

# VectorZIEL Rotary Steerable System

VectorZIEL replaces motor BHA and precisely delivers well plan at 100% higher ROP

## Technology

NOV's VectorZIEL™ automated rotary steerable system (RSS) provides precise trajectory control using near bit measurements combined with a unique steering control system. With an integrated pulser, the VectorZIEL is the only RSS tool that provides near-bit MWD surveys together with continuous directional and gamma ray measurements. VectorZIEL is available to independent directional drillers and operators worldwide.

## Challenge

After successfully deploying the VectorZIEL 800 RSS on an earlier well in the project, an E&P operator in Mexico decided to re-deploy the VectorZIEL 800 on another rig to replace a motor BHA. The motor BHA was delivering slower than expected ROP of less than 20m/hr.

## Results

The VectorZIEL 800 RSS successfully drilled the remainder of the drop and vertical section to TD, precisely delivering the well plan at the desired drop rate of 1.5-2.5°/30m while enabling ROP of over 40m/hr, doubling previous mud motor BHA ROP.

Drilling Hours	20.4
Depth In (m)	1,517
Depth Out (m)	1,885
Inclination In (°)	10.1
Inclination Out (°)	0.0
ROP (m/hr)	30-50
Flowrate (gpm)	520
Mud Type	OBM
MW (gm/cm <sup>3</sup> )	1.3

