

REAL RESULTS

OverDrive[™] System and Top-Drive Rotating Cementing Head Combine to Run Casing to TD, Perform Safe, Efficient Cement Job

Objectives

- Run 9 5/8-in. premium casing string and 10 3/4-in. casing string to total depth (TD) without the use of conventional casing-running equipment, increasing efficiency and reducing manual handling and quantity of rig-floor personnel.
- Enhance personnel and environmental safety by providing an accident- and incident-free operation.

Results

- Weatherford deployed the remotely operated OverDrive system and top-drive rotating cementing head combo, featuring the TorkDrive[™] 500 Modular (M) tool.
- The TorkSub[™] torque measuring system and the JAMPro[™] joint-analyzed makeup system ensured fast, accurate makeup of premium connections.
- The OverDrive system enabled the operator to run the entire casing string and successfully reach TD after 7 consecutive days of circulation and reciprocation, which would have been impossible with conventional casing-running equipment.
- A total of 466 connections were made with only four re-runs and no rejects or crossed threads because of the threadcompensation system.
- Weatherford personnel rigged up the cementing head as a single assembly with preinstalled plugs in a reduced time of 45 min, and the 9 5/8-in. x 10 3/4-in. cement plugs were successfully launched with subsequent visual confirmation.
- Competent and trained personnel completed all operations without errors or incidents.



Weatherford's *TorkDrive* tool significantly improved the efficiency of casing-running and cementing operations by enabling the operator to simultaneously fill up, circulate, and reciprocate the casing string.

Location Cabinda, Angola

Rig Type Tender barge

Well Type Exploratory

Hole Size and Angle 12-1/4 in., 70° deviation

Casing Type and Size

- 9 5/8-in., 47.0-lb, L-80 Tenaris Blue®
- 10 3/4-in., 60.7-lb, L-80 AMS

Depth 19,585 ft (5,970 m)

Products/Services

- Tubular running services
- OverDrive casing-running and drilling system
 TorkDrive 500 M tool
- TorkSub torque-measuring system
- JAMPro joint-analyzed makeup system
- Integrated safety interlock system
- 13 5/8-in. remotely operated inline cementing head

TSH Blue is a registered trademark of Tenaris Connections B.V.

Weatherford Kevin Milne Regional OverDrive Champion Johannesburg Office kevin.milne@eu.weatherford.com



REAL RESULTS

Value to Client

- The capability of the OverDrive[™] system to continuously fill up, circulate, and reciprocate the casing enabled the operator to avoid setting the casing early and reach the desired depth 20 hr shorter than expected.
- The JAMPro[™] system verified the connection integrity of all made-up tubulars, eliminating makeup problems and the associated nonproductive time.
- The 13 5/8-in. preassembled, top-drive rotating cementing head eliminated the need to rig down the casing-running equipment prior to the cement job, saving significant time.
- The remotely operated *OverDrive* system and top-drive rotating cementing head combo enhanced safety by minimizing manual handling and the number of personnel, including a stabber in the derrick.



The *OverDrive* system's link-tilt bails hoisted the casing joint into the derrick, eliminating the need for a stabber working at heights.



The OverDrive system and the top-drive rotating cementing head combo reduced the manual handling of equipment and minimized downtime when transitioning from casing-running to cementing operations.

Weatherford products and services are subject to the Company's standard terms and conditions, available on request or at weatherford com. For more information contact an authorized Weatherford representative. Unless not otherwise, trademarks and service marks herein are the property of Weatherford and may be registered in the Unlied States and/or other countries. Weatherford products named herein may be protected by one or more U.S. and/or foreign patents. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions self orth in the applicable contract between Weatherford and the client.