

HYDROGEOLOGY OF SHAGAR AREA, EASTERN DESERT,
RED SEA GOVERNORATE (A.R.E.)

A THESIS

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(HYDROGEOLOGY)

BY

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NOTE

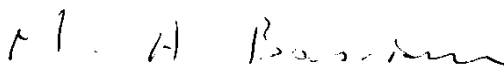
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INTRODUCTION

In the western side of the Gulf of Suez, the most important oil-producing region in Egypt, a lot of exploratory wells were drilled. Brackish groundwater was detected by subsurface electric logs at several localities through the porous and permeable rock units.

In Shagar area, Fig. (1), two exploratory wells were drilled, the first was drilled by Anglo Egyptian Oil Company (AEO) in 1940 (Shagar well No. 1), and the second one was drilled by General Petroleum Company (GPC) in 1965 (Shagar well No. 2). The Rudeis sandstone in both wells is saturated with brackish groundwater.

After the short war of 1967, a great drop of potable-water supplies from Suez to the Gulf area happened. Therefore, more attention was paid to the development of the Rudeis aquifer in Shagar area by (GPC) in order to supply water demands to the settlements of Gharib and Bakr. Four other wells were drilled in Shagar area (Shagar wells, 3-6, inclusive) in 1967, 1969 and 1970, and developed for producing groundwater.

The Gulf of Suez Petroleum Company (GUPCO) shared also in the development of Shukheir area to the south of Shagar area, Fig. (1) in order to produce brackish groundwater from the Rudeis aquifer. Five wells were drilled (Shukheir wells, 1, 2, 3, 5 and 6) since 1970.