

Method of Predicting the Screening Ability of Rock Salt in the Vicinity of Underground Cavern

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Abstract

The method of predicting the screening ability is based on the calculating estimation of long-term stability of caverns in rock salt.

The variation of open porosity and permeability of rock salt results from changes in its stressed state. The determination of the stressed area where rock salt loses its screening ability in respect of liquids and gases is of theoretical and practical interest.

For this purpose the investigation of changes in open porosity and permeability under load and the preliminary estimation of the correlation between these changes and stressed state were made.

The possible thickness of the area contaminated by liquid hydrocarbon was determined in the vicinity of underground cavern.

Key Words: Screening Ability, Open Porosity, Permeability, Underground Cavern.

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