

CASE STUDY 1



RIG-LESS THRU-TUBING SCREEN HANG-OFF DEPLOYMENT FOR PROACTIVE SAND CONTROL IN NEW AND EXISTING WELLS

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INTRODUCTION

Sand production remains one of the most significant production and integrity challenges in Niger Delta oilfields.

High drawdown pressures and unconsolidated reservoir formations frequently lead to sand influx, which can cause:

- Wellbore and tubing erosion
- Equipment failure
- Reduced production efficiency
- Increased intervention costs

To address these challenges, a proactive sand management strategy is required during the completion of a new well or for an existing well.



CASE STUDY OF A TYPICAL ONSHORE NIGER DELTA WELL

Field Context

Onshore Niger Delta Well, brought online in 2025.

Anticipated Risk

High sand production risk under anticipated high drawdown conditions.

Primary Objective

Achieve high-rate production while maintaining sand control integrity.

Solution Requirement

Proactive, rig-less sand exclusion solution for new zone development.





TECHNOLOGY OVERVIEW

- The core of this solution is the 3½" Rig-less TT Screen Hang-off system, designed for efficient deployment via slickline
- A single Bottom Hole Assembly (BHA) run integrates the Screen Assembly, Electromechanical Setting Tool (EMST), and Hang-off Packer for streamlined installation.
- Features a nipple-less packer configuration with a retrievable screen assembly
- The system is compatible with a wide range of tubing sizes, from 2¾" to 5½", making it versatile for different well configurations



EXECUTION STRATEGY

The installation process was meticulously planned and executed to ensure efficiency and minimize downtime, a critical factor in new production zone developments.

Pre-installation screen sizing and tubing integrity confirmation (SL drift).

Installation completed in 5 hours (excluding well preparation)

Zero Non-Productive Time (NPT) recorded.

Gradual well ramp-up with sand performance monitoring



RESULTS, PERFORMANCE AND OPERATIONAL IMPACT

FIELD RESULTS

1,500

BOPD Production
(Post-installation)

1-7

Sand Cut (pptb)

0

Early Screen Failure

0

Additional Cleanout

OPERATIONAL IMPACT



Reduced intervention
risk via proactive
sand management



Rig-less execution
minimized cost &
downtime



Rapid deployment
improved project
economics



Validated TT Screen
Hang-off for new
zones



CONCLUSION

Rig-less Thru-Tubing Screen Hang-Off technology provides an effective sand control solution for Niger Delta reservoirs with high sand production risk.

- The intervention restored and sustained well productivity while eliminating the need for conventional workover rigs, resulting in significant cost and operational time savings.
- The successful deployment demonstrates that rig-less sand control systems can extend well life and maintain production integrity in mature wells.
- This approach presents a scalable and economically viable solution for future well interventions, recompletions, and zone development projects across the Niger Delta.

