

Vattenfall Europe AG
Test field V5 "Geogrid"
IAA Böhlen

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Project target: Covering of a former settlement pond of ashes with the use of geosynthetics, testing of a economical suitable covering technology in a large scale, monitoring of settlements and pore pressure behaviour of weak water saturated ashes.

Location: Lippendorf / Germany

Client: Vattenfall Europe

Beneficiary: Vattenfall Europe

Time period: 2005 - 2006

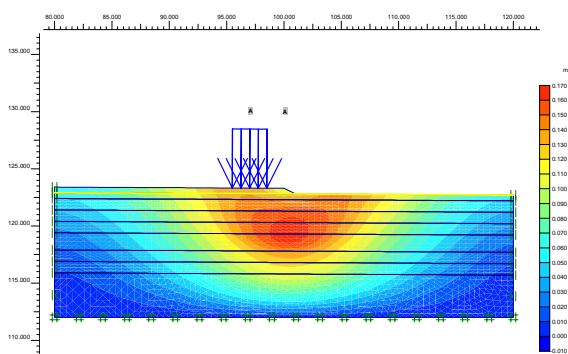
Initial situation:



As a result of 30 years settling of ashes a 55 m deep settlement pond was developed in a former open pit. The extremely weak and compressible ashes were not trafficable.

A secure platform was achieved by the placing of geotextile-geogrid-combination followed by a totally 1,5 m thick cover of gravel material. Through the weight of the cover material the consolidation process of the ashes was released.

The shear strength of the ashes was increasing and a secure further covering of the site was made possible.



Results of numerical stability analysis

Main tasks of the test field:

- Testing of geosynthetics
- Soil sampling
- Investigation of geotechnical behaviour of ashes in laboratory and on site
- Monitoring of settlements and pore water pressure
- Stability analysis (analytical and numerical methods)
- Assessment of the installed covering and investigation results