



# Weatherford®

## REAL RESULTS

### Indonesia: Shallow-Angle QuickCut™ Casing Exit System, MultiCatch™ Anchor Proven as Repeatable, Consistent System

#### Objectives

- Complete two dual-string exits through two large-bore casing strings in one trip. Historically, this operation required at least two trips using conventional technology, incurring associated rig time and drilling costs.
- Drill ratholes to continue the directional drilling operations.

#### Results

- Weatherford personnel deployed two shallow-angle *QuickCut* casing exit whipstock systems, each with a hydraulically actuated *MultiCatch* anchor. For the first exit, a 12 1/4-in. OD milling assembly was deployed. The second exit used an 8 1/2-in. OD milling assembly.
- The first exit window and rathole were cut at an 18° inclination in the 13 3/8-in. casing string at 1,036 ft (315 m) measured depth (MD). The 50-ft (15-m) section was milled in 8-1/2 hours with an average rate of penetration (ROP) of 6 ft/hr (1.8 m/hr).
- The second exit window and rathole were cut at a 9° inclination in the 9 5/8-in. casing string at 1,008 ft (307 m) MD. The 40-ft (12-m) section was milled in 8-1/2 hours with an average ROP of 4.7 ft/hr (1.4 m/hr).
- The gauge loss was within the acceptable tolerance.

#### Value to Client

- Using Weatherford's shallow-angle *QuickCut* system with a hydraulic *MultiCatch* anchor enabled the operator to mill two extended casing windows through two casing sizes in one trip, saving the operator at least one day in rig time and associated costs.
- The *QuickCut* system enabled the operator to lock the concave assembly against the casing wall during milling, drilling, and completion, ensuring that whipstock orientation did not impact operations.



Weatherford's shallow-angle *QuickCut* casing exit whipstock system with hydraulically actuated *MultiCatch* anchor milled two dual-string casing exit windows and ratholes in two different large-bore casing sizes in a single trip, saving rig time and associated costs without additional drilling operations.

#### Location

South Natuna Sea, Indonesia

#### Formation

Sandstone

#### Well Type

Offshore, oil producer

#### Rig Type

Semitender

#### Hole Size

- First window: 12-1/4 in.
- Second window: 8-1/2 in.

#### Depth of Whipstock

- First window: 1,036 ft (315 m) MD
- Second window: 1,008 ft (307 m) MD

#### Hole Angle at Setting Depth

- First window: 18°
- Second window: 9°

#### Whipstock Orientation

- First window: 85° left of high side
- Second window: 14° left of high side

#### Casing

- First window: 13 3/8-in., 53.5-lb/ft K-55 × 18 5/8-in., 84.5-lb/ft J-55
- Second window: 9 5/8-in., 47-lb/ft L-80 × 13 3/8-in., 53.5-lb/ft K-55

#### Products/Services

- Re-entry services
- Shallow-angle *QuickCut* casing exit system
- Hydraulic *MultiCatch* anchor

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