Next-Generation Coiled Tubing Operations Set New World Records in Gulf of Mexico

Coil Tubing Services performs deepest intervention, sand cleanout, fish retrieval, and slurry set through CT in deepwater wells

**CHALLENGE**
Mitigate risks and meet economic goals while performing subsea interventions in the Gulf of Mexico.

**SOLUTION**
Use technology and unmatched experience to maximize coiled tubing (CT) operational and cost efficiency for live deepwater wells.

**RESULTS**
Performed more than 1,900 reliable through-tubing well operations—including dozens of CT jobs—over a 10-year period.

Operators needed to extend life, improve serviceability of Gulf of Mexico wells
Over the last decade, demand for subsea well intervention work in the Gulf of Mexico has continued to rise. However, with pressures up to 9,950 psi [68.6 MPa] and total depths routinely exceeding 20,000 ft [6,096 m], these wells present some of the industry’s toughest operational, safety, and economic challenges. To ensure long-term commercial viability of these important assets, Gulf of Mexico producers needed to conduct innovative, efficient well intervention operations.

Coil Tubing Services pioneered a wide range of CT services
Coil Tubing Services, a Schlumberger company, introduced CT to the Q4000, a purpose-built, multiservice, dynamically positioned vessel, to help meet the Gulf of Mexico’s increasing demand for subsea well intervention and abandonment services. While CT interventions from a vessel represent only a fraction of total well workover activity throughout the Gulf of Mexico, deploying CT services using this new vessel enabled operators to service live wells and reduce workover costs.

As wells in the Gulf of Mexico evolved, so did CT operations. The rising complexity of CT jobs—higher pressures, higher flow rates, and heavier weight on bit—required larger CT operating envelopes. Coil Tubing Services introduced real-time telemetry, custom-built workstrings, and unconventional CT applications—including open-water services, flowline cleanouts, and hydraulic well access.

CT innovations repeatedly set new records in deep water
These efficiency improvements in CT maximized the performance and economics of deepwater operations from initial completion to well abandonment.

Throughout 330 deepwater interventions and 1,900 operations for 24 different producers, Coil Tubing Services contributed to dozens of record-breaking CT achievements worldwide, including

- Deepest CT intervention (28,950 ft [8,824 m])
- Deepest sand cleanout and fish retrieval (28,100 ft [8,565 m])
- Highest-pressure well snubbed into with CT (10,000 psi [68.9 MPa])
- Largest proppant cleanout (169,999 lbm to 23,605 ft [77,110 kg to 7,195 m])
- Deepest depth correlation log (27,200 ft [8,290 m])
- Deepest slurry set through CT (22,700 ft [6,919 m])
- Largest cementing project through CT (177 bbl)

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Efficiency improvements have made it possible to increase the depth at which CT operations are conducted in the Gulf of Mexico.