

EdgeGuard™ Provides Strongest Shirrtail Yet

12-1/4" AF37JP, Carroll County, Ohio

CHALLENGE: The Utica Shale play features the abrasive Berea sandstone and fractured Ohio shale formations where air hammers are typically used because of their fast ROP. However, in some wells the objective is to build angle and hold a tangent, which requires the use of a motor. The high rotational speeds of a motor and building angle combined with the abrasiveness of the formations demands a bit with a durable seal and an abrasion resistant shirrtail.

SOLUTION: Specifically designed to handle underbalanced drilling utilizing air and foam fluid systems, the A-Force is a new step in roller cone technology. A patented conical seal gland is engineered to better withstand the exposure to cuttings and the ever-changing pressures applied to a roller cone seal. Complete with Varel's patented EdgeGuard™ shirrtail protection, this bit is truly built to combat abrasion, even with high rotational speeds. The tungsten carbide EdgeGuard pucks along the shirrtail's leading edge provide for the industry's most durable roller cone.

RESULTS: The AF37JP completed its run to TD after drilling 1,301 ft (396.5 m) at an average ROP of 157.7 ft/hr (48 m/hr). This is an 80% ROP improvement from the eight offsets which ran at an average of 87.6 ft/hr (26.7 m/hr). The above average dull condition and shirrtail wear show the effectiveness of Varel's EdgeGuard technology, proving the durability of the AF37JP design.

For more information on this bit and proposed applications please speak to your local Varel representative.



Varel's patented EdgeGuard provides one of a kind shirrtail protection.



Receiving a **1-1-WT-A-E-IN-NO-TD** dull grade, this A-Force design complete with EdgeGuard technology withstood 1,301 ft of the Berea and Ohio formations.