



Wellbore History

GENERAL

The 7123/4-1 S and its sidetrack 7123/4-1 A Tornerose wells were drilled ca 50 km east of the Snøhvit Field in the Hammerfest Basin. The primary objective was to prove additional gas reserves in the Tornerose structure, east of the discovery wells 7122/6-1 and 7122/6-2. The Triassic reservoir was prognosed as similar to the reservoir encountered in 7122/6-1.

OPERATIONS AND RESULTS

Well 7123/4-1 S was spudded with the semi-submersible installation Polar Pioneer on 12 March 2008. Due to junk in hole in the 17 1/2" section it was impossible to drill beyond 726 m. The primary well was thus plugged back and a technical sidetrack was made with kick-off at 681 m (termed 7123/4-1 ST2 in well reports, but no such distinction is made here). 7123/4-1 S was drilled to TD at 2920 m (2706.4 m TVD) in the Triassic Snadd Formation. Thereafter, on 14 May, a sidetrack 7123/4-1 A was kicked off from 1659 m and drilled to a depth of 2855.1 m (2626.3 m TVD) in the Triassic Snadd Formation. No shallow gas was observed by the ROV at the wellhead or by the MWD while drilling the 36" hole and the 17 1/2" hole sections. The top hole down to 1106 m was drilled with seawater/bentonite and CaCl₂/polymer mud. Below 1106 m FormPro mud was used in both well tracks.

Well 7123/4-1 S penetrated rocks of Quaternary, Tertiary, Cretaceous, Jurassic and Triassic ages. In well 7123/4-1 S the Snadd reservoir was penetrated at 2266.2 m (2222.6 m TVD), 41 m shallower than prognosis. Top Carnian reservoir within the Snadd Formation was penetrated at 2459.0 m (2364.1 m TVD), 28.9 meter shallower than prognosis. Two cores were cut in 7123/4-1 S in the Snadd Formation. The first core was cut in a thin sand above the Carnian reservoir from 2435 to 2452 m, while the second core was cut covering middle to lower parts of Carnian reservoir T1 and upper parts of Carnian reservoir T2 from 2474 to 2501 m. Pressure points were taken in the Capp Toscana Group and the Snadd Formation, whereas 1 gallon sample (MDT fluid sample) was taken in Carnian reservoir T2 (Snadd Formation).

In sidetrack 7123/4-1 A the Snadd reservoir was penetrated at 2259.0 m (2185.1 m TVD), 14.3 m deeper than prognosis. Top Carnian reservoir within the Snadd Formation was penetrated at 2525.0 m (2376 m TVD), 21 meter deeper than prognosis. In 7123/4-1 A one core was cut from 2670 to 2697 m in a thin sandy sequence approximately 17 meter below the base of the Carnian reservoir in the Snadd Formation. Pressure points were taken in the Capp Toscana Group, whereas MDT fluid samples were collected at 2165.9 m (water and oil), 2166.4 m (water only), 2534.1 m (water only), 2542.6 m (water and oil), and at 2551.5 m (water and oil).

High gas readings and fluorescence with cut on sandstone cuttings and cores in the Snadd Formation were reported in both wells. These shows were interpreted as residual hydrocarbons.

Well 7123/4-1 S was permanently abandoned on 21 April 2008, while the sidetrack 7123/4-1 A was permanently abandoned on 14 May 2008. Both were classified as dry as a dry with shows of residual hydrocarbons.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 7123/4-1 A