

SlipStream® RC Pro

SlipStream® RC Pro Drills 68 Plugs in West Virginia Horizontal, Tyler County

4-5/8" SRP624

CHALLENGE: To drill the complete interval of frac plugs in this horizontal well comprising 68 plugs in total. Frac plugs are comprised of very hard outer slips, typically cast iron or ceramic, which surround ductile composites and elastomer cores. Steel tooth bits are ideal for drilling the softer cores but wear away quickly against the hard outer slips. Because of this, after approximately 20 plugs, plug drilling slows down considerably.

SOLUTION: Varel recently developed a patent pending hybrid roller cone design, SlipStream RC Pro, which combines patented HET™ (High Energy Tumble) tungsten carbide inserts on the outer rows with premium DC30™ crowned steel teeth on the inner rows. This innovative hybrid cutting structure provides optimized drilling efficiency when drilling frac plugs.

RESULTS: The operator made up a motor BHA with a Varel 4-5/8" SRP624 on a stick pipe rig which then drilled through 68 composite frac plugs to TD at 16,958 ft. Average time required to drill each plug was 14.7 min/plug. No major issues were experienced during the drilling of the frac plugs. As is typical with the SlipStream RC Pro, the cuttings created through this run were considerably smaller than those usually generated from competitor bits. Smaller cuttings allow for cleaner removal from the wellbore and provide easier pulling of the BHA while decreasing the need for short trips to clean the hole. In addition, the SlipStream bits provide shorter wash down times further decreasing rig time and time in the hole.



Competitor Cuttings Sample



SRP624 Cuttings Sample

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