

# HYDROLOGICAL CHARACTERIZATION OF THRACE BASIN IN TURKEY

By

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## ABSTRACT

In this study, Ergene basin which is one of the main basins in the Meriç-Ergene basin was introduced and the evapotranspiration estimations of crops and vegetation were done by using discharge and meteorological data of Ergene basin. Two commonly used methods which are FAO Blaney-Criddle and Penman-Monteith were utilized while performing these estimations. According to the evapotranspiration amounts, the future implications on Ergene basin were discussed. Also, in order to find the level of groundwater table of Ergene basin, water budget method was used assuming no net flow from or to adjacent basins annually.

# HEAT FLOW IN SOUTHEASTERN ANATOLIA

By

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## ABSTRACT

The geothermal energy potential of Anatolia is quite high. In this project, we worked on the Southeastern Anatolia Region located south of Bitlis-Zagros Suture Zone (BZSZ) which is in the Arabian foreland. We analyzed the bottom hole temperature (BHT) data of the region and thermal conductivity parameters of rocks in order to understand the regional heat flow. The methodology was conductive thermal modeling of four fields whose names are Çukurtaş, Bakraçlı, Çelikli and Taşlıdere, by using lithology and thermal conductivity of the rocks and calculate temperature depth profiles of deep wells. Surfer and Excel programs and Gerber scale were used for this purpose. Temperature-depth graphs were drawn for each models based on the lithological information that varies depth. This graphs allowed us to obtain geothermal gradient and surface heat flow for each model.

**Key Words :** Southeastern Anatolia Region, Geothermal Energy Potential, Bitlis -Zagros Suture Zone, Bottom Hole Temperature, Thermal Conductivity, Regional Heat Flow