

Expro Excellence

Expro expertise supports testing for UK's first geothermal power plant

Well Flow Management | Fluids



Customer challenges

- The United Downs Deep Geothermal well project will deliver the UK's first geothermal generated electricity, as well as district heating, and enable sustainable, low-impact lithium extraction
- Geothermal Engineering required sampling and analysis services to obtain representative samples at high temperatures to establish composition of fluids – essential to:
 - o Aid design of the geothermal electricity generating plant
 - o Confirm the presence of lithium for extraction, and suitability of selected processing technique
 - o Identify any risks to personnel or facilities from corrosion or scaling
- Expro were able to offer a bespoke service combining expertise and experience in sampling with analytical capability, allowing us to provide a solution as single supplier with complete sample chain of custody

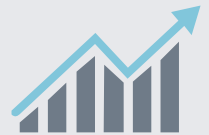
Expro Excellence

- Expro developed unique sampling procedures to meet requirements for the project, working with multiple stakeholders to identify key objectives
- Our tailored approach safely delivered high temperature single phase wellhead sampling, ensuring samples remained valid up until time of analysis
- Zero NPT with 100% Job Performance for onsite activities
- Our experience in handling pressurized fluids allowed us to obtain representative sub-samples and complete extended suite of analysis despite very low Gas Water Ratio (GWR)

Value to the client

- GEL were able to report the highest global concentration of lithium measured in geothermal fluids – expecting to produce significant quantities of lithium per year, supporting the energy transition
- Expro confirmed the absence of ions which would interfere with the lithium extraction process
- Composition and physical properties measured were used as part of the subsequent tender and design of the power plant, and in plans for corrosion and scale monitoring
- Safely and efficiently delivered this high-profile, first of its kind project in the UK

Increased productivity



Insight



Environment



Contact

For further information please contact:
fluids@expro.com
 or visit
expro.com/fluids