

# Experiences in Using Hydrofracturing at the Holes of Novo - Moscowsk Brine Field Operations

by

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## **General Background**

Novomoskovsk rock salt deposit is the monobed ore body of gently sloping occurrence, 40–50 m in thickness, situated at 900 m depth.

This deposit is being developed from 1960 by “Azot” (Nitrogen) – a largest in Russia chemical Novomoskovsk Stock Company.

Method for deposit development is the underground salt dissolution with individual caverns by stepwise method and with hydrocarbon blanket liquid.

Due to geological peculiarities and some errors in technology of mining, by early 1990s at the brine field operations occurred crosscutting of a part of caverns between themselves, which resulted, in its turn, to caving of oversalt rocks, ruptures and pinchings of casing and operating pipe columns in the holes. Emergency situation that occurred at the site of crosscut caverns made impossible further operation of these caverns and resulted in drastic drop of the brine field facilities designed capacity. The critical situation urged the Novomoskovsk Stock Company “Azot” to apply to VNIIG with the order to render technical assistance in restoring the needed capacity of brine mining.

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