Application of borehole log analysis for evaluating the reservoir properties of thick terrigenous rocks

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Abstract:
The problems related to the exploration of terrigenous rocks characterized by low reservoir properties are nowadays very important due to the fact that these rocks have a significant portion in the overall balance of fossil fuels. Areas with possible presence of such terrigenous sediments are detached in Bulgaria, some of them located in the northern part of the country on the territory of the Provadia syncline. Subject of the performed research are Permian, Triassic and Jurassic terrigenous rocks studied according to data from logging in boreholes situated near Hrabrovo (P-1 and P-2) and Bozveliysko (P-9). Based on the performed complex geological logging surveys are derived quantitative values for some geophysical parameters (relative shale content (η_{sh}) and interval time of distribution for the longitudinal elastic waves in the skeleton of the rock (ΔT_{sk}) which served as criteria signs for the separation of collectors with reduced reservoir properties.