

Application of a dynamic sand filter with the immobilised micro organisms for the purification of contaminated dump water

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Objective: Separation of uranium and arsenic by application of biosorption in a dynamic sand filter

Location: Hartenstein Ore Mountains

Client: WISMUT GmbH

Beneficiary: WISMUT GmbH

Year: 1998 - 1999

Location: 110.000 DM

Initial situation:

Services provided:

- Selection and cultivation of the suitable micro organisms
- Testing of the selected micro organisms on its ability for sorption and uranium
- Determination of the required retention time for sorption
- Fermentation of the micro organisms strain culture
- Determination of sorption
- Construction of the pilot plant
- Implementation of the pilot tests, evaluation of the results

The water in the dump area of Wismut GmbH is contaminated with arsenic and uranium. The purification of water with low concentration requires the high qualified personal input by the application of general water purification method

