



# Weatherford®

## REAL RESULTS

### TruForm™ Expandable Liner Hanger System Run in Ecuador, Isolates Two Zones, Incurs Zero NPT

#### Objectives

- Run a 7-in. liner to total depth (TD) without any nonproductive time (NPT).
- Perform a successful primary cement job to isolate the Caliza "A" and Arena "U" zones.
- Set the hanger and perform a successful pressure test on the packer.

#### Results

- Weatherford deployed a *TruForm* expandable liner hanger system to a TD of 10,582 ft (3,225.3 m) with rotation and reciprocation. EP Petroecuador overcame unexpected obstacles in the 738-ft (224.9-m) openhole section.
- Weatherford's liner wiper plug, landing collar, and 329DS float shoe enabled the primary cement to isolate the required zones. Each zone was 58 ft (17.6 m).
- The compliant cone set the hanger with top-down expansion, and excess cement was circulated out of the well.
- The packer withstood a pressure integrity test of 1,200 psi (8.2 MPa) at 5 minutes in a subsequent trip, exceeding EP Petroecuador's goal of 500 psi (3.4 MPa).
- During these operations, EP Petroecuador incurred zero NPT.

#### Value to Client

- Using Weatherford's *TruForm* expandable liner hanger system enabled EP Petroecuador to reach TD successfully, saving an estimated three rig days and a considerable amount of associated costs when compared to a nonrotating liner system.
- The primary cement job enabled EP Petroecuador to ensure zonal isolation and produce the target sands effectively.

Weatherford's *TruForm* expandable liner hanger system was installed in Ecuador, South America, successfully reaching TD of 10,582 ft (3,225.3 m), isolating two zones and withstanding a pressure integrity test without EP Petroecuador incurring any NPT.



#### Client

EP Petroecuador

#### Well Name

Drago Norte 17 D

#### Location

Ecuador, South America

#### Well Type

Onshore, development

#### Hole Size

8-1/2 in.

#### Top of Liner

9,574 ft (2,918 m)

#### Liner

7 in., 26 ppf

#### Well Geometry

S-shaped with a maximum hole angle of 30°

#### Total Depth and Shoe Angle

10,582 ft (3,225 m), 0° deviation

#### Casing

9.625 in., 47 ppf

#### Products/Services

- *TruForm* expandable liner hanger system
- Weatherford landing collar
- Liner wiper plug
- 329DS float shoe

Weatherford  
Jose Zavala  
Global Applications Engineer  
jose.zavala@weatherford.com

EP Petroecuador  
Alejandro Bastidas  
Coordinador de Perforación  
albastidas@pro.eppetroecuador.ec

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 noted otherwise, trademarks and service marks herein are the property of Weatherford and may be registered in the United States and/or other countries. Weatherford products named herein may be protected by one or more U.S. and/or foreign patents. For more information, contact patents@weatherford.com. Specifications are subject to change without notice. Weatherford sells its products and services in accordance with the terms and conditions set forth in the applicable contract between Weatherford and the client.