

PermaFORCE design with CryoCut shaped-cutter technology drills farther and faster in hard, interbedded formations

CHALLENGES

- Drill through hard, interbedded layers of sandstone and mudstone on bent-motor BHA
- Interbedded layers cause bit deflection and excessive slides to correct
- Early cutter wear prevents effective engagement with formation to reduce drilling efficiency and ROP
- High Weight on Bit (WOB) requirement to maintain drilling efficiency in worn state

SOLUTION

- 9 7/8-in. PermaFORCE™ elite PDC drill bit
- Versatile Cutting Structure optimized to increase ROP and improve stability in heavily interbedded formations
- New cutter technology to increase cutting life in applications limited by abrasive wear and impact damage
- CryoCut™ shaped PDC cutters maintain cutting edge in hard, abrasive formations with stringers causing impact damage

RESULTS

19% farther
distance vs. pad offsets

11% faster
ROP vs. pad offsets

