

Case Study

Fastest 12.25" Dropping Section in NORTH KUWAIT

APPLICATION

Onshore – 12.25" Drop Section.
Interbedded, Limestone, Dolomite,
Sandstone, Shale Formations
Rotary Steerable Drive System (RSS)

TECHNOLOGY

EVOS™ 616
Halliburton GeoPilot® EDL RSS

LOCATION

North Kuwait
Onshore

CUSTOMER CHALLENGE

The Customer focused on drilling the 12.25" dropping section using one PDC bit run pairing the bit with rotary steerable system with aim to mitigate stick slip and vibration while achieving the best possible ROP. The TOP 6 achievement wells in the same field using PDC bit design achieving 31.1 ft/h ROP average across the field.

Record run in the area was set @ 45.5 ft/h.

VAREL SOLUTION

VAREL proposed a specific PDC design leveraging the EVOS™ bit technology, perfectly designed for directional build and drop drilling applications. EVOS™ bit series is a trouble-free design delivering smooth torque, advanced directional control, excellent wellbore quality and dynamic stability.

Solution: 6-bladed, 16-mm cutting structure with PowerCutter™ and shock studs.

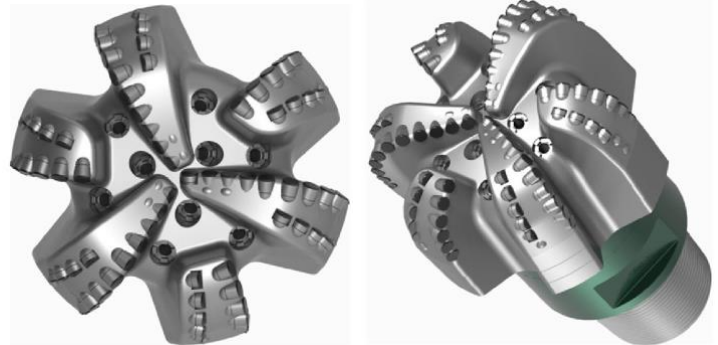
Purpose: High density PowerCutter™ arrangements provide extra exposure and cutter density in critical areas of the bit thus enhancing bit life without sacrificing ROP. Shock Studs helps to increase drill bit stability and limit vibrations while maintaining bit normal smooth cutting action.

CUSTOMER VALUE

New consistent field record achieved with high steerability and compatibility with RSS GeoPilot® EDL drilled without stick slip and vibrations for 12.25" section.

- Drilled a total footage of 2782ft with [Field Record ROP of 60.1 ft/hr.](#)
- Achieved [93.3%](#) increase in ROP as compared to TOP 6 Field Average performance.
- Achieved [32.1%](#) increase in ROP as

Matrix PDC design



Performance Comparisons

