

## Physicochemical and Bacteriological Quality Characterization of Some Selected Wells in Ado-Ekiti, Nigeria

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**Abstract :** Groundwater (Wells) is obtained from several well-defined and different water-bearing geological layers or strata. The physical, chemical and bacteriological quality of the water contributed from each of these water-bearing formations and resultant effects of indiscriminate wastes disposal will be dependent on the dissolution of material within the formation. Therefore, water withdrawn from any ground water source will be a composite of these individual aquifers. The water quality was determined by actual sampling and analysis of the completed wells. This study attempted to examine the physicochemical and bacteriological water quality of twenty five selected wells comprising twenty boreholes (deep wells) and five hand dug wells (shallow wells). The twenty five wells cut across the entire Ado Ekiti Metropolitan area. The water samples collected using standard method was promptly taken to water laboratory at the Federal Polytechnic Ado-Ekiti for analysis, physical, chemical and bacteriological tests were carried out. Quality characteristics tested were found to meet WHO's standard and generally acceptable, making it potable for drinking in most situations, thus encouraging the use of groundwater. Possible improvement strategies to groundwater exploitation were highlighted while remedies to poor quality water were suggested.

**Keywords :** bacteriological, physicochemical, quality, wells, Ado Ekiti

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