Title: Geo\textsuperscript{3} Process Engineer

Geo\textsuperscript{3} is a joint venture between Cornish Lithium and Geothermal Engineering Limited (‘GEL’). We have received Government funding through the Getting Building Fund to develop a direct lithium extraction (DLE) pilot plant at CLL’s United Downs site, in central Cornwall. The £4m project will employ a team of 10 people, plus consultants and advisors, and we are seeking to appoint a Process Engineer to help deliver this innovative project.

**Key Qualities:**
We are looking for someone who is energetic, with the drive and enthusiasm needed to help deliver the project. They will be actively involved in the design, installation and commissioning of a novel Direct Lithium Extraction (DLE) pilot plant (including mechanical & electrical equipment and control systems), as well as being involved in the operation and maintenance of the units when they are commissioned into service. Finally, they will be involved in the next stage of the process, in developing a commercial plant for Li production. This is an exciting role for someone who wishes to get in early in a totally new industry and the forefront of the green agenda. This role will report directly to the Project Manager.
- Minimum 5-10 years’ experience in chemical/process engineering in the water treatment, minerals, oil & gas, or similar industry
- Capable of adding value to the design of capital equipment with regards to constructability and operability of the plant.
- A formal Engineering qualification, plus have, or actively be working towards, Chartered Engineering certification
- A strong Health and Safety culture, with an understanding of relevant British legislation.
- Excellent interpersonal and IT skills
- Ability to effectively communicate with relevant stakeholders and technology providers.

**Desirable Qualities:**
- Operations and maintenance experience with process plant
- Technical understanding of water or mineral processing technologies, or similar.

**Key Responsibilities:**
- Assist in designing, procuring, installing, commissioning and supporting the operations of all aspects of a DLE pilot plant.
- Analyse the efficiency of the process plant and operational methods and suggest improvements.
- Identify and investigate faults/production interruptions and develop mitigation measures to prevent future re-occurrences
- Monitor operational and maintenance costs.

**Salary and Hours**
This role will be full-time, and it may involve some shift work, or work outside of normal working hours.

The salary is negotiable based on experience.

Annual leave comprises 25 days’ holiday per year, plus Bank Holidays.


More about the project

A pilot-scale lithium extraction plant is being designed, procured, and commissioned at the United Downs Deep Project site, in Cornwall. The pilot plant will be used to demonstrate that lithium chloride, a key component of lithium-ion batteries used in electric vehicles, can be produced in Cornwall from naturally occurring geothermal waters, with a net zero carbon footprint. Domestic production of this critical metal is vital for the UK to deliver its zero carbon and clean growth ambitions.

The granite rocks beneath Cornwall are rich in lithium and heat. This demonstration pilot plant will trial environmentally-responsible direct lithium extraction (DLE) technology to selectively remove lithium compounds from water extracted by the geothermal powerplant from its 5.2 km deep borehole. Once the lithium has been extracted, the water can be reinjected into the sub-surface via a second 2.5 km deep borehole.

Following on from the success of the work carried out independently by both Cornish Lithium and GEL to date, the co-production of lithium with geothermal heat and power from the same geothermal waters is an exciting opportunity for Cornwall.

For more about the project, please see the company website: www.geocubed.co.uk