

# Konrad Shaft No. 2 - Driving of openings next to the shaft



## Scope of Work

Driving of:

- Landing upgrade stretch (FOE)
- Branch to the FOE/ETS connection
- Northern storage transport stretch (ETS)

## Client

Deutsche Gesellschaft zum Bau und Betrieb von Endlagern für Abfallstoffe mbH (DBE)

## Project Location

Salzgitter, Germany

## Duration

Since January 2012

JV with Thyssen Schachtbau

## Technical Data

- Divided drivage with roof and level

	FOE	FOE/ETS	ETS
Length (m)	35	20	40
Width (m)	11	20	9
Height (m)	9	9	8
Excavation cross section (m <sup>2</sup> )	≥ 80	≥ 80	≥ 70

Lining:

- 3 cm coating
- 1 anchor per m<sup>2</sup> L=2 m GRP anchor Powerthread K60-25
- 20 cm slotted shotcrete lining, C35/45 XC 3 XA 3 single-layer mesh reinforcement Q 188
- 1 anchor per m<sup>2</sup> running head anchor G12 Wiborex 30/11 (FOE: L=12 m; FOE/ETS and ETS: L=18 m)

## Special Features

- Convergences exceeded permitted limit values
- Installation of up to 18 m long roof bolts