Relinquishment Report PL542 / PL542B

Augunshaug

May 2014

DETNORSKE

Relinquishment report PL542/PL542B

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1 INTRODUCTION

1.1 License owners

The owners of the PL542 and PL542B are:

Talisman Energy Norge AS (15%)
Tullow Oil Norge AS (40%)
Det norske oljeselskap ASA (45%), Operator

The voting rules for PL542 are: 2 companies and minimum 50%.

1.2 Award and work programme

The PL542 was awarded the 19th of February 2010 as an APA 2009 license. The license was valid to the 19th of February 2014.

The work program for PL542 and PL542B was:

- Acquire/purchase 3D seismic for the entire license area and perform geological and geophysical studies
- Drill or Drop decision within 2 years (Extended to 19th of August 2012)
- Drill well and Decision of Continuation (BOV) within 4 years
- PDO decision within 5 years

The work programme for the license has been fulfilled. 3D seismic data sets have been purchased, reprocessed and evaluated.

The PL542 sent an application of extension of the Drill or Drop Decision to the Ministry of Petroleum and Energy, dated the 26th of September 2011. Ministry of Petroleum and Energy approved the application and the new Drill or Drop term was set to be the 19th of August 2012.

The partnership made a positive Drill Decision of the Augunshaug Prospect, ant the Ministry of Petroleum and Energy was notified on 04th of July 2012.

To ensure the maximum hydrocarbon contact of the Augunshaug Prospect was licensed, the PL542 applied for additional acreage. The application document was based on the technical work done for the Drill or Drop decision in PL542.

The PL542B was awarded 8th of February 2013 as an APA 2012 license with the same ownership as in PL542. The license period and work commitment for the PL542B were the same as for PL542.

The Augunshaug Prospect (Fig. 1.1) was drilled in Q3 2013 by Mærsk Giant. The 2/1-15 well was plugged and abandoned as a dry well 7th of September 2013. Based on the evaluation of the results of the Augunshaug Well and a renewed evaluation of the remaining prospectivity within the license, the PL542 and PL542 B partnership have decided to relinquish the area.

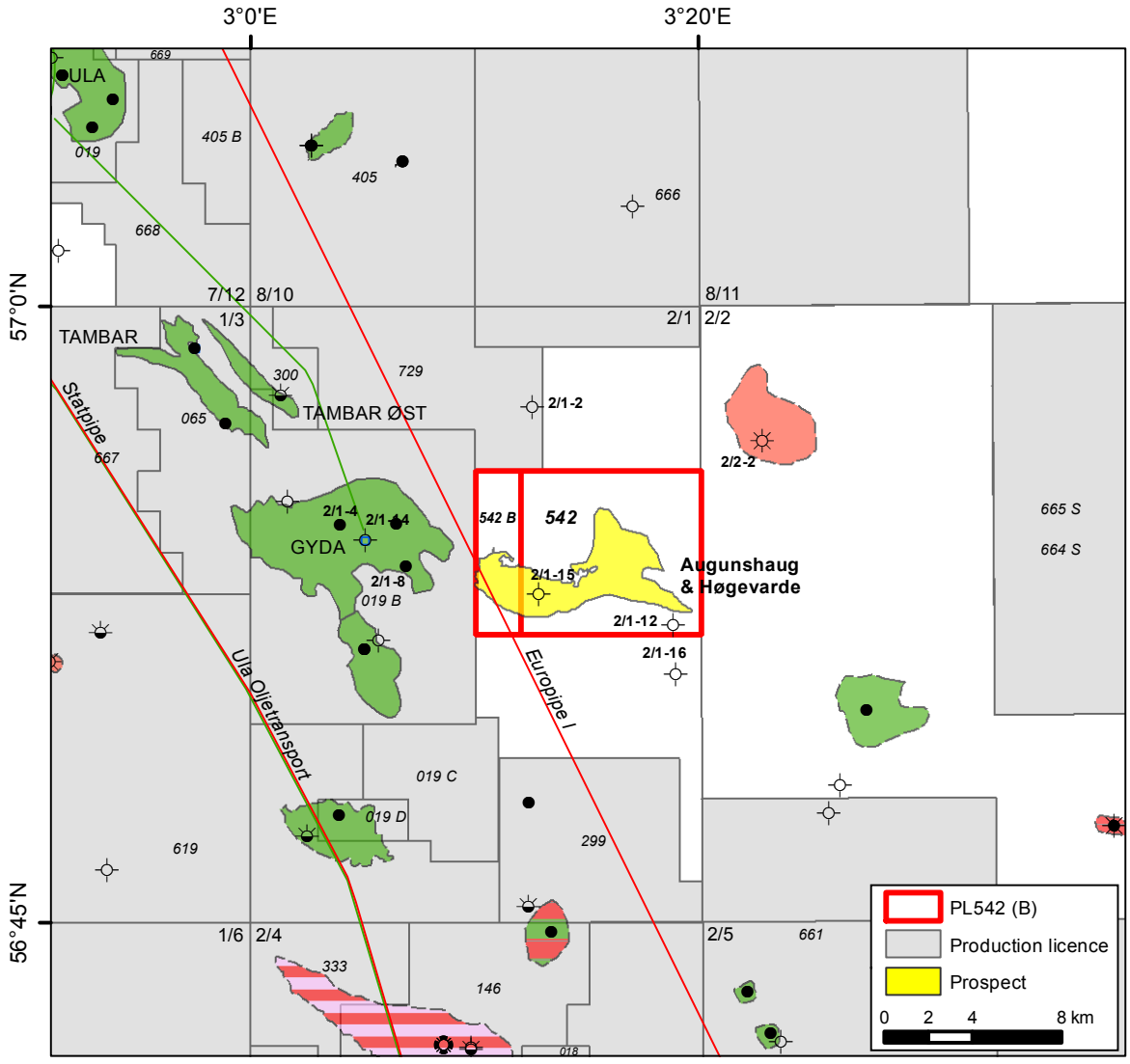

Fig. 1.1 License outline for PL542 and PL542B and the Augunshaug Prospect

1.3 PL542 pre-drill prospectivity

PL542 and PL542B made a positive drill decision in Q2 2012. The license had two prospects before drilling Well 2/1-15; the Augunshaug Prospect and the Høgevarde Prospect.

The reservoir level in both prospects was at Upper Jurassic "Basal sandstone" or Sandnes Formation and Middle Jurassic Bryne Formation. The Augunshaug and Høgevarde prospects were defined as two 4-way closures in a minimum case and the prospects were considered to be one prospect in a most likely case with a common HC contact in the two reservoir levels. The migration model was migration from the Gyda Field and this was the main risk for the prospects. Fig. 1.2 shows a W-E geoseismic section from the Gyda Field to Augunshaug and the Høgevarde prospects.

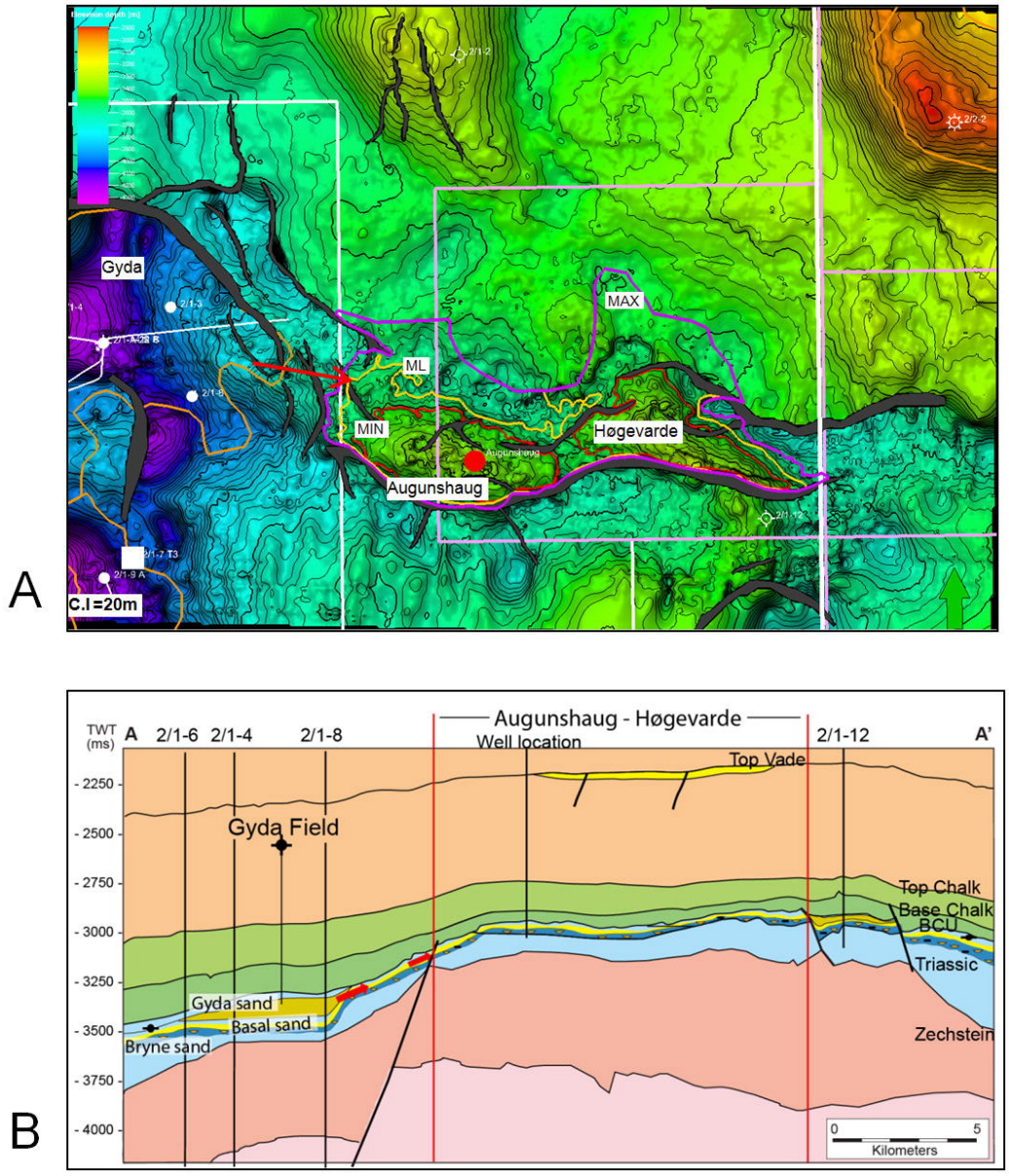

Fig. 1.2 The Augunshaug and Høgevarde prospects. *Fig A) The Augunshaug and Høgevarde prospects defined as two 4-way closures in a minimum case. Fig B) Geoseismic section across the Augunshaug and Høgevarde prospects.*

The license also defined some leads in the Oligocene Vade Formation.

The volumes of the prospects are defined in Table 1.1.

Table 1.1 Expected recoverable reserves for PL542/PL542B prior to Well 2/1-15

PL542 / PL542B					GROSS RECOVERABLE RESERVES / RESOURCES					
					Low		Base		High	
CATEGORY	RESERVOIR LEVEL	HC	RF (%)	POS (%)	Oil (MSm^3)	Gas (GSm^3)	Oil (MSm^3)	Gas (GSm^3)	Oil (MSm^3)	Gas (GSm^3)
PROSPECT:										
Augunshaug & Høgevarde	Upper Jurassic, Basal sandstone/Sandnes Fm.	Oil	40	34	2.88	0.57	5.87	1.16	9.33	1.88
Augunshaug & Høgevarde	Middle Jurassic, Bryne Fm.	Oil	30	27	3.47	0.61	7.06	1.24	11.3	1.98
LEAD:										
Vade	Upper Oligocene	Gas								

2 DATABASE

2.1 Seismic database

The common seismic database for the PL542 license originally consisted of the PGS Megamerge 3D survey and several old 2D lines from various vintages. The quality of the 3D data is good, whereas the 2D data are fair to poor. The PGS Megamerge survey represents the merge between the MC3D-Q7M2000 and SG9502.

The work programme was to acquire or enhance 3D seismic in the entire license. The license purchased seismic from CGG Veritas and CGG Vertias performed a reprocessing, resulting in volume DN11M03. DN11M03 is the main 3D seismic used for license work in PL542 and covers the entire license area. The outline for DN11M03 is given in Fig. 2.1.

The input data for the reprocessing of DN11M03 data is given in Table 2.1 and the final deliveries for DN11M03 is listed in tab Table 2.2.

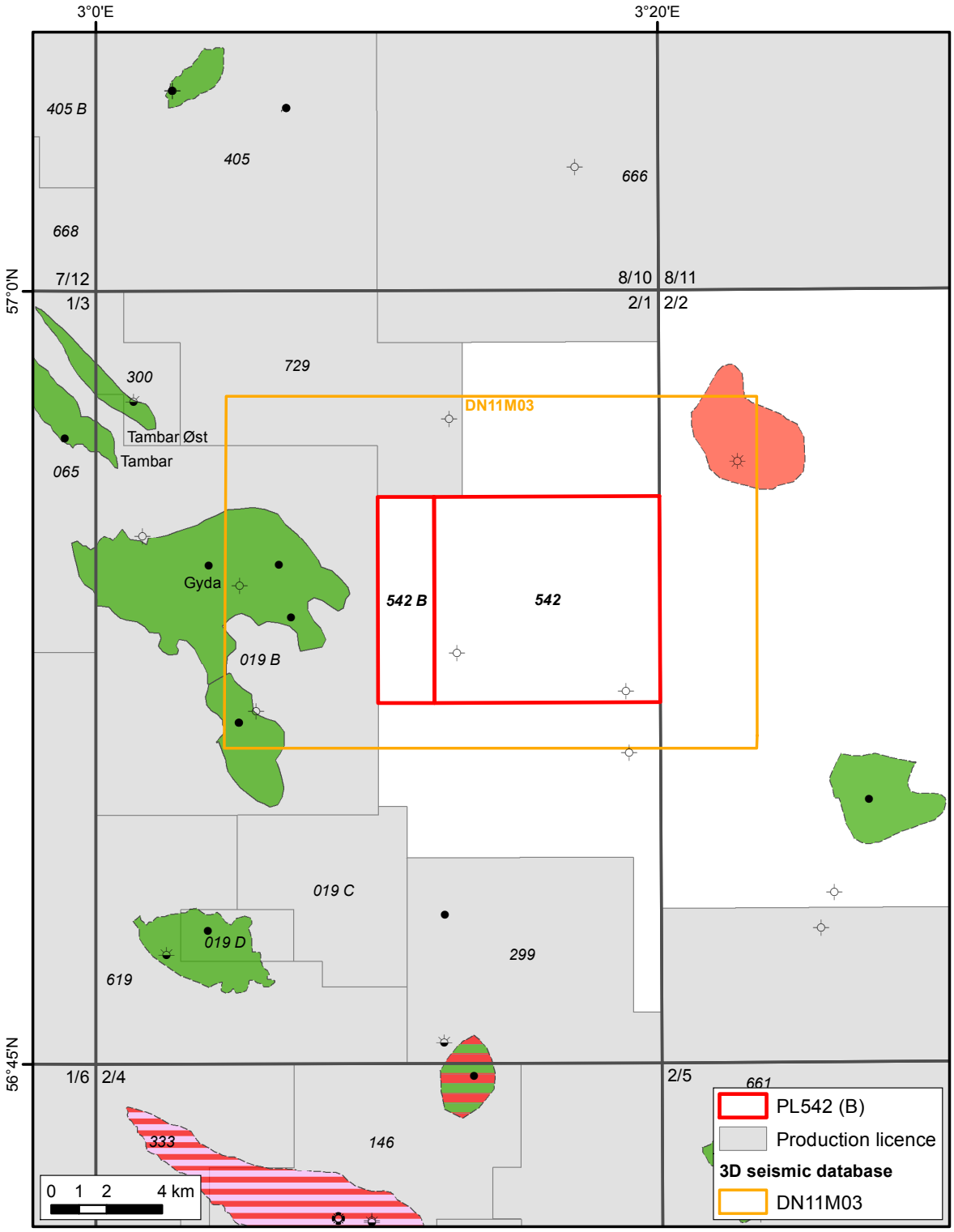

Fig. 2.1 Seismic database. *DN11M03 is the main 3D seismic used in PL542 and covers the entire license.*

Table 2.1 Input seismic datasets for the DN11M03 reprocessing

Pre-processed CGG Veritas project	Description of input data	Input data name
NQ2	A PSDM project using CGG Veritas Multi Client surveys Cornerstone Quad 30 PHASE 5 and Cornerstone NQ8	VGCNS0506NQ8
NQ8	CGG Veritas Multi Client Survey Cornerstone NQ8	VGCNS0506NQ8
Gyda	A PSDM project using CGG Veritas Multi Client surveys Cornerstone QUAD 30 PHASE 5 and BPN8703	VGCNS0506NQ8
3DFull	CGG Veritas Mulito Client surveys Cornerstone QUAD 30 PHASE 5	VGCNS0506NQ8
BPAmoco	Data from survey and project BPN8703	BPN8703

Table 2.2 Final deliveries for DN11M03

Final deliveries - DN11M03	Domain
Gathers	
Kirchoff 25 x 25	Time
CBM 25 x 25	Time
Stacks	
Kirchoff 12.5 x 12.5	Time
Kirchoff 12.5 x 12.5	Depth
CBM 12.5 x 12.5	Time
CBM 12.5 x 12.5	Depth
Attributes	
m21402 Vertical velocity	Depth
m21402 Delta	Depth
m21402 Epsilon	Depth
RMO Stacking velocity	Time
RMO Effective ETa	Time
TDQ time/depth conversion volume	Time & Depth

2.2 Well data

The common well database is showed in Fig. 2.2 and listed in Table 2.3. The partnership of PL542 have traded the 2/1-14S and 2/1-16S wells.

The wells are biostratigraphically re-evaluated by Det norske, and the formation tops are used for well correlation and seismic interpretation. Wire-line logs, deviation surveys and check shot data were obtained from Diskos. The main wells used for the interpretation are 2/1-2, 2/1-12, 2/1-14S, 2/1-16S and 2/2-2. Some reference is also made to the Gyda Field wells 2/1-4, 2/1-6, 2/1-8, 2/1-A-23, Tambar Field well 2/1-10 and the exploration well 2/2-5.

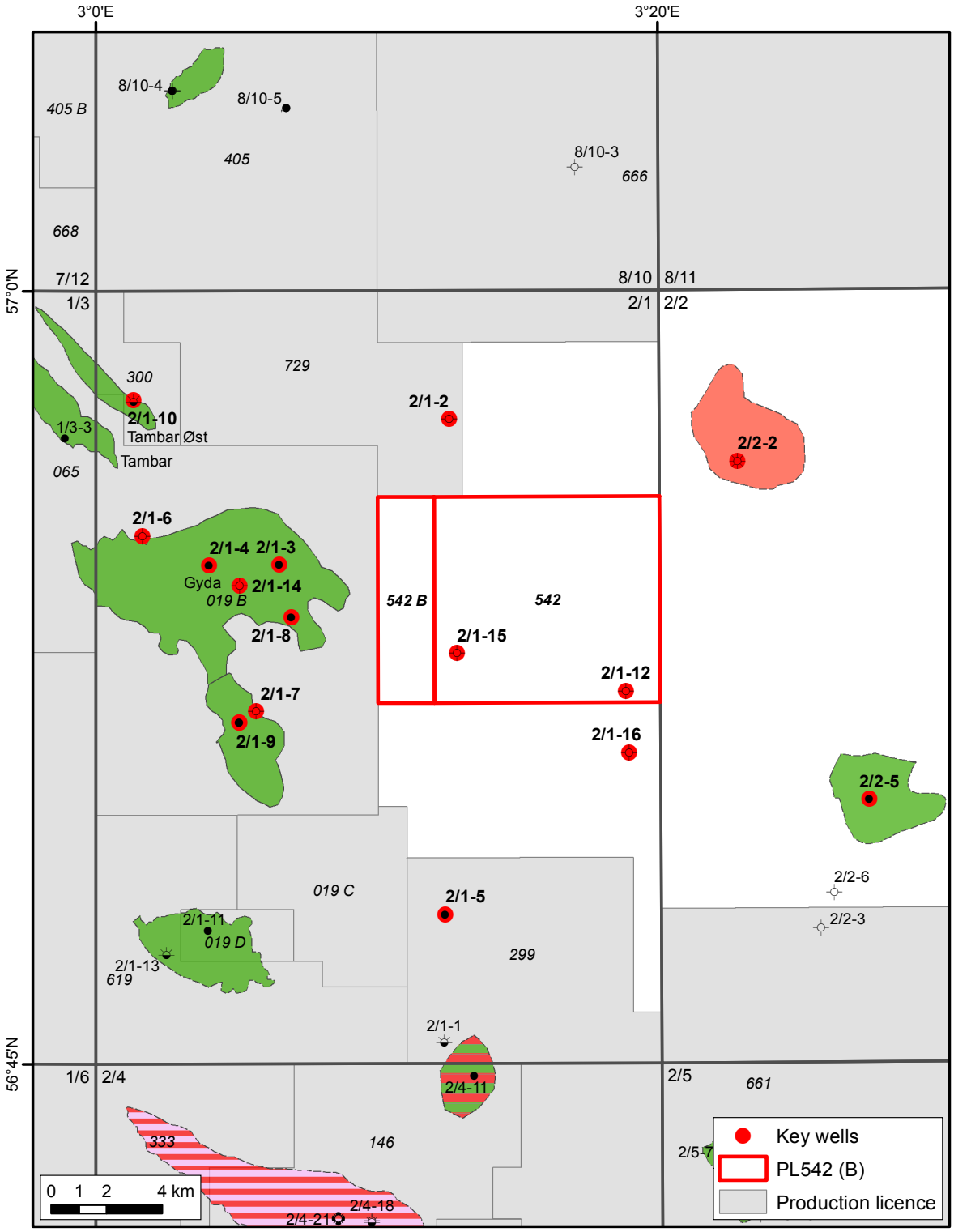

Fig. 2.2 Map of common well database PL542 and PL542B. *Key wells are marked in red.*

Table 2.3 Common well database for PL542

Well	Status	Operator	TD (m MD RKB)	Formation / Group	Year P&A	Biostratigraphy	CPI	Core Study
2/1-2	Dry	BP	3555.5	Zechstein Grp	1978	APT	X	X
2/1-3	Oil	BP	4297	Zechstein Grp	1980	APT	X	
2/1-4	Oil	BP	4525	Zechstein Grp	1982	APT	X	
2/1-5	Oil	BP	4454	Bryne Fm	1983	APT	X	
2/1-6	Dry	BP	4588	Skagerak Fm	1984	APT		
2/1-7	Dry	BP	5464	Rotliegend Grp	1985	APT	X	
2/1-8	Oil	BP	4151	Skagerak Fm	1985	APT	X	X
2/1-9	Oil	BP	4289	Zechstein Grp	1991	APT	X	
2/1-9A	Oil	BP	4379	Haugesund Fm	1983	APT		
2/1-10	Oil shows	BP	4525	Skagerak Fm	1992	APT	X	
2/1-12	Dry	BP	3550	Bryne Fm	1999	APT	X	
2/1-14S	Dry	Talisman	6130	Skagerak Fm	2009	APT	X	
2/1-15	Dry	Det norske	3554	Hegre Grp	2013	APT	X	
2/1-16S	Dry	Talisman	3891	Haugesund Fm	2013	Ichron	X	
2/2-2	Gas	Saga	3127	Zechstein Grp	1982	APT	X	X
2/2-5	Oil	Saga	4082	Zechstein Grp	1982	APT	X	X

The 2/1-12 is very close to the identified Høgevarde Prospect and has therefore been studied in detail. The 2/1-14S well was drilled from the Gyda platform to test a fault block separated from the Gyda Field by the Ula-Gyda fault trend. This well was dry with minor hydrocarbon shows. Biostratigraphic data has been extracted from cuttings and have been important for the evaluation of the license potential.

2.3 Special studies

Several studies have been performed to evaluate the prospectivity within the PL542 and PL542B.

Seismic Mapping
The interpretation is based on the reprocessed DN11M03 seismic data and various product-cubes.
Petrel software is used for the seismic interpretation. The seismic quality of the DN11M03 survey is generally good in the shallow section over the evaluated area but varies laterally for the Jurassic/Triassic section. The intra-pod areas of the Cod Terrace and the area around Well 2/1-12 are generally good quality in the Jurassic section and the seismic interpretations are of high confidence. The interpretation over Augunshaug is less confident due to seismic quality, structural complexity and distance from tie-wells. The seismic quality of the Jurassic and Triassic sections in the Triassic pod areas are generally poor and the seismic interpretation is of low confidence. Seismic well ties have been generated for the wells 2/1-2, 2/1-3, 2/1-8, 2/1-12, 2/1-14S and 2/2-2.

Seismic in-house processing
The DN11M03 seismic 3D survey was used as an input for in-house processing using the PSPRO software. Products from the processing were preconditioned gathers, angle stacks, full stack, intercept and gradient cubes. The first part of the preconditioning was iterative, offline velocity and eta picking. The gathers where conditioned using AGC-wraparound, 3D dip-dependent noise attenuation on offset classes and time variant parabolic radon demultiple. The second part of the preconditioning consisted of final NMO correction of the initial gathers using the new velocities from the first part, time variant parabolic radon demultiple, 3D dip dependent noise attenuation, spectral balancing and a mild trim-static before producing the final results.

Rock physics and AVO modeling
Fluid substitution was performed for wells 2/1-2, 2/1-3, 2/2-2 and 2/1-12 in order to compare AVO synthetics. The conclusion from this study was that AVO effects should not be expected due to a combination of rock properties and fluid properties. AI and Vp/Vs cross plots that were made, revealed that it was difficult to separate events based on fluid content or lithologies since shale and sand were overlapping.

Seismic inversion
OpendTect was used in order to make coloured inversion (CI) cubes to aid interpretation and spectral blueing cubes in order to enhance the resolution. Both input from the DN11M03 full-stack seismic and log data from nearby wells 2/1-2, 2/2-2 and 2/1-12 were used in the calculation. The CI data showed relative acoustic impedance variations and was used as a low frequency guide when correlating seismic response across faults. By scanning projection angles of the intercept and gradient cubes in order to distinguish the different lithologies, a weighted stack of the intercept and gradient cubes was combined and a lithology seismic volume was created. A chi angle of 44 degrees was derived for the creation of the lithology volume. A fluid cube was not made, since AVO-synthetics from fluid substituted logs indicated that no fluid effects could be expected.

Fault analysis
Fault analysis (Shale Gouge Ratio) of the reservoir interval was performed on the fault separating the Augunshaug Prospect from Well 2/1-12.

Spectral Decomposition
Spectral decomposition in combination with RGB-blending, along the BCU horizon, was performed using OpendTect in order to better visualise faults. A similarity cube was also produced for the same reason, utilizing a background steering model.

Biostratigraphic analysis of Well 2/1-14S
During spring 2012 the PL542 was allowed to resample Well 2/1-14S for a palynological study. APT personnel collected and analysed 14 selected cuttings samples from 5946-6102 m. The main result from this study was documentation of a conclusive Bryne Formation signal at 6030 m, 7 m higher than expected, 'Basal sandstone' at 6022 m and absence of Ula Formation and Gyda sandstone Member.

The results of the studies led to a refined model for the Augunshaug and Høgevarde prospects. The main prospective reservoir interval of the Augunshaug and Høgevarde prospects are the Upper Jurassic 'Basal sandstone' interval (Sandnes Formation) and the Bryne Formation, whilst it was previously considered to be the Upper Jurassic Gyda and Ula Formation sandstones. The 'Basal sandstone' corresponds to the Haugesund Formation in the deeper part of the graben.

3 AUGUNSHAUG EXPLORATION WELL 2/1-15

3.1 Augunshaug pre-drill prospect evaluation

The Augunshaug Prospect
The Augunshaug Prospect is located in the central part of Block 2/1 some 8 km to the east of the Gyda Field. Structurally, the Augunshaug Prospect is situated in a transition zone between the Central Graben Cod Terrace and the Sørvestlandet High platform area.

Salt tectonics were very active in the Central Graben area, halokinetic deformation followed old lineaments. Faulting in this area is connected to salt growth and withdrawal, and has controlled accommodation space. Uplift and erosion, during the development of the Central North Sea High, was followed by deposition of the Middle Jurassic Bryne Formation. It consists of sandstones, mudstones and coals deposited on an extensive alluvial/coastal plain. The "Basal sandstone" was deposited during a transgression in the Late Oxfordian - Early Kimmeridgian and is usually unconformably overlying the Bryne Formation or older strata. This Basal sandstone was assumed to be one of the reservoir levels in the Augunshaug and Høgevarde prospects.

The main structural elements and stratigraphy within this part of the Central Graben, the Sørvestlandet High and the Cod Terrace, are shown in Fig. 3.1.

The reservoir levels for the Augunshaug Prospect were believed to be sandstones of the Late Oxfordian - Early Kimmeridgian Basal sandstone and Bryne Formation. They were interpreted to be connected and to have a common oil water contact. The spill point of 3498 m for the Basal sandstone level was seen as a controlling factor for the spill towards the Høgevarde Prospect.

Top reservoir Basal sandstone depth map is shown in Fig. 3.2. The interpretation of Top Basal sandstone was difficult since the reservoir thickness is below the seismic resolution. The Top Basal sandstone time map is constructed by a constant 11 ms time shift of the Top Bryne Formation surface. This constant time shift is reflecting the overall Top Haugesund Formation to Top Bryne Formation time thickness observed over the Augunshaug Prospect and also taking into account the 4 ms and 18 ms time thickness observed in the 2/1-14S and 2/1-12 wells. The top reservoir depth map for the Bryne Formation is given in Fig. 3.3.

The Triassic Skagerrak Formation sandstones and the Oligocene Vade Formation sandstones were seen as upside potentials.

The trap for the Augunshaug Prospect was interpreted to be a robust 4-way closure for the minimum case. The most likely case included a 3-way structural trap, with a lateral sealing fault to the south, and a stratigraphic trap against the Triassic pod to the north. For the most likely and maximum hydrocarbon columns, the Augunshaug Prospect would have been filled below a structural spill point and connected to the Høgevarde Prospect.

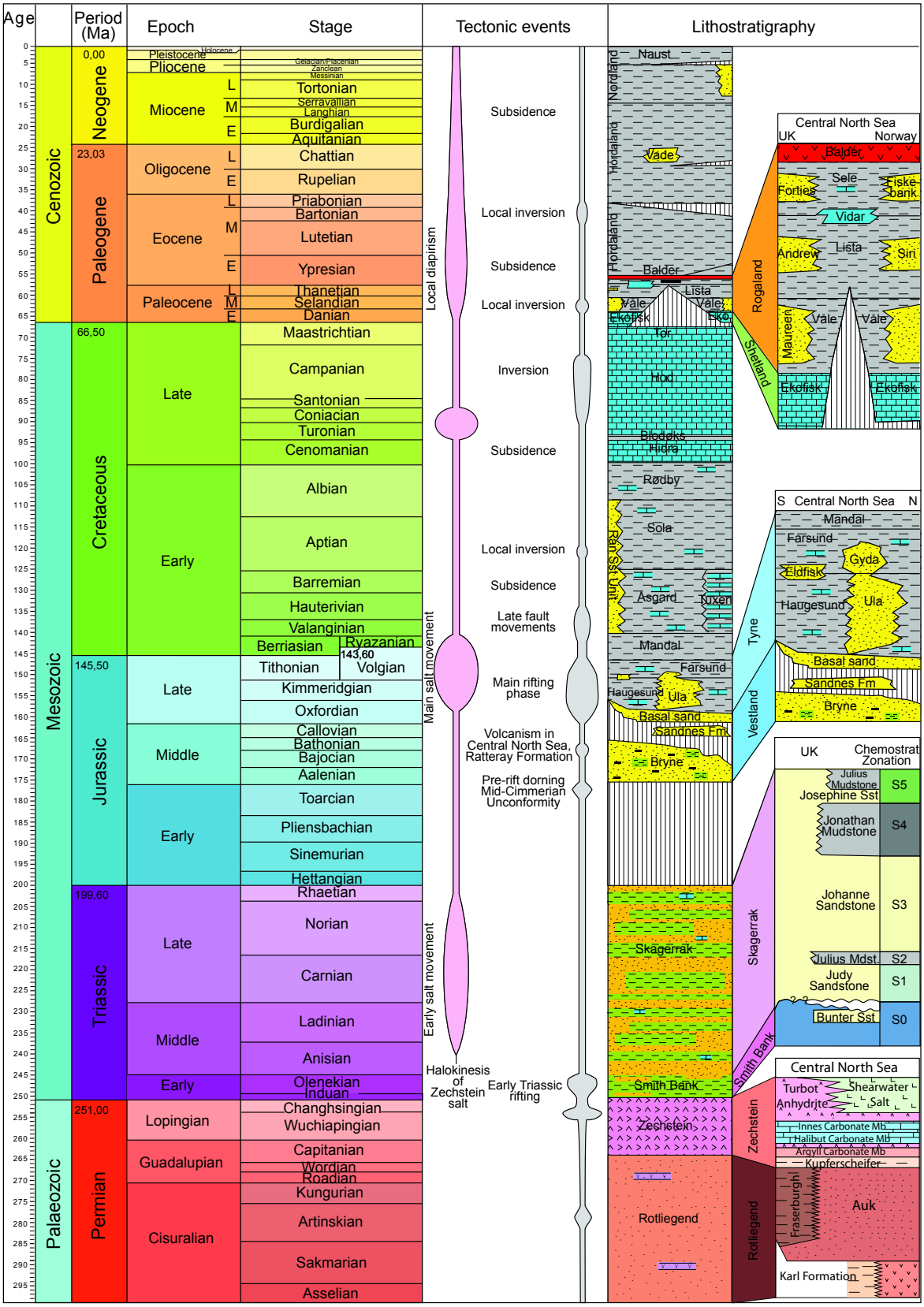

Fig. 3.1 Lithostratigraphical coloumn of the Central Graben north, Sørvestlandet High. *Chronostratigraphy based on Gradstein et al. (2004), with the Boreal Zonation (Volgian and Ryazanian) tentatively placed in relation to the Tethyan Zonation. The lithostratigraphy is modified from NPD Bulletins and Millennium Atlas.*

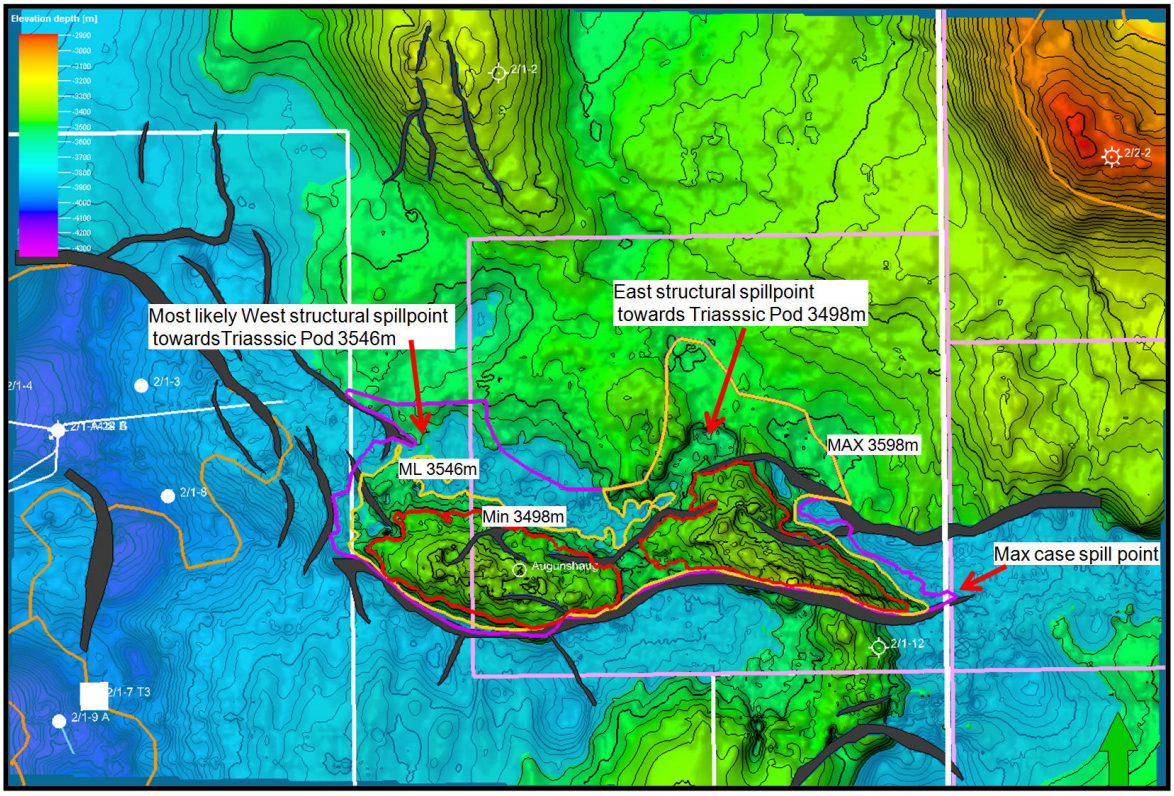

Fig. 3.2 Top reservoir Basal sandstone depth map. *The hydrocarbon coloums plane is at 3546 m.*

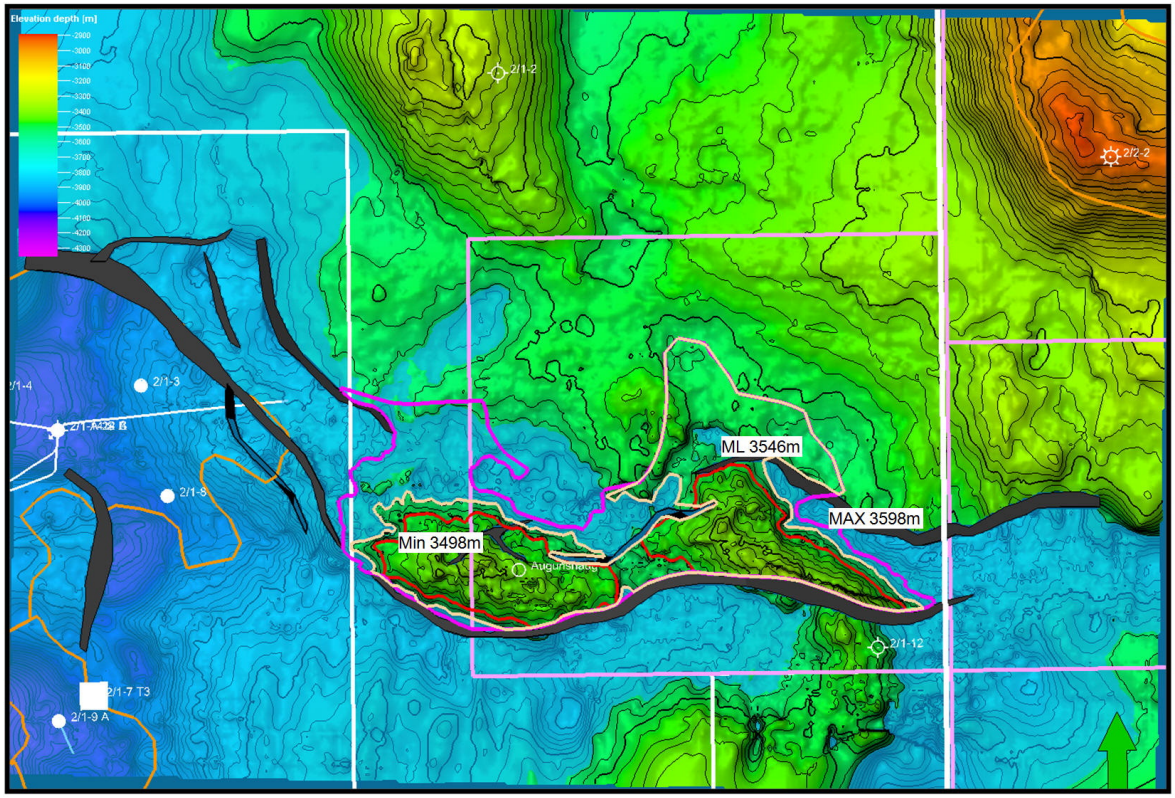

Fig. 3.3 Top reservoir Bryne Fm depth map. *The hydrocarbon coloums plane is at 3546 m.*

The top seal for the Augunshaug Prospect was interpreted to be Early Cretaceous shales.

The migration model included oil spill from the Gyda Field. The Augunshaug Prospect is located structurally higher than the Gyda Field and the terrace tested by Well 2/1-14 S. A possible migration route from the Gyda Field to the Augunshaug Prospect is illustrated in Fig. 3.4.

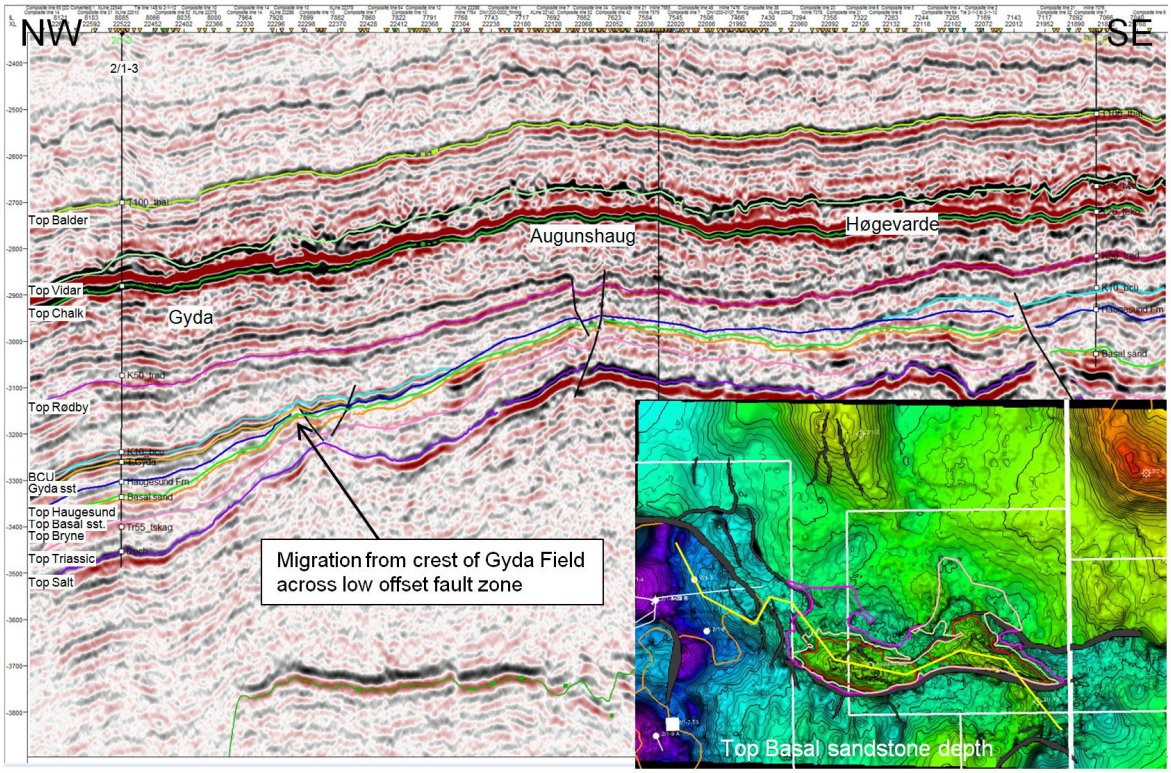

Fig. 3.4 Possible migration route to the Augunshaug Prospect. *Possible migration route illustrated on a random line from the Gyda Field to Augunshaug, CBM DN11M03.*

Fig. 3.5 shows the location of Well 2/1-15 on Inline 7565 DN11M03 and Fig. 3.6 shows the 2/1-15 well on Crossline 22040 DN11M03.

A West-East geoseismic section illustrates the geological play model (Fig. 3.7) for the Augunshaug Prospect. The Gyda Formation is identified in the Gyda Field and in Well 2/1-12. New biostratigraphy analysis of the Well 2/1-14S indicated possibility for late Oxfordian - early Kimmeridgian Basal sandstone and Bryne Formation reservoir instead of the Volgian age Gyda Formation sand.

The Rotliegendes (Permian) fault patterns controlled to a high degree the mobilisation of salt walls and domes in the area. These faults (No 1 & 2 in Fig 3.7 and 3.8) have been reactivated several times, and have most likely been controlling for the Triassic and Jurassic deposition. Fig. 3.8 shows a geoseismic section from south to Well 2/2-2 in the northeast. The interpretation of Jurassic and Top Triassic is difficult in the Triassic pod area due to seismic imaging.

Probability of Augunshaug Prospect Discovery

(P1) = 0,72 for Basal sandstone. The probability of adequate reservoir development and quality for the Basal sandstone is considered to be 0,72. The presence of the Basal sandstone

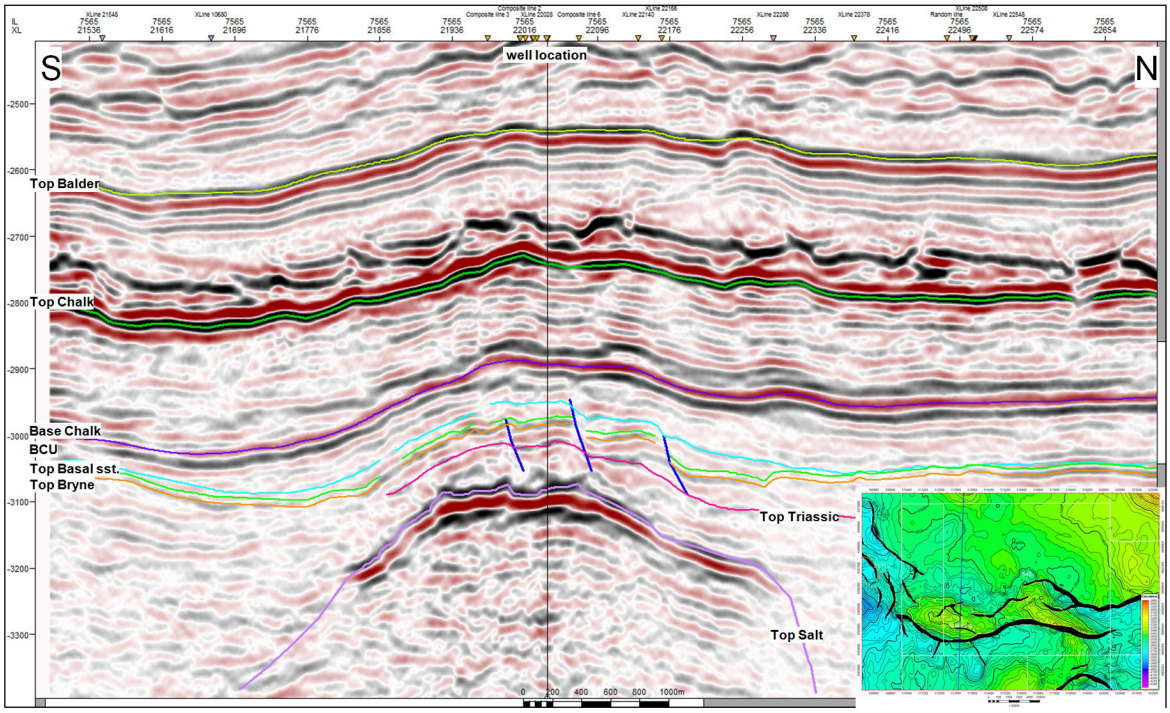

Fig. 3.5 2/1-15 Augunshaug well location Inline 7565 DN11M03

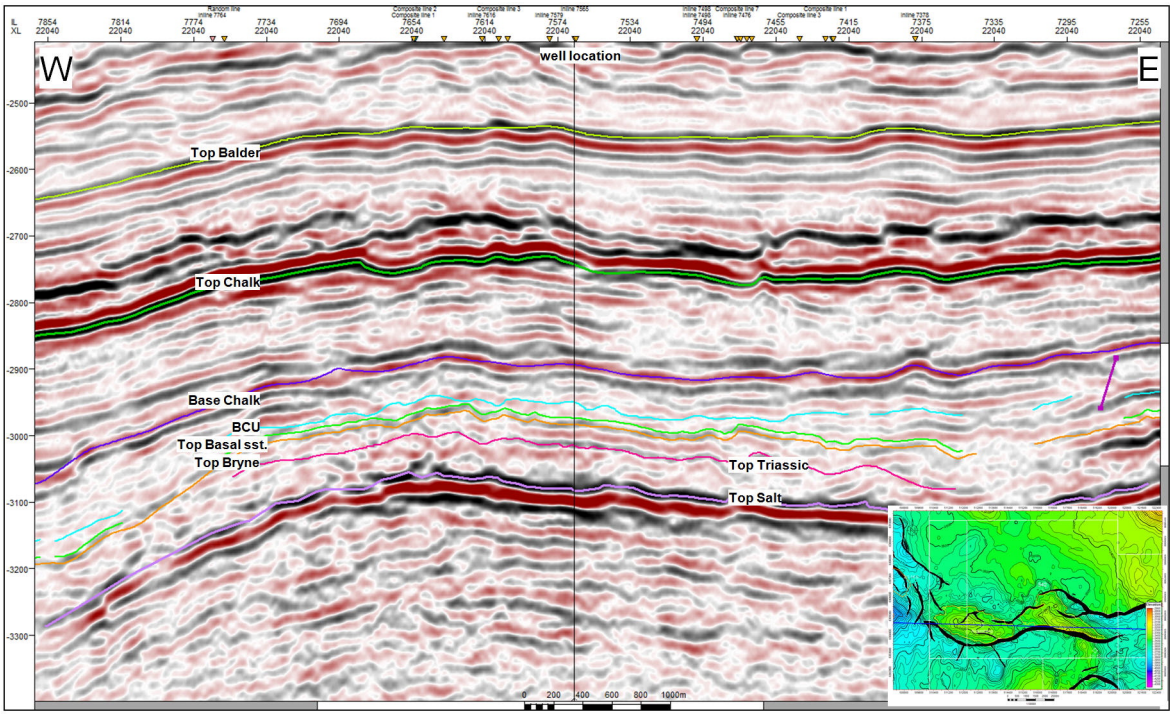

Fig. 3.6 2/1-15 Augunshaug well location Crossline 22040 DN11M03

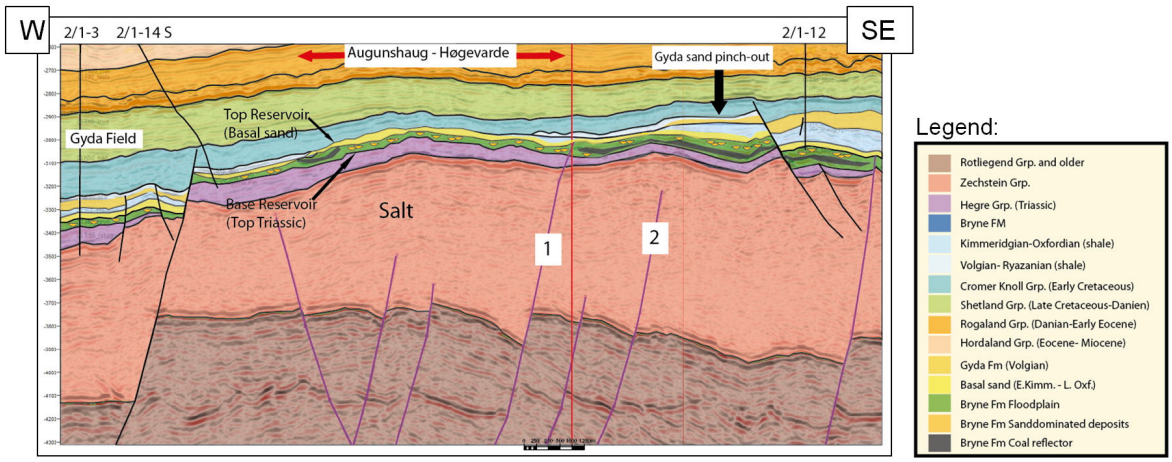

Fig. 3.7 Geoseismic section W-E. *Geoseismic section from E-W illustrate the geological model. The faults 1 and 2 is marked in the Rotligende Depth map in Fig 3.8.*

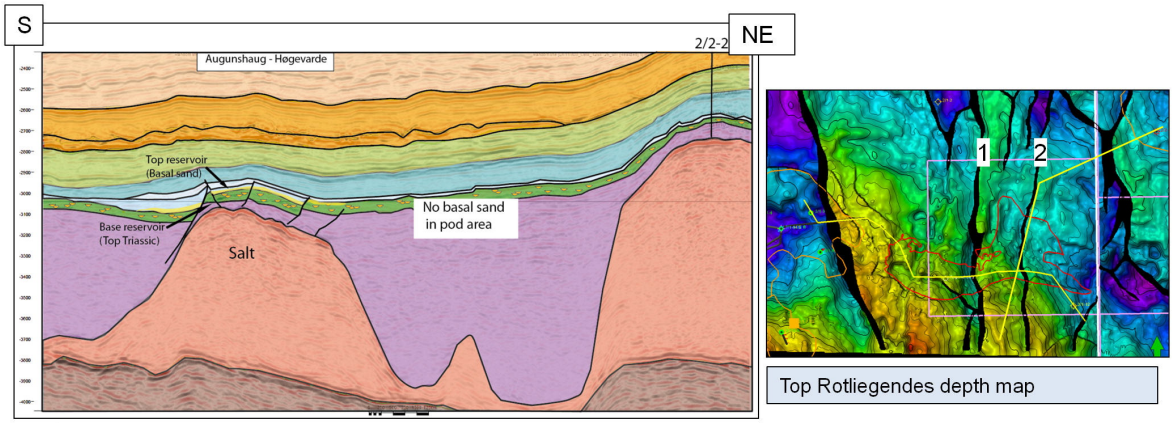

Fig. 3.8 Geoseismic section S-NE. *Geoseismic section from S to NE illustrated the deposition of the Basal sandstone above salt wall.*

is proven in nearby wells on the Cod Terrace and the Sørvestlandet High, which has constituted a reservoir presence probability of 0,8. Where proven, the quality of the reservoir is good and the reservoir presence probability is set to 0,9. A drawback of the reservoir as interpreted in the Augunshaug and Høgevarde prospects is that it is below seismic resolution.

Reservoir (P1) = 0,56 for Bryne Formation. The probability for reservoir development in the Bryne Formation is considered to be 0,56. The presence of Bryne Formation is proved in nearby wells, but is known to be sometimes eroded. A reservoir presence risk parameter of 0,8 is used. The quality of the Bryne Formation may vary; a reservoir quality risk parameter is set to 0,7.

Trap (P2) = 0,95. The geometry of the prospects has no risk factor, the structure is well defined as a four way dip closure. The main trap risk factor is seal, where the upside case depends on fault seal and Triassic pod seal. The quality of the seal is set to 0,95. The trap risk factor may be applied to both the Basal sandstone and Bryne Formation case.

Charge (P3) = 0,5. There is a proven hydrocarbon system on the Gyda Field, presence and maturation probability is therefore set to 1. There are uncertainties on the migration model and a migration route from the Gyda Field is not proven. The charge is the main risk factor

for the Augunshaug and Høgevarde prospects and is set to 0,5. The charge risk factor may be applied to both Basal sandstone and Bryne Formation case.

Retention (P4) = 1 At the crest of the Augunshaug and Høgevarde prospects, there are no visible faults, no sign of reactivation and no observation of gas chimneys. The retention factor is set to 1. The retention risk factor may be applied to both Basal sandstone and Bryne Formation case.

Probability of discovery = 0,72 x 0,95 x 0,5 x 1 = 0,34 for the Basal sandstone.
Probability of discovery = 0,52 x 0,95 x 0,5 x 1 = 0,27 for the Bryne Formation.

3.2 Well 2/1-15

3.2.1 Objectives

The well objectives for the Well 2/1-15 was to carry out all operations in a safe and cost efficient manner without causing injury or ill health to any of the personnel involved and without any damage to the environment.

The main target for Well 2/1-15 was to prove hydrocarbons in the Basal sandstone and the Bryne Formation and find an oil water contact. If hydrocarbons were encountered it was likely that the two reservoirs were connected but this should be verified by reservoir pressure sampling. Generally, it was important to establish if the Augunshaug Prospect was in pressure connection with the down-dip Gyda Field or if it was in the same pressure compartment as the 2/1-12 well.

It was important to fulfill the Norwegian Petroleum Directorate's regulations for data acquisition. In the case of discovery the well should be cored and logging with an extensive wireline logging suite.

The reservoir thickness of the Basal sandstone is below seismic resolution and small faults could exist, creating small production barriers within. The Bryne Formation was expected to be heterogeneous with interbedded shale and sandstone layers and also channels with very high sand Net/Gross may be encountered. This could cause a lateral variability in the Bryne Formation. One or two Drill Stem Tests (DST) were planned for and would be performed based on the results from the core and wireline logs. The DST would give information aboulte the lateral connectivity of the reservoir.

A geological sidetrack was an option to determine the oil water contact.

Well Location:
The well position at the Augunshaug Prospect was designed to fulfill the following criteria:

- Target at Top Basal sandstone is selected in order to leave only non-commercial volumes up dip
- Drill in zone of continuous seismic reflections within the reservoir zone both at Basal sandstone and Bryne reservoir levels
- Drill away from main bounding faults, particularly one mapped fault approximately 150 m to the north

Fig. 3.9 shows the location of the 2/1-15 Augunshaug well on a Top Basal sandstone depth map.

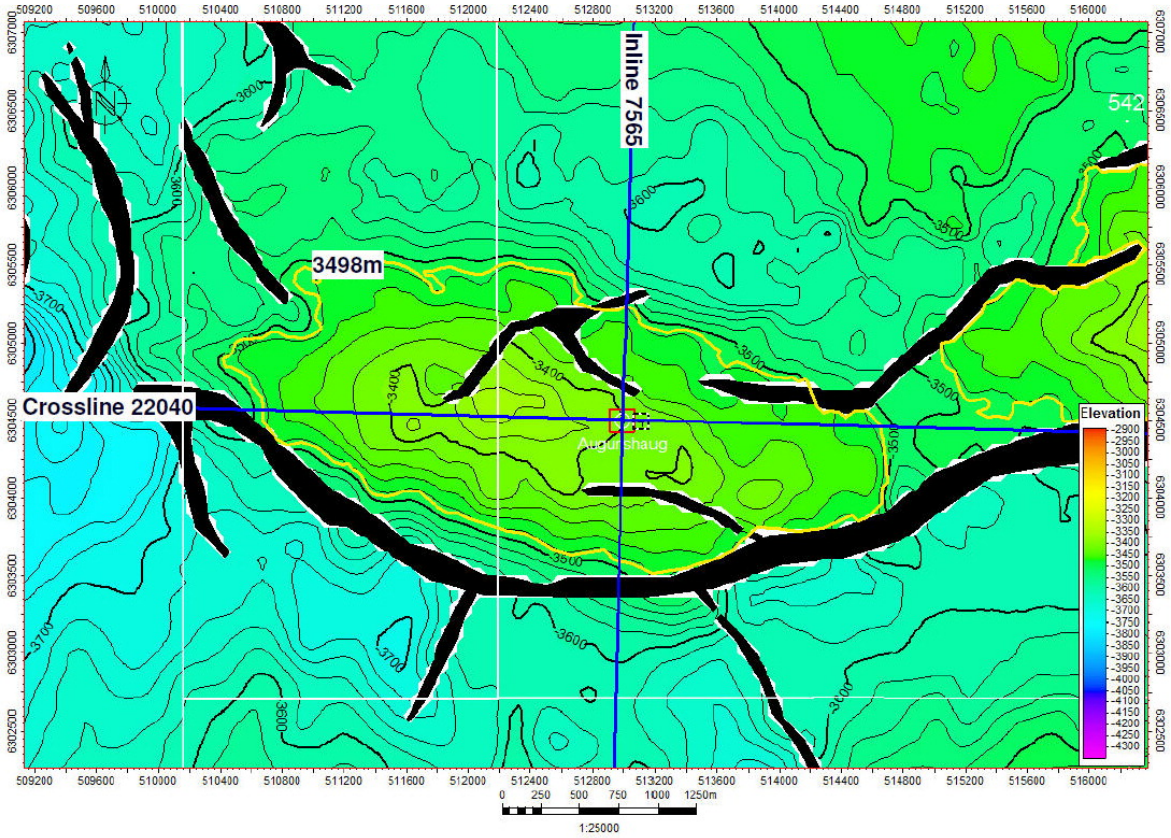

Fig. 3.9 Top Basal sandstone depth map and Well 2/1-15 location

TD criteria:
Drill well to TD into the Zechstein salt at approximately 3680 m TVDmsl. In the event of a dry well at Basal sandstone and Bryne Formation reservoirs, drill 50 m into the Triassic and TD at 3530 m TVDmsl.

3.2.2 Well results

Well 2/1-15 was spudded the 18th of July 2013 with the jack-up rig Mærsk Giant. No accident or incident was reported. The well was drilled vertically with a total depth of 3554 m MD.

Two shallow gas zones were observed. The shallowest zone had a gas observation at 585-588 m MD, and had a yellow warning in the site survey. Another gas zone was encountered in the zone 715-755 m MD, in a 20 m thick sandstone. This gas zone was not visible on the site survey due to low gas charge and had originally received a green warning from the site survey.

The Oligocene Vade Formation contained sand with residual hydrocarbons (dry residual gas) in the best part of the sand interval. The net sand in the Vade Formation was about 37 m.

The Basal Sand was encountered at 3431 m MD, 13 m shallower than prognosed. The Bryne Formation was encountered at 3450 m MD, 17 m shallower than prognosed. Both of the reservoir targets had lower reservoir quality than expected. There were no indications of hydrocarbons from the MWD logs and no oil shows in cuttings or indications of low mud gas values.

The sandstones were heterogeneous, with layers of siltstone and shale. The sandstones were also highly cemented and the porosity and permeability were low.

The calculated well statistics for the reservoir zones are given in Table 3.1. Gross, Net, N/G, Average Porosity, Water Saturation and Clay Volume are calculated for the possible reservoir intervals. In addition to the cutoffs listed a minimum thickness of 0,35m have been used as a criteria.

Table 3.1 Reservoir zonal averages Well 2/1-15

Zone name	Cuttoff Por	Cutoff VCl	Top (m MD)	Bottom (m MD)	Gross (m)	Net (m)	N / G (m)	Av Phie in net interval	Av Sw in net interval
Oligocene:									
Vade Fm.	>=0.14	<=0.4	2199	2259	60	36.73	0.612	0.225	0.917
Jurassic:									
Basal sandstone	>=0.14	<=0.4	3431	3430	19	3.81	0.201	0.165	0.924
Bryne Fm.	>=0.14	<=0.4	3430	3523	73	8.23	0.113	0.164	0.905
Triassic:									
Undiff. Hegre Gp.	>=0.14	<=0.4	3523	3554	31				

RDT (Pressure Points)
9 pressure tests were performed, but all of them were supercharged and failed. This may be due to low permeability in the reservoir targets.

HRSCT-B (Sidewall Cores)
A total of 26 sidewall cores were successfully retrieved.

Prognosed Depth vs Actual Depth
There was generally good fit between prognosed formation depth and the actual formation depth from the Oligocene Vade Formation and the deeper formations. The prognosis vs the actual stratigraphy is illustrated in Fig. 3.10.

The main risk for the Augunshaug Prospect was the migration and the timing of the migration (probability 0.50). The migration seems to be the main failure for Well 2/1-15.

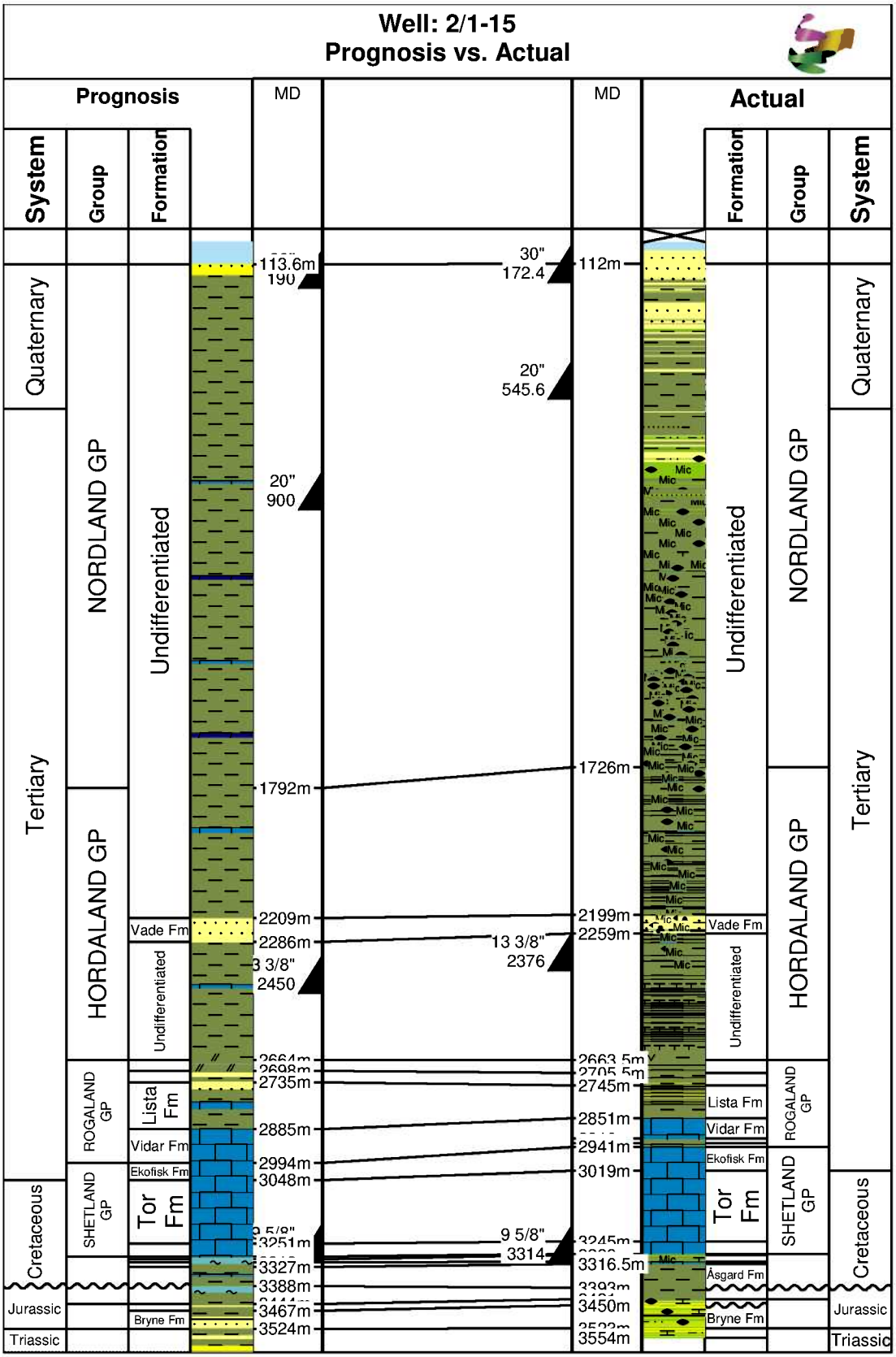

Fig. 3.10 Prognosis vs. actual stratigraphy 2/1-15

The geological model was proven to be correct, but the Jurassic reservoir target was of lower quality than expected. Well 2/1-15 was plugged and abandoned as a dry well on the 7th of September 2013.

4 REMAINING PROSPECTIVITY

The Augunshaug Well 2/1-15 was dry and the main failure is believed to be the migration model. The quality of the reservoir was also poorer than expected. This results in a very low chance of success for the remaining prospect in the license (Høgevarde), which is dependent on spill from the Augunshaug Prospect. The Høgevarde Prospect was seen as the upside potential of Augunshaug, given a discovery in 2/1-15. The volumes of the Høgevarde minimum case are also small. There are no other prospects identified within the license.

Well 2/1-15 encountered Oligocene Vade Formation sand with good reservoir quality and residual gas saturation. This is interpreted to be traces of migrated hydrocarbons that may have flushed through and accumulated in the Desmond Discovery (Well 2/2-2) to the northeast. It is also possible to identify Vade Formation leads within the license, but the volumes of these are evaluated as small.

The partnership see limited remaining potential in PL542 and PL542B and therefore concluded to relinquish the licenses.