



Chemical and Bacteriological Evaluation of Drinking Water: A Case Study in Wadi El- Saaida Hamlets in Aswan Governorate, Upper Egypt

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Received April 06, 2009; Accepted June 15, 2009

Abstract: Chemical qualification (pH, Cd, Cr, Cu, Ni, Pb and Zn), classical (total coliform, fecal coliform, coliform streptococci) and new (total yeasts, *Candida albicans*, *Aeromonas hydrophila* and total staphylococci) indicators of pollution, and the pathogenic bacteria (salmonellae, shigella, total vibrios and listeria group) in drinking water samples of Wadi El Saaida hamlets, Al-Shahama, Amer Ben-Alas and Al-Iman (an agricultural society) in Aswan Governorate, Egypt, were monitored. The obtained results indicated that most of the studied heavy metals are out of their safety base line and hence some of chronic diseases (renal failure, liver cirrhosis and anemia) are expected in the area under study. On the other hand, the produced water contained all the tested organisms. The results also revealed the ill performance and poor drinking water quality of the purification systems of the investigated water samples. Recommendation was suggested for new treatment systems of investigated suspicious water to prevent human and animal illness.

Key Words: *Heavy metals, chronic diseases, classical and new pollution indicators, pathogenic bacteria.*

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