

Revolution[®] Core RSS

Doubles the Estimated ROP and Cuts Drilling Time by 15 Days



The Revolution Core RSS has a point-the-bit directional drilling design that results in smooth boreholes, high build rates, and high penetration rates.

Objectives

- Drill a developmental oil and gas well from 7,680 to 15,045 ft (2,341 to 4,586 m) measured depth (MD), and reach a target reservoir with the potential to produce 1,500 BOPD (238.5 m³/d oil) and 9.68 MMscf/d (274,107 std m³/d).

Our Approach

- The Weatherford Drilling Services team deployed an 8 1/4-in. Revolution Core rotary-steerable system (RSS) in the 12 1/4-in. hole to directionally drill the section.
- On the first run, the team drilled from 7,680 to 8,400 ft (2,341 to 2,560 m) while increasing the angle at a rate of 1.24°/100 ft (30 m) until building a 22.75° inclination and 109.1° azimuth.
- On the second run, the team drilled from 8,400 to 11,840 ft (2,560 to 3,609 m), at which point they began dropping the section at a rate of 0.72°/100 ft (30 m) to achieve a 1.5° inclination and 342° azimuth for alignment with the target.
- The team achieved 3.27 million rpm and an average ROP of 34.26 ft/hr (11 m/hr)—a rate two times faster than the client's estimated ROP of 16 ft/hr (5 m).

LOCATION

Venezuela

WELL TYPE

Onshore, developmental oil and gas

HOLE SIZE

12-1/4 in.

DEPTH

- In: 7,680 ft (2,341 m) MD
- Out: 15,045 ft (4,586 m) MD

AVERAGE ROP

34 ft/hr (10 m/hr)

TOTAL RUNS

2

MAXIMUM INCLINATION

22.75°

PRODUCTS/SERVICES

- Drilling Services
- Revolution Core RSS



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Our Approach (continued)

- The team reached the target depth and formation in 214 hours—half the time the client had allotted—without any operational issues or nonproductive time.

Value to Client

- The Revolution Core RSS enabled the client to double the estimated ROP and reach the target formation 15 days earlier than planned.

