

## **Geophysical Exploration at Fruska Gora MT. (Yugoslavia)**

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Within hydrogeological exploration at the territory of Fruska Gora mt. in Vojvodina (Northern Serbia, Yugoslavia), geophysical exploration has been performed in order to define presence and distribution of carbonate sediments (Triassic limestones and dolomites) in relation to Tertiary sediments (clay, sand, gravel), Jurassic serpentinites as well as diabase and Paleozoic schists. At the same time, structural-tectonic relations of sediments and rock masses and collector features of carbonate sediments would be solved.

Geophysical exploration was performed by the following (complex) geophysical methods: geomagnetic, seismic refraction and geoelectric methods (resistivity method – soundings and mapping and transient electromagnetic method), but also by well-logging. Each of the methods gave the results, but the best ones were obtained by application of resistivity method – combined mapping, using Hummel array (AMNB-C) in several depth levels – 2D scanning. Diagrams of apparent resistivity, pseudosections and coefficients of lateral variation were obtained. According to the data, contact of Cretaceous flysch sediments and Triassic carbonate sediments was determined.

On the basis of the geophysical data, an exploratory borehole was located at the southern slopes of the Fruska Gora mt., at limestone sediments, followed by well-logging.

Enough quantity of ecologically clean, low-mineralized, suitable for bottling, drinking water (20 l/s) was provided. Construction of an exploitation well is underway.