



Wellbore History

GENERAL

Well 6507/7-15 S was drilled on the Zidane West prospect between the Heidrun Field and the 6506/6-1 Bella Donna discovery in the Haltenbanken area of the Norwegian Sea. The primary target was the Middle Jurassic Fangst Group; Garn and Ile Formations. Secondary target levels were the Lower Cretaceous Lange Formation sandstone and the

Lower Jurassic Tilje Formation.

OPERATIONS AND RESULTS

Wildcat well 6507/7-15 S was spudded with the semi-submersible installation West Alpha on 9 January 2012 and drilled to TD at 4567 m (4552 m TVD) in the Early Jurassic Tilje Formation. A 9 7/8" shallow gas pilot hole was drilled from 496 m to 649 m and shallow gas was observed at 640 - 644 m. The 26" hole was drilled to 596 m and the 20" casing was set at 594 m, above the shallow gas zone. Operations were stopped at 4124 m after setting of 9 5/8" casing due to leakage in the kill line and failure on a fail-safe valve. The well was plugged and the BOP was pulled, repaired and run again. Otherwise, operations went forth without significant problems. The well was drilled with seawater, bentonite and hi-vis sweeps down to 596 m, with KCl/freshwater dilution mud from 596 m to 1336 m, with Glydril mud from 1336 m to 2210 m, and with Versatherm oil based mud from 2210 m to TD

The well encountered gas in the Lange, Garn, Ile and Tilje Formations. The Lange Formation had gas in a sandy interval from 3586.5 m (3585.5 m TVD) down to 3634 m (3632.5 m TVD) and water up to 3679.5 m (3677.5 m TVD) based on logs. Pressure testing was difficult due to poor reservoir conditions, so no conclusive gas gradient could be established. The Fangst Group contained gas from top Garn at 4266.5 m (4255 m TVD) down to 4404 m (4395 m TVD) in the Ile Formation. Formation pressure analysis proved the Garn and Ile Formations to be on the same gas gradient. A 10 m gas column was encountered in the Tilje Formation from the top at 4499 m (4485 m TVD) down to 4511 m (4497 m TVD), but within a different pressure system from the overlying formations. No fluid contacts from pressure measurements could be identified in this well, all hydrocarbon columns were penetrated in down-to settings.

Two cores were cut from 4265 m to 4329.6 m in the Garn Formation and one core was cut from 4362 m to 4415.3 m in the Ile Formation. MDT gas samples were taken at 3627.24 m in the Lange Formation sands and at 4275.06 m, 4300.53 m, and 4320.39 m in the Garn Formation. These sample stations were sampled with an extra-large diameter probe. Two more hydrocarbon samples were taken in the Ile Formation 4381.80 m while performing a mini DST. No water samples were taken in the well.

The well was permanently abandoned on 2 May 2012 as a gas discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6507/7-15 S