

# Case Study

## Record Setting Tangent Performance in KUWAIT

### APPLICATION

Onshore – 6” tangent section  
Interbedded, Limestone, Dolomite,  
Anhydrite and Shale formations

### TECHNOLOGY

VION 613  
STEEL BODY

### LOCATION

KUWAIT  
Onshore

### CUSTOMER CHALLENGE

The Customer focused on drilling the complete 6” holding section in deep drilling using one PDC bit run while achieving the best possible ROP and lowest cost per foot.

The previous wells in the same field used mainly PDC bit design achieving 21.5 ft/h ROP average across the field.

Record run in the area was set @ 24.2 ft/h.

### VAREL SOLUTION

Utilizing Application Engineering and VAREL's proprietary design software, the VION™ PDC technology was chosen, a solution perfectly designed for “tangent” applications. The VION 613 design is a trouble-free solution delivering smooth torque, advanced directional control, excellent wellbore quality and dynamic stability.

**Solution:** 6-bladed, 13-mm cutting structure with steel body bit for optimum Open Face Volume. Specific cutting structure and gage configuration to provide better torque management and greater stability especially in drilling tangent section.

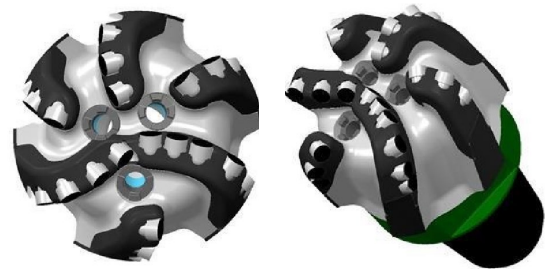
**Purpose:** Superior drilling efficiency with great compatibility with RSS Point-The-Bit directional drive system.

### CUSTOMER VALUE

New consistent field record achieved and time saving on the planned objective.

- ROP Field record run with **30.3 ft/h**
- Achieved **34.7%** increase in ROP as compared to previous run record performance.
- Achieved **70.7%** increase in ROP as compared to field / application average.

### VION™ PDC Technology (Steel)



### Performance Comparisons

