

## NPD – exploration drilling result

29/03/2010 The Norwegian Petroleum Directorate has granted Wintershall Norge ASA a drilling permit for wellbore 6406/3-8, cf. Section 8 of the Resource Management Regulations.

Wellbore 6406/3-8 will be drilled from the drilling facility *Songa Delta* at position 64° 56' 09" north 6° 56' 35" east, following the completion of the drilling of appraisal well 16/1-11 for Det norske oljeselskap in production licence 001 B.

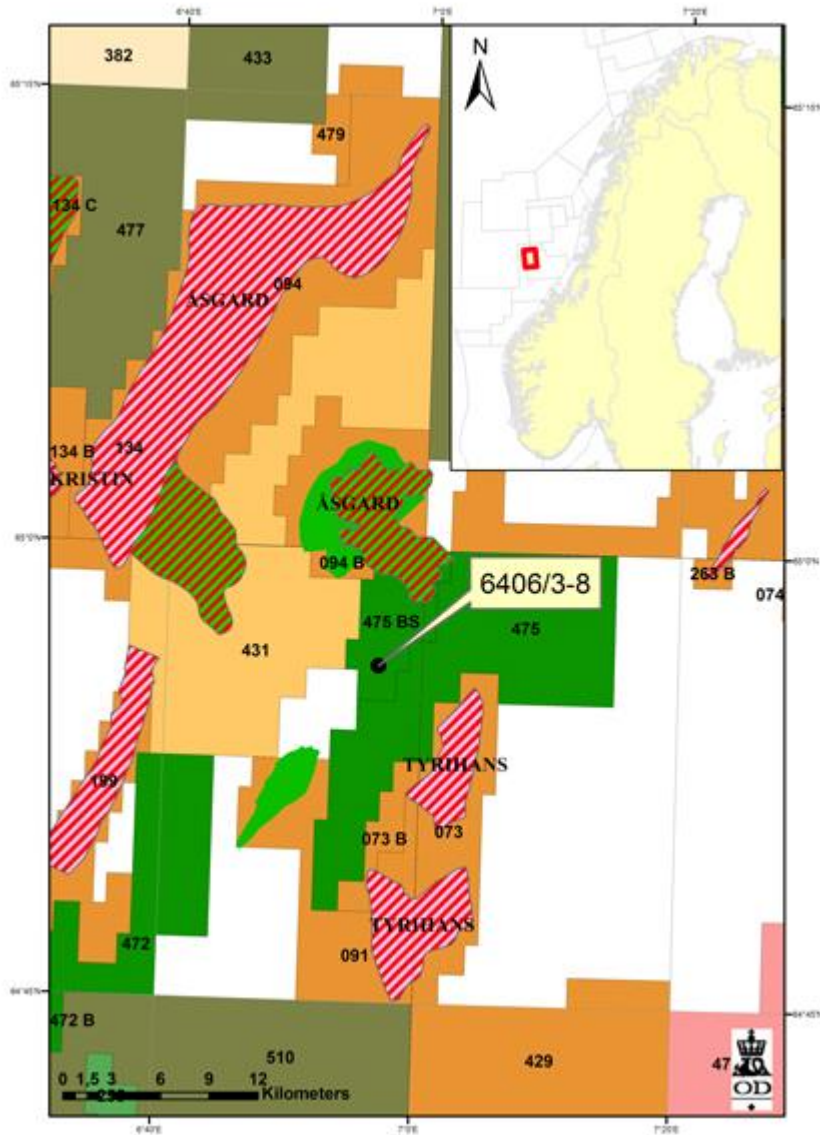
The drilling program for wellbore 6406/3-8 concerns the drilling of a wildcat well in production licence 475 BS. Wintershall Norge is the operator with an ownership interest of 25 per cent. The other licensees are Faroe Petroleum (30 per cent), Centrica Resources (20 per cent), Spring Energy (15 per cent) and Concedo (10 per cent).

The area in this permit consists of part of block 6406/3 and part of block 6407/1. The well will be drilled about 5 kilometres northwest of the Tyrihans field in the Norwegian Sea and 225 kilometres northwest of Namsos.

Production licence 475 BS was awarded on 23 January 2009 in APA 2008. This is the first well drilled in the licence.

The permit is contingent upon the operator having secured all other permits and consents required by other authorities before the drilling starts.

See [Factpages](#) for more information about this wellbore.



## 6406/3-8

22/07/2010 Wintershall Norge ASA, operator of production licence 475BS, has completed the drilling of wildcat well 6406/3-8.

The well was drilled about 20 kilometres southeast of the Åsgard field and 10 kilometres northwest of the Tyrihans field in the Norwegian Sea.

The primary exploration target for the well was to prove petroleum in Middle Jurassic reservoir rocks (the Garn formation). The secondary exploration target

was to prove petroleum in Middle to Lower Jurassic reservoir rocks (the Ile and Tilje formations).

Oil with associated gas was proven in the Garn formation, with better than expected reservoir rocks and reservoir quality. Reservoir rocks were also encountered in the Ile and Tilje formations as expected, but they were water-bearing. Preliminary estimates of the size of the discovery indicate 10-20 million standard cubic metres (Sm<sup>3</sup>) of recoverable oil and 2-5 billion Sm<sup>3</sup> of recoverable gas.

The well was not formation-tested, but extensive data acquisition and sampling have been carried out.

The licensees in production licence 475BS (link to fact pages) will consider producing the discovery together with other nearby discoveries.

The well is the first exploration well in production licence 475BS, which was awarded in APA 2008.

The well was drilled to a vertical depth of 4216 metres below the sea surface, and it was terminated in the Tilje formation in the Lower Jurassic. Water depth at the site is 303 metres. The well will now be permanently plugged and abandoned.

Well 6406/3-8 was drilled by the *Songa Delta* drilling facility, which will now proceed to production licence 341 in the North Sea to drill wildcat well 24/12-6 S where Det norske oljeselskap is the operator.

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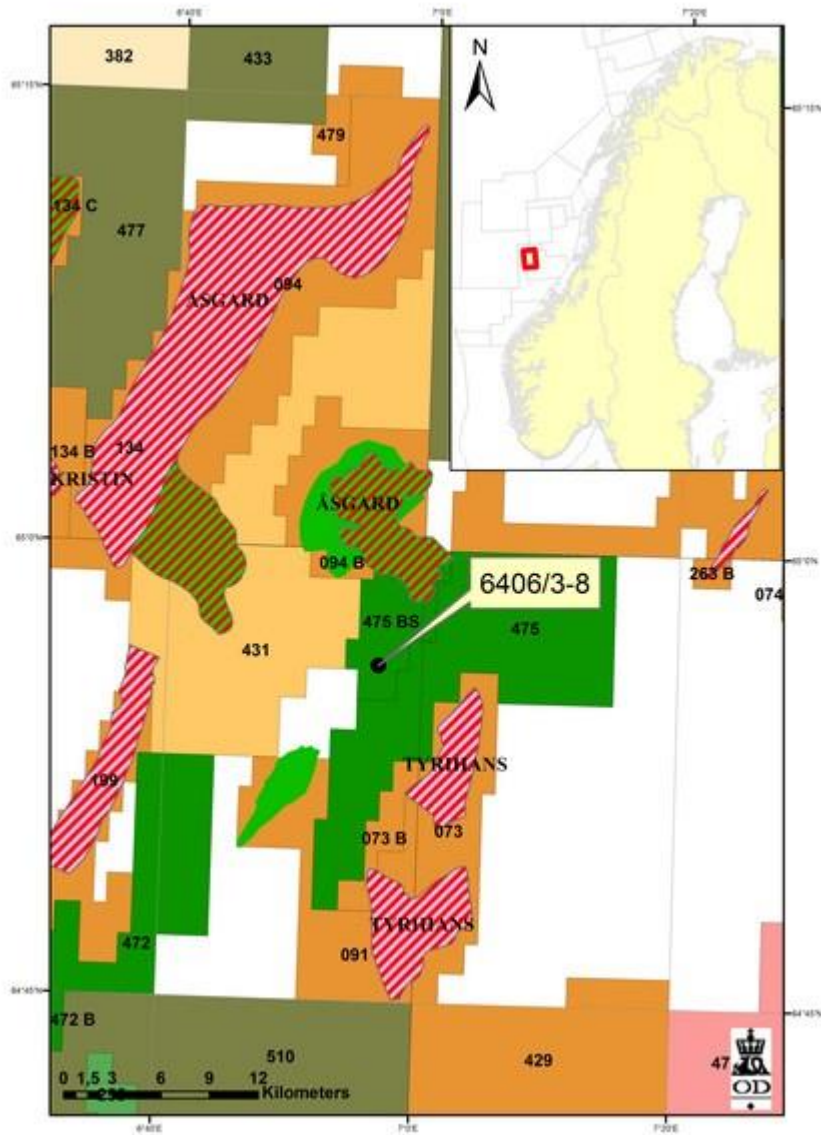
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## Plan for new development - 6406/3-8

06/05/2015 Yesterday, 5 May, the Norwegian Petroleum Directorate (NPD) received a Plan for Development and Operation (PDO) for the Maria oil discovery.



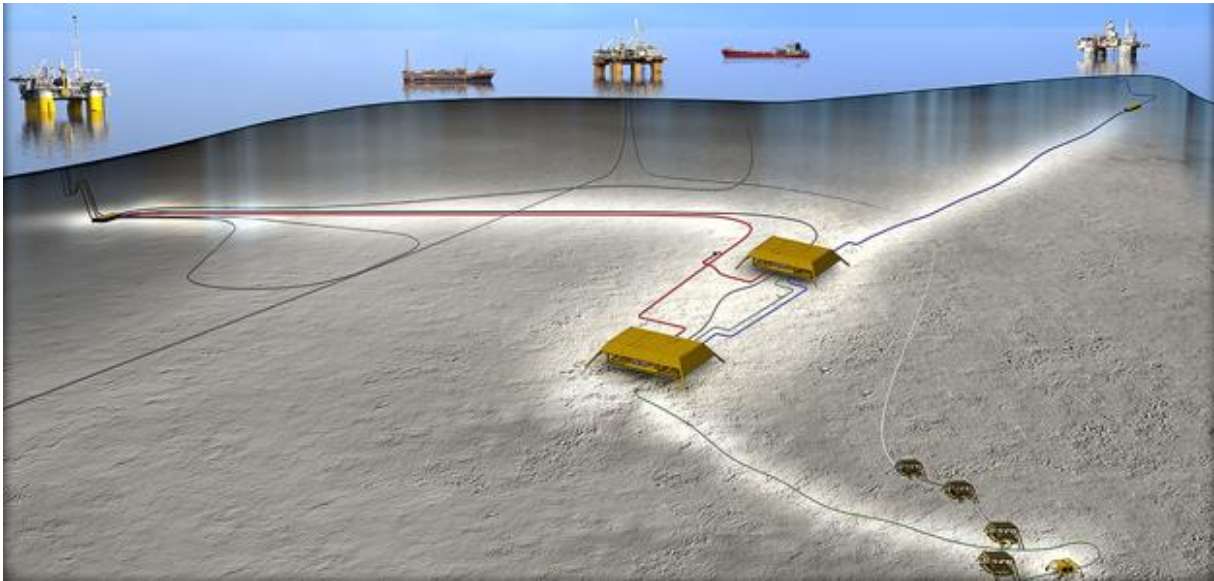
**Kalmar Ildstad, assistant director for development and operations – Norwegian Sea and Alv Bjørn Solheim, assistant managing director and technical director at Wintershall.**

*(Photo: Arne Bjørøen, NPD)*

The Maria discovery, located in blocks 6407/1 and 6406/3 on the Halten Bank in the Norwegian Sea, is Wintershall's first operated development project. The discovery is estimated to contain approximately 28.1 million standard cubic meters of oil equivalent, mostly oil, but also some associated gas and natural gas liquid (NGL).

Maria is located 230 kilometres from shore. The water depth in the area is 300 metres, and the reservoir is located about 3800 metres below the sea surface.

Production licence 475BS was awarded in APA 2008. The discovery was made during drilling of well 6406/3-8 T2 in 2010. The licensees are expecting production to start in the fourth quarter of 2018.



### **Development concept for Maria**

According to the plan, Maria will be developed with a subsea production facility consisting of two subsea templates, both with room for drilling and completion of up to four wells. Two production wells and two water injection wells will be drilled from each template using a semi-submersible drilling facility.

The production facility will be tied back to the existing infrastructure in the area.

“The development solution is special, because as many as four hosts, or other facilities, are involved. Statoil, who is the operator of these facilities, has cooperated closely with Wintershall concerning the development. The Norwegian Petroleum Directorate expects that realisation of the resources in Maria will generate added value for all players involved, and not least for Norwegian society,” says Kalmar Ildstad, Assistant director. Development and operation – Norwegian Sea.

The well stream from Maria will be sent to the Kristin platform for processing and metering. The stabilised oil will then be sent to the Åsgard A production and storage ship for storage and offloading to shuttle tankers. According to the plan, the rich gas will be exported via the Åsgard Transport pipeline system to Kårstø in Rogaland County.

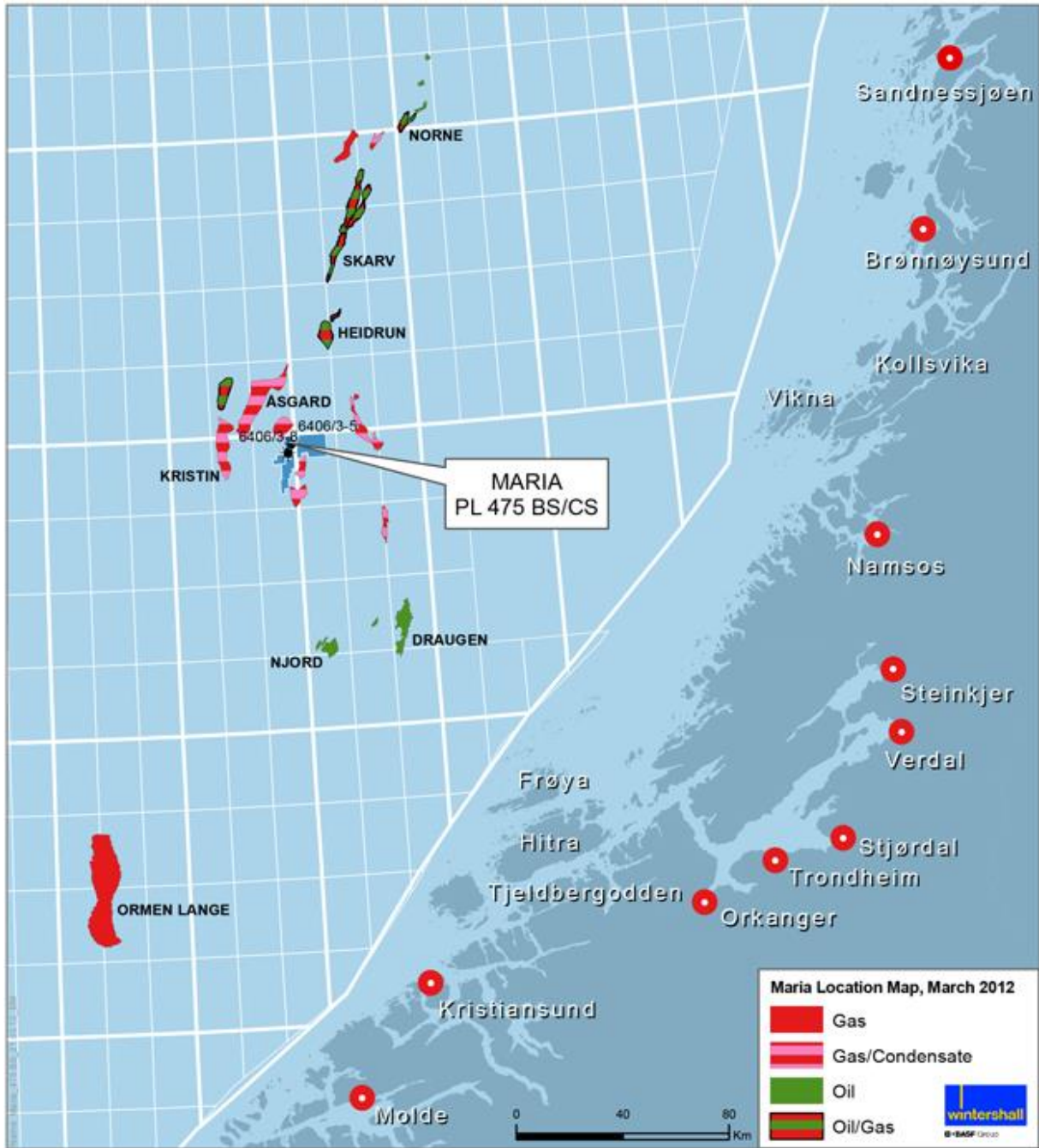
Gas for well gas lift will be supplied from the Åsgard B platform via existing gas pipes to the Tyrihans subsea template on the Tyrihans field. Here, the lift gas pipeline for Maria will be connected. Water for pressure support will be supplied from the Heidrun platform.

The NPD encourages shelf companies to focus on sound area solutions and efficient use of the existing infrastructure:

“This development requires extensive collaboration across the exploration licence. If we are to ensure maximum benefit for society from oil and gas production on the Norwegian shelf in the time ahead, both the developer and the host need to show willingness to be able to succeed with this type of solution,” says Ildstad.

Wintershall Norge AS is the operator with an ownership interest of 50 percent. The other licensees are Petoro AS with 30 percent and Centrica Resources (Norge) AS with 20 percent.





Geographical location of the Maria field