Geoelectric sounding and hydrochemical investigations for groundwater potentiality in the area west of the River Nile, Egypt

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Abstract:

Surface geophysical investigations, in addition to hydrochemical measurements were made on some locations at the area northwest of Assiut city. All the geoelectrical sounding measurements were made using the D.C. resistivity method. The obtained geophysical results were integrated as possible with all available geological and hydrogeological information in order to recognize the probability of presence water-bearing formations either fresh (low resistivity) or polluted (extremely low resistivity). Two conductive wet zones (shallow and/or deep) were detected. Also, two extremely high resistive zones can be recognized; the first represents the surface dry zone (consists of dry sands and gravels), whereas the second is deep in the whole surveyed parts, it may represent the bed rock, (e.g. limestone). Only an extremely conductive zone (M.O.)

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