

2D-Reflection seismic survey for geological exploration of a geothermal reservoir on the plant grounds of BMW AG in Dingolfing

Client:

Bayerische Motoren Werke AG
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Contact: Mr H. Eichinger

Task:

BMW is planning to produce electricity by applying combined heat and power technology as part of its factory on-site-expansion strategy. Generated process heat is to be stored in the Malm aquifer within depths of 400 to 600 m below ground level. The subsurface geological structure were to be investigated with respect to the design of an exploration well*. In particular, fault zones were to be explored.

Service:

DMT conducted the high resolution seismic survey fieldwork in March 2014. The five 2D-lines add up to a total length of 10 km. Mertz M12 Vibroseis vehicles were deployed as seismic source and the data acquisition was conducted using a Summit system. The seismic data acquisition was exceptionally challenging due to: i) the survey design with very low point distances of 5 m on the BMW factory grounds and ii) high noise levels induced by a construction site as well as highly frequented traffic routes in the vicinity. The seismic data was processed by DMT which yielded a high-quality imaging of the subsurface.

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Survey area



Geophone line in the field



Vibroseis vehicle in the field