

Precise Placement Through Multiple Faults

Record Lateral Demonstrates Magnus[®] Saker RSS Reliability in Challenging Carbonates

Objectives

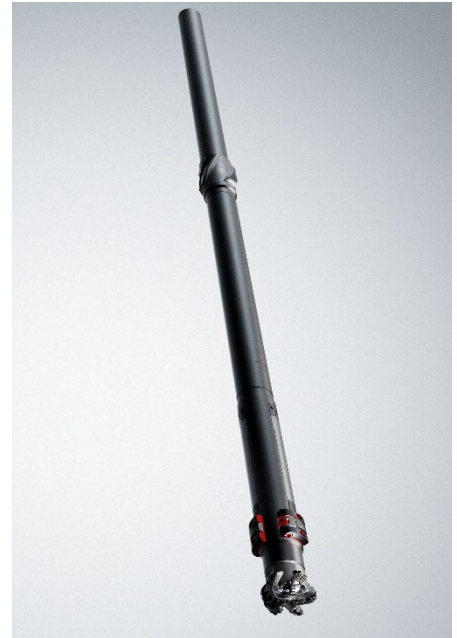
- Drill a 6-in. horizontal maximum reservoir contact (MRC) section at 9,937 ft (3,028 m) MD to target the Shuaiba formation.
- Navigate a structurally complex reservoir with multiple faults while minimizing risk of sticking or lost in hole (LIH).
- Maintain low dogleg severity (DLS) to ensure safe deployment of the MRC-limited entry liner (MRC-LEL) lower completion.
- Achieve or exceed ROP targets without compromising placement or hole quality.

Our Approach

- Deployed the Magnus Saker rotary steerable system (RSS) for high-torque steering, fast directional response, and smooth wellbore delivery in high-strength carbonates.
- The Magnus Saker RSS provided high-precision directional control with low DLS ($< 1^\circ/100$ ft (30 m)) while maintaining a high ROP performance.
- Relied on the quad-combo LWD (gamma ray, resistivity, density, neutron, and density image) from the landing point to TD to enable accurate real-time geosteering.
- The SineWave[™] microimager delivered high-resolution borehole images to support fault interpretation and lower completion optimization.
- The integrated drilling-geosteering workflow balanced high ROP with trajectory smoothness.

Value to Customer

- The Magnus Saker RSS enabled the operator to achieve 100% well-placement accuracy within the target zone while successfully navigating three faults between landing and total depth.
- An average ROP of 79.2 ft/hr (24.1 m/hr)—10% above the target—was delivered on what became the longest lateral run to date for the Magnus Saker RSS.
- The low-tortuosity wellbore enabled smooth deployment of the MRC-LEL lower completion.
- SineWave microimager data improved confidence across faulted intervals and supported a more optimized completion design.
- The entire operation—including drilling, MPD, and LWD—was completed with zero nonproductive time (NPT).



The ruggedized design and advanced control architecture of the Magnus Saker RSS reduce operational risk while optimizing well placement to provide consistent, predictable performance from spud to TD run after run.

LOCATION
Middle East

WELL TYPE
Onshore, development, injector, horizontal

FORMATION
Carbonates

HOLE SIZE
6 in.

LATERAL LENGTH
9,937 ft (3,028 m) MD

PRODUCTS/SERVICES

- Magnus Saker RSS
- MFR[™] resistivity tool
- AZD[™] azimuthal density sensor
- TNP[™] thermal neutron porosity sensor
- HEL[™] hostile-environment-logging measurement-while-drilling system
- SineWave microimager

