

# Case Study

## New PDC Benchmark Set in Delta Mahakam Area, East Kalimantan

### APPLICATION

Swamp Barge – 8.5” directional.  
Interbedded, Sandstone, Limestone,  
Shale and Organic Shale Formation  
PowerDrive - Orbit® RSS

### TECHNOLOGY

VION™ 616  
VENOM COBRA™ Cutters  
VENOM FANG™ Cutters

### LOCATION

INDONESIA  
Swamp Barge

### CUSTOMER CHALLENGE

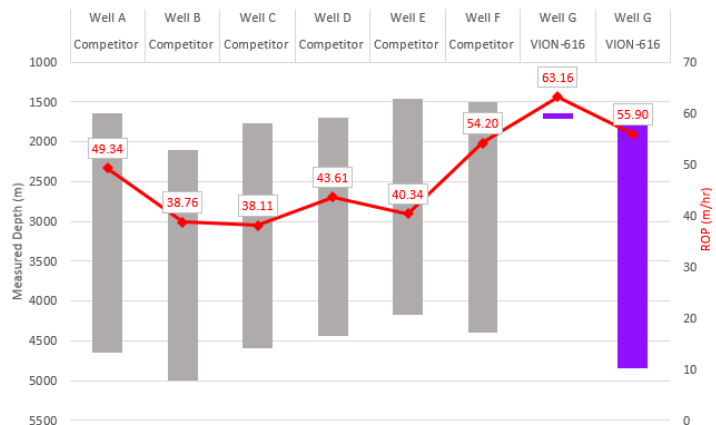
- Fast instantaneous ROP of more 200 m/hr in upper section.
- Fast ROP in lower section for TVD deeper than 3750m.
- Directional Requirement in S type well.
- Longest interval
- Durability to finish up the section with good dull not to jeopardize ROP.

Matrix PDC VION™ 616 design



After POOH

### Performance Comparisons



### VAREL SOLUTION

- Shaped cutter Fang and Cobra.
- G1 Gage Design
- Optimize back rake and diamond volume distribution
- DIG-3D™ contact analysis

### CUSTOMER VALUE

Longest and fastest field record as compared to previous benchmark in the same application (TVD deeper than 3750m) with pristine dull of 1-1-WT

- Drilled **total footage of 3203m** with **ROP of 56 m/hr**.
- Achieved **27%** increase in ROP as compared to offset average and **3%** increase as compared to fastest incumbent.

