

COLLABORATIVE RESEARCH CENTER 837

## INTERACTION MODELING IN MECHANIZED TUNNELING

RUB

# PROBLEM CHILD „GIPSKEUPER“ PROCESSES AND CONTROLS IN SWELLING CLAY-SULFATE ROCKS

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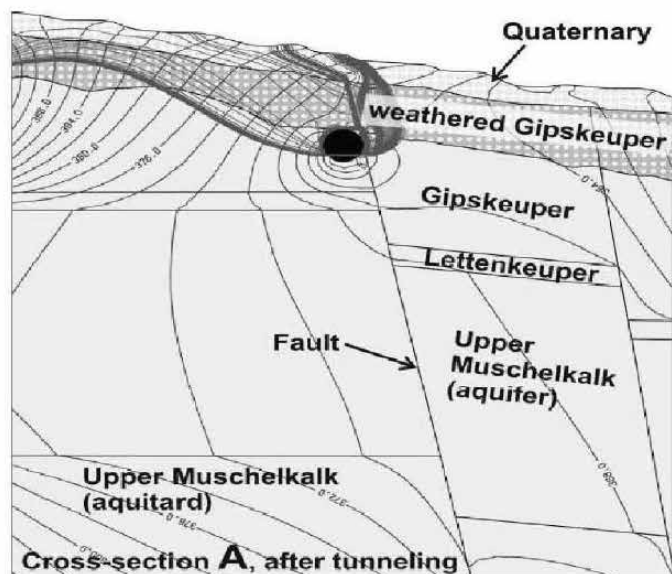
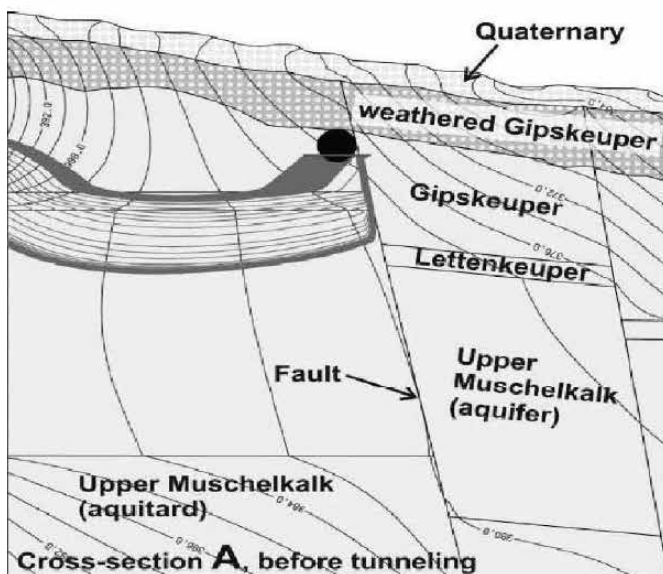
09.05.2017 – 16:00 – IC 03/606

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The swelling of clay-sulfate rocks can lead to ground heaves and severe damages to infrastructure. Swelling problems are known from tunneling, construction of roads and bridges and recently from geothermal drillings, and are mainly encountered in the Gipskeuper formation in Germany and Switzerland, but also elsewhere in Europe and worldwide. Prediction of the swelling behavior of clay-sulfate rocks is very challenging because the

underlying processes are manifold, complex and interactive.

By presenting swelling processes and controls – as well as their coupling – from different geoscientific fields, the presentation summarizes the state of knowledge and highlights remaining open research questions related to the swelling of clay-sulfate rocks.



Guests are welcome!