

RipTide® RFID Drilling Reamer Selectively Enlarged Salt Dome Interval and Deactivated On Demand, Mitigated Prevalent Stuck Pipe Issues

Objectives

- Drill and enlarge 2,657-ft (810-m) thick salt dome from the casing shoe.
- Deactivate RipTide RFID reamer after wellbore enlargement and continue drilling conventionally to total depth (TD) with standard bit diameter.
- Complete the operation in one run.

Our Approach

- The Weatherford RipTide RFID drilling reamer was incorporated into the drilling assembly and deployed into the well with a downhole temperature of 310°F (154°C).
- Below the casing shoe, the RipTide reamer was activated and utilized to enlarge the troublesome salt dome interval. After the enlargement, the underreamer was deactivated via RFID tags, enabling the customer to close the section while drilling conventionally to the target depth without additional trips.
- The solution ensured that the associated stuck pipe issues frequently encountered in the related field were mitigated with increased hole diameter from 12 1/4-in. to 14 3/4-in. across the salt interval. Offset wells were completed with a minimum of 2 trips to achieve similar results but the unlimited, on-demand activation and deactivation feature of the RipTide RFID reamer enabled the customer to optimize downhole time and reduce exposure time for the salt formation.

Value to Customer

- Using the RipTide RFID drilling reamer, the customer successfully completed the job in one run, saving 4 days of rig time, and, at \$170,000 USD per day, approximately \$680,000 USD.
- Following the efficient and successful results achieved using the RipTide reamer in this project, the customer decided to use the RipTide reamer on all subsequent wells planned in the related field to maximize value.



The Weatherford RipTide RFID drilling reamer efficiently enlarged a hole in a high temperature salt dome. The industry leading RFID system provides unlimited downhole activation cycles.

LOCATION

Gulf of Mexico

WELL TYPE

Offshore

FORMATION

Salt dome / Pokche Field

HOLE SIZE AND ANGLE

12-1/4 in. (31.12 cm), 0.53° (vertical)

DEPTH

15,016 to 19,517 ft (4,577 to 5,949 m)

TEMPERATURE

310°F (154°C)

FLOW RATE

630 gal/min (2,384.81 L/min)

TORQUE

29,000 lb-ft (39,318 N·m)

PRODUCTS/SERVICES

RipTide RFID drilling reamer

