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 5⅝ in., 25% chrome (25 Cr) tubing at a depth of 18,750 ft (5,715 m); pulling the upper completions; and re-running 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 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.