



Weatherford®

REAL RESULTS

DwC™ Technology, Defyer™ Drill Bits Run 20-in. Casing in One Run, Eliminate Drill-Out Trip, Save Rig Time, Costs

Objectives

- Run casing to total depth (TD) through a challenging formation in a single trip without becoming stuck.
- Eliminate the need for a traditional drillout trip.
- Continue drilling the 17 1/2-in. section to TD with the same drillstring.

Results

- Weatherford used Drilling-with-Casing (DwC) technology to deploy an internal casing-drive tool (ICDT) spear and a 20- x 24-in. Defyer DPA 4419 drillable-casing bit on the liner. The combined tools drilled from 49 to 538 ft (14.9 to 163.9 m).
- The ICDT spear, designed for fast rig-up and safe and efficient hoisting of longer casing lengths, eliminated the need for conventional casing running and handling equipment such as a spider or fill-up tool, improving personnel safety.
- The 20-in. shoe track was drilled with a directional bottomhole assembly (BHA) in 4 hours, including the Defyer bit being drilled in only 30 minutes.
- The operator continued drilling the entire 17 1/2-in. section to 4,199 ft (1279 m) using the same string.
- The entire operation, the first 20-in. Defyer deployment for this operator, was performed efficiently and without incident.

Value to Client

- Using Weatherford's DwC technology with Defyer drillable-casing bits enabled the operator to set the casing at the planned depth in one run, saving significant rig time and associated costs.
- DwC technology used less rig time than conventional technology and required less equipment and fewer personnel to operate, improving overall safety.



The Defyer drillable-casing bit has a fully drillable center nose section made of aircraft-grade aluminum, enabling rapid, damage-free drillout with conventional PDC bits, roller-cone bits or another DwC assembly, eliminating the need for a special drillout run or retrieval of the bottomhole assembly after drilling to TD, saving operational time. The higher diamond content on the nose section enables five-blade models to drill longer sections than three-blade or four-blade models.

Location
Peru

Well Type
Onshore, oil

Formation
Clay, sand

Depth
In: 49 ft (14.9 m)
Out: 537 ft (163.9 m)
Total: 4,199 ft (1279 m)

Casing
20-in, 94-lb/ft (140 kg/m) K-55

On-Bottom Rate of Penetration
27.72 ft/hr (8.44 m/hr)

On-Bottom Hours
17.6

Products/Services

- DwC system
- ICDT spear
- Defyer DPA 4419 drillable-casing bit

Weatherford
Vladimir Leon
TRS Coordinator, Peru
vladimir.leon@weatherford.com

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