

ABSTRACT

The Non Destructive Test (NDT) method is process of testing toward an object without damaging part of function of the object that will be tested. Researcher used one of NDT method which was magnetic field induction. Magnetic field induction was expected to be able to find out the relation of water content effect and soil, with coordinating water content 10,15,20,25,30 gr and several types of soil such as laterite soil, sedimentary soil, humus soil, clay and volcanic soil. This examination used two types of coil that played role as inducted transmitter and receiver right in the middle of the object. Measured voltage response value in receiver coil was analyzed by seeing the difference between variation addition of water content to all type of soil. Based on the measurement, all soil was sensitive toward range between coil and addition of water content. Water content could be determined by observing the change of voltage between soil before and after being given by water content. From all the tests, voltage of coil are increased when the water given. The biggest change of voltage is clay and volcanic soil by the addition of 30 gr is 32 V and 32,6 V.

Keyword : Non Destructive Test (NDT), Magnetic Field Induction, Soil, Water Compositon, GGL Respons