

**CHALLENGE**

Operator required EM telemetry for Permian drilling program to boost data rates & increase reliability. Historically, formations in the region have prevented operators from running EM MWD tools as the primary telemetry.

**SOLUTION**

Utilize EvoOne Unified Telemetry MWD tool which has true multi-mode telemetry allowing simultaneous and independent transmission on EM & pulse channels.

**OUTCOME**

1. Two wells drilled to a measured depth of 14,994' and 15,953'
2. Unified Telemetry decoded on EM & pulse at TVD's of 7,691' & 8,643'.
3. Effective data rates of 7.04 bits per second.

**Glasscock County Well Drilled with EvoOne MWD System**

A directional provider was tasked by the operator with delivering EM telemetry to optimize drilling on a two-well pad in Glasscock County, TX. The target formations were the Spraberry & Wolfcamp B formations. These wells have traditionally been drilled with mud pulse tools due to sections where formation interference causes EM signal loss or degradation.

**Revolutionary Design Delivers EM Telemetry in Permian Lateral**

The EvoOne Unified Telemetry platform simultaneously provides both EM & mud pulse on independent channels. While decoding in both Brine & OBM, Tool Faces and Gamma updated every 6-9 seconds. When compared to the conventional pulse tools (.5 to 1.0 BPS) that had been on this rig, EvoOne significantly improved data transmission delivering an effective data rate of 7.04 BPS. During a single run starting at 20° to TD, both on EM (EvoEM) and mud pulse (EvoPulse) decoded the 105.6 hour run reaching 14,994' measured depth.

**Drilling Ahead with EvoOne Eliminates NPT**

The graph below highlights EM "blind spots" where formation challenges limited the use of EM telemetry while drilling this Spraberry well. This graph demonstrates how data was decoded by EvoPulse when the tool experienced a loss in EM signal transmission. During these periods MWD hands were troubleshooting the EM signal while the operator drilled ahead decoding on EvoPulse until EM signal returned

