

From a tectonic point of view the basin belongs to the Servomacedonian zone. The geological structure of the area includes, mainly, Paleozoic metamorphosed rocks (gneisses, crystalline schists, amphibolites etc). Mesozoic granite intrusions, Neogene sedimentary rocks as well as the Quaternary deposits have a significant extension as well.

From a water bearing formation point of view the Quaternary deposits and especially the alluvials are considered the most significant aquifers of the basin.

Based on the data of wells sensuses, on boreholes lithological logs and pumping tests, which were collected and evaluated, in relation with the geological and other data, the map of the differential potential of the alluvial aquifers was prepared.

With the piezometric measurement data, an isopiezometric map of the alluvial aquifers was constructed for the low (Autumn) groundwater level.

The annual level change of the groundwater was found to fluctuate from 0,5 m to 3,3 m.

The thickness of the water bearing formations is between 15-58 m with an average of 30 m. The regulating groundwater reserves of quaternary aquifers were found to be $29,5 \times 10^8 \text{ m}^3/\text{year}$, the geological reserves were estimated $489 \times 10^6 \text{ m}^3$ and the exploitable ones $54 \times 10^6 \text{ m}^3/\text{year}$.

The volume of water which is being pumped from the alluvial aquifers, by means of wells, is estimated to $11 \times 10^8 \text{ m}^3/\text{year}$. Consequently, there is an annual surplus of groundwater potential of $43 \times 10^8 \text{ m}^3$, which can be used, by constructing new deep wells, for drinking and irrigation purposes.

ENGINEERING GEOLOGY EVALUATION OF A ROAD'S SLOPES. AN EXAMPLE FROM THE KALAMATA – SPARTI ROAD

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The road net slope stability of a Country affects directly the road transport and consequently the economy of the Country. An engineering geology mapping and evaluation of the stability risk of these slopes will contribute much to planning and control of these phenomena and ultimately to the economy of the Country.

In this direction, a method of mapping and evaluation of the road slope stability is presented in this paper. The factors that have been taken into account for the classification are the height and the inclination of the slope, the kind of the rock, the kind of the instability, the volume of the unstable mass and the safety factor. An application of the method is also given for the Kalamata-Sparti intercity road. A map of the instability risk is prepared for this road. From this example it comes out that the method is simple, easily applied and the results very encouraging.