



Wellbore History

GENERAL

Statoil well 16/2-8 (Aldous Major South) was drilled about 4.2 kilometres west of the Lundin oil discovery well 16/2-6 (Avaldsnes) on the Utsira High in the North Sea. The 16/2-6 Avaldsnes discovery was proven in September 2010 in Middle-Late Jurassic reservoir rocks. The main objective of well 16/2-8 was to investigate the hydrocarbon potential in Late Jurassic sandstones in the Draupne Formation and the Middle Jurassic Hugin/Sleipner Formations. The secondary and third objectives were to explore the hydrocarbon potential in the Triassic Skagerrak Formation and in Chalks of the Late Cretaceous Shetland Group, respectively.

OPERATIONS AND RESULTS

Wildcat well 16/2-8 was spudded with the semi-submersible installation Transocean Leader on 17 July 2011 and drilled to TD at 2140 m in the Triassic Skagerrak Formation. Neither shallow gas nor shallow water flow was observed and the well was drilled without significant problems. The well was drilled with seawater and bentonite sweeps down to 213 m, with seawater and bentonite/PAC RE sweeps from 213 m to 945 m, with Performadril WBM spec 6a from 945 m to 1573 m, and with Performadril Low sulphate WBM from 1573 m to TD.

The top of the main reservoir, in the Draupne Formation, was picked at 1877 m. The reservoir (Draupne and Hugin Formations) showed excellent reservoir properties and contained oil. An oil column of 67.5 m was present down to 1944.5 m (1921 m TVD MSL), close to the contact level seen in the 16/2-6 Avaldsnes well. Pressure data showed that the 16/2-8 Aldous Major South and the 16/2-6 Avaldsnes discoveries are in the same pressure regime and thus in communication. The secondary objective, Skagerrak Formation was water wet. The third objective, the Shetland Group chalk had moderate to poor oil shows in the very top, from 1573 to 1622 m, with a pronounced wet gas peak from 1573 to 1601 m.

Six cores were cut in the well. Cores 1 to 4 were cut from 1880.5 m to 1953.21 m in the Rødby Formation, across Draupne and Hugin formations and into the Sleipner Formation. Cores no 5 and 6 were cut from 1995 m to 2048.8 m in the Statfjord and Skagerrak formations. MDT wire line fluid samples were taken at 1882.1 m (oil), 1931.2 m (oil), 1945.0 m (water), 1945.4 m (water), and at 1947.2 m (water).

Well 16/2-8 proved communication between the Aldous Major South discovery in PL265 and the Avaldsnes discovery in PL501 made by Well 16/2-6 in august 2010. The two discoveries will be developed together under the name Johan Sverdrup Field. Well 16/2-8 was permanently abandoned on 19 August 2011 as an oil appraisal.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/2-8