

Method for continuous monitoring of electrical rock resistivity

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Abstract. Main results of development of a method for continuous monitoring of rock resistivity are described. The method uses continuous electromagnetic radiation of man-made and natural origin as a sounding signal. The underground electrical antennas are used as the sensors. The method physical basis is dependence of rock resistivity on fluid saturation degree that changes under mechanical stress variations in geological media.

Keywords: rock resistivity, electromagnetic radiation, fluid saturation, underground electrical antenna, continuous monitoring, borehole.