



## Long-term Geomechanical Observation in the Jeroným Mine

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### Abstract

Geomechanical measurements have been carried out in the medieval Jeroným Mine since 2001. At first quarterly observation and later also continual monitoring by distributed measurement network were used. The network includes a number of different sensors that have been installed in selected places of underground spaces. There have not been any manifestations documenting dangerous changes of stability during the period of monitoring (2001-2015). The results of accomplished measurements from all convergence profiles confirm the total stability of all underground spaces. However, a number of places have been documented as potentially unstable. Measured values of selected parameters are presented in the paper, namely, movements along fractures, changes of stress tensor and fluctuations in the level of mine water table.

**Key words:** abandoned mine, geomechanical observation, movements along fractures, stress tensor changes, mine water table fluctuation.