAL MOISTURE CONTENT = 48.2 PERCENT
DRY UNIT WT =11.67KN/M3 VOID RATIO = 1.385 PERCENT SAT.=98.80

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	6.9	98.2



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	46.9	23.	0.0499	90.2
1.0	50.0	45.9	23.	0.0357	88.3
2.0	47.0	42.9	23.	0.0260	82.5
5.0	42.5	38.4	23.	0.0171	73.9
15.0	38.0	33.9	23.	0.0103	65.2
30.0	35.0	30.9	23.	0.0074	59.4
60.0	32.0	27.9	23.	0.0054	53.7
250.0	25.0	21.1	25.	0.0027	40.5
1440.0	21.0	16.9	23.	0.0012	32.5

PLASTIC LIMIT IS 24
LIQUID LIMIT IS 45
PLASTICITY INDEX IS 21
LIQUIDITY INDEX IS 1.14

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

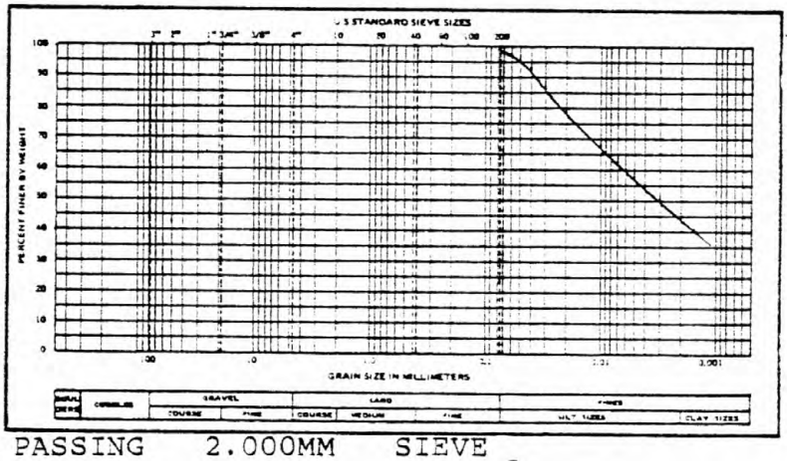
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 128-143 CM

SPECIFIC GRAVITY = 2.79
WET UNIT WEIGHT = 16.43KN/M3
NATURAL MOISTURE CONTENT = 47.8 PERCENT
DRY UNIT WT =11.12KN/M3 VOID RATIO = 1.461 PERCENT SAT.=91.29

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.7	98.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	53.0	49.2	27.	0.0473	95.5
1.0	50.0	46.2	27.	0.0345	89.7
2.0	47.0	43.2	27.	0.0251	83.9
5.0	42.5	38.7	27.	0.0166	75.2
15.0	38.0	34.2	27.	0.0099	66.4
30.0	36.0	32.2	27.	0.0071	62.5
60.0	33.0	29.2	27.	0.0052	56.7
250.0	27.0	23.2	26.	0.0027	44.9
1440.0	22.5	18.4	23.	0.0012	35.8

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 49
PLASTICITY INDEX IS 24
LIQUIDITY INDEX IS 0.96

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 15 CLAYEY SOILS

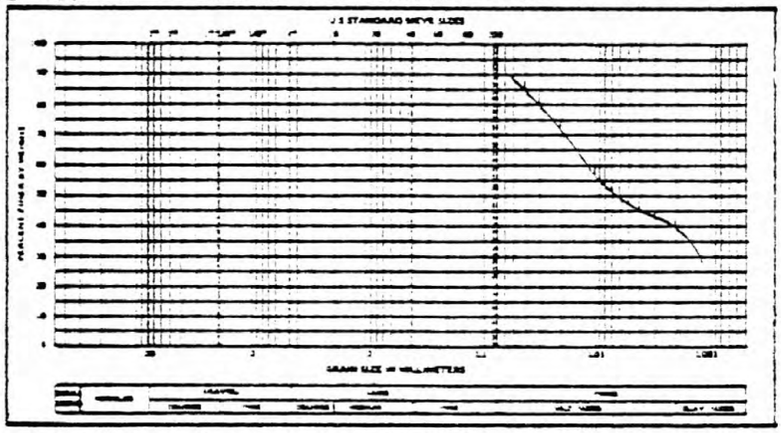
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 232-247 CM

SPECIFIC GRAVITY = 2.78
WET UNIT WEIGHT = 17.43KN/M3
NATURAL MOISTURE CONTENT = 43.6 PERCENT
DRY UNIT WT =12.14KN/M3 VOID RATIO = 1.246 PERCENT SAT.=97.30

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.1	99.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	50.0	45.9	25.	0.0501	89.3
1.0	47.0	42.9	25.	0.0365	83.4
2.0	43.5	39.4	25.	0.0267	76.6
5.0	39.0	34.9	25.	0.0175	67.9
15.0	34.0	29.9	25.	0.0105	58.1
30.0	31.0	26.9	25.	0.0076	52.3
60.0	28.5	24.5	26.	0.0055	47.5
250.0	26.0	21.9	25.	0.0027	42.6
1440.0	18.5	14.3	24.	0.0012	27.8

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 42
PLASTICITY INDEX IS 17
LIQUIDITY INDEX IS 1.11

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS

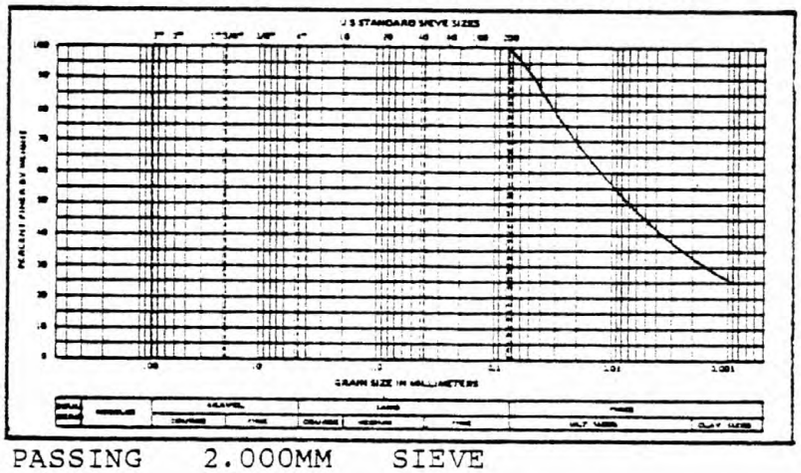
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-37 PC-37
SAMPLE IDENTIFICATION IS UD @ 344-356 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.35KN/M3
NATURAL MOISTURE CONTENT = 37.4 PERCENT
DRY UNIT WT =13.36KN/M3 VOID RATIO = 1.063 PERCENT SAT.=98.82

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	3.0	98.3



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	46.7	26.	0.0486	90.2
1.0	48.0	43.7	26.	0.0354	84.4
2.0	44.0	39.7	26.	0.0260	76.6
5.0	39.0	34.7	26.	0.0172	67.0
15.0	34.0	29.7	26.	0.0103	57.3
30.0	32.0	27.7	26.	0.0074	53.5
60.0	29.0	24.7	26.	0.0054	47.7
250.0	23.0	18.7	26.	0.0027	36.1
1440.0	19.0	14.4	23.	0.0012	27.9

PLASTIC LIMIT IS 21
LIQUID LIMIT IS 37
PLASTICITY INDEX IS 16
LIQUIDITY INDEX IS 1.00

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-6 WITH GROUP INDEX OF 10 CLAYEY SOILS

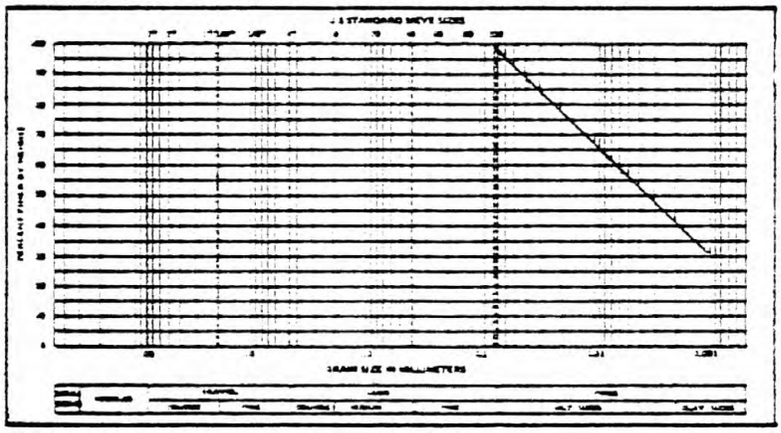
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 138-153 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 18.19KN/M3
NATURAL MOISTURE CONTENT = 40.4 PERCENT
DRY UNIT WT =12.96KN/M3 VOID RATIO = 1.127 PERCENT SAT.= 100

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	0.5	99.7



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	52.0	48.2	26.	0.0481	93.1
1.0	49.0	45.2	26.	0.0351	87.3
2.0	46.0	42.2	26.	0.0255	81.5
5.0	35.5	31.7	26.	0.0177	61.2
15.0	39.0	35.2	26.	0.0099	68.0
30.0	35.5	31.7	26.	0.0072	61.2
60.0	32.5	28.7	26.	0.0052	55.4
250.0	28.5	24.7	26.	0.0026	47.7
1440.0	21.0	17.0	24.	0.0012	32.9

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 20
LIQUIDITY INDEX IS 0.71

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-6 WITH GROUP INDEX OF 13 CLAYEY SOILS

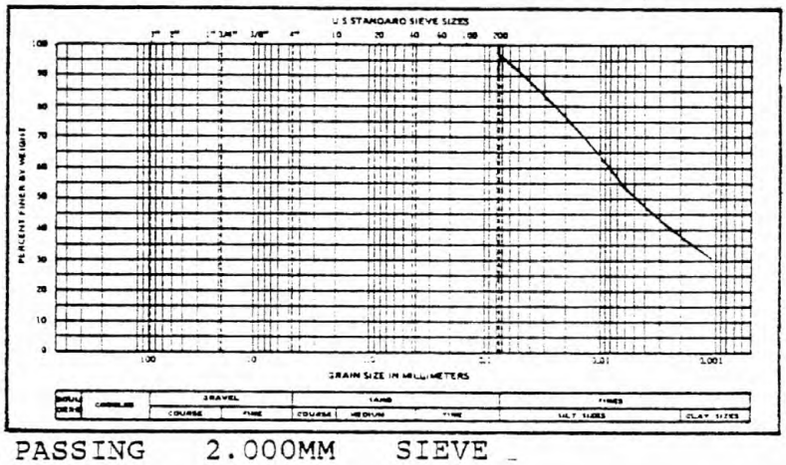
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 153-168 CM

SPECIFIC GRAVITY = 2.81
WET UNIT WEIGHT = 17.50KN/M3
NATURAL MOISTURE CONTENT = 41.6 PERCENT
DRY UNIT WT =12.36KN/M3 VOID RATIO = 1.229 PERCENT SAT.=95.08

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	5.6	96.8



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	49.0	45.8	27.	0.0490	88.5
1.0	48.0	44.7	27.	0.0352	86.5
2.0	44.5	41.2	27.	0.0257	79.7
5.0	41.0	37.7	27.	0.0168	73.0
15.0	36.5	33.2	27.	0.0101	64.3
30.0	33.0	29.7	26.	0.0074	57.4
60.0	30.0	26.7	26.	0.0053	51.6
250.0	25.0	21.7	26.	0.0027	41.9
1440.0	19.5	16.0	24.	0.0012	30.9

PLASTIC LIMIT IS 27
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 19
LIQUIDITY INDEX IS 0.77

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 12 CLAYEY SOILS

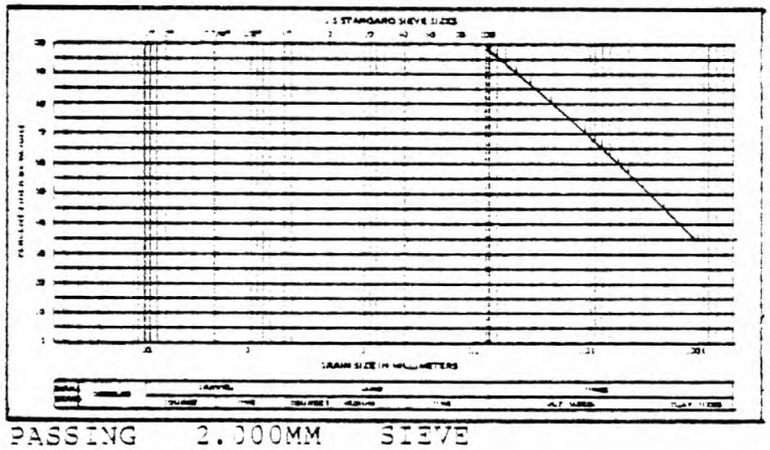
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-38; PC-38
SAMPLE IDENTIFICATION IS UD @ 180-192 cm

SPECIFIC GRAVITY = 2.76 WET UNIT WEIGHT = 17.30KN/M3
NATURAL MOISTURE CONTENT = 44.8 PERCENT DRY UNIT WT =11.95KN/M3
VOID RATIO = 1.266 PERCENT SAT.=97.77

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	1.9	99.4



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	47.1	27.	0.0487	92.0
1.0	49.0	45.1	27.	0.0352	88.1
2.0	44.0	40.1	27.	0.0261	78.3
5.0	44.0	40.1	27.	0.0165	78.3
15.0	39.5	35.6	27.	0.0099	69.5
30.0	36.5	32.6	27.	0.0072	63.7
60.0	34.0	30.1	27.	0.0052	58.8
245.0	27.5	23.6	27.	0.0027	46.1
1435.0	22.0	17.9	25.	0.0012	35.0

PLASTIC LIMIT IS 26
LIQUID LIMIT IS 51
PLASTICITY INDEX IS 25
LIQUIDITY INDEX IS 0.77

UNIFIED SOIL CLASSIFICATION IS CH

AASHO SOIL CLASSIFICATION IS A-7-5 WITH GROUP INDEX OF 16 CLAYEY SOILS

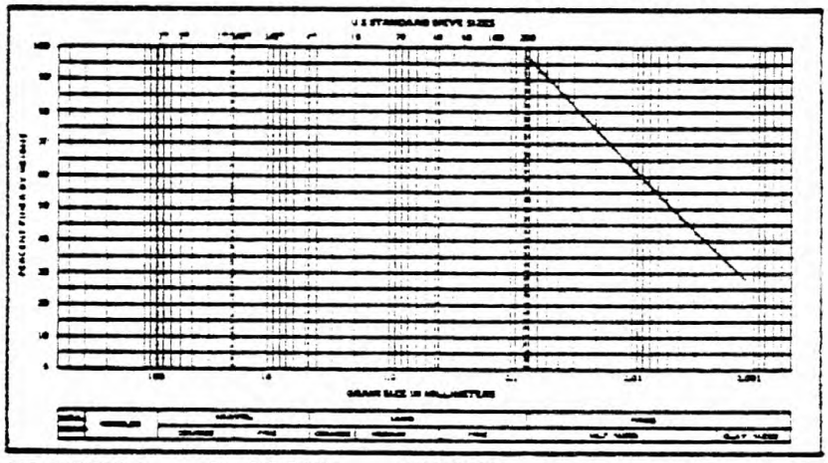
LAW ENGINEERING TESTING COMPANY
SOIL SAMPLE DATA

BORING NUMBER IS CD-38 PC-38
SAMPLE IDENTIFICATION IS UD @ 238-251 CM

SPECIFIC GRAVITY = 2.83
WET UNIT WEIGHT = 18.32KN/M3
NATURAL MOISTURE CONTENT = 35.4 PERCENT
DRY UNIT WT =13.53KN/M3 VOID RATIO = 1.051 PERCENT SAT.=95.36

SIEVE ANALYSIS

SIEVE MM	#CUM WT RET(GM)	PERCENT FINER
0.075	2.5	98.5



HYDROMETER ANALYSIS ON SOIL PASSING 2.000MM SIEVE

ELAPSED TIME	HYDRO READING	CORR HYDRO	TEMP	DIA IN MM	PERCENT FINER
0.5	51.0	47.6	25.	0.0489	91.7
1.0	48.0	44.6	25.	0.0357	85.9
2.0	45.0	41.6	25.	0.0259	80.1
5.0	41.0	37.6	25.	0.0170	72.4
15.0	37.0	33.6	25.	0.0101	64.7
30.0	34.0	30.5	25.	0.0074	58.8
60.0	31.5	28.0	24.	0.0054	53.9
250.0	25.0	21.6	25.	0.0027	41.6
1440.0	19.0	15.4	23.	0.0012	29.7

PLASTIC LIMIT IS 25
LIQUID LIMIT IS 46
PLASTICITY INDEX IS 21
LIQUIDITY INDEX IS 0.50

UNIFIED SOIL CLASSIFICATION IS
CL

AASHO SOIL CLASSIFICATION IS
A-7-5 WITH GROUP INDEX OF 13 CLAYEY SOILS