



## Overview

**Run Date:** April 25, 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 22% @ 12,595 ft. from free end

## Results

This entire operation was performed in a single run.

This tool combination milled out / drifted 46 plugs and reached the Tubing Isolation Valve (TIV). The coiled tubing was able to maintain a pump rate of 2.7 BPM.

Most importantly for everyone involved, no HSE issue occurred during job execution.

## BHA

- Coil connector for 2.375" Coil
- 2.875" MHA
- 2.875" Jar
- 2.875" FRT: Friction Reduction Tool (agitator with AMP Inside)
- 2.875" Drilling motor with AMP: All Metal Power section.
- Mill bit 4.250"

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**CASE STUDY:** AMP / FRT Combo Reduces Runs and Coil Fatigue for NESR, Run 1 of 2 | case study no. 0043

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## 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

The InFocus AMP / FRT combo used in this deep plug milling operation saw no limitation on circulating hours compared to conventional PDM and an extended reach tool. This provided a cost savings to the client not only by reducing the number of runs, but also with the addition of the FRT which reduced fatigue on the coiled tubing string. 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)*

