

VectorZIEL 600 kicks off from vertical and drills a gun-barrel straight tangent section



LOCATION

Mexico, onshore

OPERATOR

E&P operator

MUD

OBM, 1.20 g/cm³

TECHNOLOGY

The 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, VectorZIEL provides near-bit MWD surveys together with continuous directional and azimuthal gamma ray measurements.

CHALLENGE

An E&P operator in Mexico is developing an onshore field with multiple J-shaped and S-shaped wells in shallow, soft formations. These designs require significant directional work to achieve the planned trajectory, and the wells also need to be drilled efficiently.

RESULTS

A VectorZIEL 600 tool drilled the 920-m, 8½-in section in only 18 drilling hours. Despite the soft formation, it delivered the well plan, kicking off from vertical and building and holding a 20° tangent. After the build, the closed-loop steering control and near-bit measurements held the 400-m tangent within 0.1° of target inclination and 1.8° of target azimuth.



HOLE SIZE	DEPTH IN / OUT	INC. IN / OUT	CIRCULATING HRS	ROP	FLOW RATE
8½ in	154 / 1,074 m	0.0° / 20.0°	33.0	30–80 m/hr	450–510 gpm

