



## Wellbore History

### GENERAL

Well 6506/9-4 S was drilled appraise the 6506/9-2 S Fogelberg discovery. The Fogelberg discovery is located on a small fault block on the Halten Terrace, north-northwest of the Smørbukk Field and northeast of the Morvin Field. The primary objective was to reduce the volume uncertainties of the discovery by establishing the hydrocarbon contacts within the Garn and Ile Formations, verifying reservoir quality, and collecting representative fluid samples.

### OPERATIONS AND RESULTS

A 9 7/8" pilot hole was drilled to 1381 m in order to check for shallow gas. No shallow gas was encountered.

Appraisal well 6506/9-4 S was spudded with the semi-submersible installation Island Innovator on 3 February 2018 and drilled to TD at 4738 m in the Early Jurassic Tofte Formation. Low penetration rate was experienced in the Lange Formation shales in the 12 ¼" section. After logging at final TD liner was run to perform a DST. The liner hanger running tool stuck in cement, leading to a significant period of NPT. The well was drilled with seawater and hi-vis pills down to 1381 m and with RheGuard Prime oil-based mud from 1381 m to TD.

The Garn formation was encountered at 4520 m (4405 m TVD), 14 m shallower than prognosis and the top Ile Formation was picked at 4591.5 m (4475.0 m TVD), 13 m shallower than the prognosis. Approximately 67 m gross of gas bearing sandstone was proven in the Garn Formation whilst 70 m gross of sandstone with high water saturation was encountered in the Ile Formation. The gas-water contact(s) was not observed in the well. The reservoir quality of the Garn formation is variable, ranging from moderate to high, in line with the previous understanding of the reservoir. The reservoir quality of the Ile Formation is poor in the well.

There were no reliable oil shows above the OBM in the well. Elevated resistivity and gas readings in the Cretaceous Intra-Lange and Lysing formation sandstones indicate some HC saturation, possibly with a small pocket of live hydrocarbons in Lysing. The intra-Lange sandstones were seen in the intervals 4031 to 4110 m and 4174 to 4244 m. All three Cretaceous intervals were however considered tight without flow potential.

Four successive cores were cut from 4520 to 4618.8 m in the Garn, Not and Ile formations. Core recoveries varied from 96 to 104%. MDT fluid samples were taken at 4532.8 m (condensate and gas), 4553 m (condensate and gas) and 4568.7 m (hydrocarbons).

The well was permanently abandoned on 27 April as a gas appraisal well.

### TESTING

No drill stem test was performed.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6506/9-4 S