

**SAMPLE # 37 KRFFFM 25.0 TO 26.0 FEET**

CASE 3 - 14 FRACTIONS

NUMBER OF FRACTIONS OF GRAIN-SIZE COMPOSITION CURVE -14,

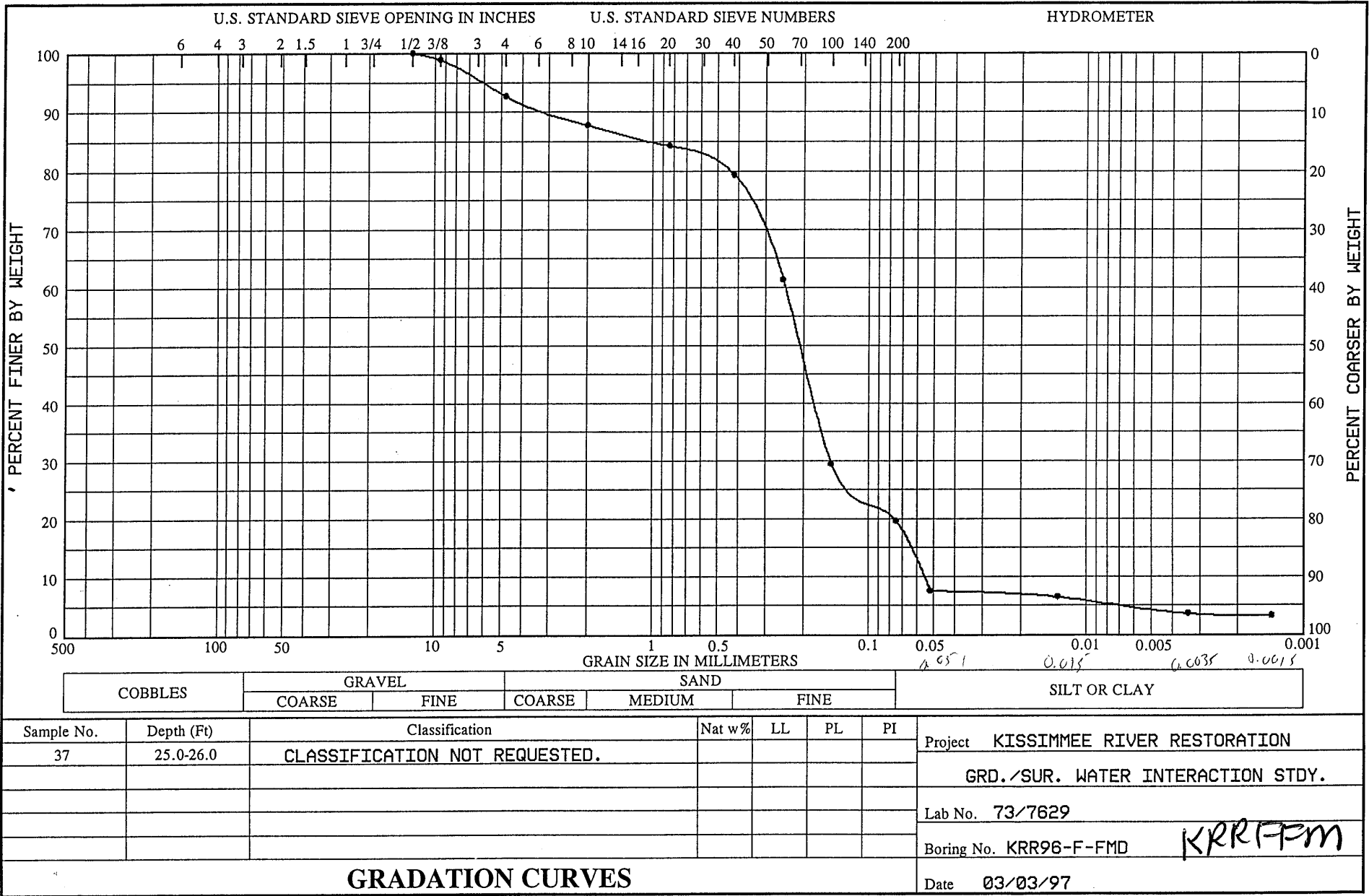
POROSITY  $n = 0.35$

PERCENT (%)	GRAIN DIAMETER - D(mm)
0.00	0.0010
3.00	0.0015
4.00	0.0035
6.00	0.0150
7.50	0.0510
19.70	0.0740
24.50	0.1050
29.50	0.1490
61.30	0.2500
79.30	0.4200
84.30	0.8410
87.80	2.0000
92.70	4.7600
98.89	9.5100
100.00	12.7000

EFFECTIVE GRAIN DIAMETERS

D10 = 0.0550 (mm) , D17 = 0.0681 (mm) , D20 = .0756 (mm)  
DKRUE = 0.028 (mm) , DKOZ = 0.025 (mm) , DZUN= 0.026 (mm) , DZAM = 0.027 (mm)  
D60 = 0.2448 (mm) , ETA = 4.45

EMPIRICAL METHOD	HYDRAULIC CONDUCTIVITY (ft/d)
HAZEN	K = 8.425
SLICHTER	K = 2.344
TERZAGHI	K = 4.004
BEYER	K = 7.882
SAUERBREI	K = 4.311
KRUEGER	K = 0.798
KOZENY	K = 1.328
ZUNKER	K = 0.757
ZAMARINU	K = 0.888
USBR	K = 2.701



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	Depth (Ft)	Classification	Nat w%	LL	PL	PI	Project
37	25.0-26.0	CLASSIFICATION NOT REQUESTED.					KISSIMMEE RIVER RESTORATION
							GRD./SUR. WATER INTERACTION STDY.
							Lab No. 73/7629
							Boring No. KRR96-F-FMD <b>KRR96-F-M</b>
<b>GRADATION CURVES</b>							Date 03/03/97



**SAMPLE # 38 KRFFFM 26.0 26.5 FEET**

CASE 4 - 13 FRACTIONS

NUMBER OF FRACTIONS OF GRAIN-SIZE COMPOSITION CURVE -13,

POROSITY  $n = 0.35$

PERCENT (%)	GRAIN DIAMETER - D(mm)
0.00	0.0010
5.00	0.0015
8.00	0.0035
11.00	0.0150
12.00	0.0510
13.69	0.0740
19.91	0.1050
26.39	0.1490
72.39	0.2500
93.68	0.4200
96.79	0.8410
97.69	2.0000
98.49	4.7600
100.00	9.5100

EFFECTIVE GRAIN DIAMETERS

D10 = 0.0092 (mm) , D17 = 0.0891 (mm) , D20 = .1055 (mm)  
DKRUE = 0.017 (mm) , DKOZ = 0.015 (mm) , DZUN= 0.016 (mm) , DZAM = 0.016 (mm)  
D60 = 0.2175 (mm) , ETA = 23.55

-HYDRAULIC CONDUCTIVITY-

(ft/d)

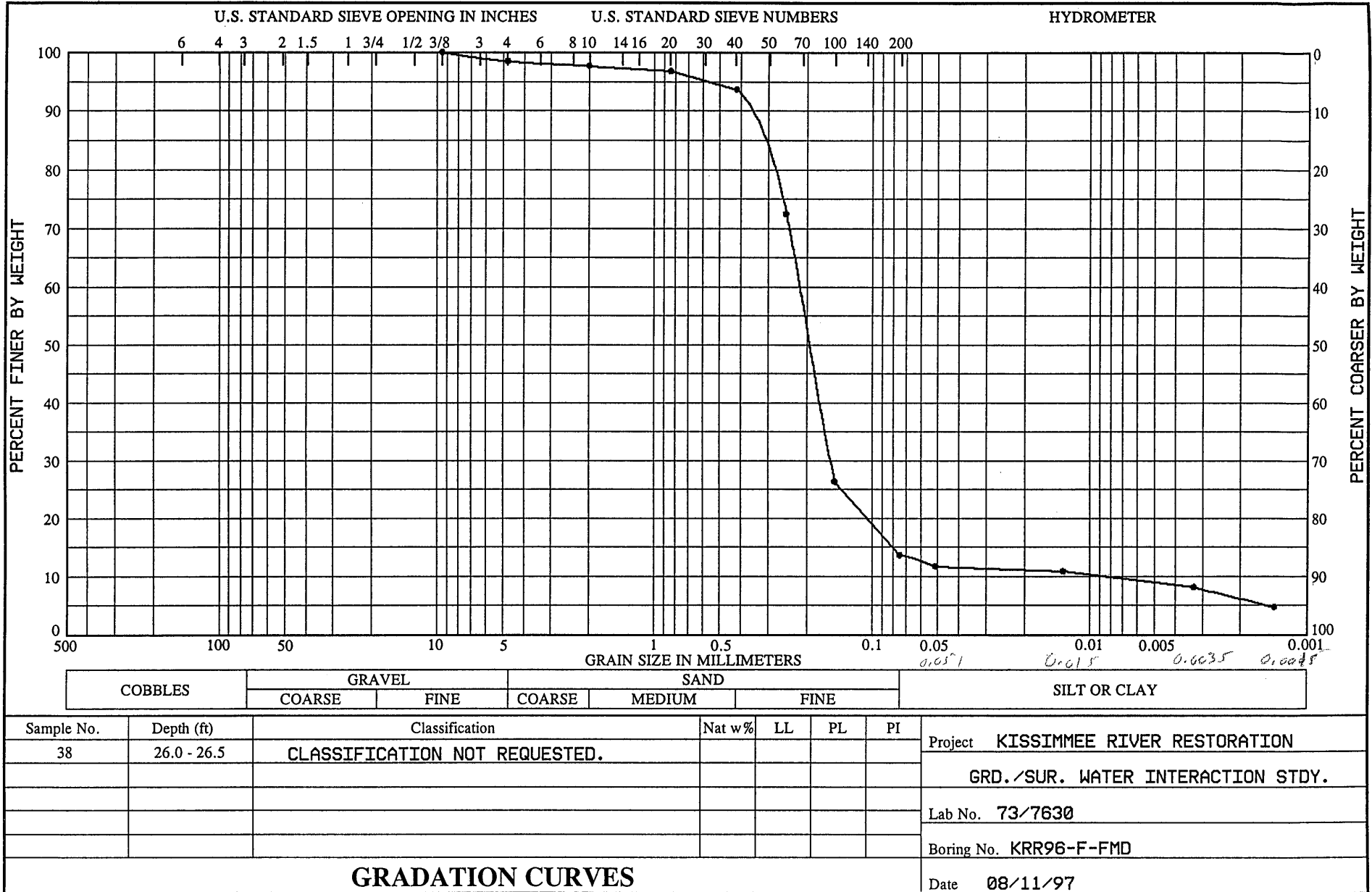
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HAZEN	K =	0.237
SLICHTER	K =	0.066
TERZAGHI	K =	0.113
BEYER	K =	0.144
SAUERBREI	K =	7.377
KRUEGER	K =	0.283
KOZENY	K =	0.466
ZUNKER	K =	0.266
ZAMARINU	K =	0.314
USBR	K =	5.809

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY  
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

WORK ORDER: 8172  
REQUISITION: W32CS570312365

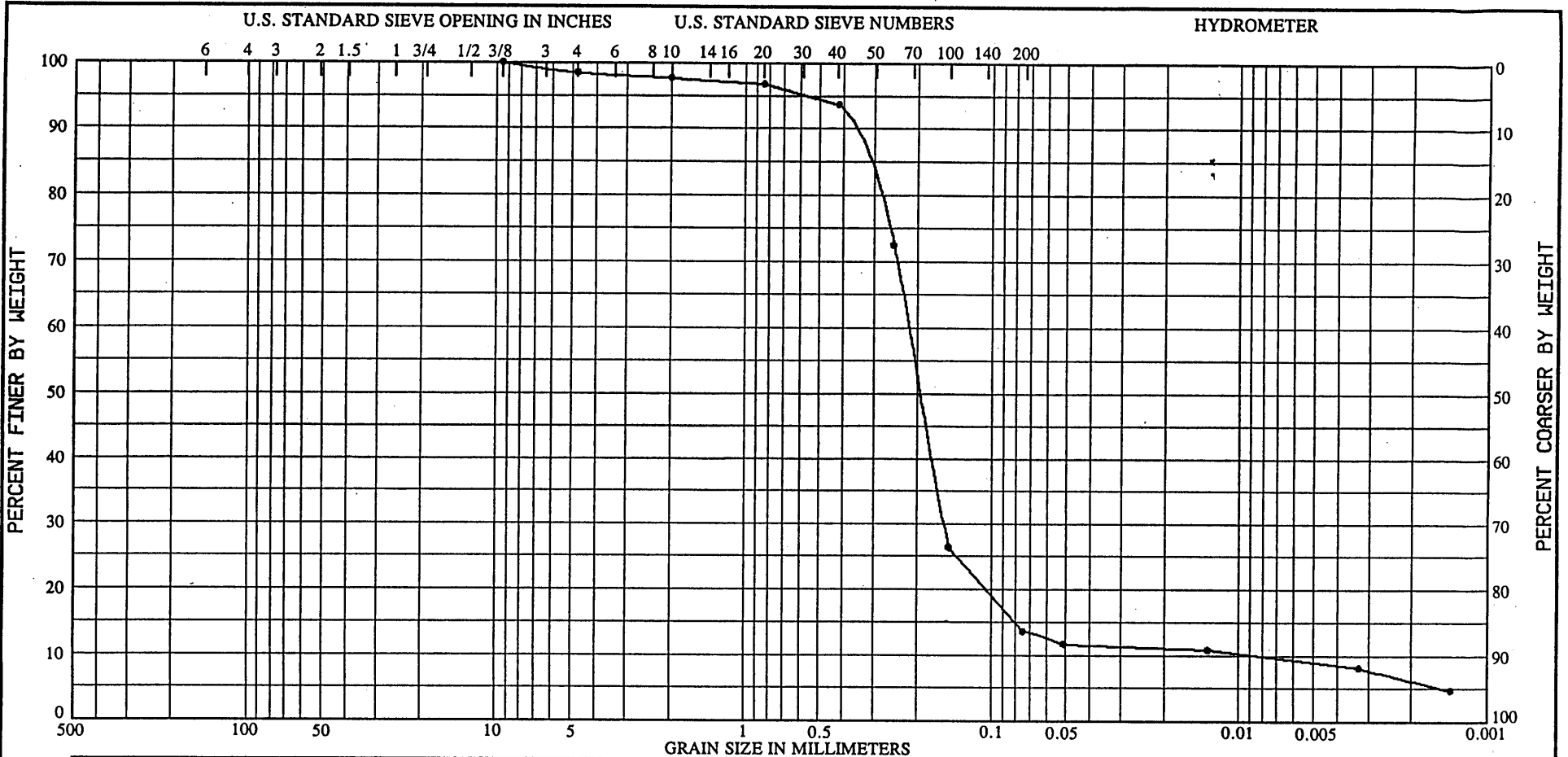


GRADATION CURVES



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COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Type of Specimen <b>UNDISTURBED</b>				Before Test				After Test				Project <b>KISSIMMEE RIVER RESTORATION</b>			
Diam.	1.25	in.	Height	2.00	in.	Water Content	w <sub>o</sub>	9.9	%	w <sub>f</sub>	34.3	%	GRD./SUR. WATER INTERACTION STDY.		
Class.						Void Ratio	e <sub>o</sub>	0.920		e <sub>f</sub>	0.920		Boring No. <b>KRR96-F-FMD</b>		
						Saturation	S <sub>o</sub>	28.7	%	S <sub>f</sub>	100.0	%	Sample No. <b>38</b>		
LL	PL	G <sub>s</sub>	2.68	D <sub>10</sub>	0.0082MM	Dry Density	γ <sub>d</sub>	87.2	lb/ft <sup>3</sup>	k <sub>20</sub>	88.3010	x10 <sup>-4</sup> cm/s	Lab No.	73/7630	
<b>Variable/Constant Head PERMEABILITY TEST REPORT</b>											Depth (ft)		26.0-26.5	Date	08/12/97

