

Wellbore History

GENERAL

Well 7220/11-3 A is a geological sidetrack to well 7220/11-3, which confirmed oil and gas in Triassic conglomerates and Permian carbonates in a central position on the Alta discovery. The Alta structure lie on the southern Loppa High in the Barents Sea. Well 7220/11-3 did not penetrated to the oil-water contact. The primary objective of the sidetrack was to prove the presence and thickness of the Early Triassic conglomerates ca 400 m to the east of the main wellbore and to confirm hydrocarbon columns and fluid contacts similar to those established in the 7220/11-1 discovery well.

OPERATIONS AND RESULTS

Appraisal well 7220/11-3 A was kicked off from 1105 m in the 7220/11-3 main bore on 2 September 2015. It was drilled with the semi-submersible installation Island Innovator to 1240 m where it was aborted due to steering problems. The wellbore was plugged back and successfully sidetracked. It was drilled with no significant further issues to a total depth of 2135 m (1991.8 m TVD) in Permian carbonates of the Ørn Formation. The well was drilled with AquaDrill mud from kick-off to TD.

The geological sidetrack proved a total hydrocarbon column height of 74 m comprising 30 m of gas over 44 m of oil. The column extended from 2013 m (1880 m TVD) in the upper Klappmyss Formation down to a free-water level estimated to be at 2094 m (1954 m TVD) in Early Triassic conglomerates. The gas-oil contact was established at 2046 m (1910 m TVD). The pressures and gradients were found to be comparable with those established in the 7220/11-3 main well and in the 7220/11-1 discovery well. Numerous oil shows were described in siltstones and sandstones below 1100 m in the Snadd and Kobbe formations. Shows were described also below the hydrocarbon-bearing reservoir all through down to TD.

Two cores were cut from 2015.0 to 2094.5 m with 100% recovery. MDT fluid samples were taken at 2121.2 m (water), 2064 m (oil), and 2013.4 m (gas).

Due to concerns of possible severe losses occurring while the reservoir was exposed, drilling was terminated prior to penetrating the lowermost Ørn Formation carbonates, which were believed to pose the highest risk of losses. The wellbore was suspended on 29 September 2015 after installing a 7" liner. Further drilling and testing would be done in a later re-entry. The well is classified as an oil and gas appraisal well.

TESTING

No drill stem test was performed.

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