



Overview

Run Date: May 11, 2021

Location: Saudi Arabia

Onshore/Offshore: Onshore

Well Type: Gas producer

Total Depth: 18,110 ft

Products / Services: InFocus AMP Combo: 2.875" AMP: All Metal Power section and 2.875" FRT: Friction Reduction Tool

Objectives

The objective of this proposal was to mill the 46 plugs set to isolate between proppant frac stages with a 2-3/8" coiled tubing.

Tool Deployment/Execution

Performed all pressure tests and function tests successfully.

1st run: Milling plugs with 4.250" mill bit and motor with AMP: All Metal Power section.

- Milled out / drifted 46 plugs and reached TIV
- Maximum depth reached 18,020 ft.
- Fatigue added 21.80% @ 14,870 ft.

Results

This tool combination milled out all 46 plugs then tagged the Tubing Isolation Valve (TIV). The coiled tubing unit also performed a cleanout run while preparing to retrieve the fish (they succeeded in retrieving a missing wireline gun).

For everyone involved, no HSE issue occurred during job execution.

BHA

- 2-3/8" HPCT - 22,668 ft
- FRT: Friction Reduction Tool (agitator with AMP inside)
- 2.875" Drilling motor with AMP: All Metal Power section.
- Five-blade mill bit 4.250"
- Treated water with pumping friction reducer additive
- 40# gel

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CASE STUDY: AMP / FRT Combo Reduces Runs and Coil Fatigue for NESR, Run 2 of 2 | case study no. 0044

Thru-Tubing Details

Coiled Tubing Size: 2.375"

Pump Rate: 2.3 - 2.7 BPM

Tubing Size & Weight: 5.5" CSG 26#

Tubing ID: 4.548"

Drift ID: 4.432"

Minimum Restriction: 4.432"

Conclusions / Benefits

Compared to a conventional PDM and extended reach tool there was NO LIMITATION on circulating hours with the InFocus metal combo used in this deep plug milling operation. Not only did this provide a cost savings to the client by reducing the number of runs and reducing fatigue on the coiled tubing string, the client was able to perform multiple runs with the same BHA. More sizes of this exciting combination will be released soon.

Learn more about InFocus' all new FRT: Fiction Reduction Tools here:

<https://www.infocusenergy.com/thru-tubing-hsrt>

Learn more about InFocus AMP: All Metal Power section technology here:

<https://www.infocusenergy.com/amp-power-sections>

InFocus would like to thank: National Energy Services Reunited Corp. (NESR)

