

Physicochemical Analysis of Ground Water of Selected Areas of Oji River in Enugu State, Nigeria

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Abstract : Drinking and use of polluted water from ponds, rivers, lakes, etc. for other domestic activities especially by the larger population in the rural areas has been a major source of health problems to man. A study was carried out in two different ponds in Oji River, Enugu State of Nigeria to determine the extent of total dissolved solid (TDS), metals (lead, cadmium, iron, zinc, manganese, calcium), biochemical oxygen demand (BOD). Samples of water were collected from two different ponds at a distance of 510, and 15 metres from the point of entry into the ponds to fetch water. From the results obtained, TDS (751.6Mg/l), turbidity (24ftu), conductivity (1193 μ s/cm), cadmium (0.008Mg/l) and lead (0.03mg/t) in pond A (PA) were found to have exceeded the WHO standard. Also in pond B (PB) the results shows that TDS (760.30Mg/l), turbidity (26ftu), conductivity (1195 μ s/cm), cadmium (0.008mg/l) and lead (0.03Mg/l) were also found to have exceeded the WHO standard which makes the two ponds. Water very unsafe for drinking and use in other domestic activities.

Keywords : physicochemical, groundwater, Oji River, Nigeria

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