



## Wellbore History

### GENERAL

Well 6506/12-12 S was drilled on the northern part of the Smørbukk structure on the Halten Terrace in the Norwegian Sea. The primary objective was to prove hydrocarbon saturation in the main target reservoir zones in a down flank position in the Smørbukk NE KG segment. Secondary objectives were to obtain pressure and stratigraphic control for placing a sidetrack (6506/12-12 A) for coring and field development (producer well); and to acquire data on the Cretaceous Grizzly prospect.

### OPERATIONS AND RESULTS

A 9 7/8" pilot hole, 6506/12-U-15, was drilled to 854 m prior to the main hole.

Well 6506/12-12 S was spudded with the semi-submersible installation Transocean Leader on 1 June 2009 and drilled to TD at 5508 m, 12 m into the Early Jurassic Åre Formation. No shallow gas was observed by the ROV or on the MWD logs while drilling the 9 7/8" shallow gas pilot hole or the 26" holes. A kick was taken in the top of the Garn Formation, just below the 9 5/8" casing shoe. The well was drilled with Seawater and bentonite down to 1061 m, with Performadril water based mud from 1061 m to 2244 m, and with XP-07 oil based mud from 2244 m to TD.

The 6506/12-12 S well penetrated rocks of Quaternary, Tertiary, Cretaceous and Jurassic age. The well penetrated the secondary targets in the Cretaceous Lysing and Lange Formations (Grizzly prospect) at 3534 m and 4088 m, respectively. Indications of hydrocarbons were observed in the core and cuttings in the Intra Lange Sandstone, but the reservoir quality did not look too promising. The top of the Garn Formation was encountered at 4769.50 m, which is 19 m deeper than prognosis. The main reservoir target, the Lower Ror sandstone unit was encountered at 5176 m, which is 7 m shallower than prognosis. The well indicated hydrocarbons in the Garn, Ile, Tofte, Lower Ror sandstone unit and the Upper/Middle Tilje Formation, but water in the Tilje 3 and Tilje 1 reservoir zones.

A core was cut in the Lange Formation sandstone unit from 4132 - 4168 m. Pressure points were recorded with the LWD stethoscope tool, but due to pressure depletion from the Åsgard production and/or few good pressure points no fluid contacts could be established in any of the reservoir zones. No wire line fluid samples were taken.

Well bore 6506/12-12 S was permanently plugged back to the 9 5/8" casing at 4754 m and prepared for sidetracking on 6 August 2009. It has been re-classified as a wildcat.

### TESTING

No drill stem test was performed.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6506/12-12 S