Vero® Automated Connection Integrity Service

Increased Running Efficiency by 14%, Delivered Zero Rejected Joints, Saved $77,000

Weatherford tubular-running service crew operating the Vero conventional 7.6-30 system.

Objectives

- Enhance connection integrity during pipe makeup.
- Reduce rejected joints.
- Decrease rig-up and rig-down times.

Our Approach

- Weatherford specialists collaborated with the customer to learn the objectives and recommended the conventional Vero Automated Connection Integrity service.
- Used for applications on land and shallow-water rigs, the Weatherford Vero conventional system enhances connection integrity by automatically making up or breaking out pipe and by autonomously evaluating pipe connections. Automated makeup enables precise control of the process, independent from any operator-specific influences or other human factors, eliminating subjective graphical interpretations.
- Weatherford field personnel, together with the local Vero expert, rigged up the Vero system in 45 minutes, 25% faster than conventional tubular-running equipment which typically averages 60 minutes.
- The running speed increased by 14% compared to the average liner running operation on the same rig.

LOCATION
Indonesia

WELL TYPE
Offshore

HOLE SIZE
8-1/2 in.

CASING SIZE AND TYPE
5 1/2-in. TN95CR13S Tenaris Blue® liner

PRODUCTS/SERVICES
- 7.6-30 Vero conventional system
- 500-ton RMS 2000 rotary mounted slips
- HT-1M modular handling tool control panel
- 55 kW electric hydraulic power unit

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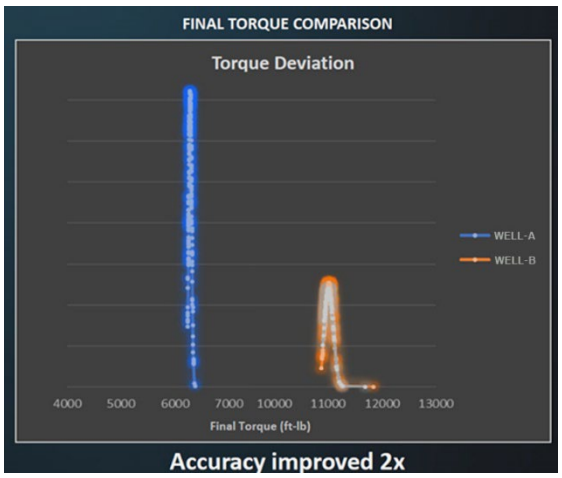
Our Approach (continued)

- The Weatherford team rigged down the system in 30 minutes, further reducing the online time by 33%.
- By applying real-time torque monitoring and adaptive speed control, the system successfully made up over 204 connections with zero damaged joints.

Value to Customer

- The Vero automated connection makeup and evaluation technology enhanced well integrity by ensuring the connections were made up to the optimal torque, and consistent on every makeup.
- The Vero service delivered a 4% variance of the standard deviation on the final torque value, compared with an 8% variance using conventional tubular-running equipment.
- Weatherford improved the customer's overall efficiency via improved rig-up time (25% faster than conventional tubular-running equipment), rig-down time (33% faster than conventional equipment), and running speed (14% over the average liner running operations).
- In total, by running the liner operation using the Vero system, the critical path time was reduced by a total of 6 hours and associated cost savings for the customer was USD $77,000.



Comparison between the Vero system (Well A) and conventional equipment on the previous well (Well B).