

CE 401 – Concrete Technology

(112)

Homework Assignment # 1

Date: 11-02-2012

Due Date: 15-02-2012

Use the following readings to:

1. Find the Moisture Content (%.)
2. The Electrical Resistivity ($\Omega.m$)
3. Draw Moisture Content (%.) vs. Electrical Resistivity ($\Omega.m$).
4. Find the Electrical Resistivity at 2.00 % moisture for each sample.
5. Compare the results of the Electrical Resistivity for the two samples.

Sample #	Diameter (mm)	Length (mm)	Dry Weight (g)	Wet Weight (g)	Resistance (K. Ω)	Moisture Content (%)	Electrical Resistivity ($\Omega.m$)
S1	76.45	152.2	1634.7	1690.40	16.98	??	??
				1684.90	20.20		
				1680.40	25.30		
				1677.60	27.60		
				1672.90	38.60		
				1668.50	57.90		
				1666.60	64.70		
				1663.50	75.00		
			1661.80	105.60			
Sample #	Diameter (mm)	Length (mm)	Dry Weight (g)	Wet Weight (g)	Resistance (K. Ω)	Moisture Content (%)	Electrical Resistivity ($\Omega.m$)
S2	76.70	151.35	1635.1	1682.80	24.90	??	??
				1676.00	33.80		
				1672.00	39.50		
				1669.90	46.40		
				1666.50	61.70		
				1664.50	87.00		
				1663.10	91.30		
				1660.40	128.30		
			1659.20	166.00			