

PBL® Circulation Subs Successfully Used in Multi-Well Geothermal Project for Innargi in Aarhus, Denmark



Challenge

The Innargi geothermal project in Aarhus, Denmark, began drilling in 2024 to establish the EU's largest geothermal district heating system. The project involves seven sub-plants, with the first expected to deliver heat by 2025. Once completed, the system will provide 20% of Aarhus' district heating needs, significantly contributing to the city's goal of CO2 neutrality by 2030. The project aims to reduce annual CO2 emissions by up to 165,000 tonnes

Solution

For this vital geothermal project, the DSI team recommended utilizing their 8 ¼-in. PBL® Subs in the 17 ½-in. sections of two wells. Additionally, 6 ¾-in. PBL® Subs were successfully deployed in three wells as the 8 ½-in. sections were drilled.

Execution

During the drilling process, after completing coring operations, the 8 ½-in. section was drilled using the 6 ¾-in. PBL® Subs in the same bottom hole assembly (BHA).

The tools were activated to:

- Pump high-viscosity mud
- Facilitate circulation
- Clean the borehole
- Increase the mud weight at the depth of approximately 2460m

