

# Victus™ Intelligent MPD Helps Major Operator to Reach Targets and Save \$90 Million in 6 Wells

## Objectives

- Achieve or exceed targets for time and costs when drilling, casing, and cementing deepwater wells with extremely narrow operating windows in the Gulf of Mexico (GOM). Conventional drilling practices in the area had often resulted in long campaigns with lost wells or out-of-reach reservoirs.

## Our Approach

- Weatherford recommended using the Victus managed pressure drilling (MPD) solution throughout well-construction operations during the multiwell campaign. In addition to incorporating MPD techniques for drilling, the recommendation entailed using statically underbalanced drilling fluids for the first time in the GOM to strip pipe, run casing, cement casing, and run lower completions.
- The Weatherford crew safely deployed the MPD package from the moonpool during simultaneous operations in a complex environment. From the first to the sixth well, the crew properly implemented MPD, and the solution performed as designed to save time, reduce costs, and reach total depth (TD) without nonproductive time (NPT).
- After finishing the first well, an after-action review enabled identifying several opportunities for improvement related to not only deploying the MPD riser joint, but also optimizing lower completion operations.
- MPD operations continued in the second and third wells. Over the course of drilling the first three wells, MPD helped to save approximately 38 days in total compared to the authorization for expenditure (AFE). This time savings equates to US \$65.5 million.
- In the fourth well, MPD eliminated a contingency liner for a final openhole size of 8-1/2 in. rather than 6-1/2 in. MPD also enabled manipulating surface backpressure to optimize the mud density program.
- In the fifth well, MPD helped the operator to deepen and sidetrack the well for increased formation-evaluation length. Furthermore, the operator saved 60% of costs compared to another well drilled in the same area at a similar depth 2 years earlier. This well was the most important discovery for the operator in 2019.
- In the sixth well, MPD helped to manage pressures when cementing the 9 5/8-in. solid-expandable casing and to reduce the potential for a remedial cement job. It also eliminated the need for a contingency liner when drilling from the solid-expandable shoe to TD.

## Value to Customer

- Victus intelligent MPD, including technologies and expertise, enabled the operator to save US \$90 million when constructing six critical wells in deepwater GOM, where others had drilled offset wells with significant flat time and unmet objectives. The partnership with the operator continues, and MPD keeps improving drilling efficiency to achieve the customer's targets.
- The MPD solution set a new standard for drilling difficult, expensive wells in the deepwater GOM area. Its use throughout the well-construction operation shifted a long-lasting paradigm in the GOM so that operators now have evidence of time- and cost-saving with MPD beyond drilling.



In a year's time in deepwater GOM, MPD helped an operator to achieve record well-construction results.

### LOCATION

Gulf of Mexico

### WELL TYPE

Deepwater oil and gas producers

### TYPICAL HOLE SIZES DRILLED

- 18-1/8 × 21 in.
- 14-3/4 × 17-1/2 in.
- 14-1/2 × 17-1/2 in.
- 12-1/4 × 14-3/4 in.
- 8-1/2 in.

### TYPICAL HOLE TRAJECTORIES

Horizontal, S, and vertical

### TYPICAL CASING SIZES

16, 13-5/8, and 9-5/8 in.

### PRESSURE AND TEMPERATURE

Up to 22,000 psi and 270°F  
(151.7 MPa and 132°C)

### DEPTH

29,000 ft (8,839 m)

### PRODUCTS/SERVICES

- Victus™ MPD chokes and detection manifolds
- First-generation MPD riser system
- Buffer manifold
- Junk catcher

