



# Waterquality Prognosis

## Bergwitzsee

### Project Description:

Research project to present and interpret the hydro-chemical development of a surface aquifer and its connected groundwater bearing aquifers in a former lignite open pit.

### Services:

- Historical research of the excavation- and backfilling history of the open pit, assessment of available data and feasibility study
- Exploration and completion of the mining-hydrogeological monitoring network
- Hydrochemical monitoring program
- Modelling and forecast of the future water quality.

### Advantage for the Client:

- Longterm cost- and planning safety
- Longterm compliance of the threshold values

### Project Name:

Waterquality prognosis for the flooding of the abandoned open pit „Roberts Hoffnung“ – today called Bergwitzsee

### Country:

Sachsen-Anhalt, Germany

### Locality:

Bergwitz (Dübener Heide)

### Client:

MBV Lausitzer und Mitteldeutsche Bergbau-Verwaltungsgesellschaft (Central German Mining and Administration Association)

### Contact Person:

Ms. Uhlig

### Purpose:

Acidification in abandoned lignite open pits

### Contract Value:

250.000 Euro

### Project Duration:

2001 - 2004

### Project Manager:

Andreas Jahnel

### Field of Services

Mining Rehabilitation

### Projekt Data:

- Active open pit 1910 – 1955
- Natural increase of ground water, intrusion of highly acidic waters until 1971,
- Neutralizing of abandoned open pit until 1980
- Modeling of the prognosis from ca. 7500 analytical data