CONFIDENTIAL

PL 787
Relinquishment Report

DM#90263 / 2017-05-30

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1 Key license history

The PL 787 license is located in the northern North Sea, on the transition between the Uer Terrace and the Gjøa High on the Måløy Slope in Block 35/9. The license outline and nearby fields and discoveries are shown in Fig. 1.1. Prospects mapped in the PL 787 license are described in Chapter 4 Prospect update.

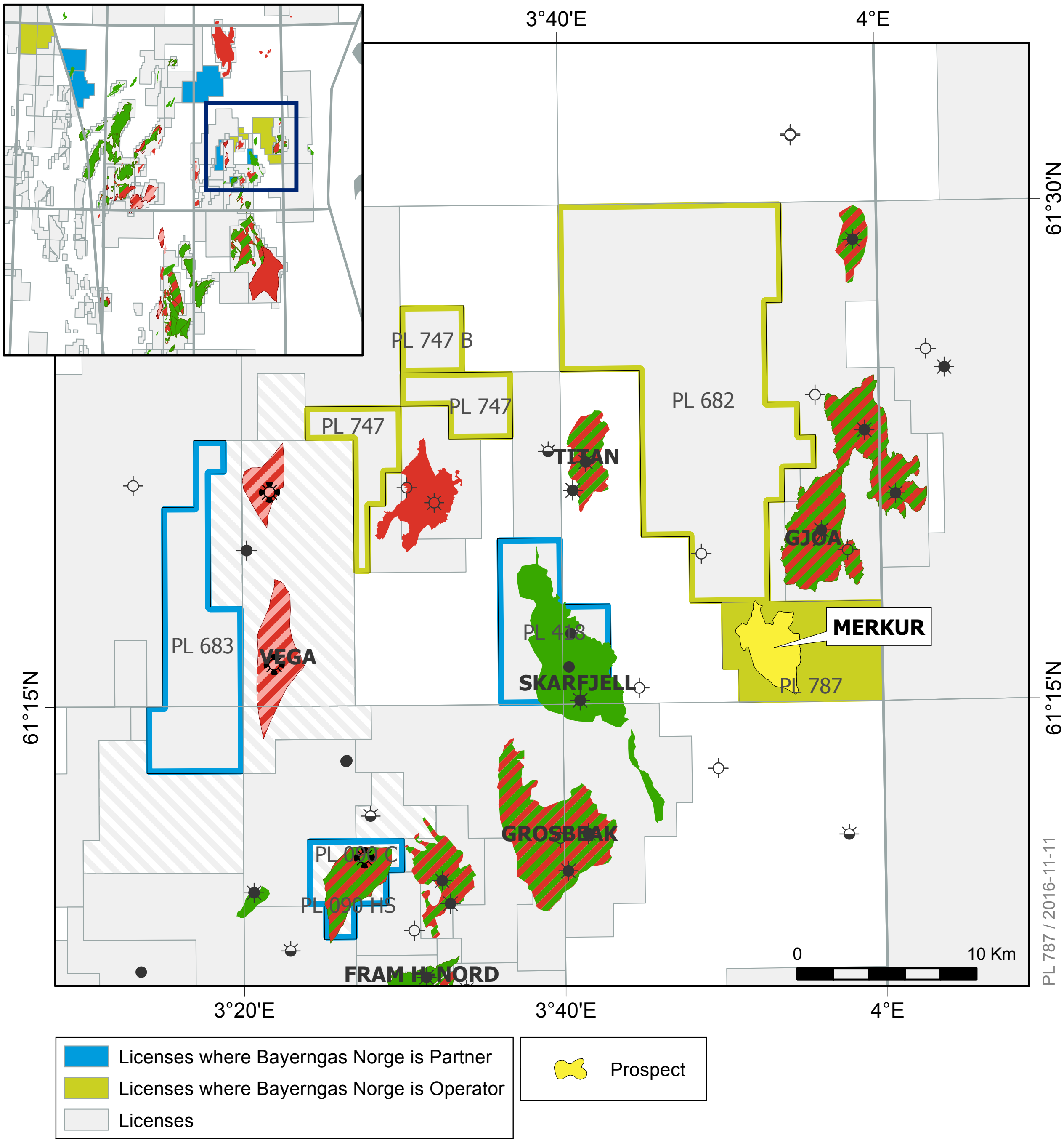

Fig. 1.1 PL 787, License map

Summary of award and participants
Date granted: 06.02.2015

Owner of PL 787:

- Bayerngas Norge AS, 40% (operator)
- Capricorn Norge AS, 30% (partner)
- Wintershall Norge AS, 30% (partner)

Voting rules: minimum 2 parties and 50% equity

Initial work obligations
PL 787 license was awarded 06.02.2015 (APA 2014). The work obligations were to perform geology and geophysics studies in order to reach an agreement for a drill or drop decision of the license.

License meetings
Combined MC/EC meetings:

- EC/MC meeting No.1, 2015/04/22
- EC/MC meeting No.2, 2015/11/05
- EC/MC meeting No.3, 2016/11/15

Reason for relinquishment
The work obligations have been fulfilled. We have not identified a commercially attractive prospect and have therefore made a decision to relinquish the license acreage. The Merkur prospect from the APA 2014 application could not be matured to a drilling candidate, and there is no additional prospectivity identified within the license acreage.

2 Database

2.1 Seismic data

During APA 2014 the interpretation was mainly performed on the fast track of the BGN14M01 and checked on the finalized version which was delivered in July 2014. However, this survey did not cover the whole application area and therefore the PGS MegaSurvey was used in areas outside the BGN14M01 coverage.

The new Broadseis 3D data, MCNV Horda survey, has been used in the prospect evaluation of PL 787. The license database is shown in Table 2.1 and Fig. 2.1.

Table 2.1 PL 787, Seismic database

3D seismic	Category	NPDID
BGN14M01	Licence owned, PL 682	Merged
RD1201		7581
NH9405		3676
BPN9301		3635
ST0703		4484
MCNV Horda, CGG14003	Multiclient	7984
PGS MegaSurvey	Multiclient	Merged

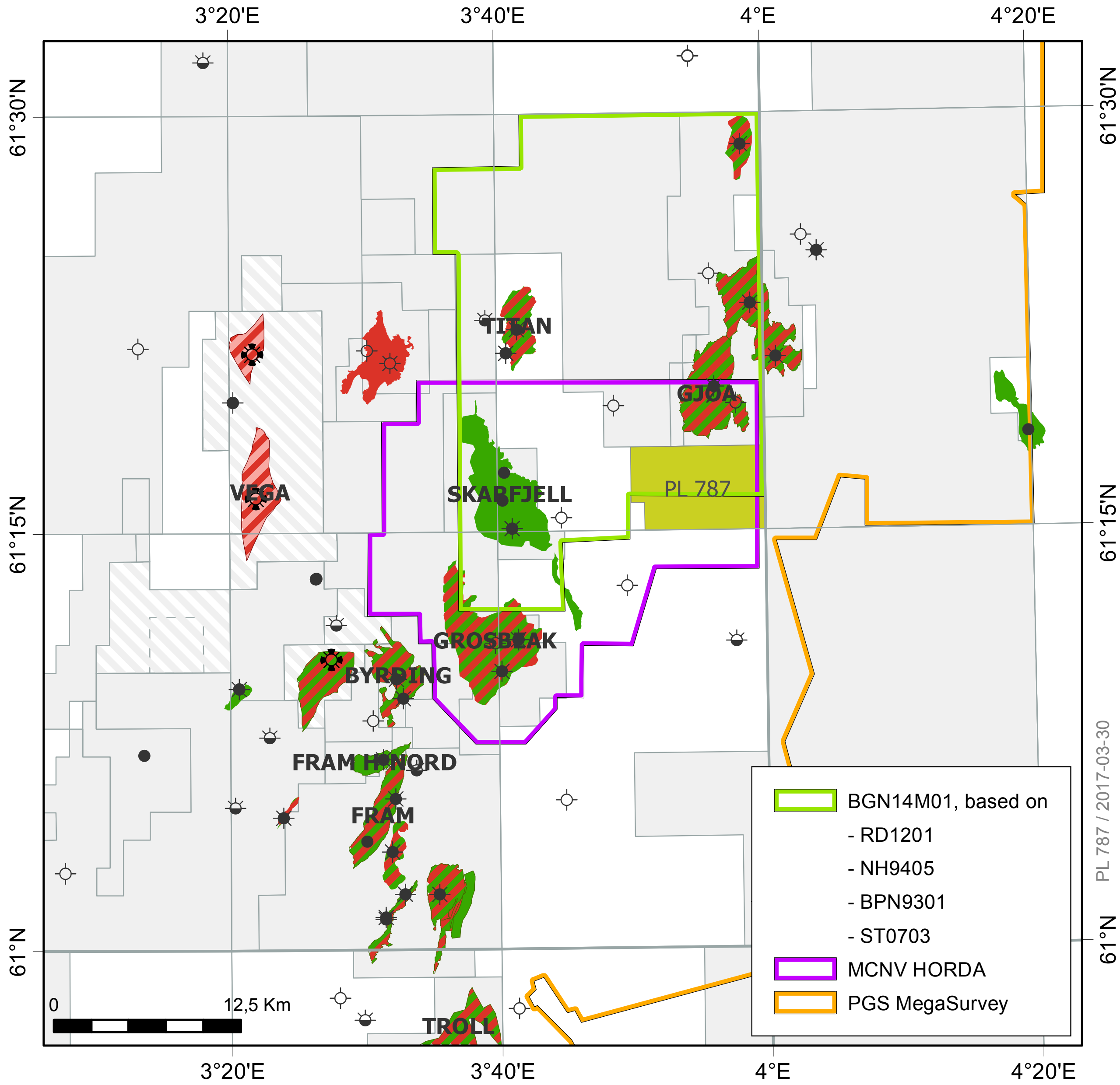

Fig. 2.1 PL 787, Seismic database

2.2 Well data

The license well database is shown in Table 2.2 and Fig. 2.2.

Table 2.2 PL 787, Well database

Wellbore	Name	Status	NPDID
35/9-2	Gjøa	Common well database	1600
35/9-5	Brand	Common well database	6293
35/9-7	Skarfjell	Common well database	6776
35/9-8	Skarfjell	Common well database	7120
35/9-9	Gjøa P8	Common well database	7257
35/9-10 A	Skarfjell	Common well database	7321
35/9-10 S	Skarfjell	Common well database	7259
35/9-12 S	Atlas	Common well database	7552
35/12-2	Grosbeak	Common well database	6095
35/12-5 S	Crossbill	Common well database	7683
35/9-1	Gjøa	Relevant wells	1375
35/9-6 S	Titan	Relevant wells	6429
35/11-11	H-East appraisal	Relevant wells	3356
35/12-1	A-prospect	Relevant wells	1881
35/12-4 A	Grosbeak	Relevant wells	6617
35/12-4 S	Grosbeak	Relevant wells	6589
36/7-1	Gjøa	Relevant wells	1794

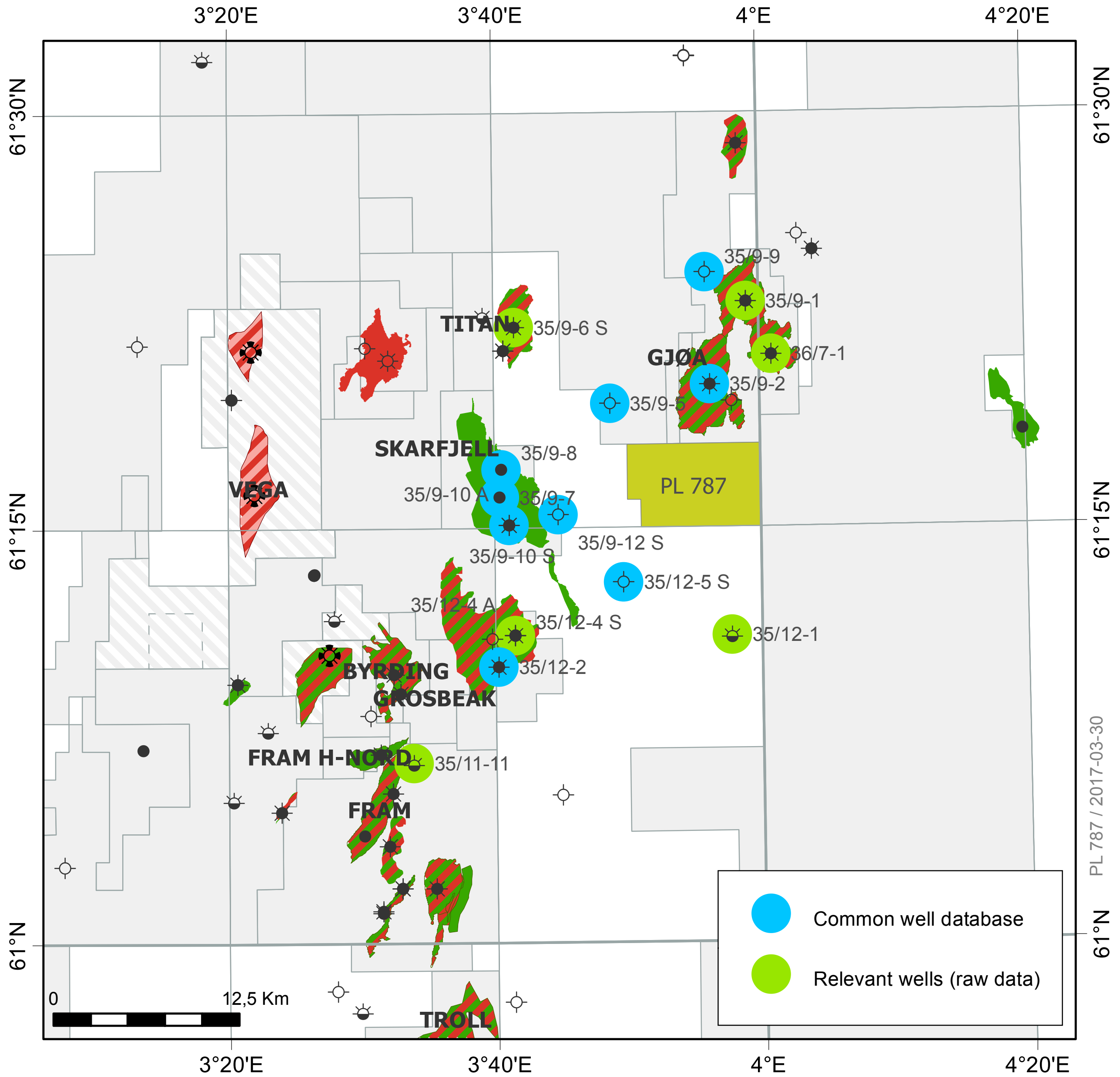

Fig. 2.2 PL 787, Well database

2.3 Special studies

Special studies have been carried out in-house to address the geological and geophysical understanding of the license prospectivity. These studies include:

- Spectral enhancement
- 2D-backstripping
- Data preconditioning for AVO
- AVO inversion

Spectral enhancement

The Merkur prospect was poorly defined on the available data for the APA 2014 evaluation. The MCNV Horda survey improved the seismic imaging. For the prospect mapping the Operator generated a spectral enhancement cube of the MCNV Horda final full-volume in Geoteric, with focus on the reservoir interval. The vertical resolution increased by boosting the high frequency content of the spectral enhancement dataset. In the spectral enhanced dataset, there is an indication of onlapping reflectors above the Oxfordian unconformity. The imaging of the Merkur prospect, characterized by an unconformity separating parallel reflectors below from onlapping reflectors above, was improved on the spectral enhanced cube.

2D-Backstripping

The 2D backstripping and decompaction study was a kinematic restoration of faulting using simple shear and block restoration algorithms (BMT software from Tectonor). The main objective of the study was to restore cross sections to improve the understanding of the deformation sequence in relation to the observed erosional events. The aim was to quantify the amount of erosion, and to infer erosion and depositional trends from south to north. 3 semi-regional seismic lines were used for this study (see Fig. 2.3). Each stratigraphic interval (see below) was stripped from the sequence and underlying intervals were decompacted and restored along faults. For each erosional horizon, the amount of erosion was estimated on the basis of layer geometry, well information and geological plausibility.

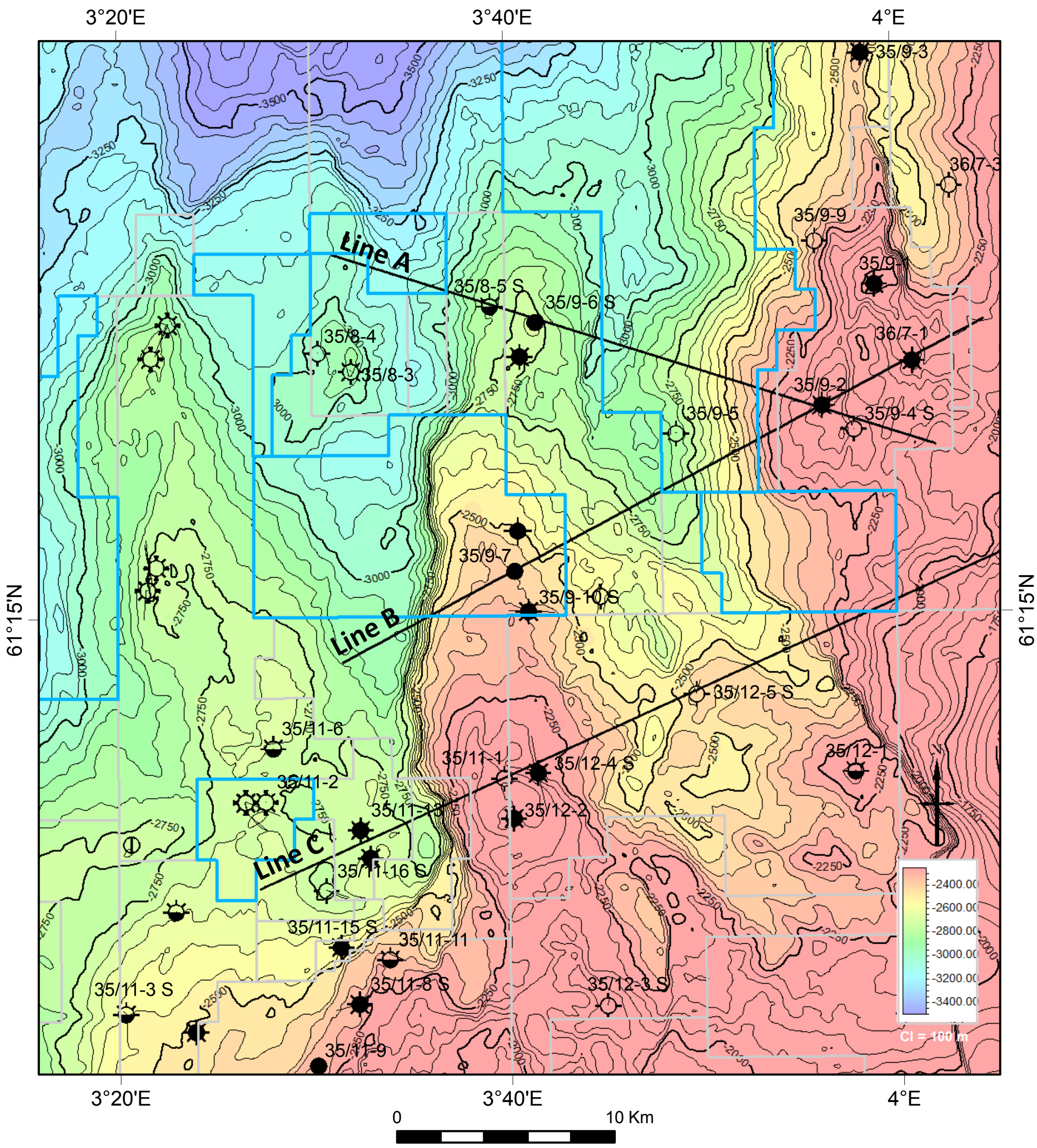

Fig. 2.3 Seismic lines for 2D backstripping

Seismic lines for 2D backstripping:

- Line A: 35/9-6 Titan to 35/9-2 Gjøa
- Line B: 35/9-7 Skarfjell to 35/9-2 Gjøa
- Line C: 35/11-1 to 35/12-5 S Crossbill

Mapped stratigraphical levels:

- Seabed
- Top Hordaland Gp.
- Base Quarternary
- Top Rogaland Gp.
- Top Shetland Gp.
- Top Åsgard Fm.
- Top Cromer Knoll Gp.
- Base Createaceous unconformity
- Tithonian unconformity
- Oxfordian unconformity
- Top Fensfjord Fm.
- Base Fensjford Fm.
- Top Brent Gp.
- Basement

The decompacted and backstripped model makes it possible to estimate and re-construct the pre-erosion geometry within a reasonable range of uncertainty. The restored erosions were found plausible and geologically likely. The decompacted and backstripped model is based on the seismic interpretation of the PGS MegaSurvey. Given the seismic interpretation, the Oxfordian erosion had a strong influence on the paleo geometry of the area on a regional scale. The Tithonian erosion appears to have affected the topography with less of a wide scale erosion but with local, narrow incisions.

The direct predictive value of the restoration on the prospectivity of the area is difficult to estimate. The 2D backstripping study improved the understanding of the area.

Data preconditioning for AVO

Final migrated gathers from MCNV Horda (CGG14003) have been used for the AVO work. The gathers have been preconditioned in PS Pro in order to get the most optimal dataset for the pre-stack inversion. The processing sequence included resampling to 4 ms, inverse Q filtering (amplitudes only), additional noise and multiple attenuation in Radon domain and trim statics. Finally, the offset gathers have been converted to the angle gathers using smoothed migration velocity.

AVO inversion

A rock physics study was performed on the Skarfjell wells (35/9-7 and 35/9-8) prior to the elastic inversion in order to define the best attributes for lithology and fluid separation. It was concluded that the Poisson's impedance (a combination of the acoustic and shear impedances) is the best indicator both for the lithology (sand/shale separation) and for HC presence. Subsequently, the elastic attribute volumes were generated using the preconditioned angle gathers, the initial model as a combination of seismic velocities and kriged well data, and the wavelets over Merkur prospect.

The Skarfjell discovery, forming the reference for the analysis of the inversion results, stood out clearly on the Poisson's impedance, but there was no indication of sand for the Merkur prospect, see Fig. 2.4. Thus, AVO inversion indicates shales within the Oxfordian interval of the Merkur prospect.

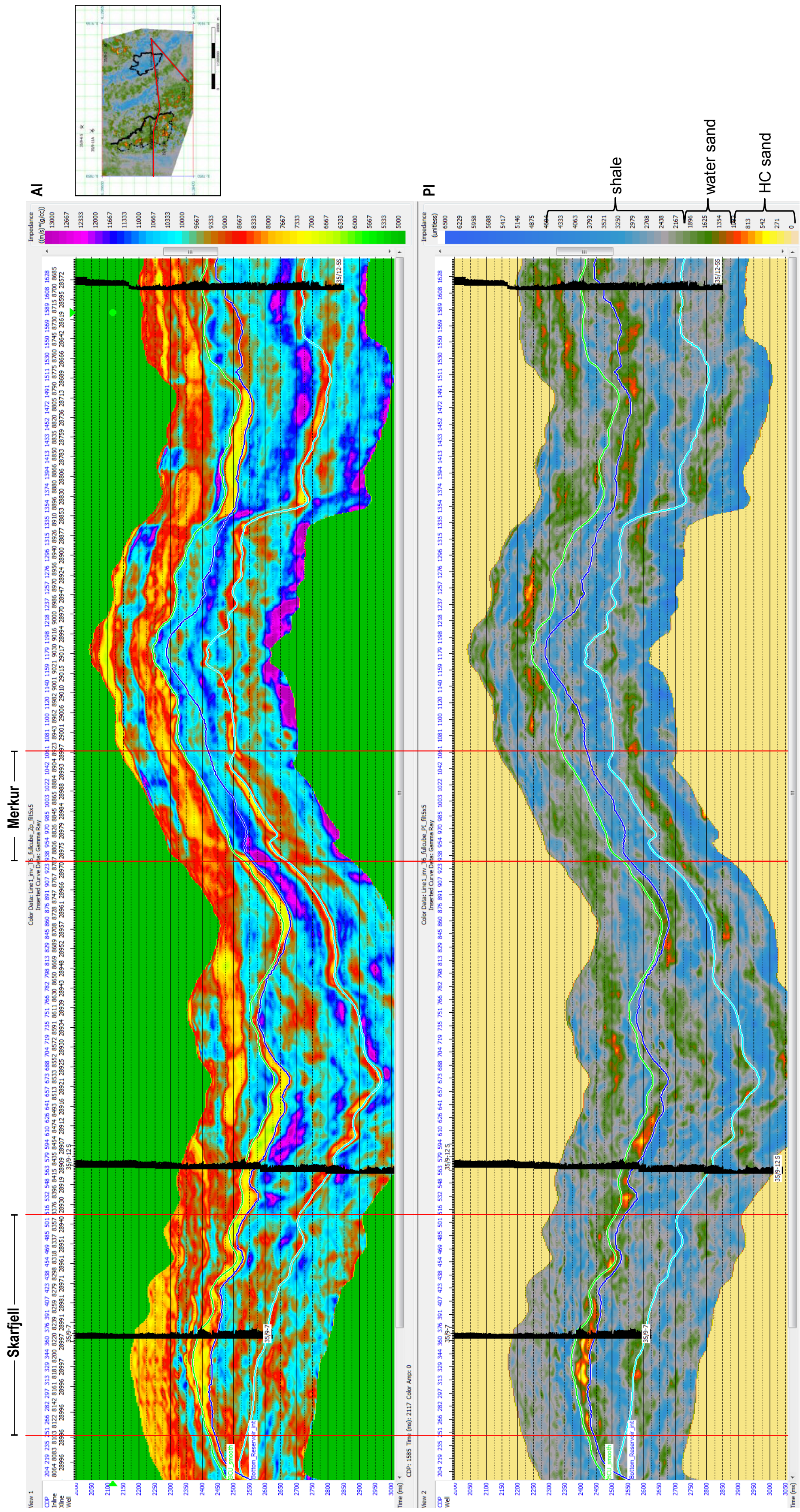

Fig. 2.4 Acoustic Impedance & Poisson's Impedance, arbitrary line

3 Review of geological framework

The geological model for the Merkur prospect, the main target in PL 787, was presented in the application for APA 2014. The play model was a sand- and gravel-filled valley created by an incision of Oxfordian age. A good analogue is seen in the nearby Skarfjell discovery with the wells 35/9-7 and 8 which possess a lower sand-rich and an upper conglomerate-rich Oxfordian unit above an unconformity Fig. 3.1.

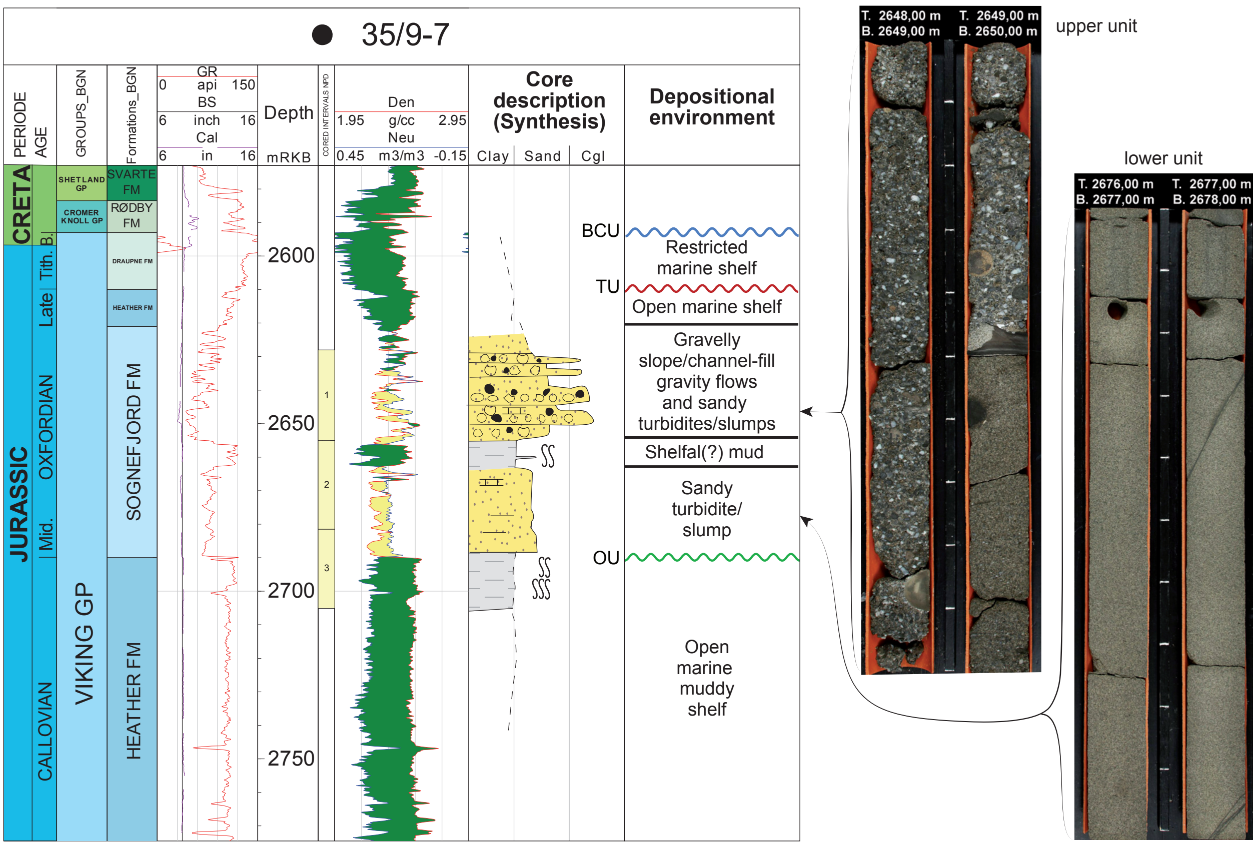

Fig. 3.1 Analogue example for Oxfordian "Skarfjell play" - well 35/9-7
A lower sand unit with structureless and stratified sandstone, and an upper, heterolithic, channel-fill of conglomerate sandstone mixture. OU = Oxfordian unconformity. TU = Tithonian unconformity. BCU = Base Cretaceous unconformity.

The Upper Jurassic was dominated by a muddy, shelfal depositional environment (mudstones of the Heather Fm.) with repeated shoreface units prograding into a marginal marine sea from the east towards the west. Tectonic influence on deposition became more significant during the Oxfordian; loose sand slumped and slid out from the unstable shoreface of the Sognefjord Formation delta sands and, as in the Skarfjell discovery, significant incision and re-deposition took place. Similar incisions are mapped between the Gjøa Field wells 35/9-1 and 35/9-2. During the following stage(s) of the Kimmeridgian and earliest Tithonian, erosion caused by tectonic uplift removed a significant volume of sediment resulting in the development of the Tithonian unconformity. However, remnants of the re-sedimented sand and conglomerate were locally preserved and capped by marine clay during a Tithonian transgression that finally drowned the area. Hence, the cap rock was interpreted to be a thin section of Heather Formation shale in addition to a thin section of Draupne Formation shale.

The Crossbill well 35/12-5 S (2015), drilled on the Uer Terrace only 7-8 km SW of the Merkur prospect, provided new, geological understanding of the surroundings of PL 787. Crossbill had the Upper Jurassic Sognefjord and Fensfjord formation sandstones (both sensu stricto and Oxfordian turbidites) as primary targets, with

Kimmeridgian age turbidites as a secondary target. The well encountered a 10 m thick Kimmeridgian sandstone at the top of a thick Heather Formation mudstone package. The Sognefjord Formation was mainly shaled out being represented by a 12 m thick interval with Oxfordian silt- and sandstones of which only the lowermost 3 m appeared to show good sandstone development. According to biostratigraphic data, an Oxfordian (and/or Kimmeridgian) unconformity was located immediately above the thin Oxfordian sandstones. No sandstones were encountered above the unconformity. However, the exact position of the unconformity is difficult to verify (whether it is at the base of the sandstone, or just above the sandstones, ref. biostratigraphy).

The Crossbill well proved to contain a thick (130 m) Middle and Late Kimmeridgian mudstone interval and well 35/12-1, 8 km south of PL 787, displayed the same pattern. Here, a thick (200 m) Late Kimmeridgian, and Tithonian, mudstone package above a classic Sognefjord Formation is present. Hence, the Kimmeridgian uplift seen further north is, in this area, represented by a Kimmeridgian (and Tithonian), mud prone, offshore marine depocentre.

The stratigraphic interval represented by the Bathonian Krossfjord Formation will be of a distal shoreface setting at the Merkur location, and hence a rather shaly development.

Given the interpretation of the 35/12-5 S and 35/12-1, the Operator has evaluated the possibility of finding sandstones above the mapped, Oxfordian, unconformity as low. Cross-section sketches showing the prior and post-Crossbill conceptual models are shown in Fig. 3.2 and Fig. 3.3, respectively.

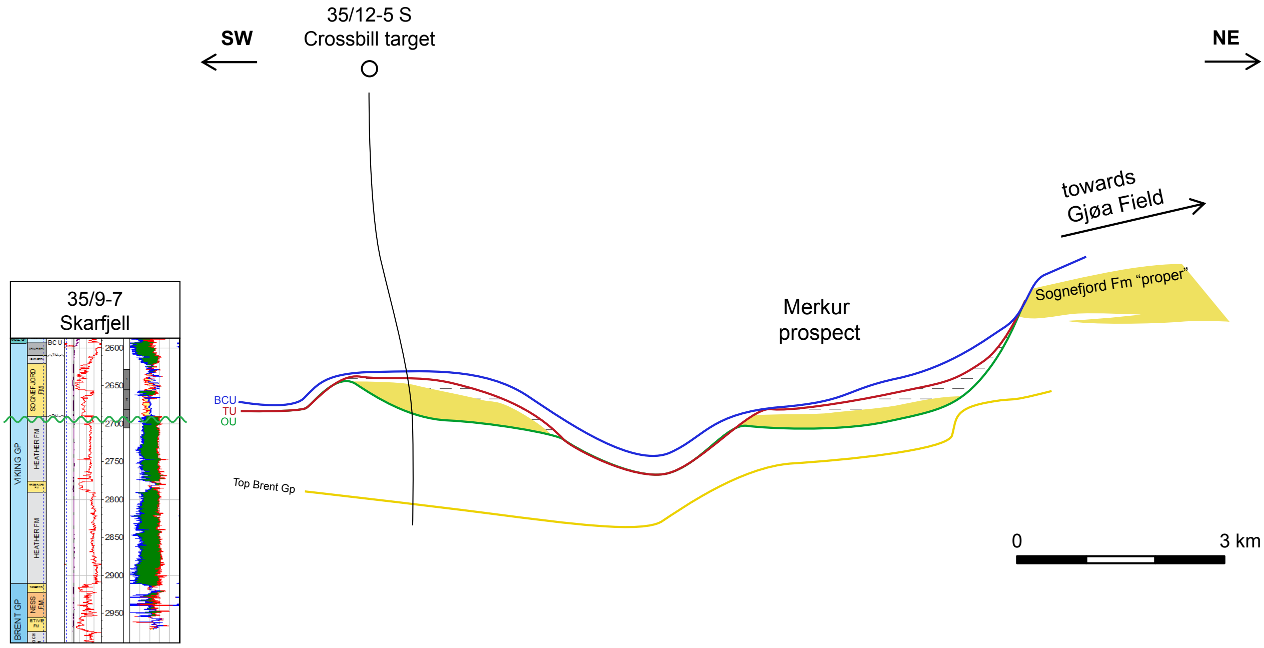

Fig. 3.2 Original geological model for the Merkur prospect
Sketch model before drilling of Crossbill well 35/12-5 S. Skarfjell well 35/9-7 as type well example with an Oxfordian unconformity in green at base of sandstone interval.

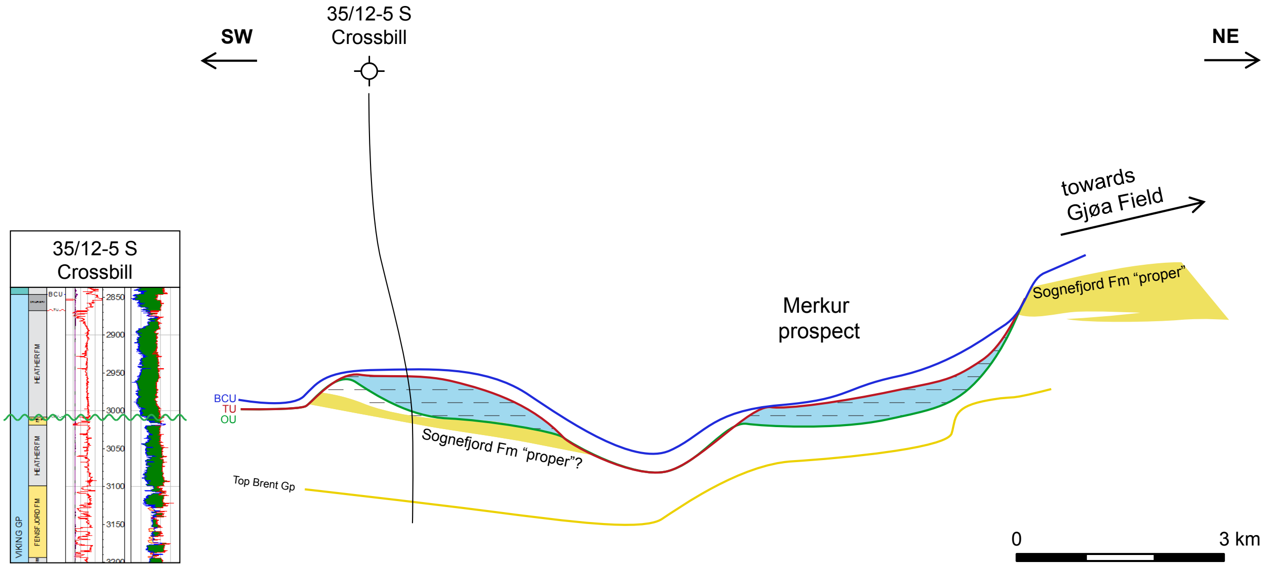

Fig. 3.3 Updated geological model
Sketch model after drilling of the Crossbill well. Crossbill 35/12-5 S as type well example.

4 Prospect update

Fig. 4.1 shows the top reservoir of the Merkur prospect, in time and depth, as defined during the APA 2014 work. The Merkur prospect is defined as a 4-way stratigraphic truncation trap. The main focus for the first phase of the licence was to improve the seismic imaging of the Upper Jurassic section. During license work the prospect has been verified on the Horda final full-volume. This mapping gives a similar prospect outline as in APA 2014. The prospect is mapped as a stratigraphic truncation trap with a structural dip towards west. The interpreted depth to top reservoir is 2780 m. The prospect is overlain by lower Cretaceous shales of the Åsgard formation, similar to the 35/9-5 and -6 S wells. A thin Draupne Formation shale is also expected to drape the prospect.

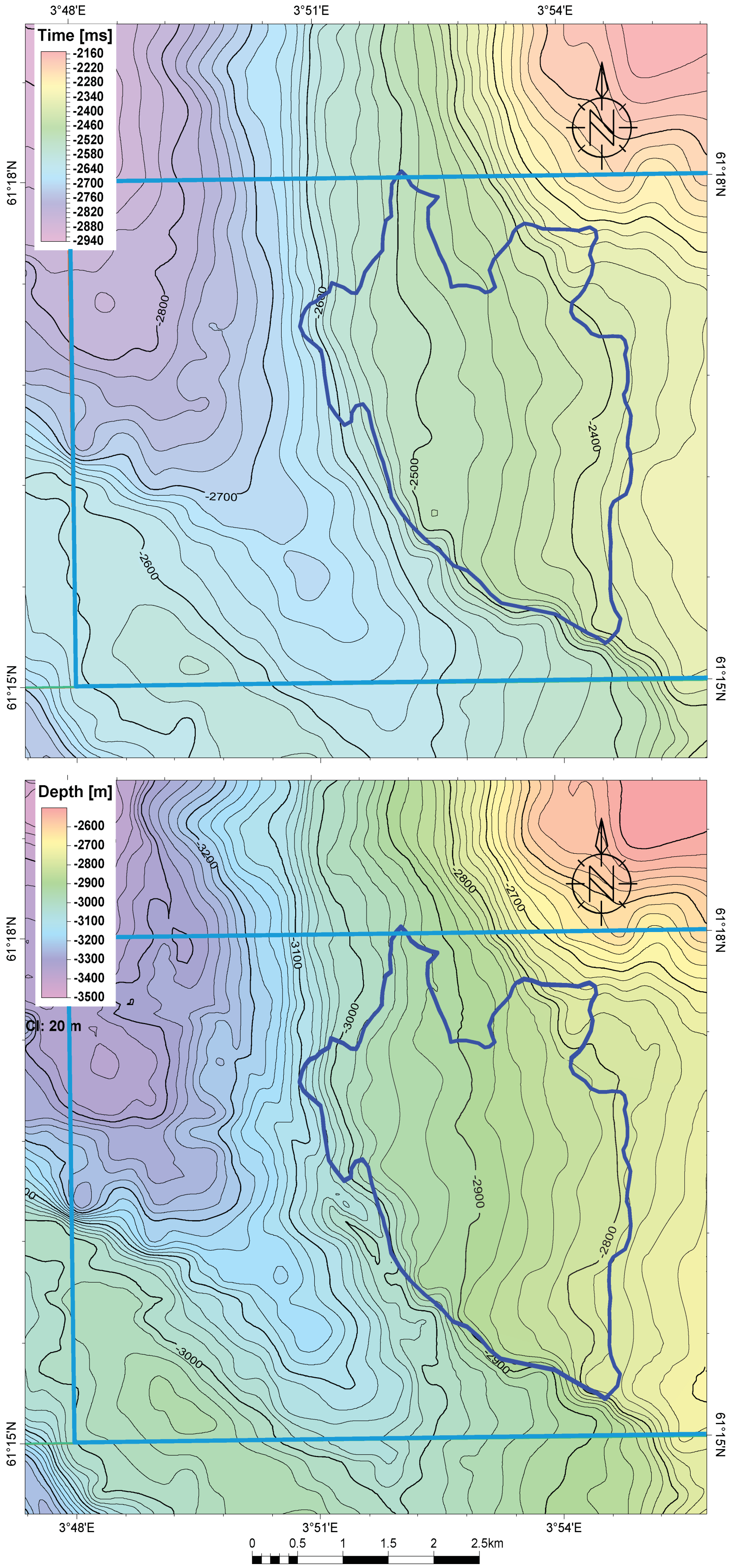

Fig. 4.1 APA 2014, top reservoir in time (upper) and depth (lower)

The reservoir is interpreted to be truncated up-dip towards the Gjøa High with a risk for up dip leakage. The base of the prospect is defined by the Oxfordian unconformity, which has eroded down into various parts of the Heather Formation including potential sandstones of the Viking Group. The potential presence of thief sands represents a risk for leakage through the base of the reservoir. The Heather Formation is an efficient base seal in the Skarfjell discovery, but in the Merkur prospect, the Oxfordian unconformity erodes deeper than in the Skarfjell area and locally into the Krossfjord Formation. In the nearest well (35/9-5) the Krossfjord Formation is poorly developed with no net sands. In the nearest updip well 35/9-2, the Krossfjord Formation is well developed as a good reservoir sandstone.

The seismic response of the BCU over the prospect area is weaker than that seen over the Skarfjell discovery. This could be caused by thickness variations in the layers directly above or below the BCU in addition to factors such as variation in lithology. In order to investigate the effect of thickness variations, wedge modelling was performed on two different scenarios. The thickness of the Draupne Formation shales has a significant effect on the reflectivity for the BCU, and this is therefore the first scenario that was tested. Secondly, well 35/9-5 penetrates lower Cretaceous layers that differ from those overlying the prospect and therefore the second modelling scenario tested the effect of varying the thickness of the lower interval of the Åsgard Formation.

As described in the Special studies section, Chapter 2 Database, an elastic inversion study has been generated for the Horda survey using the Skarfjell discovery as a reference for the analysis of the results. There is no indication of sands present within the Merkur prospect. The recent Crossbill well 35/12-5S contained insignificant sandstones but a thick shale prone Kimmeridgian unit above 12m Oxfordian sandstones only. These data indicate a high risk on reservoir presence at the Merkur prospect.

The basin modelling shows that the generated, expelled and migrated volumes are not favourable in the drainage area. The Merkur prospect has small drainage areas located in the zone of early oil generation. Different migration scenarios tested for the Merkur prospect, showed the Merkur area to be in a migration shadow. The charge of commercial volumes into Merkur is not likely.

Reference to APA 2014, the recoverable volumes of the Merkur prospect was calculated to be 10.3 MSm^3 (total o.e.) and the risk evaluation gave a POS of 17%. The new evaluation suggests the container is a non-reservoir, in an area without charge, and therefore a new resource estimation have not been updated during the license work.

Additional prospectivity

The Operator has evaluated prospectivity at all stratigraphic levels with focus on the underlying Brent Group, the Cook Formation, and the Statfjord Group.

The Brent Group is present in the area, however, there is no Tarbert Formation in the nearest well 35/9-2 at the Gjøa Field. Hence, the potential reservoir intervals are restricted to fluvial channels in the Ness Formation, as well as the Etive formations (only 6m in 35/9-2).

In well 35/9-2, Bayerngas has re-interpreted the NPD's "undifferentiated" Early Jurassic interval to represent the Dunlin Group, including a 26 m thick Cook Formation (2694-2720 mMD) with reasonably good reservoir properties. The depositional facies seem to be a tidally influenced upper shoreface environment. The interpretation of a Cook Formation is based upon available core and supported by Late Pliensbachian and Early Toarcian ages. A sandstone prone Statfjord Group interval (Sinemurian and Early Pliensbachian ages), possibly including a Johansen Formation (the uppermost part) is also present in 35/9-2.

All these stratigraphic levels probably contain sandstones of relatively good reservoir properties within the licence area. However, these units are located stratigraphically deeper than the main source rock, Draupne Formation, and hence on a troublesome migration path for hydrocarbon filling. The basin modelling shows that the generated, expelled and migrated volumes are not favourable for these stratigraphic levels. Using a Dunlin Group source rock (Drake Formation), generated and expelled hydrocarbon volume is of 3.3 Mm^3 oil and and 3.5 Gm^3 gas within the drainage area. These units, like the Upper Jurassic Fensfjord and/or Krossfjord formation shoreface sandstones, depend upon sealing by a fault towards the Gjøa Field. Hence, there is high risk on trap, charge and migration.

The Operator has also mapped the Cretaceous Agat Formation sandstones. Although well 35/9-5 possess a 21.5 m thick Agat Formation, the mapping shows that these sandstones do not extend into the PL 787 license acreage. Younger units, like the Sotra Member sandstones of the Lista Formation are present, and with good sandstone development, but this interval continues updip without any sealing.

There were no other prospects of attractive volumes identified in the license.

5 Technical evaluations

A technical-economical evaluation of the Merkur prospect was performed during APA 2014 work. In the evaluation 3 production wells and 3 injectors were included and the well stream from Merkur was tied in to the Gjøa platform for processing. The tie-ins were foreseen with minor new facilities/modifications related to existing systems. The expected project execution time was projected to be 24 months, and actual start of project realisation was planned to start in year 2026 (based on the available processing capacity at the Gjøa platform). Based on the conclusions from the license work, no new technical evaluation of the Merkur prospect was performed.

6 Conclusions

Phase 1 of the work program, leading up to a Drill or Drop (DoD) decision, comprised geological and geophysical studies. Deadline for DoD is February 6th, 2017. The partners have decided to relinquish the license. The main reasons for the relinquishment are related to the uncertain presence of reservoir sandstones. Further to this the basin modelling indicates that the generated, expelled and migrated volumes are not favourable. The Merkur prospect relies on a stratigraphic trap truncating up-dip towards Gjøa. The stratigraphic trap and reservoir uncertainty, together with HC charge and migration uncertainties, cause a high risk to commercial hydrocarbon volumes within the Merkur prospect.