Case Study

New Fastest 6.125" Lateral Section in NORTH KUWAIT

APPLICATION

Onshore – 6.125" Lateral section. Interbedded, Limestone, Shale Formations Rotary Steerable Drive System (RSS)

CUSTOMER CHALLENGE

The Customer focused on drilling the 6.125" lateral section using a rotary-steerable assembly with the goal of completing the section in one PDC bit run – additional challenges required high steerability and mitigating stick slip vibrations while achieving the best possible ROP.

The 'Top 8' performing offset wells in the same field using PDC bit design yielded 77.1 ft/h ROP average across the field. Record run in the area was set @ 88.2 ft/h.

VAREL SOLUTION

VAREL proposed specifically the HAVOX™ bit technology, perfectly designed for 'lateral' drilling applications. HAVOX™ bit series is a design delivering smooth torque, advanced directional control, excellent wellbore quality and dynamic stability.

Solution: 6-bladed, 13-mm cutting structure with Premium long Gage, Shock Studs and customized Lateral Tracking Technology.

Purpose: The Premium long Gage designed to perfectly match with the RSS drive requirement. Shock Studs help to increase drill bit stability and limit vibrations while maintaining bit normal smooth cutting action. Customized Lateral Tracking Technology helps to eliminate bit walk in longer reach lateral section for better ROP.

CUSTOMER VALUE

New noteworthy field record achieved with time saving on the planned objective.

- Drilled a total footage of 1812ft with <u>Field</u> <u>Record ROP of 95.4/hr</u>.
- Achieved <u>23.7%</u> increase in ROP as compared to 'Top 8' field average performance.

TECHNOLOGY

HAVOX[™] 613 Weatherford Revolution[®] RSS

LOCATION

North Kuwait Onshore

Matrix PDC HAVOX™ 613 design



Performance Comparisons





