

Ultra-deepwater, Gulf of México

Challenge

- While drilling below the 13-5/8 in. casing shoe, a high pressure zone was encountered in a Gulf of Mexico deepwater, exploratory well.
- The LOT at the 13-5/8 in. shoe was lower than the MW (ECD) required to mitigate the water influx.
- Attempts to control well stability - including 5 cement plugs - failed.

Objective

Get back on planned drilling program and finish the well with an adequate hole size to evaluate potential production zones at TD.

Solution

A 13-3/8 x 16 in. SET® solid expandable system was installed and allowed the operator to get back on the planned casing program. The SET® system provided an ID of 13.950 in. and a drift diameter of 13.811 in. The operator plans to drill-ahead and run a 13-3/8 in. casing.

Value Added

- Provided ability to reach target depth and complete the formation evaluation program with the planned hole size
- Enabled the operator to protect their original investment.
- Set the well path to penetrate the troublesome interval and drill ahead with adequate hole size.
- Will allow the management of ECDs (equivalent circulating densities) effectively when the high pressure zone is reached.

