

Environmental clean-up, Bjerringbro

Soil replacement with drilled piles



AARSLEFF

Aarsleff has replaced approx. 440 cubic metres of contaminated soil with drilled piles. The work was carried out in Bjerringbro for Grundfos, who after an inspection of the sewer system had detected a leaky tank in connection with an oil separator separating the oil from a large plate shearing machine.

The contaminated area was close to the shearing machine, and as the machine had to be working, it was not possible to remove the contamination by simple replacement/excavation. Another challenge was that the area had a maximum floor-to-ceiling height of six metres, which further complicated the work in relation to choice of materials.

Drilled piles

We solved the work by drilling piles with an overlap in the entire contaminated area by using a smaller drilling rig. To replace the contaminated soil, we cast

the piles subsequently through a tremie pipe with Solidur (bentonite suspension), and at the same time the contaminated groundwater was displaced. First we pumped the groundwater through a sedimentation container and then through an oil separator. Finally, we pumped the water into a container with clean water. After this procedure, the water had obtained a quality which was suitable for mixing with Solidur.

During the drilling work, we took samples of the cast piles, and the results complied with the criteria for the soil quality.



Data

- 227 replacement drillings, DN600 mm, length=6 m
- 440 m³ of contaminated soil
- 9 foundation piles of DN620 mm for temporary support
- Demolition work prior to environmental clean-up
- Dust-proof wall between production area and working area

- Sedimentation system for separation of displaced oil contaminated water.

Client

Grundfos A/S

Contractor

Per Aarsleff A/S

Type of contract

Invited tendering

Consultant

DMR A/S

Construction period

September 2017-January 2018

Contract value

DKK 1.9 milion

Aarsleff Ground Engineering is one of Europe's leading piling contractors, and we undertake a wide variety of piling, drilling and foundation projects in Denmark and abroad. We have offices in Poland, Sweden, Germany and the UK.

Our fleet covers fully hydraulic piling and drilling rigs as well as cranes and vibrators.

Contact

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