

Securing of the industrial tailings pond Helmsdorf

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Project objective: Guarantee of the stability and erosion safety of dams and plateaus and reduction of pollutants through environmentally friendly water discharge by interim covering, contouring and final covering

Location: Zwickau /
Sachsen
Client: WISMUT GmbH

Beneficiary: WISMUT GmbH

Duration: since 1997



Initial Situation:

The dry in-situ securing of the industrial tailings pond Helmsdorf (approx. 205 ha) is effected in three remediation steps. At first, for reduction of the pollutants the interim covering is applied on the tailings through air and water pathways. Secondly, the contouring of the dam and plateau area is carried out for a long-term stability and erosion safety. Material removed is used for creating the mountain contour. At the last remediation phase the final covering is manufactured. The main tasks provided were evaluation of water balance, planning of the discharge channel as well as planting according to the stability and erosion safety requirements, regional planning guidelines and subsequent usage requirements.

Main Tasks:



- Environmental assessment and optimisation of the required technical measurements for remediation and water discharge
- Design of the dam profiling, surface contouring and the final covering
- Design of the surface water discharge
- Design and adjustment of the leachate catchment facility
- Geotechnical assessment of the long-term stability
- FEM-evaluations in the relevant sectors
- Site management, supervision on-site