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Use of digital terrain models in morphometric analysis of tectonic structures and prospecting of placers of alluvial genesis

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Abstract

Approaches have been developed to the application of the geomorphometric method for identification of neotectonic structures from maps of datum and summit planes by using the territory of Perm krai as an example. We carried out a comparative analysis of the resulting maps with existing neotectonic maps of local uplifts to reveal their good correlation. We substantiate the possibility of using the suggested approaches in forecasting deposits of sand-gravel raw materials. © 2014 Pleiades Publishing, Ltd.

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Keywords

datum and summit planes, digital terrain model, local structure, map, morphometry, sand-gravel raw materials, tectonics