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Meeting Paper



**Modeling and Control of Cavern
Development for Underground Gas Storage
Staßfurt, Germany**

by

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Spring 1998 Meeting
New Orleans, Louisiana, USA
April 19-22, 1998



1 Introduction

The world's first potassium shafts were carried down at Staßfurt in 1852. After that time an extensive salt production started, which took place in 9 shaft fields at the flanks of an enormous rock salt saddle structure.

Since 1969 a brine exploitation field consisting of 5 caverns is under operation at Neustaßfurt.

The presence of a thick rock salt formation makes it possible to set up a cavern field for natural gas storage, whose erection is realized since 1995. At present three caverns with a designed final geometrical volume of maximum 600000 m³ per cavern are simultaneous under leaching.

The new caverns are planned by computer simulation. The cavern construction is controlled by permanent recording of all leaching data and is analysed by modern methods.