

Evaluation on Soil Permeability Using Electrical Resistant Tomography

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The permeability of soil is used to adapt field constant head permeability test or variable head permeability test. The former test is suitable for soil with higher permeability like sand and gravels; the later test is suitable for soil with lower permeability like silt and clays. Both tests need in-situ drilling holes. The required operating time is usually about couple of hours. A widely used geophysical method, Electrical Resistant Tomography (ERT), is adapted here to evaluate the soil permeability. Two types of soil with different permeability were performed, and the results were compared with the result of same samples using traditional permeability test. The result showed that they were very close. The operating time of ERT for one soil was only less than one hour. The idea of evaluating soil permeability using ERT is proposed in this study.

Keywords: Soil Permeability, Electrical Resistant Tomography



主機設定 (107.10.31 攝於明學樓噴水池旁)

