

Construction of natural gas stores in salt formations with high insoluble fractions (Rotliegendes), exemplified by cavern Kiel 102

by

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Summary

Storage caverns for gas and other products are frequently solution mined in Zechstein salt formations in bedded or domal salt. To date only a few caverns have been constructed in older geological formations of the Rotliegendes (i.e. Haselgebirge).

The first natural gas storage cavern in Germany is in operation on the Honigsee saltdome near Kiel. Immediately adjacent, a second cavern is currently under construction which is being solution mined in an alternating sequence of Haselgebirge and Zechstein. The Haselgebirge has in part very high insoluble fractions. This results in the solution mining process being more complex and requiring greater care. The rock mechanical design is similarly more complex due to the differing rock strengths.