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EXECUTION OF SONAR SURVEYS THROUGH PIPING – THE POSSIBILITIES AND LIMITATIONS

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Abstract

Using state-of-the-art sonar survey technology it is possible to measure through one or even two strings of steel piping. This is of great benefit to the cavern industry because even though there is more engineering effort involved such surveys reduce the need for work-over activities and as such bring about cost savings.

Such sonar surveys represent an engineering challenge as many physical effects and their mutual interactions have to be taken into account to achieve reliable results. The physical background of sonar surveys through piping and the special procedures are described and both the engineering possibilities as well as the limitations are discussed by means of actual examples.

Key words: Cavern Mapping, Geophysics, Sonar, Surveying, Well Logging