optiDRILL

Faster drilling with our AI-based auto driller

Maintaining high levels of efficiency is a major factor in achieving cost savings. Bentec's optiDRILL, a cutting edge algorithm/AI-based auto driller system is designed to significantly enhance drilling performance, by optimising real-time drilling parameters.

The driller utilizes reference values like rate of penetration, weight on bit, mud pump pressure and TD torque by infoDRILL or HMI and feeds these into the system. The optiDRILL optimizes these parameters while drilling in real-time and reacts immediately to changes in formations, offering the best drilling efficiency.

CHOOSE OPTIONAL EXTRAS

Intelligent cluster drilling – The optiDRILL uses an intelligent database to record all relevant drilling data, the changes of geological formations and the resulting effects of a cluster well. When drilling further wells in the same cluster, the driller loads the gathered data. optiDRILL's self-learning system enables it to react in advance to changes in the formation and improve the drilling performance from well to well.

Automated drill off tests – A drill off test is simply a step-by-step process of altering drilling parameters to maximise ROP and determine 'Founder Point'. This is defined as the point at which ROP stops responding linearly with increased WOB and RPM. Due to sensitivity of PDC bits to formation changes and the effects of wear, these tests must be performed periodically as the bit's performance dictates. optiDRILL automates these time intensive tests, reducing hold ups and improving productivity.

Our optiDRILL system is available for all kinds of drilling rigs and is easy to retrofit. Its algorithm is implemented in a programmable logic controller, installed in the Power Control Room. The driller controls the system via a separate HMI or Bentec infoDRILL. For add-ons, like intelligent cluster drilling or automated drill off tests, which need access to databases, an additional industrial PC is provided.

- **Drilling with optimised drilling parameters increases ROP by 10% and enables earlier well delivery**
- **Intelligent, self-learning auto driller**
- **More efficient drilling provides less bit runs, leading to cost savings**
- **Improved well bore quality reduces reaming and viper trips**
- **'Learns' through artificial intelligence from previous well data in cluster wells**
- **Relieves the driller to focus on crew and rigfloor**
- **Easy implementation into new and existing rigs**

See Case Study 1 on page 19.

TIME REDUCED BY 5%

optiDRILL cuts well delivery time by 5%.

Discover how optiDRILL can enhance your drilling performance.
Get in touch with sales@bentec.com