



Wellbore History

GENERAL

The 6507/11-10 Frusalen well was drilled just north-east of the Midgard Field, on the eastern side of the Halten Terrace in the Norwegian Sea. The main objective was to investigate the hydrocarbon potential of the Middle Jurassic Fangst Group and Early Jurassic Båt Group. The primary target was the Ile Formation; the Garn Formation was a secondary target, while potential reservoirs in the Tilje and Åre Formations were tertiary targets. The TD criteria for the well was to drill into the first water-bearing formation below Top Tilje Fm, or if hydrocarbons present in the Tilje and Åre Formations, drill through the intra Åre coal markers.

OPERATIONS AND RESULTS

A 9 7/8" pilot hole was drilled from 299 m to 529 m where 529 m shallow gas was encountered. The pilot hole was plugged back with gas-tight cement. The rig was moved 10m SSW and the well was re-spudded with weighted mud through the shallow gas zone. Well 6507/11-10 was spudded with the semi-submersible installation Songa Delta on 16 January 2010 and drilled to TD at 2319 m in the Early Jurassic Tilje Formation. The well was drilled with spud mud down to 495 m, with AQUACOL KCl/Polymer/glycol mud from 495 m to 1659 m, and with CARBOTECH oil based mud from 1659 m to TD.

The main target, the Ile Formation, was encountered at 2134 m, 37 m deeper than prognosed. The secondary objective, the Garn Formation, which had a risk of being eroded, came in at 2086 m, 43 m deep to prognosis. Neither of the two reservoirs showed any signs of hydrocarbons. Also sandstones of the Tilje Formation proved to be water bearing. TD of the well was thus set 34 m into the Tilje Formation. No hydrocarbon shows were recorded in this well. Oil based mud hampered the detection of shows based on cuttings, but the lack of shows were confirmed by low gas readings.

No wire line logging or coring was undertaken due to dry hole. No wire line pressures or fluid samples were taken.

The well was permanently plugged and suspended on 16 February 2010 as a dry well. Final cutting of well head and abandonment was to be performed by boat at a later stage.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/11-10