

## **ASSESSMENT AND IMPACT OF UNDERGROUND WATER POLLUTION IN SULTANPUR CITY, U.P., INDIA**

**Anoop Kumar Singh<sup>1</sup>, C.B. Pandey<sup>1</sup> and C.P. Pandey<sup>2</sup>**

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**ABSTRACT :** Water is the precious gift of nature to the human being and valuable natural resource for entire living community. Hence its quality and quantity are of prime importance. Characterization of the physico-chemical parameters of groundwater from five different locations in Sultanpur city was carried out and the ground water samples were collected from dug wells(A), hand pumps (B), I.M.II hand pumps(C) and tube wells(D). The Physico-chemical parameters pH, electrical conductivity (EC), alkalinity, dissolved oxygen (DO), biochemical oxygen demand (BOD), Ca, Mg, F<sup>-</sup>, Cl<sup>-</sup>, SO<sub>4</sub><sup>-</sup>, and total hardness (TH), has been studied in the month of January 2010 from selected sites using standard procedures. The result revealed that the most of the water quality parameters of sampling sites are within the permissible limits as per WHO and BIS standards.. The quality of ground water samples were discussed with respect to these parameters and thus an attempt were made to ascertain the quality of water use for cooking and drinking purposes in and around the sampling locations.

**Key Words :** Underground water pollution, physico-chemical parameters, drinking water quality.