

Case Study

New PDC Benchmark Set in Delta Mahakam Area, East Kalimantan

APPLICATION

Swamp/Offshore – 8 1/2" section
Mud Motor BHA
Shale & Sand formations
Directional requirement

TECHNOLOGY

8.50" VION™ 419
HYDRA™ Hydraulic Features
Curved Nozzles

LOCATION

Indonesia
Offshore

CUSTOMER CHALLENGE

The Customer focuses on maximizing ROP and directional control for the 8-1/2" tangent section while utilizing a PDM mud motor assembly.

Previously recorded top performance with the same well architecture was set at 110 m/hr.

VAREL SOLUTION

Through VES' proprietary 360° Customer Workflow process, HYDRA bit hydraulic technology and applications engineering, the right bit design was identified to match the application inside with the VION 419 platform.

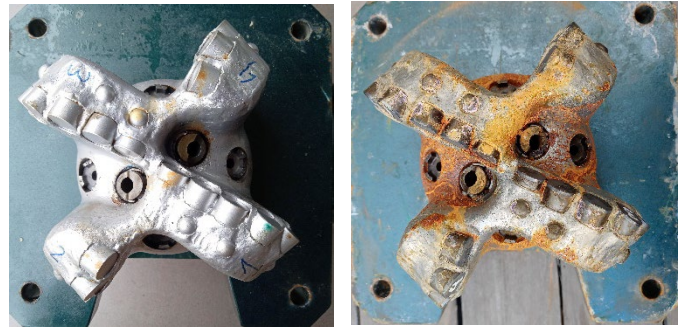
Further design optimization was applied using our PDC Designer and DIG3D™ software for optimal simulation and contact analysis.

Solution: Steel body, 4 bladed, 19mm cutters with curved nozzles to maximize open face volume and hydraulic efficiency.

CUSTOMER VALUE

- Resulted in **the fastest 8 1/2" section** in Shallow Wells Architecture (SLA), Delta Mahakam area.
- Delivered a performance of **112.7 m/hr** while outpacing surrounding runs and surpassed the previous Operator's record.
- Longer interval drilled** as compared to the fastest offset well.

VION™ 419 Steel Body Design



Curved Nozzles



Performance Comparisons

