

Journal of Environmental Hydrology

ISSN 1058-3912

Electronic Journal of the International Association for Environmental Hydrology

Volume 11 (2003), Paper 11, September 2003

Posted September 29, 2003

GROUNDWATER CHEMISTRY OF THE SHALLOW AQUIFER, EL-TUR AREA, SOUTH SINAI, EGYPT

A. Abdel-Lattif

National Research Institute of Astronomy and Geophysics, Helwan, Cairo, Egypt

ABSTRACT

Twenty groundwater samples were collected and analyzed from several hand-dug wells at El-Tur City, South Sinai, Egypt. The results of chemical analyses indicate that the water types are Na_2SO_4 of meteoric genesis, MgCl_2 of marine genesis and CaCl_2 of old marine genesis. The saturation indices with respect to minerals were calculated by the use of the hydrochemical program WATEQ and used to elucidate the rock-water interactions. The results point to the occurrence of 18 minerals that reflect the chemical characteristics of the shallow aquifer. A multivariate statistical analyses shows that a grouping exists. The suitability of the water for irrigation and potable purposes falls within five classes.

Reference: Abdel-Lattif, A.; Groundwater Chemistry of the Shallow Aquifer, El-Tur Area, South Sinai, Egypt, Journal of Environmental Hydrology, Vol. 11, Paper 11, September 2003.

CONTACT:

A. Abdel-Lattif

National Research Institute of Astronomy and Geophysics

Helwan, Cairo

Egypt

E-mail: aiman-aziz@hotmail.com

[Return to HydroWeb Homepage](#)