

# Case Study

## New Fastest 8.5” Building Section in NORTH KUWAIT

### APPLICATION

Onshore – 8.5” Build section.  
Interbedded, Limestone, Sandstone,  
Shale Formations  
Rotary Steerable Drive System (RSS)

### TECHNOLOGY

EVOS™ 616  
Weatherford Revolution® RSS

### LOCATION

North Kuwait  
Onshore

### CUSTOMER CHALLENGE

The Customer focused on drilling the 8.5” build section using a rotary-steerable assembly with the goal of completing the section in one PDC bit run – additional challenges required mitigating stick slip vibrations while achieving the best possible ROP.

The ‘Top 6’ performance offset wells in the same field using PDC bit design achieving **36.2 ft/h ROP average across the field.** Record run in the area was set @ **43.8 ft/h.**

### VAREL SOLUTION

VAREL proposed a specific PDC design leveraging the EVOS™ bit technology, perfectly designed for ‘build’ 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 Premium long Gage and shock studs.

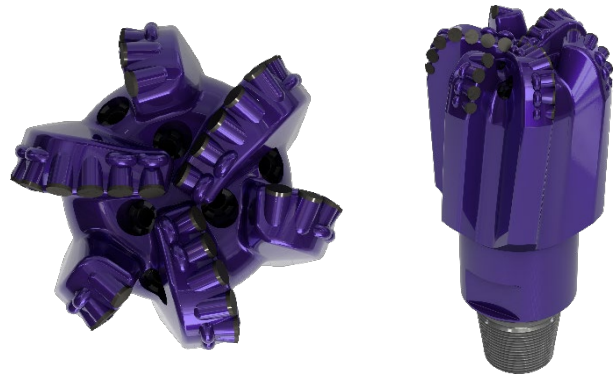
**Purpose:** The Premium long Gage designed to perfectly match with the RSS drive requirement. Shock Studs helps to increase drill bit stability and limit vibrations while maintaining bit normal smooth cutting action.

### CUSTOMER VALUE

New noteworthy field record accomplished as compared to previous benchmark with lowest cost per foot achieved for entire North Kuwait region.

- Drilled a total footage of 1610ft with **Field Record ROP of 46.7/hr.**
- Achieved **29.0%** increase in ROP as compared to ‘Top 6’ field average performance.

Matrix PDC EVOS™ 616 design



Performance Comparisons

