

CRITERIA FOR GEOMECHANICAL STABILITY OF SALT CAVERNS

by

Yu. Avdeev, V. Vorobyev, B. Krainev, A. Kublanov, Yu. Semenov

Novomoskovsk «Azot» Stock Co. Russia

1. INTRODUCTION

This paper deals with principal statements of new technique for determination of geomechanical parameters of salt caverns and intercavern pillars during underground salt dissolution.

The results of calculations using numerical modelling of the stressed-strained state of salt rock mass involving solution caverns , method for evaluation of stressed state in salt rock mass and method for evaluation of stability in salt caverns and intercavern pillars have been stated here. Numerical values for salt caverns' stability criterion are determined depending on the given (set) period for cavern operation , including evaluation of possibility to use them for hydrocarbons storage.

Results of investigations given in this paper are used when making up the standards and methodical documents defining determination of geomechanical parameters for cavern system of mining at Novomoskovsk brine field.

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