

PL1018 - Surrender Report

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1 KEY LICENSE HISTORY

Production License 1018 is located in the Vøring Basin, Norwegian Sea and comprise parts of blocks 6604/2,3, 6605/1,2 and 6705/11 (Figure 1.1).The license was awarded on March 1st, 2019, as a part of the Awards in Predefined Areas (APA) 2018.The Drill-or-Drop (DoD) decision deadline was by March 1st, 2020.

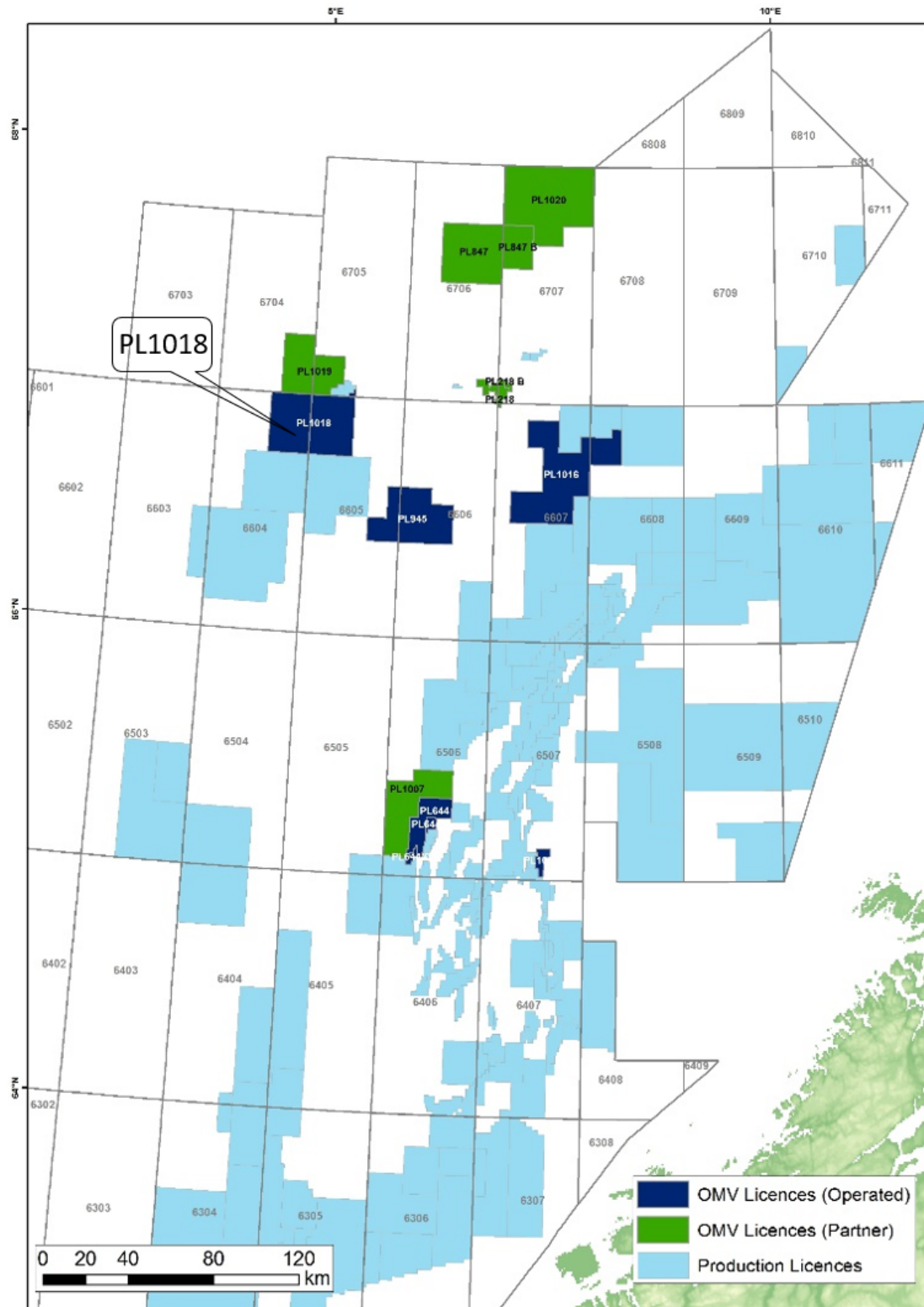


Figure 1.1 Overview Map Norwegian Sea

Partners in PL1018 are listed below:

- ▶ OMV (Norge) AS (Operator) - 40%
- ▶ Wintershall Dea Norge AS - 30%
- ▶ Equinor Energy AS - 30%

The initial work programme in PL1018 was 1 year G&G studies. The work programme of the license was fulfilled by evaluating the main prospectivity and investigate the economic resource potential, and make a drill or drop decision.

During the lifecycle of PL1018 a number of meetings were held between the licensees. A list of these meetings can be found below:

- ▶ 12.04.2019 - EC/MC Meeting
- ▶ 03.09.2019 - EC work meeting
- ▶ 27.11.2019 - EC/MC meeting

The operator has carried out an analysis of G&G studies which includes rock physics modelling, seismic gather analysis, seismic modelling through geobody modelling and fluid substitution. Several attractive prospects were identified and assessed within the license. However, the volume potential currently recognized within PL1018 is not sufficient for a positive drill decision. The license Management Committee has therefore concluded to surrender the license.

2 DATABASE

The main common database holds OMV15M02, a reprocessed and merged 3D seismic volume covering the Asterix discovery in PL327/327B and main parts of PL1018 and associated upper Cretaceous prospectivity.

Main 3D seismic volumes in the common database can be found in Table 2.1 and the survey locations are shown in Figure 2.1. The key dataset is the reprocessed OMV15M02, the data quality is considered to be excellent. Some of the underlying 3D seismic surveys were also incorporated into the common database, i.e. GRE02 and SG9604.

Table 2.1 Seismic Database

Survey	Survey Input	NPDID	Market Availability	Vintage	Area (km ²)	Quality
OMV12M02	SG9604, GRE02	3806,4159	License Owened	2015	~1400	Excellent
GRE02	-	4159	Multiclient	2002	~765	Good
SG9604	-	3806	Equinor	1996	~507	Fair - Good

The well database is summarized in Table 2.2 with the locations in Figure 2.2. Three wells were essential to understand the stratigraphy in the area, in particular 6705/10-1 (Asterix) and 6605/1-1 (Obelix) were key for understanding prospectivity in the license. These wells were key in constraining the geophysical studies carried out in the license such as seismic modelling and AVO analysis.

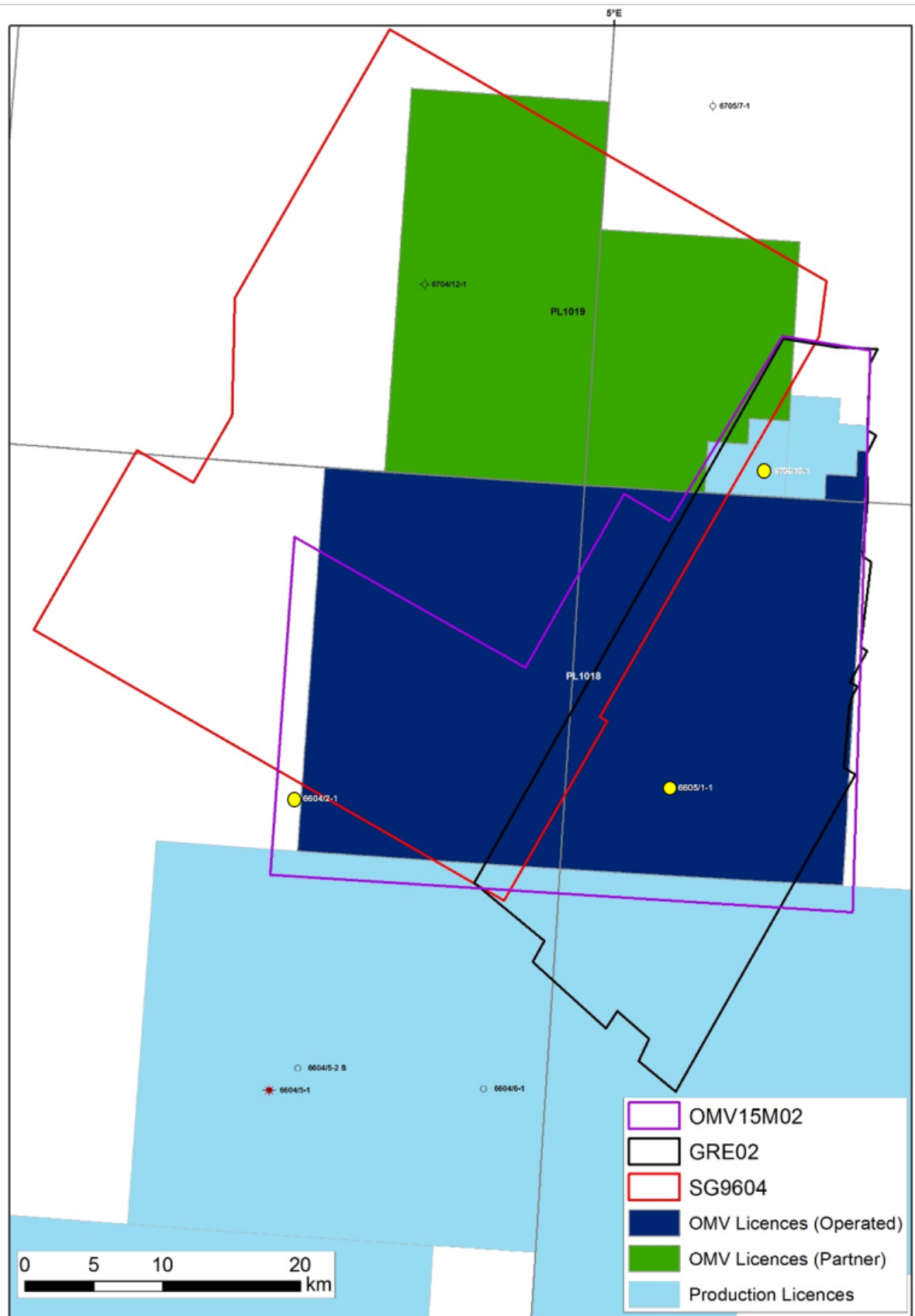


Figure 2.1 Seismic and Well Database Location Map

Table 2.2 Well Database

Well Name	NPDID	Prospect Name	Drilled	TD TVD m RKB	Oldest Penetrated Formation	Oldest Penetrated Age	Hydrocarbons	Operator
6604/2-1	6568	Gullris	2011	3551	Springar Formation	Late Cretaceous	Dry	BG Norge AS
6605/1-1	5979	Obelix	2008	3944.5	Nise Formation	Late Cretaceous	Dry	Equinor
6705/10-1	6044	Asterix	2009	3775	Lange Formation	Early Cretaceous	Gas	Equinor

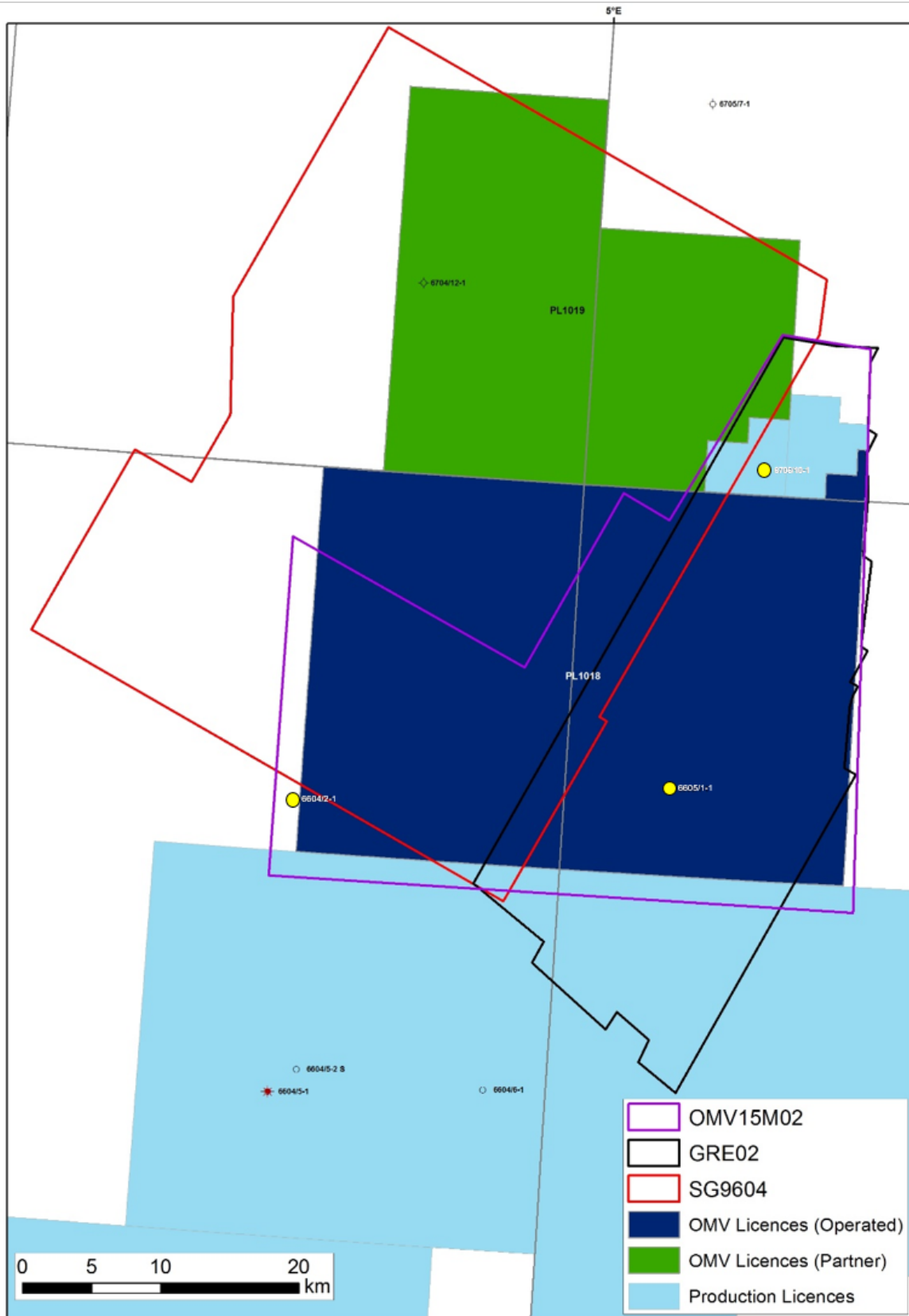


Figure 2.2 Seismic and Well Database Location Map

3 REVIEW OF GEOLOGICAL AND GEOPHYSICAL STUDIES

Exploration within PL1018 was largely driven by seismic amplitude anomalies. Consequently, the main component of the license's geological and geophysical work programme was focused on evaluation and analysis of the leads and prospects. Utilizing the reprocessed data set, several geophysical studies were re-assessed: rock physics modelling, seismic attribute generation, seismic gather analysis, seismic modelling through geobody modelling and fluid substitution. Geological studies were gathered towards the main prospect, Asterix South, and focused on re-evaluation of the main license prospectivity.

Geological Studies

The potential hydrocarbon contact in the Asterix discovery was assessed in order to see its relation to the flat seismic event observed in the neighboring Asterix South Prospect. It is proposed that the Asterix well only encountered a hydrocarbon down-to within the well, with hydrocarbon filling the reservoir down to an interpreted shale barrier. During the drilling of the Asterix prospect (well 6705/10-1) several pressure points were taken within the hydrocarbon leg of the reservoir, however, a pressure gradient was not established within the water leg. Thus, based on existing pressure measurements there is an uncertainty of hydrocarbon contact depth level and whether the Asterix discovery and the Asterix South prospect has a common gas-water contact.

Geophysical Studies

Rock physics modelling of the 6705/10-1 well data has shown that with constant cement model, where cementation equates to 1,6%, the top Springar Formation will be a peak when brine saturated, and exhibit a strong trough in a gas discovery case (80% gas saturation) (Figure 3.1). An oil discovery (with a saturation of 80%) is modelled to give a weak peak on near offset seismic data (0-20 degrees), whilst it would appear as a trough on far offset data (20-40 degrees). The modelling shows that a high saturation oil discovery would have a similar appearance geophysical as a low saturation gas case (less than 10% gas saturation). Furthermore, the modelling indicated that a low impedance layer with a low V_p/V_s ratio could only be generated by a gas-saturated reservoir.

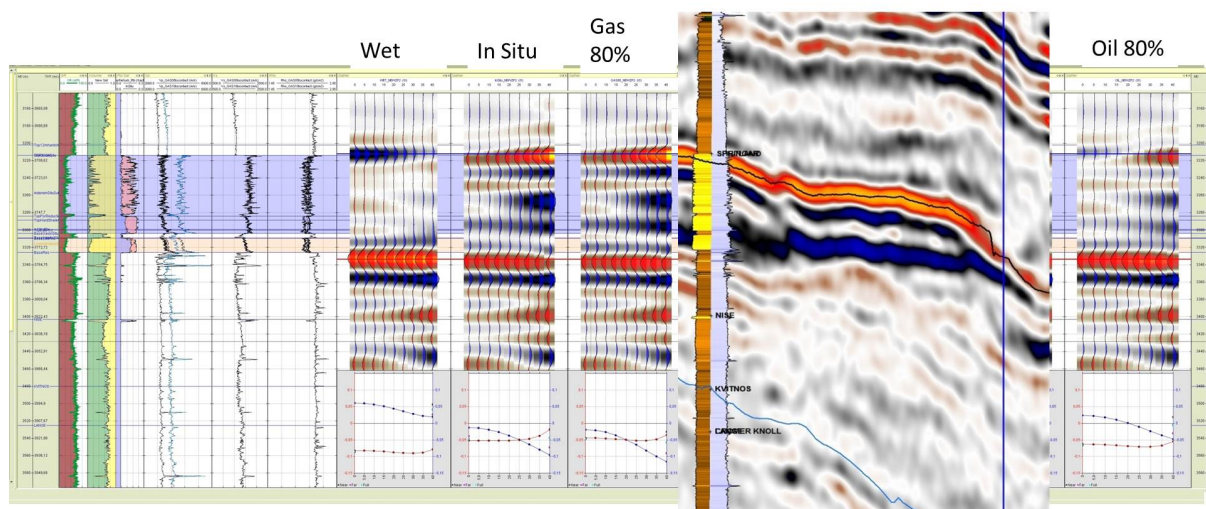


Figure 3.1 Well Modelling - 6705/10-1 (Asterix)

Modelling suggests that a water saturated reservoir should create a peak at top reservoir whilst high percentage gas saturation would cause a trough.

2D seismic modelling was undertaken within the area in order to assess both the appearance of different degrees of hydrocarbon saturation on seismic and whether hydrocarbon contacts (flat spots) can be accurately modelled. The selected 2D seismic line incorporated both the Asterix and Obelix wells that were used to model the geological properties of the layers. Within the 2D model the key properties to quantify included: effective porosity, shale volume and hydrocarbon saturation. Various levels of hydrocarbon saturations were used in order to compare the alternative cases with the result of the reprocessed seismic data. Within the Asterix South prospect location, a reasonably good comparison can be made between the actual seismic and the model. This suggests the Springar Formation contains 19% porosity with an estimated minimum of 75% gas saturation (Figure 3.2). The Getafix prospect is expected to contain similar reservoir properties to Asterix South with 18% porosity and 80% gas saturation. The Getafix reservoir was modelled to contain interbedded sand and shale layers. The consequence of this interbedded nature is that the hydrocarbon contact does not generate a clear flatspot on seismic, but instead only local cross cutting events. The amplitude response on seismic data has a strong cut off with depth and the model supports this to be associated with a gas-down-to.

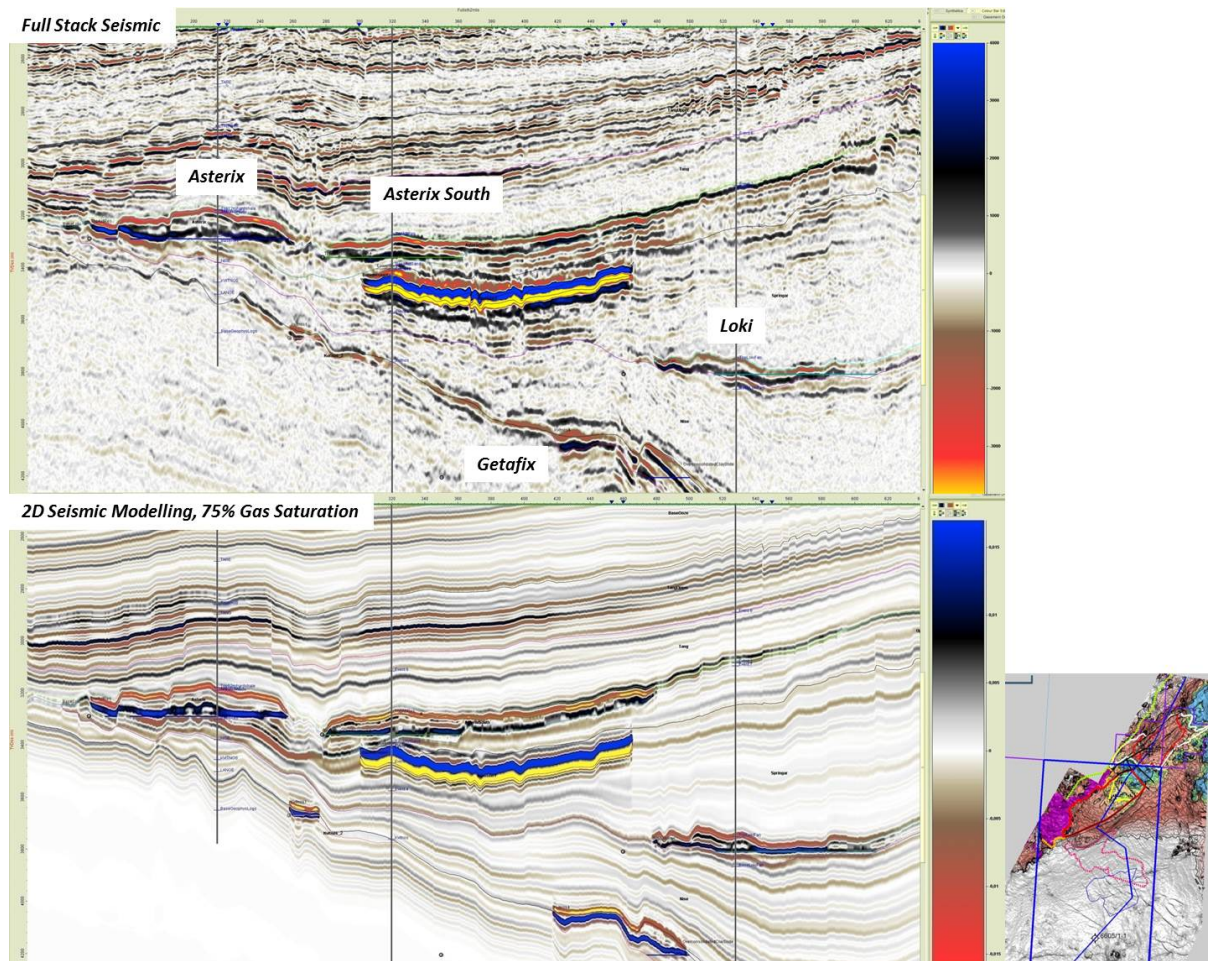


Figure 3.2 2D Seismic Modelling Results

Example line through the Asterix, Asterix South, Loki and Getafix prospects.

A relative acoustic impedance (RelAI) volume was created from the reprocessed seismic data set mainly to address the geometrical imprint and tuning effect at the thinning edges of the Asterix South prospect (Figure 3.3). The RelAI volume was focused on accurately imaging the prospect's reservoir pinch out definition after de-tuning the seismic wavelet. The RelAI volume was modelled using the Asterix (discovery case) and Obelix (residual

hydrocarbon case) wells to model the hydrocarbon saturation end members (previously modelled during the Rock physics study). Modelling of these wells showed low impedance layers within the RelAI volume with low Vp/Vs ratio can only be generated by gas-saturated sands, a wet sand was modelled to exhibit a very high AI. Therefore, the RelAI volume identifies pay zones, where hydrocarbons exceed 30% gas saturation. Within Asterix South, the prospect clearly exhibited two sand layers containing hydrocarbons above 30% saturation. A hard unit, most likely a tight shale, separates these sand bodies. The southern lateral pinch out of these Upper Springar Formation sands is clearly imaged in the cube allowing a strong definition of the southern boundary to the prospect. The RelAI volume did a very good job at de-risking the presence of hydrocarbons and imaging the prospect's southern boundary. However, the imaging of the prospect's eastern boundary was less than successful due to the complication of an underlying igneous body creating reflected seismic noise. The refracted noise proved too difficult to accurately image a base reservoir.

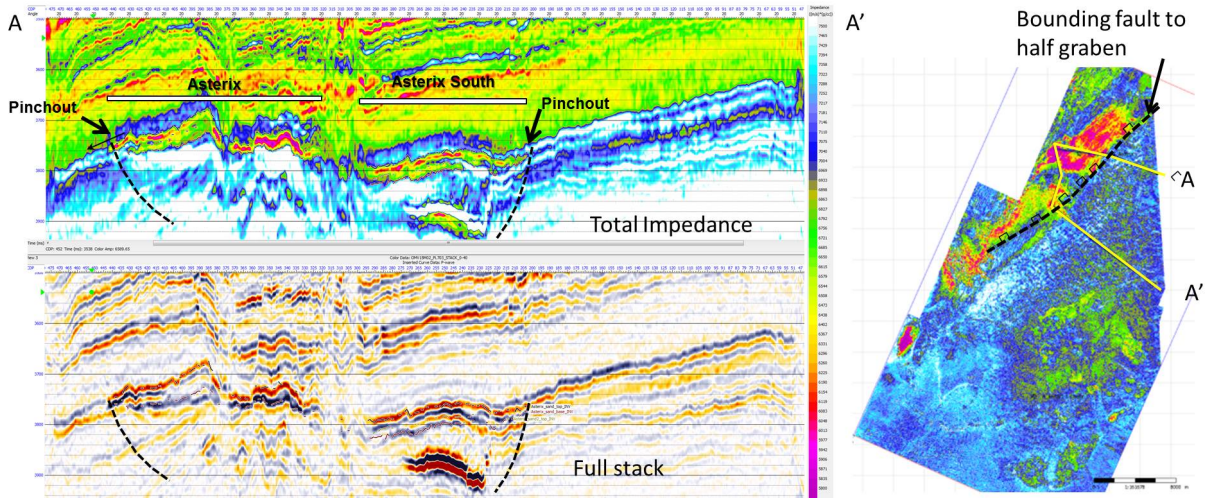


Figure 3.3 Acoustic Impedance Cube vs TWT 0-40 Stack
The resulting RelAI cube depicts the extent of hydrocarbon saturated sands.

The seismic gathers of the reprocessed seismic data set were analyzed in the PrestackPro software in order to de-risk both the Asterix South and Getafix prospects. The AVO signature at the Asterix well location is interpreted to be class III, this is consistent with that elsewhere within the Asterix discovery. Furthermore, a class III AVO signature can be observed over the Asterix South Prospect.

4 PROSPECT UPDATE

Asterix South Prospect

The Asterix South prospect is a complex stratigraphic pinch out with the Springar Formation reservoir sands pinching out to the south and west. Defining the north western boundary of the prospect is a truncation caused by an igneous intrusion. The Asterix South prospect is considered a down dip extension of the Asterix discovery (located in PL327 and PL327B). Separating the two potential hydrocarbon bodies are a series of hydrothermal vents (Figure 4.1, Figure 4.2).

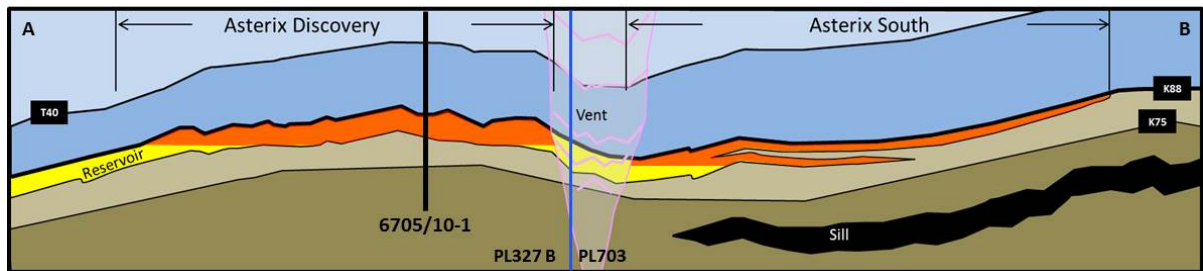


Figure 4.1 Geosection From Asterix to Asterix South Prospect

Geosection showing the relationship between the Asterix South Prospect and the Asterix Discovery.

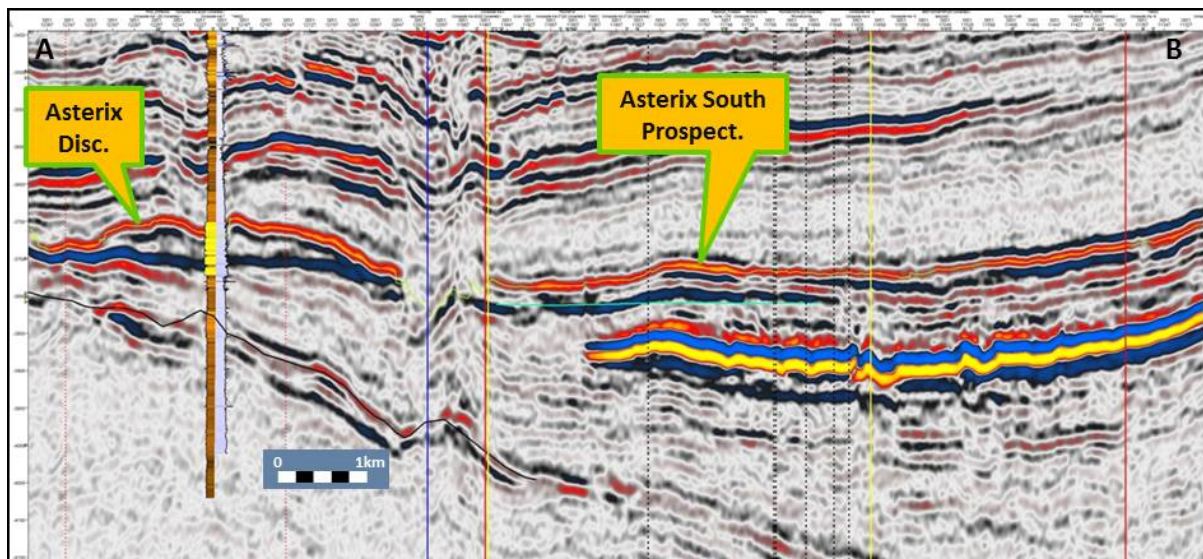


Figure 4.2 Composite Seismic Line From Asterix to Asterix South

Composite seismic line in two-way time relating the Asterix discovery with the Asterix South Prospect.

The seismic appearance of the Asterix South prospect is very similar to that of the Asterix Discovery. The Asterix South prospect also exhibits a flat event within the reservoir section similar to the flat spot proven within Asterix. However, Asterix South's flat event may be situated deeper than that proven in Asterix.

Analysis of seismic gathers belonging to the reprocessing was completed over the Asterix South prospect. When comparing the prospect's AVO signature to that of the neighbouring Asterix Discovery, the same class III AVO is observed. By applying an AVO class filter set to that, which is present at the discovery well location, a class III AVO signature is observed over both the Asterix discovery and the Asterix South prospect. The strength of the class III signature weakens in the centre of the prospect. This is attributed to the diminishing seismic quality in this area due to the imaged seismic noise emanating from the top of the underlying igneous body (Figure 4.3). This increase in

noise within the seismic data causes significant problems in imaging the crest of the Asterix South prospect, elsewhere over the prospect the seismic imaging is considered good.

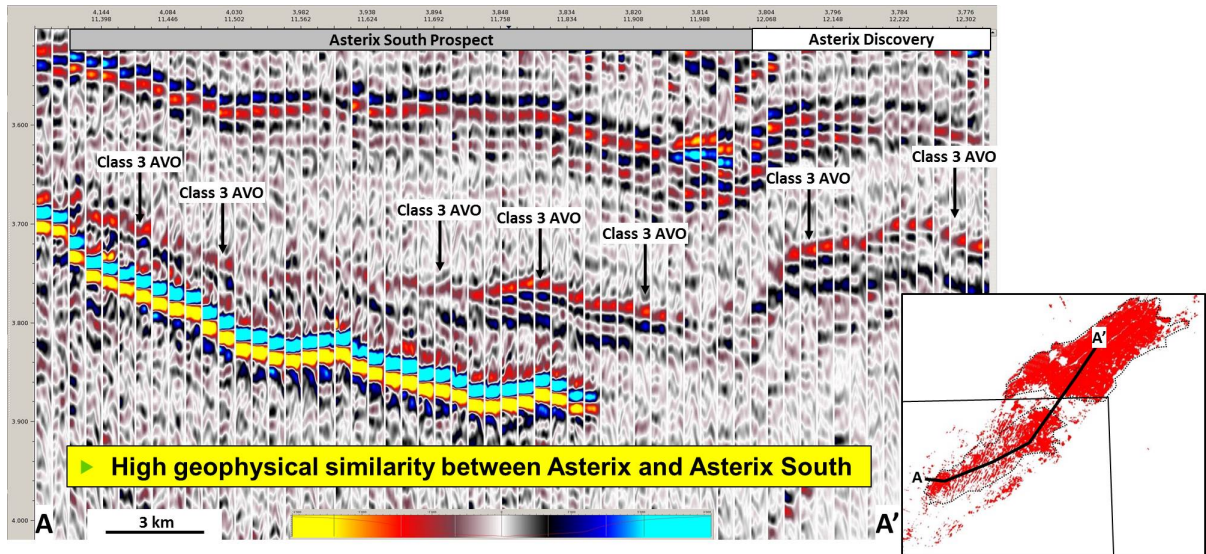


Figure 4.3 Composite Seismic Line of Gathers Through Asterix and Asterix South
 Composite line of seismic gather from Asterix to Asterix South Prospect. The line depicts the AVO effect at top Springar

Further work to assess the prospect's reservoir quality was completed. Through the process of 2D seismic modelling, Asterix South is believed to have a reservoir porosity of 19% and a gas saturation of at least 75%.

Table 4.1

Table 4.1 Asterix South Prospect Data Sheet (NPD)

Block	6634/2, 6634/3, 6605/1	Prospect name	Asterix South	Discovery/Prospect lead	Outside play (Y/N)	Prospect		Prospect ID (or New)	NPD will insert value	NPD approved (Y/N)	
Play name	NPD will insert value	New Play (Y/N)		Reference document		Assessment year	2019	Seismic database (2D/3D)	3D		
Oil, Gas or O&G case:	Gas	Reported by company	OMV (Norge) AS	Structural Stratigraphy	Water depth (m MSL) (>0)	1335					
This is case no.:	1 of 1	v tuctural element	Voring Basin	Type of trap							
Resources IN PLACE and RECOVERABLE		Main phase				Associated phase					
Volumes, this case		Low (P90)	Base, Mode	Base, Mean	High (P10)	Low (P90)	Base, Mode	Base, Mean	High (P10)		
In place resources	Oil [10 ⁹ Sm ³] (>0.00)	3.52	7.39	8.04	12.58	0.02	0.04	0.04	0.06		
	Gas [10 ⁹ Sm ³] (>0.00)	2.18	4.77	5.22	8.24	0.01	0.03	0.03	0.04		
Recoverable resources	Oil [10 ⁹ Sm ³] (>0.00)	2.18	4.77	5.22	8.24	0.01	0.03	0.03	0.04		
	Gas [10 ⁹ Sm ³] (>0.00)	2.18	4.77	5.22	8.24	0.01	0.03	0.03	0.04		
Reservoir Chrono (from)	Maastrichtian	Reservoir litho (from)	Springar Fm	Source Rock, chrono primary	Canomanian-Turon	Source Rock, litho primary	Bilalange Fm	Seal, Chrono	Maastrichtian		
Reservoir Chrono (to)	Maastrichtian	Reservoir litho (to)	Springar Fm	Source Rock, litho secondary		Source Rock, litho secondary		Seal, Litho	Springar Fm		
Probability [fraction]		Oil case (0.00-1.00)		Gas case (0.00-1.00)		Oil & Gas case (0.00-1.00)		Retention (P4) (0.00-1.00)			
Total (oil + gas + oil & gas case) (0.00-1.00)		Trap (P2) (0.00-1.00)		Charge (P3) (0.00-1.00)							
Reservoir (P1) (0.00-1.00)											
Parameters:	Low (P90)	Base	High (P10)	Comments							
Depth to top of prospect (m MSL) (> 0)		3240									
Area of closure [km ²] (> 0)		30.6	27.0	31.0							
Reservoir thickness [m] (> 0)		50	60	70							
HC column in prospect [m] (> 0)		155	170	185							
Gross rock vol. [10 ⁹ m ³] (> 0.000)		562,000	985,000	1484,000							
Net / Gross [fraction] (0.00-1.00)		0.72	0.76	0.80							
Porosity [fraction] (0.00-1.00)		0.17	0.20	0.23							
Permeability [mD] (> 0)											
Water Saturation [fraction] (0.00-1.00)		0.38	0.31	0.25							
Bg [Sm ³ /Sm ³] (< 1.0000)		0.0026	0.0026	0.0027							
1/Bo [Sm ³ /Sm ³] (< 1.00)											
GOR, free gas [Sm ³ /Sm ³] (> 0)											
GOR, oil [Sm ³ /Sm ³] (> 0)											
Recov. factor, oil main phase [fraction] (0.00-1.00)											
Recov. factor, gas ass. phase [fraction] (0.00-1.00)											
Recov. factor, gas main phase [fraction] (0.00-1.00)		0.55	0.65	0.75							
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)		0.55	0.64	0.76							
Temperature, top res [°C] (>0)	75				Innrappr. av geolog-init.	NPD will insert value	Registrert - init.	NPD will insert value	Kart oppdatert	NPD will insert value	
Pressure, top res [bar] (>0)	347				Dato:	NPD will insert value	Registrert Dato:	NPD will insert value	Kart dato	NPD will insert value	
Cut off criteria for N/G calculation	1	2	0.1	3					Kart nr	NPD will insert value	

Getafix Prospect

The Getafix prospect is a stratigraphic trap with an updip pinch out observed in a reservoir belonging to the Kvitnos Formation Figure 4.4. To the West, an element of faulting can be observed to complicate the trapping mechanism Figure 4.5. The prospect is based on a seismic amplitude anomaly where a Kvitnos to Lysing aged body is situated on the flank of the Gjallar Ridge. When comparing seismic angles, it is clear that the seismic

amplitude brightens on the far offset seismic cube. On the far offset seismic data a clear shut-off in seismic amplitudes are observed within the prospect. This amplitude shut-off is interpreted to indicate a possible hydrocarbon down to.

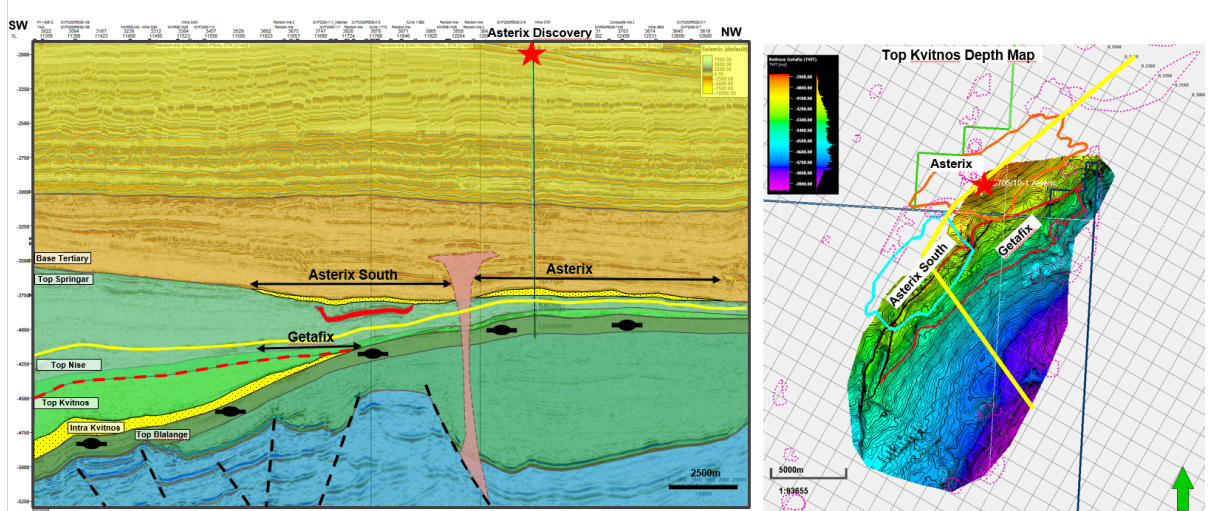


Figure 4.4 Geosection from Asterix Discovery to Getafix Prospect

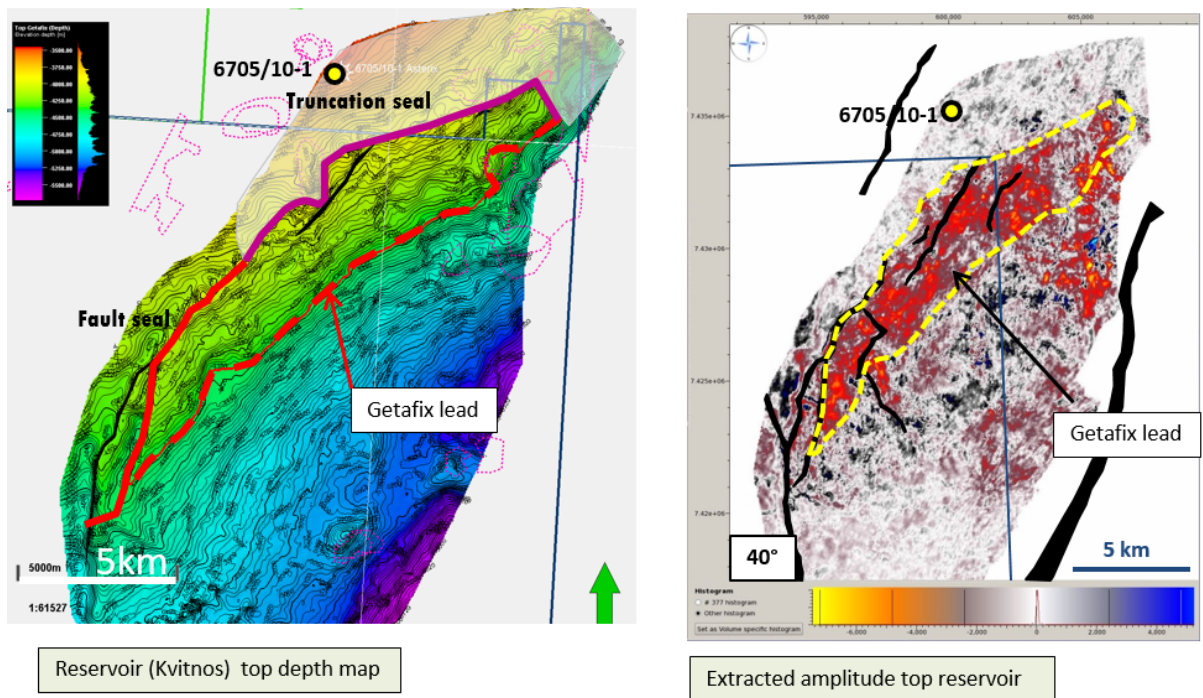


Figure 4.5 Outline of the Getafix Prospect

Seismic modelling suggests the Getafix reservoir is 70 m of interbedded sands and shales. This interbedded sand and shale relationship within the reservoir appears to distort any amplitude shut off with depth. The sands appear to possess 19% porosity and greater than 70% gas saturation. The initial inputs for the seismic modelling were based on wells from Aasta Hansteen. The gas saturation is also supported by a strong AVO conformance with depth.

Table 4.2

Table 4.2 Getafix Prospect Data Sheet

Block	6604/2, 6604/3, 6605/1	Prospect name	Getafix	Discovery/Prospect/Lead	Prospect	Prospect ID (or New)	NPD will insert value	NPD approved (Y/N)		
Play name	NPD will insert value	New Play (Y/N)		Outside play (Y/N)						
Oil, Gas or O&G case	Gas	Reported by company	OMV (Norge) AS	Reference document				Assessment year	2019	
This is case no.	1 of 1	Structural element	Vening Basin	Type of trap	Structural Stratigraphic	Water depth [m MSL] (>0)	1335	Seismic database (2D/3D)	3D	
Resources IN PLACE and RECOVERABLE		Main phase			Associated phase					
		Low (P90)	Base, Mode	Base, Mean	High (P10)	Low (P90)	Base, Mode	Base, Mean	High (P10)	
In place resources	Oil [10 ⁶ Sm ³] (>0.00) Gas [10 ⁶ Sm ³] (>0.00)	1.00	12.00	13.90	29.80	0.04	0.46	0.60	1.40	
Recoverable resources	Oil [10 ⁶ Sm ³] (>0.00) Gas [10 ⁶ Sm ³] (>0.00)	0.60	7.20	8.30	17.80	0.02	0.21	0.27	0.60	
Reservoir Chrono (from)	Santonian	Reservoir litho (from)	Kvitnos Fm	Source Rock, chrono primary	Cenomanian-Turon	Source Rock, litho primary	Bilånge Fm	Seal, Chrono	Campanian	
Reservoir Chrono (to)	Santonian	Reservoir litho (to)	Kvitnos Fm	Source Rock, chrono secondary		Source Rock, litho secondary		Seal, Litho	Nise Fm	
Probability [fraction]		Oil case (0.00-1.00)		Gas case (0.00-1.00)		Oil & Gas case (0.00-1.00)				
Reservoir (P1) (0.00-1.00)		Trap (P2) (0.00-1.00)		Charge (P3) (0.00-1.00)		Retention (P4) (0.00-1.00)				
Parameters:		Low (P90)	Base	High (P10)	<i>Comments</i>					
Depth to top of prospect [m MSL] (> 0)				3920						
Area of closure [km ²] (> 0.0)		36.7	38.1	39.8						
Reservoir thickness [m] (> 0)		30	37	90						
HC column in prospect [m] (> 0)		70	200	470						
Gross rock vol. [10 ⁶ m ³] (> 0.000)		1113,000	2060,000	3194,000						
Net / Gross [fraction] (0.00-1.00)		0.35	0.50	0.65						
Porosity [fraction] (0.00-1.00)		0.16	0.18	0.20						
Permeability [mD] (> 0.0)										
Water Saturation [fraction] (0.00-1.00)		0.40	0.30	0.20						
Bg [Rm ³ /Sm ³] (< 1.0000)		0.0027	0.0026	0.0025						
1Hco [Sm ³ /Rm ³] (< 1.00)										
GOR, free gas [Sm ³ /Sm ³] (> 0)										
GOR, oil [Sm ³ /Sm ³] (> 0)										
Recov. factor, oil main phase [fraction] (0.00-1.00)										
Recov. factor, gas ass. phase [fraction] (0.00-1.00)										
Recov. factor, gas main phase [fraction] (0.00-1.00)		0.57	0.60	0.63						
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)		0.42	0.45	0.48						
Temperature, top res [°C] (>0)		75			For NPD use:					
Pressure, top res [bar] (>0)		347			Innrappr. av geolog-tilt:	NPD will insert value	Registrert - tilt:	NPD will insert value	Kart oppdatert:	NPD will insert value
Cut off criteria for NIG calculation		1	2, 0.1	3	Date:	NPD will insert value	Registrert Date:	NPD will insert value	Kart dato:	NPD will insert value

Loki Prospect

The Loki prospect was the sole prospect identified in the 22nd license round application. The prospect is located on the eastern side of the Gjallar Ridge, on the flank of the Vigrid Syncline, approximately 5 km south of the 6705/10-1 Asterix Discovery. The Loki prospect is a combined truncation and stratigraphic pinch out trap in the Nise Formation. The truncation element was established during Late Cretaceous uplift and erosion (Late Campanian to Early Maastrichtian). The prospect is clearly identified on 3D seismic data with a strong amplitude response.

By analyzing the seismic gathers of the reprocessed data it is clear that the Loki prospect exhibits two AVO classes. To the south and the west a class III AVO response is interpreted within the prospect, this trend is distinctly separate from the background data. The eastern part of the prospect exhibits a similar intercept / gradient plot location to the overall background trend. This suggests the eastern segment to be water wet and consequently the prospect is considerably smaller than on application (Figure 4.6).

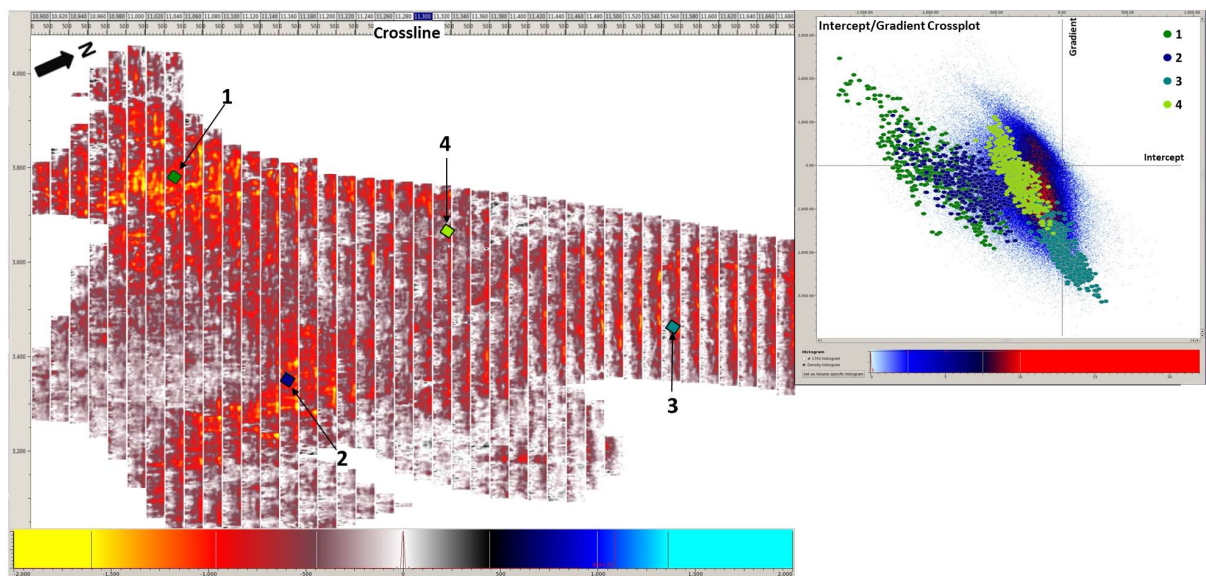


Figure 4.6 AVO Responses Over Loki Prospect
CDP map showing two different AVO responses over the Loki Prospect.

Table 4.3

Table 4.3 Loki Prospect Data Sheet (NPD)

Block	6604/2, 6604/3, 6605/1	Prospect name	Loki	Discovery/Prospect Lead	Prospect	Prospect ID (or Newf)	NPD approved (Y/N)
Play name	New Play (Y/N)	Reported by company	OMV (Norger) AS	Outside play (Y/N)	Pinch-out		
Oil, Gas or O&G case:	Gas	Structural element	Vening Basin	Reference document			Assessment year 2019
This is case no.:	1 of 1	Main phase		Type of trap			Seismic database (2D/3D) 3D
Resources IN PLACE and RECOVERABLE							
Volumes, this case							
In place resources	Oil [10 ⁹ Sm ³] (>0.00)	Low (P30)	Base, Mode	Base, Mean	High (P10)	Associated phase	Base, Mean
	Gas [10 ⁹ Sm ³] (>0.00)	1.79	1.84	9.55	20.80	Low (P90)	0.06
Recoverable resources	Oil [10 ⁹ Sm ³] (>0.00)	1.47	1.07	6.91	15.40	Low (P90)	0.06
	Gas [10 ⁹ Sm ³] (>0.00)					Low (P90)	0.45
Reservoir Chrono (from)	Campanian	Reservoir litho (from)	Nise Fm	Source Rock, chrono primary	Cenomanian-Turon	Source Rock, litho primary	0.24
Reservoir Chrono (to)	Campanian	Reservoir litho (to)	Nise Fm	Source Rock, chrono secondary		Source Rock, litho secondary	0.54
Probability [fraction]							
Total (oil + gas + oil & gas case) (0.00-1.00)	1.00	Oil case (0.00-1.00)	0.00	Gas case (0.00-1.00)	1.00	Oil & Gas case (0.00-1.00)	0.00
Reservoir (P1) (0.00-1.00)	0.63	Trap (P2) (0.00-1.00)	0.75	Charge (P3) (0.00-1.00)	0.60	Retention (P4) (0.00-1.00)	0.50
Parameters:							
Depth to top of prospect [m MSL] (> 0)		Base	High (P10)	Comments			
Area of closure [km ²] (> 0.0)	4.0		3525				
Reservoir thickness [m] (> 0)	30		11.8				
HC column in prospect [m] (> 0)	0.7		36				
Gross rock vol. [10 ⁹ m ³] (> 0.000)	2.435		125				
Net / Gross [fraction] (0.00-1.00)	0.33		2.822				
Porosity [fraction] (0.00-1.00)	0.13		0.54				
Permeability [mD] (> 0.0)	10.0		0.16				
Water Saturation [fraction] (0.00-1.00)	0.20		100.0				
B _g [Rm ³ /Sm ³] (< 1.0000)	0.0039		0.0037				
1/B _o [Sm ³ /Rm ³] (< 1.00)							
GOR, free gas [Sm ³ /Sm ³] (> 0)							
GOR, oil [Sm ³ /Sm ³] (> 0)							
Recov. factor, oil main phase [fraction] (0.00-1.00)							
Recov. factor, gas ass. phase [fraction] (0.00-1.00)							
Recov. factor, gas main phase [fraction] (0.00-1.00)							
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)							
Temperature, top res [°C] (>0)	110						
Pressure, top res [bar] (>0)	375						
Cut-off criteria for N/G calculation	1. porosity, 10%	2. VCL, 40%	3. SW, 65%				
				For NPD use:			
				Innrappr. av. geolog.-init. Dato:	Registrert - init. Registrert Dato:	Kart oppdatert Kart dato	NPD will insert value NPD will insert value
							NPD will insert value NPD will insert value
							NPD will insert value NPD will insert value

Pacifix & Harmonix Leads

Both the Pacifix and Harmonix leads are similar to that of the Getafix prospect as they are also of Kvitnos aged and are both driven by amplitude anomalies. The Pacifix lead is an elongate fan body oriented north - south. To the East and the West normal faults are present creating a half graben structure. The half graben is dipping to the south creating the requirement for an up dip pinch out. On RMS amplitude maps, the bright amplitude response of what is interpreted to be reservoir can be observed to stop, this is interpreted as reservoir pinch out. The down dip amplitude response has a relatively good conformance with depth.

The Hamonix lead is bound to the west by a normal fault and exhibits an up dip pinch out identified through the RMS amplitude extraction. The down dip amplitude is less conformant suggesting the amplitude is largely a result of reservoir presence rather than hydrocarbons.

Plaeocene Leads

Paleocene leads overview was part of the license screening for upside potential Figure 4.7. The paleocene play is an underexplored play in this area of Vøring Basin, limited wells have been targeting Paleocene sandstones as the main target. The Cretaceous play has been the main driver in the Vøring Basin. Six leads were analyzed, but only four showed more convincing seismic amplitude anomalies (Eins, Zwei, Drei, Sechs). All the leads are purely stratigraphic traps defined by amplitudes, with no depositional features observed on the extracted amplitudes and sand thickness below seismic resolution.

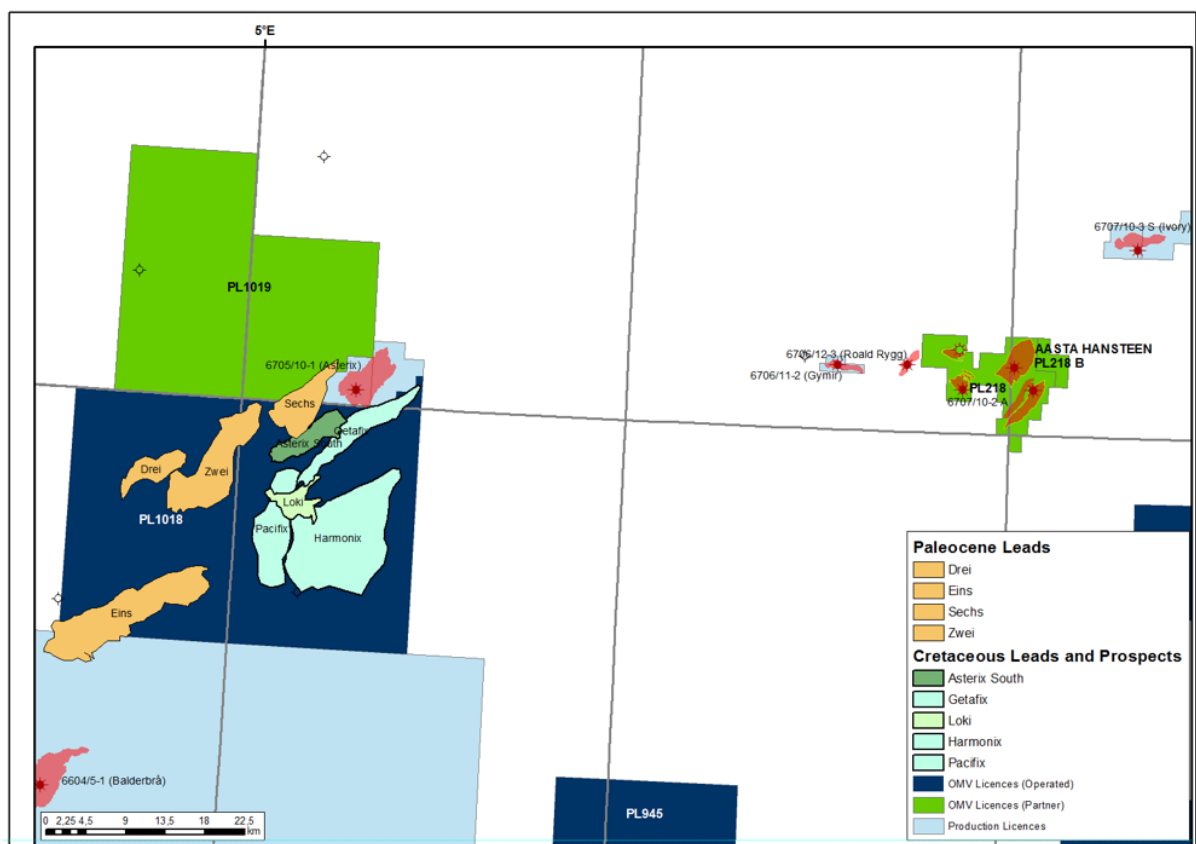


Figure 4.7 Paleocene Leads Location Map

5 TECHNICAL EVALUATIONS

A technical evaluation and an economic analysis was performed for the Asterix South and Getafix prospects. Several economic scenarios were created to target both prospects via sidetracks.

The Loki prospect, and the Harmonix and Pacifix leads were added to the license evaluation as an upside potential if Getafix would prove successful. A development scenario of a tie-back to the soon to be developed Asterix discovery which will be tied to Aasta Hansteen was envisaged.

The results of the economic analysis for the Asterix South prospect was marginally attractive and the decision was made to attempt bringing in an additional partner to the license in order to share the costs and risk in a possible exploration well.

6 CONCLUSIONS

The PL1018 partnership has placed considerable effort in evaluating the prospectivity of the license. Significant effort has also been made in understanding the nearby Asterix discovery and its possible relationship to PL1018.

Interpretation of the dataset, the Asterix South prospect is still a challenging but attractive prospect due to its similarity and proximity to the Asterix discovery. Assessment of the Asterix South prospect has shown how seismic noise created by reflections from underlying igneous bodies may mask the reservoir's true seismic character.

All license commitments have been fulfilled. The main reasons for surrendering the license are listed below:

- ▶ Even though the Asterix South prospect has a reasonable Chance of Success (including SAAM uplift), it is marginally economic, therefore the operator does not see a way forward in drilling it.
- ▶ Partners were unable to come to a positive drill decision due to marginal economics coupled with risk.