

## Water Resources - Experiment #2

### Results -Porosity, Hydraulic Conductivity, and Neutralization Time

Group	Porosity			Conductivity cm/sec			Neutralization Time sec <sup>a</sup>		
	C33	Vical	AFG10/40	C33	Vical	AFG10/40	C33	Vical	AFG10/40
A-1	(LEAK)	.45	.29	.96	.52	.07			
A-2	-	.55	.47	-	2.44	-			
A-3	.45	.60	.51	1.12	.54	.09	<i>WedLab N/A<sup>b</sup></i>		
A-4	.53	.48	.38	-	.56	.05			
A-5	.58	.61	-	1.34	.76	-			
A-6	1.05 (LEAK)	-	.41	1.4	-	.08			
A-7	.40	.45	-	.84	.48	-			
B-1	.48	.45	-	.82	.48	-	14.3	18.8	-
B-2	.51	-	.35	.94	-	.087	15.	-	12.
B-3	.43	.49	-	.88	.35	-	16.2	39.4	
B-4	.49	-	.57	.91	-	.10	11.3	-	25
B-5	.512	.525	-	.809	.457	-	11	27	-
B-6	1.47	-	.95	1.29	-	.081	15.4	-	11.8
B-7	.42	.40	-	.753	.457	-	70	45	
B-8	.778	-	.565	6.79	-	.536	10	-	16
<b>mean,</b>	50.7	50.1	44.3	100	51.2	.080	13.3	32.6	16.2
<b>std. dev.</b>	10.5	6.9	10.2	22	11	.002	2.5	11.9	6.2

a. This is a “10second, two - point, line fit, time axis intercept”

b. Intial procedure was not appropriate. Procedure was revised for Thursday’s Section.

#### Ten second, two point line fit, time axis intercept

This is a crude measure of neutralization time. It’s advantage is that it standardizes your measurements enabling a comparison across groups.

In your design, you must decide upon a residence time which will be, no doubt, of longer duration. Just how long depends upon how “conservative” you choose to be.

