

REAL RESULTS

DwC[™] Technology Helps Reduce NPT in Strong Sea Currents on Offshore Angola Well

Objectives

 Reduce nonproductive time (NPT) on an offshore appraisal well in Angola in an area known for its strong sea currents. Conventional drilling was not possible because a ROV was not available to assist in re-entering the hole with the casing shoe during casing running operations.

Results

- Building upon previous successes in Angola drilling six wells with 20-in. conductor casing, a Weatherford drilling-with-casing (*DwC*) system was used to spud a well which had proven impossible using conventional means.
- A Defyer[™] DT 506 drillable casing bit and an internal casing drive tool (ICDT) with a tensile capacity of 2.8 million lb (853.4 kg) were run with the *DwC* system.
- After a 12-hr work stoppage at 757 ft (230 m) to repair the top drive, the ICDT freed the casing with a 100,000-lb (45,359-kg) overpull, enabling circulation to resume and drilling to proceed to 1,768 ft (539 m) total depth (TD).

Value to Client

• Using Weatherford's *DwC* technology enabled the client to drill the offshore well to TD without pulling out of hole. Because of the strong sea currents and lack of a ROV, this job would have been impossible using conventional drilling methods.



The *Defyer* DT 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 Angola

Well Type Offshore appraisal

Water Depth 326 ft (100 m)

Well Depth 1,768 ft (539 m) TD

Casing Size and Type 20-in., 133-lb/ft, X-56, RL-4S conductor

On-Bottom ROP 42 ft/hr (13 m/hr)

On-Bottom Hours

Products/Services

- DwC services
- Defyer DT 506 drillable casing bit
- ICDT
- Model 402L float collar

Weatherford Drilling-with-Casing (*DwC*) dwc@weatherford.com 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 noise. Weatherford sales its products and services in accordance with the terms and conditions set forth in the applicable contract between Weatherford and the client.