



RSS tool successfully drills 4,300-ft high-angle tangent

- Tajjal Area
- Operator: Independent E&P

Technology

Our VectorEXAKT™ rotary steerable system (RSS) delivers higher ROP and precise directional control in vertical or inclined boreholes. This integrated drilling and measurement tool incorporates an inclination survey package within 5 ft of the bit together with a pulser for real-time data transmission.

Challenge

The client needed to build and hold at 60° for a 4,000-ft tangent section through a challenging limestone, anhydrite, and dolomite formation, using the near-bit inclination measurements from the VectorEXAKT RSS tool and azimuthal measurements from a conventional MWD tool.

Results

NOV successfully drilled the section with the VectorEXAKT 800 RSS at an average ROP of 35-ft/hr. Consistent dogleg severity of 2°/100 ft in the build section and tight control of the tangent section ensured a smooth well profile. Tool durability and robustness was demonstrated by the total drilling and circulating time of 198 and 315 hours, respectively.



Hole size (in)	Depth in (ft)	Depth out (ft)	Total footage (ft)	Inc in (deg)	Inc out (deg)	ROP (ft/hr)
12¼	5,833	9,842	4,300	48.2	57.9	35