QuickCut™ Whipstock System and Hydraulic MultiCatch™ Anchor Save Deepwater Operator Millions in Contingency Sidetrack Operation

Objectives

• Mill a window to provide a sidetrack around parted casing.
• Drill and maintain a consistent gauge throughout the rathole to permit subsequent passage of a drilling bottomhole assembly (BHA) without issue.

Our Approach

• When a deepwater operator encountered parted casing while drilling, they contacted Weatherford to provide a timely solution for sidetracking around the problem. After reviewing well parameters with the operator, the Weatherford team recommended the QuickCut whipstock system with hydraulic MultiCatch anchor and 14 3/4-in. OD milling BHA. In previous applications, this rugged BHA has proved to be a reliable off-the-shelf solution, and would require only minimal modification for use in the parted 18-in. casing.
• A Weatherford sidetracking crew mobilized to the drillship with a QuickCut system and MultiCatch anchor, along with lead and flex mills. After orienting and setting the anchor and whipstock, the driller milled a 23-ft window through the casing, then drilled an 85-ft rathole.
• Upon retrieval to surface, an inspection of the lead mill revealed minimal wear, and the flex mill was in gauge.
• The operator then ran a 14 3/4-in. rotary steerable system through the casing window, and continued drilling to the next casing point, then successfully ran 12 1/4-in. casing to TD, with no problems passing through the window.
• The entire operation was completed without any performance, safety or environmental issues, exceeding operator requirements and expectations.

Value to Customer

• The QuickCut system and MultiCatch anchor enabled the operator to mill a casing window through the 18-in. casing string, delivering a clean exit to facilitate resumption of directional drilling operations and reaching the target as planned.
• The Weatherford crew completed the sidetracking operation in just 3-1/2 days. This successful sidetrack enabled the operator to avoid fishing to retrieve the parted casing, then milling the 12-1/4 casing, followed by openhole sidetracking off cement. This scenario would have cost at least 10 days of deepwater rig time, valued at more than $1 million per day.

LOCATION
Mississippi Canyon, US Gulf of Mexico

WELL TYPE
Ultradeepwater, deviated, development

FORMATION
Limestone

HOLE SIZE AND ANGLE
14-3/4 in., 15°

CASING SIZE AND TYPE
18-in., 94-lb/ft SM Q125

LINER SIZE AND TYPE
12 1/4-in., 134.25 lb/ft SM130CY

DEPTH OF KICKOFF POINT
18,070 ft (5,508 m)

PRODUCTS/SERVICES
• Re-entry services
• QuickCut system
• MultiCatch anchor