

# Magnus<sup>®</sup> RSS, RipTide<sup>®</sup> Drilling Reamer Drilled and Enlarged Well From 12-1/4 to 13-1/2 in. During First Tandem Run, Increased On-Bottom ROP by 61%

## Objectives

- Drill and underream a 12-1/4 x 13-1/2-in. section from the kickoff point to the section TD with a dogleg severity (DLS) of 2.5°.

## Our Approach

- The Weatherford drilling and evaluation team performed a thorough offset well analysis and designed the well plan with consideration of the steerability of the Magnus rotary-steerable system (RSS) through the formation.
- The team rigorously focused on the drilling engineering analysis to stabilize the bottomhole assembly (BHA) with minimal downhole vibrations.
- The reliable DLS capability of the Magnus 950 RSS enabled the operator to build the curve section, eliminate corrections runs, and enhance early well delivery KPI.
- When used in conjunction with RSSs or rotary BHAs, the RipTide reamer can simultaneously drill and enlarge boreholes, enabling more strings in the wellbore and larger production liners in the productive zone.
- The bit selection of the Magnus RSS was optimized to match the HD cutters of the RipTide reamer to deliver a smoother borehole.

## Value to Customer

- The section was drilled with a 61.5% faster rate of penetration (ROP) on bottom as compared to the operator's best drilled well.
- Drilling parameters were managed in real time to optimize drilling performance, with 24/7 operational support by the Weatherford Real-Time Operations Centre.
- Subsequently, the operator was able to efficiently run 10 3/4-in. casing to the bottom of the wellbore.



Unique features—including fully independent pad control and a true-inclination hold—make the Magnus RSS a complete package that helps operators stay on plan and reduce well construction costs.

### LOCATION

Kuwait

### WELL TYPE

Oil producer

### FORMATION

Zubair, Ratawi Shale, Ratawi Limestone, Upper Minagish and Minagish Oolite

### HOLE SIZE AND ANGLE

12-1/4 x 13-1/2 in., 0 to 43°

### SURFACE CASING SIZE

13-3/8 in.

### DEPTH

In: 8,200 ft (2,499 m)  
Out: 10,445 ft (3,183 m)

### PRODUCTS/SERVICES

- Drilling Services
- Magnus RSS
- RipTide reamer
- HEL<sup>™</sup> hostile-environment-logging measurement-while-drilling system
- OneSync<sup>™</sup> drilling optimization software platform
- Real-time operating center

