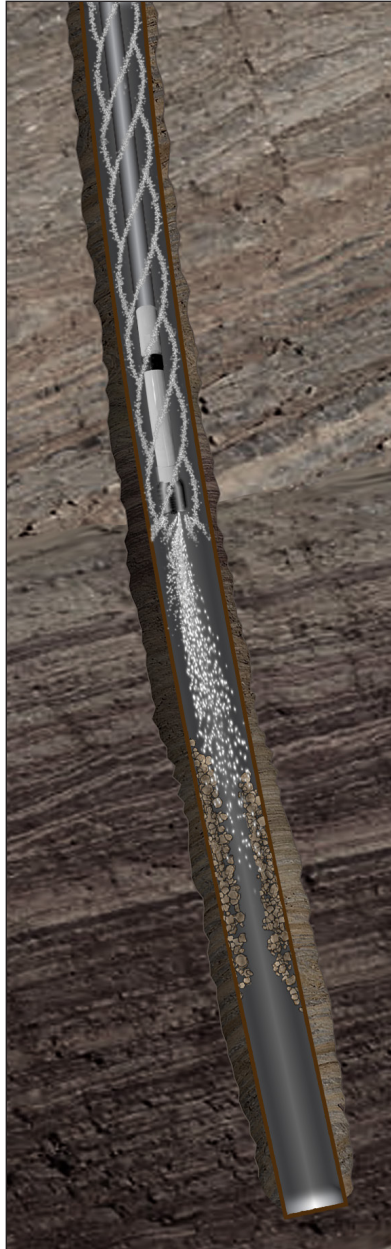


CASE STUDY: Thru-Tubing Tool Cleans Casing - SAUDI ARABIA | case study no. 0054



2-7/8" TT-HSRT shown washing inside a 7" casing string.

InFocus TT-HSRT: Thru Tubing Hi-Speed Reaming Tools were designed for wellbore intervention, but customers keep finding cost and time-saving ways to deploy the tools. The short compact design allows for ease of handling, which is beneficial when short BHA's are desired. The entire HSRT product line contains zero elastomer and can be deployed in harsh environments where acids, solvents and N2 are required for wellbore stimulations.

A customer in Saudi Arabia recently used a 2-7/8" TT-HSRT to clean out a 7" ME Plug set inside 7" and 9-5/8" casing.

Overview

Run Date: March 26, 2023
Location: Saudi Arabia
Onshore/Offshore: Offshore
Coiled Tubing Size: Drill Pipe 4" XT-39
Pump Rate: 2.3-2.7 BPM
Casing Spec: 7.00" Casing 26.00#
Products / Services: InFocus 2-7/8" TT-HSRT: Thru-Tubing Hi-Speed Reaming Tool
Tubing Size & WT: 7.00" Casing 26.00#
Tubing ID: 6.276
Drift ID: 6.151
Min. Restriction: 6.151
Coiled Tubing Size: Drill Pipe 4" XT-39

Objective(s) and/or Known Hole Problems

The objective was to do a cleanout of a 7" ME Plug set inside 7x9-5/8" casing. Client wanted to high pump rate to achieve the right amount of annular velocity. Used Circulation sub above the 2-7/8" HSRT and pumped 7 BPM continuously to do the cleanout to top of fish, so fishing tool can be engaged & retrieved.

Total depth 9,686' (2952.3 m) - 9-5/8" Casing
 Total depth 4,669' (1423.1 m) - 7" Casing
 TOF: 14,299' (4358 m)

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Tool Deployment / Execution

Performed all pressure tests and function tests successfully.

1st Run - Cleanout 9-5/8" x 7" Casing Cleanout Top of Fish

- Crossover - 4" XT-39
- 2-7/8" Motor Head Assembly
- 2-7/8" Straight Bar
- 2-7/8" Ball Lock Circulation Sub (4x 0.375" Orifice)
- 2-7/8" HSRT
- 3-1/2" MacJet Nozzle (8 x 0.125" Orifice)

Total Depth

14299 feet (4358 m)

Conclusion

The operator went in to prep the well for a fishing job and clean the wellbore to the top of the fish, then RIH with fishing tools and were able to successfully latch and retrieve the fish with no issues. No limitation on circulating Hours. Pumped 7 BPM of 73pcf OBM Mud continuously for 12 hours. With the success of this run, the customer used this BHA and 2-7/8" TT-HSRT on similar runs, reporting similar successful results.



Thru-Tubing HSRT's can be configured with a wash head to run as a jetting tool for wellbore sand clean up, or with a milling-style head designed for cement clean up. Depending on your specific job requirement, we also offer a box or pin down adapter so third party heads can be utilized.