

Case Study

12 1/4" R516DGX Delivers Consistent Performance for Calik Petrol in South East Turkey Application.

APPLICATION

The 12 1/4" section commenced in the Gercüs Formation through Becirman, Sinan and Germav and TD in Garzan Formation (Eocene, Palaeocene & Cretaceous). The formations consist primarily of Shale, Anhydrite, Dolomite, Marl and Limestone. Near vertical wells drilled with Rotary assembly and 9.3ppg WBM with 10% of High-API crude oil.

CUSTOMER CHALLENGE

The 12 1/4" section was hitherto drilled in 2 runs - TCI and then a PDC to complete the section. Unconfined Compressive Strengths (UCS) up to **20K psi** in the Becirman Formation.

The challenge was to have an engineered PDC bit that can drill the section in one run and at good ROP without the need to trip for either BHA or bit change.

VAREL SOLUTION

The recommended R516DGX (VION-516) bit design has an engineered cutting structure for optimum performance in challenging applications. This bit design with suitable cutter type was selected for the application as bit aggressiveness, good stability and durable cutting structure were essential in achieving the run objective.

CUSTOMER VALUE

The 12 1/4" R516DGX bit did not only drill to section TD on GCT-2 but was POOH in good condition and re-run on multiple wells; a total of 9 wells drilling a cumulative length of **6063m** at an average ROP of **13.1m/hr**. Total drilling hours – **463**. Rig grade after 9th well: **1-2-BT-A-X-I-CT-TD**.

Calik Petrol was very satisfied with the consistent performance and durability of the bit. There was significant cost savings to customer using one bit on multiple wells.

