

## Raider® Sets New ROP Record in In Adaoui Field, Algeria

### 12-1/4" R813DGX

**CHALLENGE:** To drill the entire 12-1/4" interval from 563 meters to 2200 meters TD providing an excellent well bore and good penetration rate in one single bit run.

**SOLUTION:** Design engineers used Varel's SPOT-DN™ software to design the cutting structure for maximum efficiency. The gauge of the bit was enhanced with a full TSP gauge to ensure hole quality. Shock studs were also utilized to help allow the cutting structure to take a full depth of cut. This allows the bit to achieve maximum ROP without concern for transitions. To ensure cutting structure life the bit was also fitted with Vulcan cutters chosen for the application.

**RESULTS:** This Raider bit drilled 1637 m (5371 ft) to complete the entire 12-1/4" interval at 29.9 m/hr (98.1 ft/hr) ROP with one PDC bit. The 12-1/4" R813DGX bit achieved a field record ROP for the interval while providing a single run to TD. There were no problems encountered when POOH so hole quality was good. With an outstanding dull grade of 1-1-WT-A-X-I-BT-TD the bit is rerunable.



12-1/4" R813DGX versus Offset Wells

