

CHALLENGE

To drill a curve and lateral in Eagle Ford Shale at 20,033' Measured Depth with a Vertical Section of 13,511' in one run and in six days or less.

SOLUTION

Deploy the EvoOne Unified Telemetry system allowing the directional client to drill at a record pace while both telemetries decoded through the Eagle Ford's EM signal challenging Austin Chalk formation.

OUTCOME

1. Curve and lateral was TD'd in 5.9 days with a total vertical section of 13,511'.
2. Curve and lateral was drilled in one run from 3,856' MD to 20,033' at TD.
3. EvoOne decoded at 95%+ on EM and 97%+ on MP in the curve & lateral.

EvoOne Utilized to Drill Extended Reach Eagle Ford Lateral

A major US based oil and gas operator with significant operations in the Eagle Ford Shale was looking to drill an extended horizontal well in McMullen County, Texas. The directional drilling company, with operations in every major US region, was asked to build the curve and lateral in record time. The directional company did exactly that, pulling off a single 16,177' curve and lateral run, breaking the Eagle Ford record.

Maintaining 95%+ Decode with EM and/or Pulse

The EvoOne MWD tool utilizes true multi-channel Unified Telemetry, which offers the directional driller both EM and Mud Pulse telemetries simultaneously on two independent channels. This is particularly valuable in areas where there is a risk of EM signal interference from highly resistive formations or in extended reach laterals where signal strength may be compromised by distance. The presence of the Austin Chalk coupled with the well specification of > 20,000' MD and > 13,500' VS both posed significant risks.

Operator Breaks Vertical Section Footage Record in 5.9 Days

While drilling in the Austin Chalk, EM telemetry decoding dropped to 10%, but the rig was able to drill with EvoPulse until EM decoding returned. Once through the Chalk, both EM and pulse telemetries decoded at 95-100%. Overall, baud rates for the course of the well were 6 bits per second, 10x the bit rate they had prior running conventional mud pulse tools. Both the curve and lateral were completed in a single run to 20,033' MD with a Vertical Section of 13,511'. The well was drilled ahead of schedule, setting a new Vertical Section record for their operation in the Eagle Ford Shale.

