evoone
UNIFIED TELEMETRY

deployed in the Kakwa saving Operator 32hrs in drilling time

CHALLENGE

To provide operators with time saving and drilling efficiency benefits of EM in a drilling area where EM decoding is problematic.

SOLUTION

Deploy EvoOne in the KAKWA and use its Unified Telemetry platform to provide multi-channel telemetry, decoding EM & mud pulse on simultaneous independent channels to guarantee signal transmission

OUTCOME

1. **32.35 hours saved when handling tools and surveying with EM.**
2. **Ability to drill out casing with pulse until regaining EM.**
3. **Overall data rate efficiency and security with Unfied Telemetry.**

EvoOne Versus Pulse for the Falher

The EvoOne MWD tool was deployed on a horizontal well in the Kakwa with the Falher formation as the target. Although resistivity logs show somewhat favorable conditions for EM telemetry, most of the wells in the area targeting the Falher are drilled with pulse only MWD because of resistance variances in the formation, which make traditional EM telemetry unreliable.

EvoOne Unified telemetry decodes to TD

Utilizing EvoOne, the operator was able to gain the benefits of EM throughout the well with the security of mud pulse in situations where EM decoding proved problematic. Throughout the 5,387m MD well (2,938m TVD) the tool's mud pulse (EvoPulse) provided survey information when formation resistance increased allowing rig noise to overcome EM signal levels. When this occurred, the Unified Telemetry system allowed the directional driller to drill ahead by using the EvoPulse signal until formation resistance improved and EM signal returned. By using this approach, the benefits of EM surveying, which include higher data rates, allowed the operator to gain significant time and cost savings without having to risk pulling out of hole (POOH) for loss of EM signal. Figure 1 highlights how Unified Telemetry was used when EM decoding was lost to formation and pulse was used to transmit the data.

EvoOne provides cost savings while providing higher data rates

Before the introduction of EvoOne, well programs in the Kakwa using mud pulse telemetry were unable to provide inclination and azimuth until 4 minutes or more after pumps were back on. While EM only tools can improve this performance, in many cases, they are not utilized due to the risk of POOH for EM signal loss. Using EvoOne solves this problem by providing both EM and mud pulse telemetry simultaneously on independent channels. The system also employs next generation Version 15 surface gear, exclusive to EvoOne. A time savings summary is provided in Figure 2 which illustrates the benefits of this approach. Primary sources of time savings are associated with EM survey time and the tools unique design which saves rig time when handling tools for multiple bit runs.

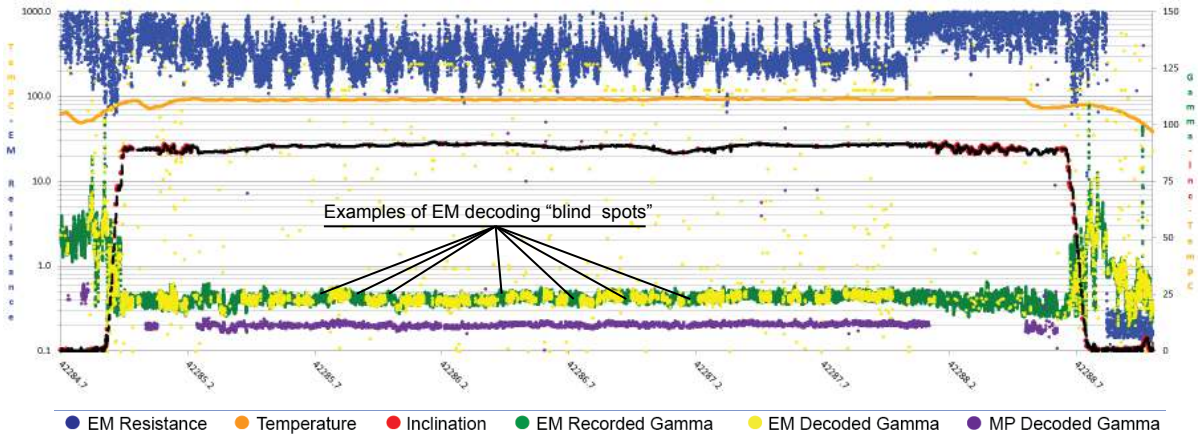

Figure 1

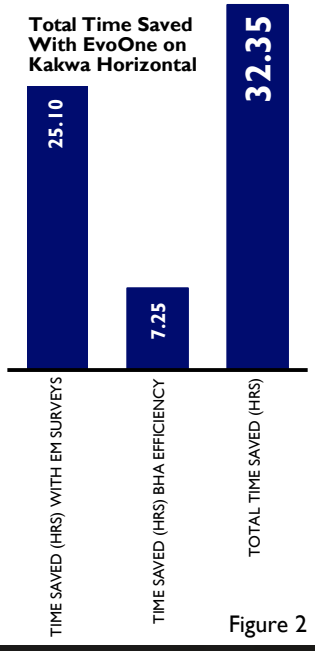

Figure 2

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