

# Expro Excellence

## Expro provides fit-for-purpose well test solution to geothermal developer partner

### Geothermal



#### Objectives and background

- The customer has identified and is developing a deep geothermal resource in Continental Europe to provide climate-friendly and renewable power to the surrounding community
- High fluid temperatures in conjunction with the high flow rates anticipated from the resource meant that standard well testing equipment could not be utilized, and a bespoke project solution would be required
- The customer was looking for a solution to clean up the well from prior drilling and completion activities and obtain critical reservoir characterization data to aid in accurate commercial evaluation of the geothermal resources



#### Expro Excellence

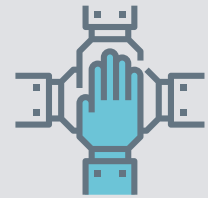
- Expro delivered a customized, project-specific solution for high-rate mid-enthalpy well testing, effectively managing surface pressures, temperatures, and fluids with a focus on safety and efficiency whilst also yielding invaluable reservoir characterization data such as fluid enthalpy
- The package was capable of efficiently handling flowing tubing head temperatures of 220°C (428°F) and water-steam fluid flow rates of up to 120kg/s (equivalent to 65,000bbls/d)
- The package consisted of a modular Geothermal Muffler, built specifically for the project, and designed to promote efficient bulk separation of the steam and liquid phases which was augmented with a remotely actuated Flow Control Valve to reduce personnel exposure risks and regulate flow to optimize assisted gas lift efficiency and unloading of the well
- The EDGE system allowed for real-time gathering of key data points, which were transmitted in real-time to stakeholders globally using the Data to Desk feature to unlock rapid data-driven operational decision making
- Our global footprint and experience combined with a demonstrated track record of integrated project delivery ensured compliance with local regulatory and stakeholder policies to provide confidence to the community, regulator and project stakeholders that safe and environmentally friendly geothermal development takes place

- Being one element of an Integrated Expro Sustainable Energy Solutions offering encompassing Tubular Running and Well Construction demonstrates Expro's enhanced offering and capabilities in the geothermal sector and our commitment to a more sustainable and lower carbon future

#### Value to the client

- Deployment of custom Geothermal specific well test evaluation package enabled our customer to achieve 'first steam' and prepare the geothermal resource for further development
- Real-time data gathering and transmission of critical reservoir characterization data allowed our customer to make immediate data-driven decisions to optimize operations and maximize resource potential
- The datasets collected during the operations will be used for optimization of long-term plant design to maximize resource extraction and pave the way forward for the effective integration of geothermal into the energy solutions mix
- Through the implementation of best-in-class technology, quality systems and best practices derived from extensive experience across the oil & gas industry, operational control was maintained throughout the project to ensure zero NPT and no unwanted process upset conditions nor environmental releases occurred

#### Geothermal Strategic Partner



#### Data-Driven Insights



#### Integrated approach

