



Integrated interpretation of geophysical data in the South – Iași area

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Abstract

The limitations affecting the geological interpretation of geophysical data derived from measurements made using three methods relate mainly to the incompleteness of geological and drilling information, the volume and quality thereof, which is precarious in the region covered by this study, but also to the partial lack of confirmation of magnetometric results in the other geophysical maps available (gravimetric and telluric currents). These simple findings lead to the idea that the nature of these limitations is rather extrinsic than related to the potentiality of the magnetometric method. Obviously, in this context, this paper cannot propose reconsiderations and structural revisions of the previous opinions on this geological unit.

The petrophysical data, especially the magnetic ones, do not outline a rigorous premise regarding the interpretation of magnetic anomalies in the area under review, especially due to the peculiarity that the nearest drillings – Nicolina and Iași-Socola – have not revealed rock samples with special magnetic properties. Since the magnetometric method stands out primarily due to its petrographic resolution, the approach of an interpretation from the perspective of the structural content of geophysical information takes on a complex and difficult turn given the ambiguity of the situation.

Keywords: magnetic anomalies, gravimetric anomalies, intrusive granite bodies, crystalline basement, tectonic alignment, petrophysical parameters, density, magnetic susceptibility.
