Available online at www.joac.info

ISSN: 2278-1862



Journal of Applicable Chemistry

2014, 3 (5): 2095-2101 (International Peer Reviewed Journal)



Water Quality Status of Andra Reservoir in Vizianagaram District of Andhra Pradesh, India

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Accepted on 20th August 2014

ABSTRACT

The present study of the author is aimed at the assessment of water quality of Andra reservoir situated in Andra village, Mentada mandal in Vizianagaram district of Andhra Pradesh. The study was carried out for the analysis of physico- chemical characters such as pH, EC, TDS, total hardness, calcium, magnesium, sodium, potassium, iron, chloride, nitrite, phosphate, fluoride, total alkalinity and content of heavy metals such as Mn, Cr, Ba Ti, Hg, As Pb and Cd. Different samples were collected at random in the reservoir and mixed to get a representative sample, which is subjected to analysis. The analysis was performed in the seasons of August 2010, December 2010, April 2011, August 2011, and December 2011. April 2012, August 2012, December 2012 April 2013, August 2013 and December 2013. Quality of the water samples collected from the reservoir was determined by Water Quality Index (WQI) method and found to be excellent in its quality. Irrigation water quality parameter such as SAR, RSC, % Na and Mghazard were also determined and found to be well within the prescribed limits. From the water quality index data and irrigation water quality data, the authors conclude that the water is fit for human consumption, irrigation and agriculture purpose.

Keywords: WQI, SAR, RSC, %Na, reservoir water quality.