

BHGE cuts and recovers complex tubing and upper completion, reduces unnecessary trips



Tubing after being pulled to surface.

A well in 5,610 ft (1,710 m) in the Gulf of Mexico (GoM) required intervention after a loss in production. Baker Hughes, a GE company (BHGE), recommended the Mechanical Pipe Cutter™ (MPC™) electromechanical pipe-cutting tool in the 20,696-ft (6,308-m) deep well. The MPC reduces logistical and environmental constraints by providing precise, downhole pipe cutting without the use of ballistics or hazardous chemicals, reducing nonproductive time (NPT), risks, and overall intervention costs.

The operation involved running a mechanical tubing hanger through the 12° deviated borehole; cutting the 5½ in., 25% chrome (25 Cr) tubing at a depth of 18,750 ft (5,715 m); pulling the upper completions; and rerunning an upper completions assembly.

The intervention required a clean tubing profile while generating minimal debris to reduce or eliminate any additional trips to dress-off the top of fish.

Due to the complex metallurgy, BHGE developed a specially-coated prototype blade for 25 Cr applications. This was followed by extensive pre-planning and three successful test cuts in simulated well conditions to ensure the operation's feasibility.

The operator requested the MPC be deployed on the BHGE **Atlas Anywhere™ portable system**, which operates BHGE cased-hole products and services from any standard electric wireline cable.

Under tension, the MPC performed the cut cleanly and safely, in just 34 minutes, recovering the upper completion in a single

Results

- Performed the cut in 34 minutes on the first attempt
- Eliminated a dress off run, reducing costly rig time
- Recovered the entire tubing and upper completion safely from the well in a single trip
- Deployed the MPC tool with a portable system and ran the tool on a competitor's wireline
- First 3½-in. tool operation in the GoM for the operator

Challenges

- Offshore recompletion well with a well depth of 20,696 ft, and a water depth of 5,610 ft
- Cut depth of 18,750 ft in a 12° deviated borehole

BHGE solution

- Developed and tested a custom prototype blade under simulated well conditions, successfully completing three precise cuts prior to deployment
- Deployed the MPC tool using the BHGE Atlas Anywhere portable system
- Minimized mobilization costs and operating time

trip. Upon inspection at the surface, the still-sharp blade on the MPC was fully intact with no missing teeth.

The combination of services from BHGE enabled the operator to achieve a precise, high-quality cut while avoiding the use of ballistics or chemicals that add additional risks. The clean cut made by the MPC also reduced rig time by eliminating the need for a dress-off run.

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