

Hydrogeological investigation of the characteristics of the drinking water sources of the Kahramanmaras Region

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ABSTRACT

Kahramanmaras is very tectonic in nature and therefore it is abundant in terms of hot cold water and mineral water resources. Quartzite and carbonate rocks with fractured-cracked metamorphic rocks have aquifer characteristics in Kahramanmaras. In this study, water resources of Kahramanmaras and its surroundings have benefited from hydrogeochemistry, environmental isotopic and water chemistry data. The chemical and isotopic compositions of water samples taken from the hot water, which are prevalent in terms of drinking-use and tourism, have been examined in the investigation area. In order to complete a year from 40 sources from Kahramanmaras and its surroundings, 480 samples were taken in different years and chemical analysis as well as tritium, oxygen¹⁸ and deuterium analyzes. According to the Piper diagram, it is included in the 5th group. The demonstration was carried out in wet and dry periods to represent the change of feeding conditions. The data of the water samples are meteoritic origin as a result of evaluated isotope values. Transitional time of groundwater tritium content of the samples shows a wide range depending on the local hydrogeological conditions.

Keywords: Drinking Water, Hydrogeochemistry, Isotope Geochemistry, Medical Geology, Kahramanmaras