

## **Detecting active faults and tracing fractured zones using dem processing**

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### **Abstract**

© 2016, International Journal of Pharmacy and Technology. All Rights reserved. This article describes the technique and results of digital DEM digital processing conducted for the territory of a small oilfield. The study aims to obtain information on rock mass natural fracturing and fluid dynamics. Although only one particular case is described here, the proposed technique is universal and can be applied to any flat area with developed erosional system (within the platforms). Results of DEM digital processing in conjunction with oil content data, geochemical sampling and high-precision gravimetry were used to discover zones of excessive fracturing and fluid dynamic activity in sedimentary cover. Also, block model of the oilfield was constructed, and reconstruction of geodynamic processes in the active microblocks junction zones was carried out.

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### **Keywords**

DEM, Geodynamics, Lineament analysis, Morphometric analysis