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Water Quality Assessment of Ground Water samples using water Quality Index Method of North Karanpura Coalfield, Jharkhand

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Abstract:Groundwater is a natural resource for drinking water. Like other resources, it should be assessed regularly. The present study was intended to calculate Water Quality Index (WQI) of groundwater of North Karanpura Coalfield (Jharkhand) in order to ascertain the quality of water for public consumption and other purposes. This has been determined by collecting 19 ground water samples from bore and tube wells. For calculating WQI, the following parameters have been considered pH, TDS, TH, Fluoride, Chloride, Nitrate, Sulphate, Calcium, Magnesium, Sodium, and Potassium. The WQI for these samples ranged between 21.8- 231.2. The analysis reveals that the ground water of North Karanpura Coalfield needs some treatment before consumption. In the study area mining is one of the major activities causing water pollution and threatens the quality and quantity of ground water.

Keywords:Ground water, WaterQuality Index, North Karanpura Coalfield.

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