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## **SPECIAL TECHNOLOGY WITH HIGH SAFETY-RELATED STANDARDS FOR THE REPAIR OF A WELLHEAD DAMAGE OF A GAS FILLED CAVERN AT STASSFURT STORAGE SITE**

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### **Abstract**

For the completion of cavern Stassfurt S 106 which was leached by the so called "solution mining under gas" technology, the 6 5/8" x 4 1/2" tubings should be pulled out with a snubbing unit. Due to an unexpected damage at the wellhead, the job could not be realised as projected. Therefore the snubbing work was stopped.

For solving the technical damage, different repair concepts were investigated, for example semi-flooding of the cavern with brine or water, sealing of wellhead components by freezing or cutting of the lower leaching string section with setting plugs afterwards. All concepts had been evaluated concerning feasibility and risks. The most favourable technology was selected on the basis of a comparison of pros and cons and was planned for realisation with the help of a detailed working program.

The specialised contractors as well as the fire brigade have guaranteed the required safety measures.

The essential planning and working steps will be described as well as the acquired experiences will be explained in the following section. Finally, it can be stated that all jobs were realised according to the planned program and all persons involved perfectly worked with the special technologies.

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