

Pegasus Series Drill Bits

Pegasus™ delivers exceptional performance in New Zealand geothermal application



Challenge

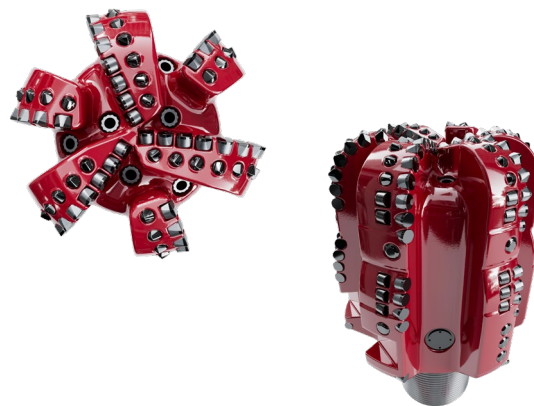
The 12 1/4" section in the Tauhara project is a challenging geothermal application that often causes abrasive wear, gauge erosion, and high torque variability.

Solution

NOV ReedHycalog combines industry-leading technologies in the 12 1/4" P66 bit design. The patented dual-diameter design improves drilling efficiency by allowing the pilot to pre-fracture the formation while the reamer then drills stress-relieved rock to maximize lateral and torsional stability. The [MaxSteer™](#) feature maximizes drilling agility and steering potential. Robust cutter geometries reduce torque, maximizing drillability and extending durability of the bit in geothermal applications.

Results

- Drilled a total interval of 813m (2,667ft) with an ROP of 12m/h (40ft/h) – 15% longer than the offset bit.
- Reached section TD in one run without being pulled.
- Achieved all direction requirements of the bit run.
- Exhibited better dull condition than the offset bit.
- Delivered smooth torque and steady drilling throughout the run.
- Resulted in excellent tool face control and < 5% sliding with most of the long tangent section drilled in rotary mode.
- Completed the first run of 532m at 15m/h (1,745ft at 49ft/h). Temperatures > 168°C were detected at 2,382m (7,815ft) and POOH to save MWD/PDM.
- Completed the second run of 281m at 9m/h (922ft at 30ft/h) on “blind” rotary BHA to TD at 2,663m MD.



The 12 1/4" P66 Pegasus Series Drill Bit achieved all objectives in its maiden run in the geothermal application.

