

REAL RESULT | MIDDLE EAST

Land Operator Achieves 464-Hour Run with Zero NPT Through a Faulted Interval

Integrated trajectory control and real-time formation evaluation enabled accurate well placement across a faulted interval.

NATIONAL OIL COMPANY

ONSHORE

LAND RIG

OVERVIEW

An operator needed to drill an observatory well through a faulted interval and acquire data to appraise Jurassic reservoirs. The team integrated precise trajectory control, real-time formation evaluation, detailed engineering, and continuous monitoring. The operation delivered a 464-hour run with zero nonproductive time and no trajectory corrections.

✓ RELIABILITY

464 HOURS**Continuous operating time**

Longest reported rotary-steerable-system run in the region.

⏻ AVAILABILITY

00 HOURS**Nonproductive time**

No nonproductive time was reported during the run.

🎯 ACCURACY

00 OPERATIONS**Trajectory corrections**

No trajectory correction was required.

THE CHALLENGE

A major fault crossed the Gotnia, Najmah, and Marrat formations, with estimated throws of approximately 492 ft [149 m] at the Najmah top and 164 ft [49 m] at the Marrat top. Minor and sub-seismic faulting added geological uncertainty, while accurate geostopping remained critical to avoid severe losses and protect well integrity.

THE SOLUTION

The team planned the crossing in detail, maintained precise trajectory control, evaluated the formation in real time, and continuously monitored the operation. Proactive risk mitigation supported accurate well placement through the faulted interval and reduced exposure to trajectory deviation and drilling risk.

PRODUCTS AND SERVICES

Magnus® Saker rotary steerable system

HEL™ hostile-environment-logging MWD

THE OUTCOME

The operator accurately placed the wellbore through the Gotnia/anhydrite sequence west of the field's main fault. Precise geostopping of the 10 3/4-in casing point reduced exposure to severe losses, well-integrity issues, and bottomhole-assembly loss while increasing confidence in reaching the target objectives.

TECHNICAL DETAILS

Well profile	Directional
Well type	Appraisal
Lithology	Carbonates
Fault throw at Najmah top	150 ft
Fault throw at Marrat top	492 ft