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PROBLEMS IN ASSESSING GROUNDWATER RESOURCES IN BEDROCK AQUIFERS, ERITREA

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ABSTRACT

The problems associated with bedrock aquifers are discussed in reference to an unusual groundwater condition observed in the study area. To understand and explain the problem, a geologic and hydrogeologic investigation was carried out. First, the results of previous geologic and hydrogeologic investigations conducted by JICA and Euroconsult were obtained and analyzed. Secondly, a structural map and a drainage map of the area were prepared using information extracted from topographic maps, aerial photographs and SPOT images. In addition, fieldwork was conducted during which static water levels were measured in available wells. The field data were used to develop a water table contour map from which the general direction of groundwater flow was determined. Finally, the processed data and field observation were analyzed and interpreted to develop theories that explain the problem.

Reference: Tesfaslasie, F. and A. Mebrahtu; Problems in Assessing Groundwater Resources in Bedrock Aquifers, Eritrea, Journal of Environmental Hydrology, Vol. 11, Paper 12, October 2003.

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