



Gel drilling rig

What is a gel project?

The aim of the project is to produce power and heat from the hot granite rocks beneath Cornwall at the United Downs Industrial Site near Redruth. The GEL flagship development site United Downs is in the heart of west Cornwall, just a few miles southwest of Truro.

Who is gel & what does it do?

GEL is the leading developer of UK deep geothermal power and lithium projects. GEL is striving to drive the green economy through the creation of geothermal energy and ultra-low carbon lithium projects within the UK. Our mission is to use the geothermal resources beneath our feet to accelerate the global energy transition.

What makes a good drill rig?

This means that the rig needs to be tall and strong enough to support the weight of a 3-miles steel drill pipe, as well as drill bits, steering mechanism and stabilisers. As drilling technology improves, rigs will become smaller and more efficient.

How long does it take to drill a 'new generation' rig?

GEL has selected a modern 'new generation' semi-automated hydraulic rig to drill the wells. It is based in Germany and has just successfully completed drilling the first well in the Otaniemi project in Finland to a total depth of 6.4km. The drilling will take between six and seven months, operating 24 hours a day.

How many geothermal wells has gel drilled?

GEL successfully drilled and tested two wells at United Downs in 2019 and 2020, including a production well drilled 5km underground. Beyond United Downs, GEL is also developing new geothermal projects across the county, each anticipated to deliver 5 MWe of baseload power and 20 MWth of renewable heat energy for the local area.

How do I choose a drilling rig?

Before drilling can begin, a rig must be selected that is appropriate to the geological conditions being targeted, quiet so that it does not disturb our neighbours and very safe to operate. In Cornwall, to reach temperatures of around 180 °C the rig must be capable of drilling to approximately 6,000m (over 3 miles!).

The GEL flagship development site United Downs is in the heart of west Cornwall, just a few miles southwest of Truro. United Downs is the home of the hottest and deepest onshore well in the ...

The gel strength of drilling mud (or drilling fluid) is the shear stress in the fluid at a low shear rate after it has been static for a specific period of time. ...

MudLogic is a genuine alternative supplier, our complete Product List will enable you to complete your



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project. Our mud systems, combined with our on-site technical support and our ...

United Downs Deep Geothermal Power is the United Kingdom's first geothermal electricity project. It is situated near Redruth in Cornwall, England. It is owned and operated by Geothermal ...

STARTING A WELL Companies start the drilling process on about a 3-acre pad of land, which allows for the many trucks that become part of an oil and gas ...

The Sodium Silicate water-based drilling fluid system is formulated with conventional water-based drilling fluid products to provide enhanced inhibition and well-bore ...

Compact but powerful diamond coring machine for rig-based concrete coring from 25-202 mm (31/32 - 7-15/16") in diameter Diameter range: 31/32 - 7-15/16 in Drilling stand: Baseplate ...

Drilling rigs can be a challenge to manage, but the right gel doesn't only make the job easier- it's quickly becoming the preferred drilling solution in a variety of industries. Water well drilling gel ...

Discover how Halliburton's BaraECD superior fragile gel fluid helps an operator drill well to a record-breaking TD of 14,600m in sub-zero temperatures.

A modified completion rig is used to drill the target coals and complete the well while the drilling rig moves to the next well. The selection of a rig, associated equipment, and ...

Drilling fluid performance is a key contributor to the success of a drilling operation. The purpose of this fluid is to keep the drill bit cool, carry the ...

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Monitoring Mud Properties on the RigMud properties are essential parameters monitored on an oil and gas drilling rig to ensure proper well control, prevent formation ...

Target Drilling provides its proprietary polyacrylimide gel mix and pump to plug Surface CBM coal laterals and in-mine horizontal degasification boreholes.

Blast holes Shaft drilling Monitor / observation wells Gel-foam air drilling applications Yields more quickly than API-standard bentonite Non-toxic and proven suitable for use in drilling potable ...

Drilling rig on site of United Downs Deep Geothermal Project, UK (source: GEL) Geothermal Engineering Limited (GEL) has obtained £15 ...



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40 years of fluids optimisation We develop, manufacture, and supply a comprehensive range of quality drilling fluids and specialty products. Our ...

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Evening drilling rig activity at the site of the £35m United Downs project in Cornwall (image credit: GEL). The first Contracts for Difference ...

Geothermal Engineering Limited (GEL) has obtained £15 million funding from Kerogen Capital (£12 million) and Thrive Renewables PLC (£3 ...

Construction has officially started on the United Downs geothermal power plant and lithium extraction facility of GEL in Cornwall, UK.

This blog post covers the rheological properties of drilling mud and the important gel strength testing with the FANN rotational viscometer. Get the ...

Gel strength is one of the most important characteristics of an HDD drilling fluid, and understanding how to test for gel strength and adjust ...

STARTING A WELL Companies start the drilling process on about a 3-acre pad of land, which allows for the many trucks that become part of an oil and gas drilling process. The process ...



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