

Successful SHIELD BOND® Spacer System Application for Two Wells in the Golfo San Jorge Basin

South America, Argentina

CHALLENGE:

- ▶ Challenging Geology of the Golfo San Jorge Basin
- ▶ Partial and Total Lost Circulation While Drilling

SOLUTION:

- ▶ SHIELD BOND Spacer System and SHIELD BOND LC3k applied to two wells
- ▶ SimShield software suite enabled proper formulation design

RESULT:

- ▶ Top of Cement Achieved
- ▶ Good Cement Bond Logs on both wells
- ▶ Full Cement Returns



CHALLENGE

The onshore Golfo San Jorge Basin in Southern Patagonia and particularly La Piedra Field-Comodoro Rivadavia is an area known for total losses while drilling and cementing wells. Lost circulation management is a priority for both drilling and cementing for operators. Achieving a fully cemented annulus typically is a challenge in this area. Reaching Top of Cement (TOC) with full returns is a measure of good spacer and cement performance.

SOLUTION

An operator was searching for a solution to manage lost circulation while cementing, enabling delivery of good cement bond logs (CBL). Working with a local cement service company, the unique SHIELD BOND spacer system was introduced and successfully used on two wells.

On the first well, partial lost circulation while drilling was documented. To enable achievement of the planned TOC, a customized SHIELD BOND spacer formulation was applied. Combining field data and extensive experience, a formulation designed from the SimShield® software suite was applied to the well.

On the second well, casing was to be set where total losses were observed while drilling. A SHIELD BOND spacer formulation was also designed, complemented with the addition of the SHIELD BOND LC3k enhancer.

RESULT

The results from the first well: CBL-VDL logs identified the correct TOC with cement bonding achieved across the entire interval.

The results from the second well: total circulation achieved while cementing, minor losses were experienced at the end of the well. CBL-VDL logs identified the correct TOC with cement bonding achieved across the entire interval.