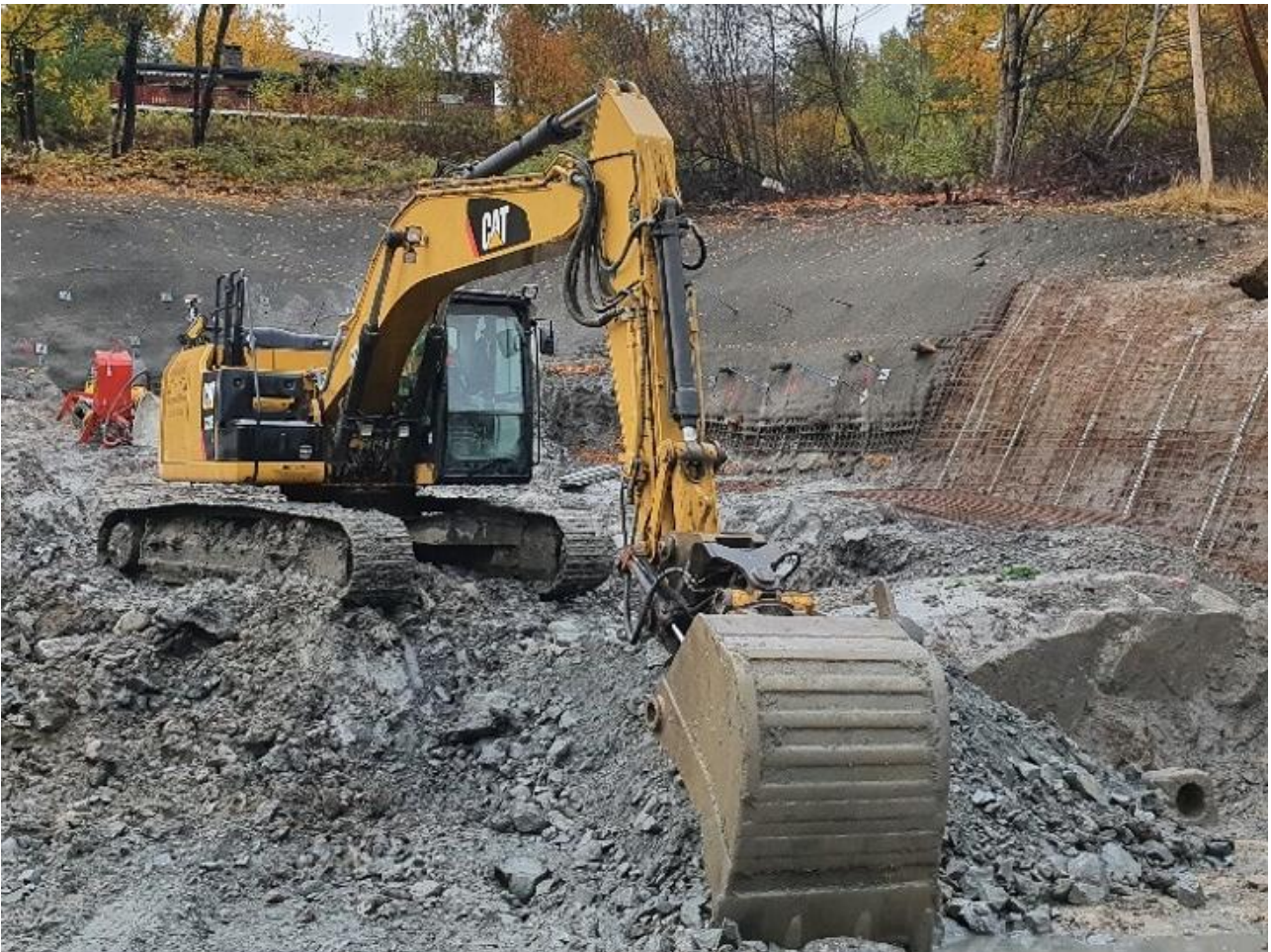


## Klemetsrud Tunnel Portal

Oslo, Norway

Testing of soil nails with a hydraulic jack. 3 Soil Nail tests according to Eurocode.



### The project

The Klemetsrud tunnel portal is part of an infrastructure project to improve the water supply of the greater surrounding area of Oslo.

The client wanted to get a confirmation on the assumptions the designer has used for the calculations. Therefore Keller executed three soil nail tests on Ischebeck 30/11 nails with double-coating to fulfill the double corrosion protection requirements.

## The challenge

- Short lead time in combination with few information about the project.
- Corona restrictions for the personnel.
- Working on a slope required additional safety measures.

## The solution

- Experienced operators and teams as key to success.
- Keller's wide range of equipment enabled us to execute the tests within a short period of time.
- Keller achieved the completion of works within the tight time frame.

## Project facts

### Owner(s)

Marti Tunnel

### Keller business unit(s)

Keller Geoteknikk AS

### Main contractor(s)

Augestad Maskin

### Engineer(s)

Project Manager Bjørn Tore Årevik  
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### Solutions

Excavation support

### Markets

Infrastructure

### Techniques

Soil nails

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