## NPD – exploration drilling result

13/05/2016 The Norwegian Petroleum Directorate has granted Wintershall Norge AS a drilling permit for wellbore 35/11-19 S, cf. Section 8 of the Resource Management Regulations.

Wellbore 35/11-19 S will be drilled from the *Borgland Dolphin* drilling facility at position 61°13′21.45″ north 03°26′27.88″ east after completing the drilling of wildcat well 35/8-6 A for Wintershall Norge AS in production licence 248.

The drilling programme for wellbore 35/11-19 S relates to the drilling of a wildcat well in production licence 248 F. Wintershall Norge AS is the operator with an ownership interest of 40 per cent. The other licensees are Origo Exploration Norway AS (20 per cent) and Petoro AS (40 per cent). The area in this licence consists of a part of block 35/11. The well will be drilled about 100 kilometres southwest of Florø and about 20 kilometres northwest of the Fram field.

Production licence 248 F was carved out of production licence 248 on 10 December 2015.

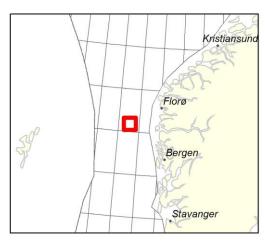
Production licence 248 was awarded on 4 June 1999 (North Sea Awards 1999). This is the first well to be drilled within the licence.

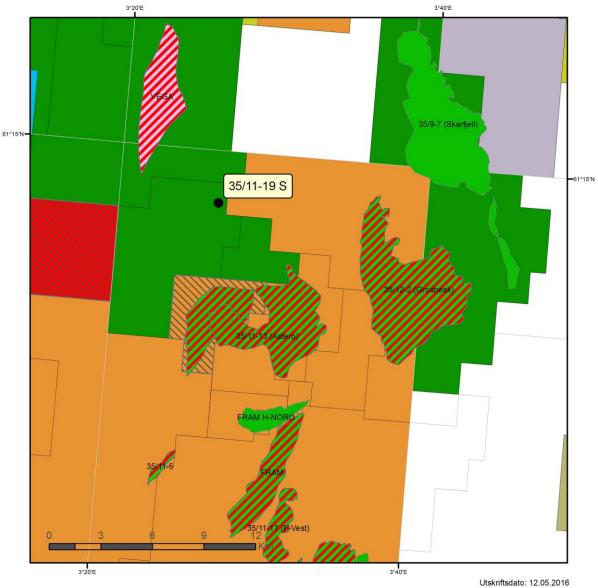
The permit is contingent upon the operator securing all other permits and consents required by other authorities prior to commencing drilling activities.

See Factpages for more information about this wellbore.



Undersøkelsesbrønn/Well 35/11-19 S Utvinningsløyve/PL 248 F





## 35/11-19 S, 35/11-20 S, 35/11-20 A and 35/11-20 B

15/09/2016 Wintershall Norge AS, operator of production licence 248 F, is in the process of completing the drilling of four wells in the North Sea.

The wells are wildcat well 35/11-20 S, appraisal well 35/11-20 A and wildcat well 35/11-20 B. Due to technical issues, well 35/11-19 S had to be abandoned, and well 35/11-20 S was drilled about 50 metres southwest of 35/11-19 S.

Well 35/11-20 A was classified as a wildcat well, but will now be reclassified as an appraisal well.

The wells were drilled about five kilometres southeast of the Vega field in the North Sea and 100 kilometres southwest of Florø.

The primary and secondary exploration targets for well 35/11-20 S were to prove petroleum in Late Jurassic reservoir rocks (intra Heather formation sandstone).

The well did not encounter reservoir rocks in the primary exploration target. The well encountered an 8-metre oil column in the secondary exploration target at the top of an intra Heather formation sandstone with poor reservoir quality and a total thickness of about 70 metres.

The objective of well 35/11-20 A was to delineate the oil discovery in intra Heather formation sandstone, and to prove petroleum in Middle Jurassic (Brent group) and Early Jurassic (Cook formation) reservoir rocks.

The well encountered a total oil column of 33 metres in intra Heather formation sandstone, of which 19 metres were of good reservoir quality. Due to technical issues, it was not possible to reach the Brent group and Cook formation.

Well 35/11-20 B was drilled to further delineate the oil discovery in intra Heather formation sandstone. The secondary target was to prove petroleum in Middle Jurassic (Brent group) and Early Jurassic (Cook formation) reservoir rocks.

The well encountered a total oil column of 46 metres in intra Heather formation sandstone, of which 29 metres were of moderate reservoir quality. A total oil

column of 19 metres was encountered in the Tarbert formation in the Brent group, of which 10 metres were of moderate reservoir quality. The Cook formation was encountered with a total thickness of about 170 metres with predominantly poor reservoir quality and only traces of petroleum.

Preliminary estimates place the size of the discovery between 1.5 and 4.5 million standard cubic metres (Sm³) of recoverable oil equivalents. The licensees will evaluate the discovery along with other nearby discoveries with a view toward a potential development.

The wells have not been formation-tested, but extensive data and samples were collected. The wells are the second, third, fourth and fifth exploration wells in production licence 248 F.

Wells 35/11-20 S and 35/11-20 A were drilled to respective measured depths of 3553 and 3943 metres below the sea surface and respective vertical depths of 3437 and 3293 metres below the sea surface. Both wells were terminated in the Heather formation in the Middle Jurassic.

Well 35/11-20 B was drilled to measured and vertical depths of 5083 metres and 4055 metres below the sea surface, respectively, and was terminated in the Statfjord group in the Early Jurassic.

Water depth at the site is 373 metres. The wells will now be permanently plugged and abandoned.

Wells 35/11-19 S, 35/11-20 S, 35/11-20 A and 35/11-20 B were drilled by the *Borgland Dolphin* drilling facility.



Undersøkelsesbrønn/Well 35/11-19 S, 35/11-20 S, 35/11-20 A og 35/11-20 B Utvinningsløyve/PL 248 F

