

Colombia

RockStrong™ coring system and Cerebro® sensor helps operator evaluate rock properties

Technology package reduces rig time by two days, saves operator \$220,000

CHALLENGE

- Help an operator evaluate rock properties in mature field experiencing excessive WOR and water disposal issues
- Provide a coring system capable of handling expected rock properties and enable high-efficiency coring

SOLUTION

- Deploy RockStrong™ coring system with Cerebro® coring dynamics sensor
- Monitor and evaluate coring dynamics to improve stability and enable longer core barrel lengths

RESULT

- Anti-jamming capabilities of the RockStrong coring tool and data provided by Cerebro sensor helped the operator understand downhole dynamics
- Core barrel length was increased from 60 ft. to 150 ft. per coring run
- One trip saved, equaling 48 hours of rig time
- Operator saved ~\$220,000

Challenge

With a history of high water/oil ratio (WOR) and water disposal challenges with limited production capacity in the Akacias field, an operator sought Halliburton Drill Bits and Services to help evaluate rock properties for water injection/disposal capabilities.

Earlier disposal wells had been drilled in the K1 formation and had experienced poor injection rates when put into service. The underlying K2 formation was selected as a potential injection point but there were no rock properties available for it in the Akacias field. In order to core K2, a challenging formation transition from K1 had to be cored. After entering the K2 formation, a long interval of over 360 feet needed to be cored at maximum efficiency.

Solution

Halliburton proposed the RockStrong™ coring system because of its unique swivel assembly and anti-jamming design recognized for reliable operation in extreme wellbore environments without practical pressure or temperature limits to drill through the formation transition. This coring technology was paired with Cerebro® coring dynamics sensor to provide downhole data necessary to create a holistic picture of the coring environment, allowing the operator to make effective, data-driven decisions on coring surface parameters and equipment.

Result

The anti-jamming capabilities of the RockStrong coring tool successfully cored the K1 to K2 transition with complete core recovery. Cerebro dynamics evaluated in between runs refined surface parameters and allowed core barrel length to be successively increased over the course of the four-run coring



RockStrong™
Coring System

CASE STUDY

job. The final coring assembly cored 151 feet of the K2 formation and completed the coring job with 100% core recovery. Longer core barrel assemblies saved one trip, which reduced rig time by at least 48 hours. The operator was able to save ~\$220,000.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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