



Extreme torque and faster running with TenarisHydril Wedge 461® in Colombia

Two customers in the Andean Region adopted the TenarisHydril Wedge 461® connection for the casing sections of their deviated wells, resulting in outstanding over-torque performance and substantial cost savings.

Summary

A top of the line oil development

In Colombia, most oil and injection wells are deviated and drilled from multi-well pads. This implies that casing usually needs to be rotated during running and cementing, creating the need of improved torque performance in wells with longer trajectories.

Two customers in Colombia adopted our TenarisHydril Wedge 461® connection for their deviated wells located in the Middle Magdalena Basin and the Llanos Basin. Its outstanding torque capacity resulted in several benefits:

- Elimination of a complete casing string for wells with a vertical section of more than 4,000 ft and torque rates reaching up to 49,000 ft-lb during cementing, resulting in savings of approximately USD 1 million per well.
- Optimization of the string weight and increased operational margins during rotation, allowing for savings of around 10% to 15% of the production casing cost.
- Faster running speed when compared to a Buttress interchangeable connection, resulting in 2 to 4 hours of rig time savings per well.

Challenges

Highly deviated trajectories

Due to local environmental regulations, operators in the Andean Region are requested to keep the number of drilling sites to a minimum. Therefore, wells are drilled from multi-well pads aiming at various geological targets, resulting in highly deviated trajectories. Two customers operating in Colombia were looking for a high torque connection for their 7" casing sections that could withstand rotation during running and cementing in deviated wells.

PROJECT PROFILE

Location

Middle Magdalena Basin and Llanos Basin, Colombia

Products Highlighted

TenarisHydril Wedge 461®

Services provided

Rig Direct®

- String design
- Field services

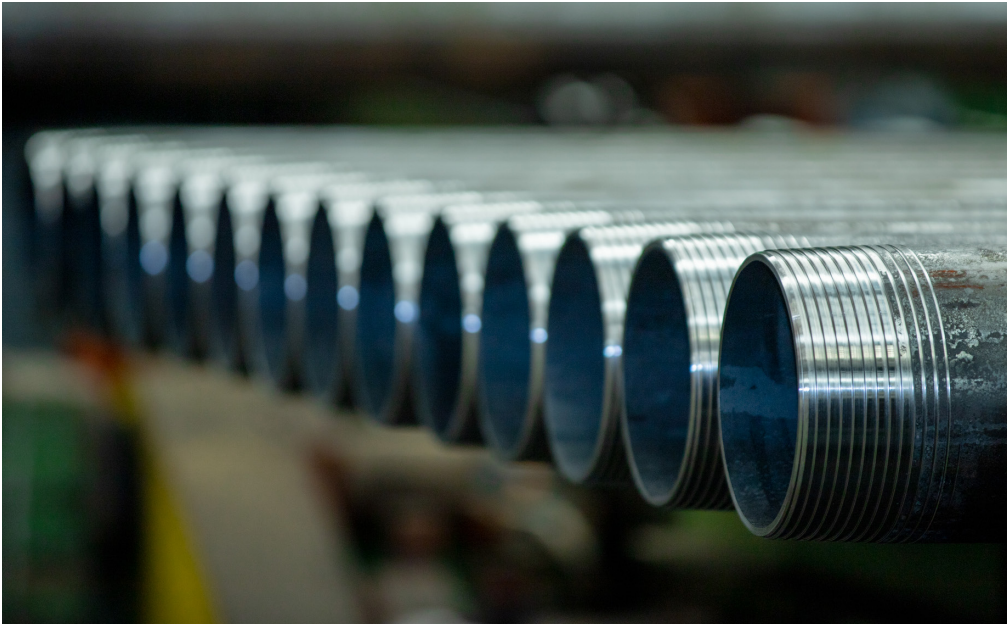
Well type

Highly deviated wells

Application

Unconventional





◀ TenarisHydril Wedge 461®:
Simple and fast make-up, great robustness and exceptional torque to manage longer laterals.

Solutions

Proven performance

With an extended testing program and a vast field track record, TenarisHydril Wedge 461® connection represents a further evolution of the original Wedge technology and provides exceptional over-torque performance for deviated wells with high vertical sections. Its impressive torque capacity is achieved thanks to the renowned robustness of the Wedge thread design combined with a pin-to-pin backup mechanism.

Faster running operations

Specially designed for unconventional applications, TenarisHydril Wedge 461® connection reduces running times thanks to its deep stabbing and lower threads per inch. Make up is simple enough to avoid the need for a torque-turn chart. In addition, its rugged and robust thread design significantly decreases rejects and re-make ups.

Support, every step of the way

Tenaris worked with both customers under the Rig Direct® service model, partnering throughout every phase of their drilling projects. A smooth and successful migration to TenarisHydril Wedge 461® connection demanded the full support of the Tenaris Technical Sales team. This included a variety of services such as string design, material selection, torque, drag and fatigue analysis, on-site field services support during operations and the development of local suppliers.

Results

Extra torque equals extra benefits

The higher torque offered by TenarisHydril Wedge 461® connection (121% higher than in a Buttress interchangeable connection) proved to be a game changer for deviated wells in the Andean Region. It enabled to eliminate a complete string section for one of the customers whose wells had a vertical section of more than 4,000 ft and torques reaching up to 49,000 ft-lb during cementing. Eliminating one string resulted in savings of approximately USD 1 million.

The other customer, with less demanding wells, was able to reduce the weight of the casing section with TenarisHydril Wedge 461® connection, while making operations more reliable, with safer margins. This reduction in the weight of the string allowed for savings of around 10% to 15% of the cost of the production casing.

Such positive experiences opened new opportunities for operators with similar challenges in the region.

Rig time savings

Following its successful adoption, TenarisHydril Wedge 461® connection was used in more than 58 wells in the region. This high torque premium connection enabled between 15% to 25% faster running times, resulting in 2 to 4 hours of rig time savings per well when compared to strings using Buttress connections.



For contact information, please visit our site:
www.tenaris.com