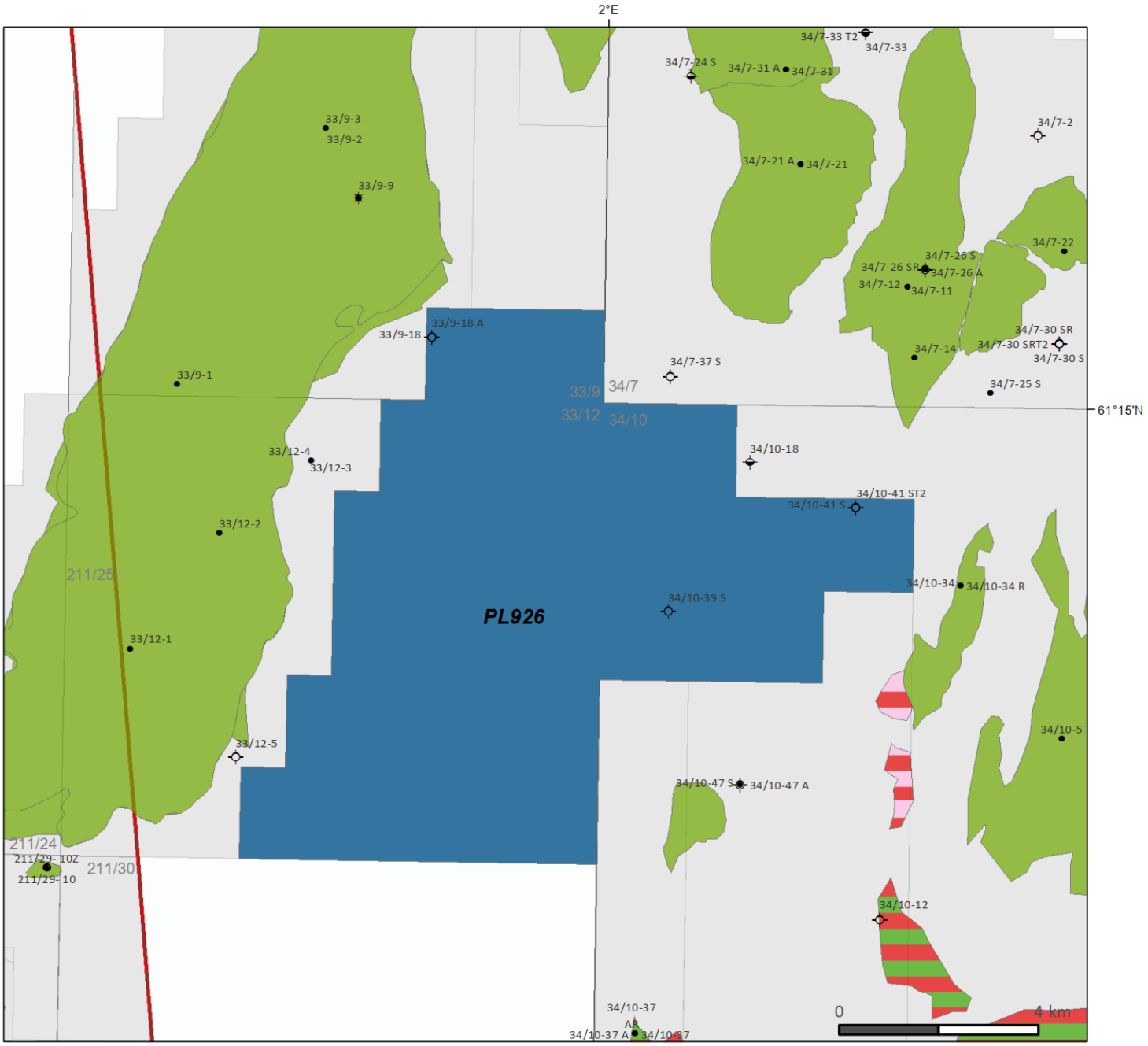
Relinquishment report PL926



concedo

DNO EST - 1971

Lundin Norway

2021

Table of Contents

List of Figures

List of Tables

1 Licence History

PL926 covers part of blocks 33/9, 12 and 34/10 in the Tampen area of the North Sea between the Statfjord and Gullfaks fields (Fig. 1.1).

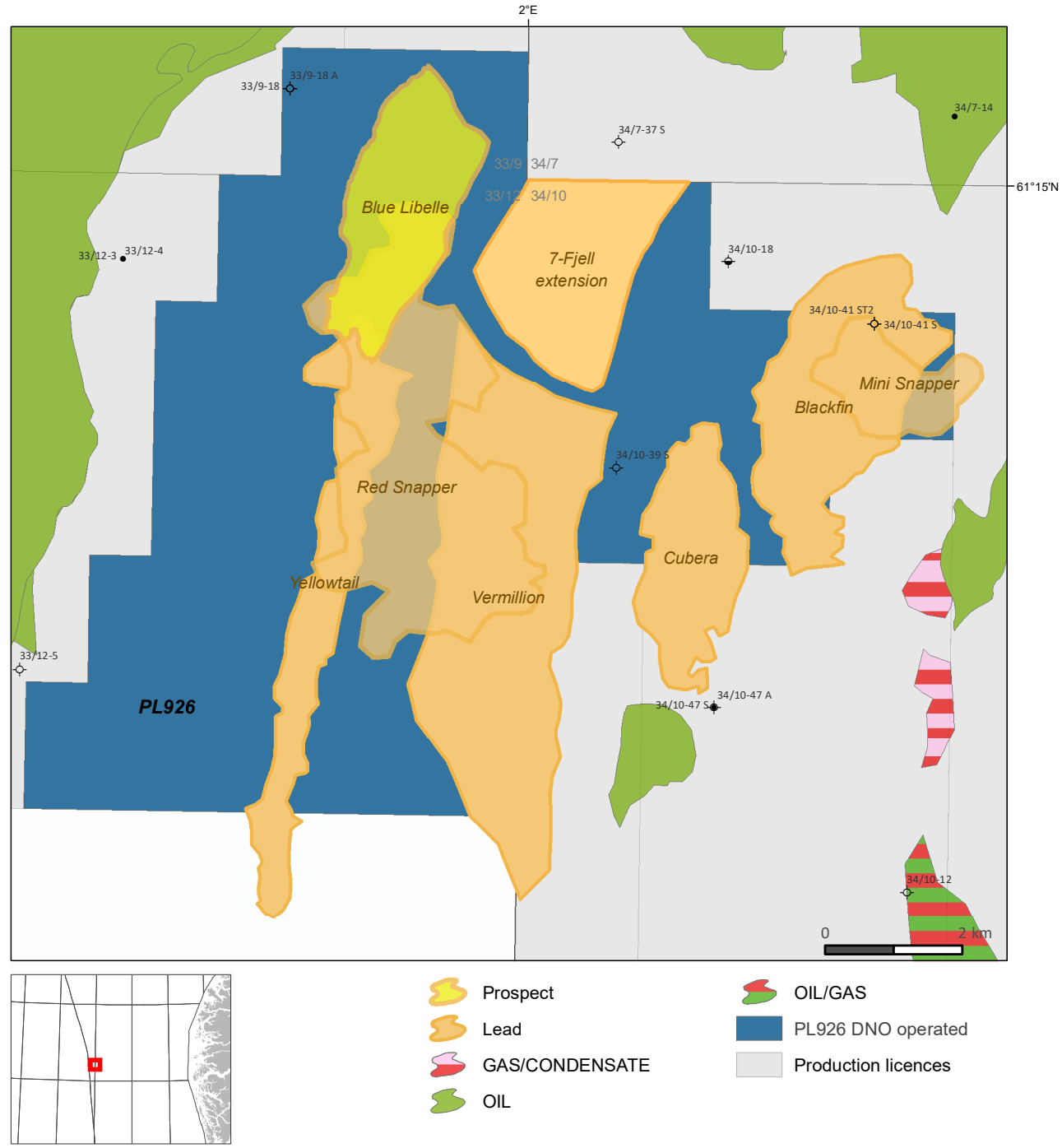


Fig. 1.1 PL926 location map

PL926 was awarded to Faroe Petroleum Norge AS (40% equity) as operator in March 2018 as part of the 2017 APA licensing round. Partners were Concedo ASA with 30% and DNO Norge AS with 30% (see Table 1.1). Faroe Petroleum Norge AS and DNO Norge AS merged in 2018, resulting in DNO Norge AS taking over operatorship. Lundin Energy Norge ASA farmed in taking 10% equity. DNO Norge AS holds 60% equity, while Concedo ASA kept their share at 30% equity (see Table 1.2). The license applied for one year extension to enable a more through evaluation of the Upper Jurassic and Lower Cretaceous prospectivity. It was granted and extended the license to 02.03.2021.

Table 1.1 PL926 initial partnership and work program

PL	Block(s)	Companies	O/P	Share (%)	Work obligation and decisions		
					Phase	Duration (yrs)	Activity/decision
926	33/9,12 and 34/10	Faroe Petroleum Norge AS	O	40	1	2	Acquire and/or reprocess 3D seismic
		Concedo ASA	P	30	**Decision: Drill or Drop**		
		DNO Norge AS	P	30	2	2	Drill exploration well
					Decision: Concretize (BoK) or Drop		
					3	4	Conceptual studies
					Decision: Continuation (BoV) or Drop		
					4	1	Prepare development plan
					Decision: Submit PDO or Drop		

Table 1.2 PL926 end of license partnership

Company	O/P	Share (%)
DNO Norge AS	O	60%
Concedo ASA	P	30%
Lundin Energy Norway AS	P	10%

The initial work commitment was fulfilled by purchasing and reprocessing seismic data.

The following meetings were held in the licence:

2018
- Exploration / management committee meeting 03.05.2018
- Exploration / management committee meeting 12.10.2018

2019
- Exploration / management committee meeting 05.12.2019
- Exploration committee work meeting 21.03.2019
- Core workshop 03.09.2019
- Exploration committee work meeting 08.10.2019
- Exploration committee work meeting 18.10.2019
- Exploration committee work meeting 15.11.2019

2020
- Exploration / management committee meeting 12.02.2020
- Exploration / management committee meeting 02.12.2020
- Exploration committee work meeting 09.06.2020

2021
- Exploration / management committee meeting 03.02.2021

The main prospect, Blue Libelle, is defined as a downthrown 2-way fault dependent closure with prospectivity in the Middle Jurassic Brent Group. The Brent Group deposits are believed to be present over the Blue Libelle prospect. Trap seal is the identified as main risk, related to fault seal capacity. The source in the area is marginally to mid mature and the fetch area available for the Blue Libelle prospect is small.

The aggregated total mean recoverable resources for the Blue Libelle prospect (Operators' view, Tarbert/Etive combined) is **2.42E6 Sm3 OE (15.2 mmboe)**, with a P90-P10 range of 0.71-4.46E6 Sm3 OE (4.5-28.0 mmboe) and a **GCoS of 0.09% (Tarbert) and 0.11% (Etive)**. The Blue Libelle prospect was concluded uneconomic and the license changed its focus to the evaluation of remaining prospectivity, concentrating on the Upper Jurassic and Lower Cretaceous potential in the license. The evaluation of the remaining prospectivity reached a negative decision, none of the leads could be de-risked to a prospect status.

Given the limited resources associated to the main prospect and the remaining prospectivity, DNO Norge reached the conclusion to relinquish the licence. A formal recommendation to surrender the acreage was made at the exploration/management committee meeting on 03.02.2021. The licensees supported the recommendation.

2 Database Overview

Seismic and well database are shown in Fig. 2.1

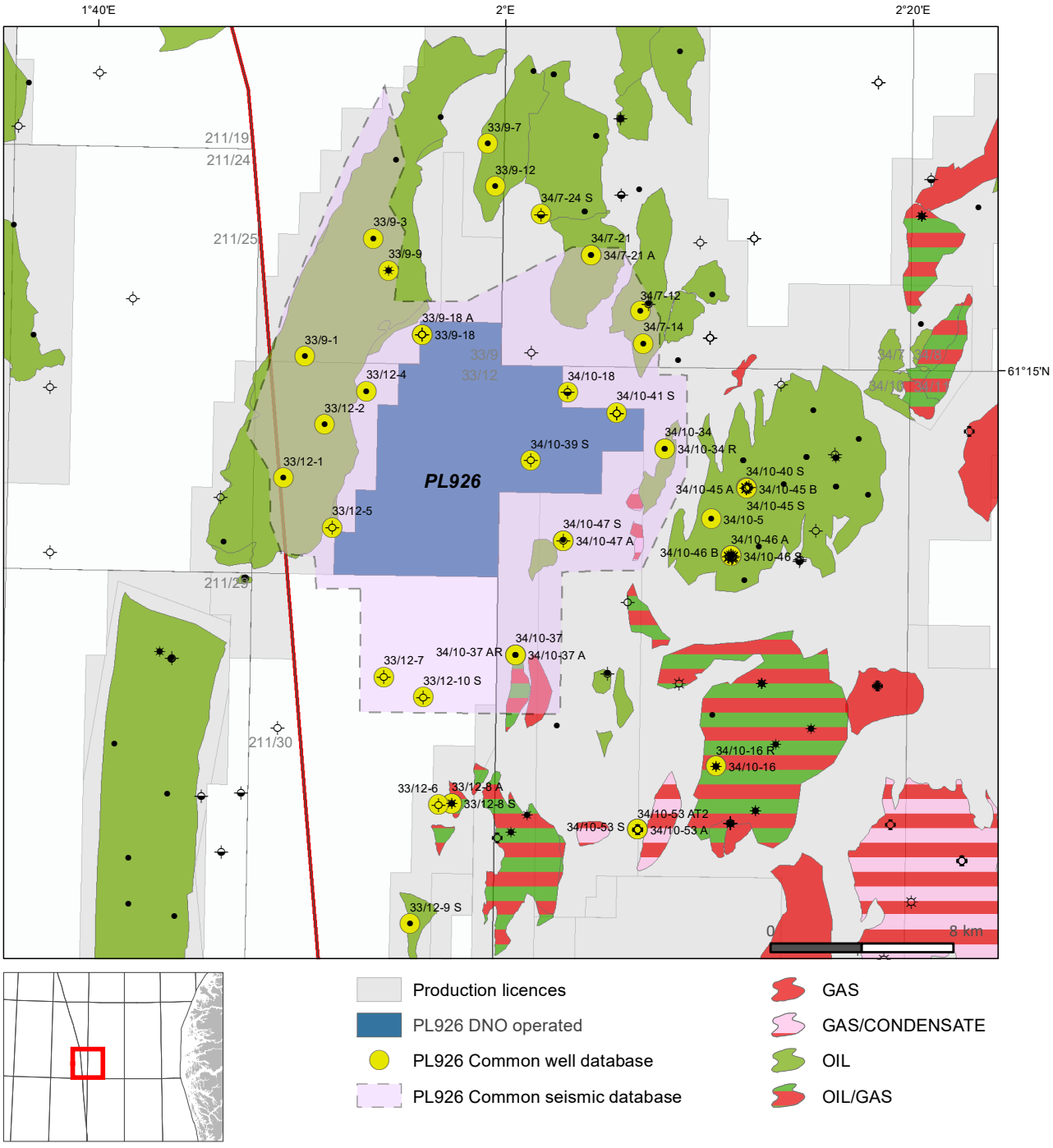


Fig. 2.1 PL926 seismic and well database

2.1 Seismic data

Main part of the work program was purchase and/or reprocess seismic data. The license decided to perform a pre-stack merge and pre-stack depth migration (PSDM) reprocessing of modern seismic data in the area. Chosen datasets were CGG15007, CGG16001 and ST9703. CGG15007 and CGG16001 were acquired during 2015-2016 using CGG's BroadSeisTM and BroadSourceTM configuration. ST9703 is an older survey acquired by Western Geco and was included in a minor area to the West for illumination of the Statfjord Field Eastern main fault. Table 2.1 lists the individual surveys. The full extent of DNO 19M01 is ~500km2. The common database area is ~300km2 (outlined in Fig. 2.1).

Table 2.1 PL926 seismic database

Survey name	NPDID	Acquisition year	2D / 3D	Phase	Polarity	Quality
CGG15007	8252	2015	3D	Zero	Normal	High
CGG16001	8332	2016	3D	Zero	Normal	High
ST9703	3882	1997	3D	Zero	Normal	High

* Part of surveys within common database polygon area, input to seismic re-processing

2.2 Well data

A list of all the relevant wells and their use in the license evaluation is provided in Table 2.2.

Table 2.2 PL926 well database

Well name	NPDID	Drilling operator	Copletion year	Well result	Petrophysics	Seismic to well tie	Geophysical modelling
33/9-1	407	Mobil	1974	Oil			
33/9-3	125	Mobil	1974	Oil			
33/9-7	412	Mobil	1976	Oil	X	X	
33/9-9	414	Mobil	1977	Oil & Gas		X	
33/9-12	1069	Den norske stats oljeselskap	1987	Oil	X	X	
33/9-18	2454	Den norske stats oljeselskap	1994	Dry	X	X	
33/9-18A	2455	Den norske stats oljeselskap	1995	Dry	X	X	
33/12-1	417	Mobil	1974	Oil			
33/12-2	418	Mobil	1974	Oil			
33/12-4	126	Mobil	1975	Oil	X		
33/12-5	115	Mobil	1976	Water	X	X	
33/12-6	119	Mobil	1976	Dry	X	X	
33/12-7	1358	Den norske stats oljeselskap	1989	Dry	X	X	
33/12-8S	4493	Statoil	2002	Oil & Gas		X	X
33/12-9S	6729	Statoil	2012	Oil	X	X	
33/12-10S	7486	Lundin	2014	Dry	X	X	
34/7-12	1187	Saga	1987	Oil	X		
34/7-14	1278	Saga	1989	Oil		X	
34/7-21	2026	Saga	1992	Oil	X	X	X
34/7-21A	2068	Saga	1993	Oil	X	X	X
34/7-24S	2460	Saga	1995	Shows	X	X	
34/10-5	428	Den norske stats oljeselskap	1980	Oil			
34/10-16	59	Den norske stats oljeselskap	1983	Oil & Gas			
34/10-18	23	Den norske stats oljeselskap	1983	Dry	X	X	
34/10-34	1747	Den norske stats oljeselskap	1991	Oil	X		
34/10-37	2431	Den norske stats oljeselskap	1995	Oil	X		
34/10-37A	2530	Den norske stats oljeselskap	1995	Oil	X	X	
34/10-39S	2574	Den norske stats oljeselskap	1995	Dry	X	X	
34/10-40S	2634	Den norske stats oljeselskap	1995	Gas			
34/10-41S	3085	Den norske stats oljeselskap	1997	Dry	X	X	X
34/10-41ST2	3085	Den norske stats oljeselskap	1997	Dry	X	X	
34/10-45 A	4501	Statoil	2002	Gas			
34/10-45 B	4824	Statoil	2002	Gas			
34/10-46 A	4500	Statoil	2002	Gas	X		
34/10-47S	4609	Statoil	2002	Oil	X	X	
34/10-47ST2	4609	Statoil	2002	Oil	X	X	
34/10-53S	6212	Statoil	2011	Gas			

3 Geological and Geophysical Studies

List of all the geological and geophysical studies carried out in aid of the technical evaluation:

- 3D purchase/ seismic reprocessing (WesternGeco)
- Structural evolution study (Terractiva / DNO)
- Fault seal study (Terractiva / DNO)
- Mud gas (Searcher)
- Source rock study (Torena / Geos4 / DNO/ Lundin)
- Basin modelling (Torena / DNO)
- Geophysical modelling and AVO (DNO)
- Upper Jurassic sedimentological & biostratigraphic study (Skolithos / DNO)
- Prospect evaluation (DNO)

The key studies that have impacted the volumes and risk of the main prospect Blue Libelle, are an internal fault seal study and geophysical modelling. To evaluate the remaining prospectivity, a semi-regional study focused at Upper Jurassic and Lower Cretaceous was performed.

The main objective for the pre-stack merge and PSDM reprocessing was to get an depth migrated dataset over the license with better handle of seismic velocities, resulting a more correct migration and placement of fault planes in the subsurface. Given the nature of the main prospect, Blue Libelle, correct fault plane location and better resolution were key for the evaluation. Multiple energy had been identified as an issue in the underlying datasets, hence the reprocessing sequence was designed with high emphasis on testing de-multiple processing techniques. The reprocessed seismic dataset DNO19M01 was a clear improvement in data quality but had a quite high noise content on delivery. A de-noise workflow was applied by DNO that clearly improved the seismic data and it's interpretability. This dataset was used for the prospect mapping in the license, which resulted in good definition of the Jurassic fault blocks and complex fault zones in the area.

The structural evolution study was performed on a semi regional scale with special focus on the PL926 license area. It was performed to build understanding for the complex Jurassic faulting seen in the Blue Libelle prospect area, in relation to larger structural elements and evolution. It also delivered erosion/ sub-crop maps for sand provenance in Upper Jurassic.

A fault seal study was performed on main faults in the Blue Libelle prospect to understand potential sealing capacity of faults bounding the prospect. There are likely Intra Brent and deeper reservoir sandstone juxtaposition and fault membrane seal is likely not strong enough to hold significant column.

The mud gas study was performed for increased understanding of hydrocarbon migration in the area.

The source rock study and basin modelling concluded that Draupne Fm source contains Type II kerogen and is organic-rich. It has excellent petroleum potential with HI values. Maturity is immature to marginally mature in the basin between Statfjord and Gullfaks, in the vicinity of Blue Libelle (fetch area). Heather Fm contains II/III kerogen and is rated a moderate to poor source rock in the area. It is poorly verified in th area. In the nearby local basin it is marginal to mid mature for oil expulsion.

Lithology and fluid prediction (LFP) modelling on key wells and AVO evaluation, including gather evaluation, were performed both for Blue Libelle and Upper Jurassic prospectivity. Wells used in LFP modelling are listed in Table 2.2. Additional wells were used for LFP modelling. In general Top Tarbert Fm polarity varies based on thickness, reservoir quality and potential HC fill. Lighter HC in good reservoir property Tarbert Fm shows a soft with AVO cl III behaviour. Pure oil-filled good reservoir property Tarbert Fm shows a somewhat weaker amplitude response and AVO cl II. LFP modelling and seismic gather evaluation support likely a cemented Tarbert Fm analogue to 34/10-41 S, with no reliable AVO support.

Wells used in LFP modelling for the Upper Jurassic are listed in in Table 2.2 . Additional wells were also used. The LFP modelling was inconclusive. For the Draupne Fm there is small acoustic impedance (AI) contrast between sand and shale and large variety in Draupne Fm shale parameters. Change in lithology properties can give similar

HC repose as change in reservoir fluid properties. Heather Fm sandstone are in general thin and harder than the encasing shale. Observed large variety in properties for Heather Fm sandstone made it challenging to trust observed results. Seismic gather investigation showed that up-dip thinning of Upper Jurassic may cause a apparent AVO response that could relate to varying frequency bands at different offsets.

The detailed semi-regional Upper Jurassic and Lower Cretaceous focused study included review of biostratigraphical data and core data, standardisation of lithostratigraphy and applying a J- and K-sequence scheme. Erosion/ sand provenance areas were mapped. Sand and limestone presence, with shows, were highlighted throughout the stratigraphy and captured on charts and on detailed GDE maps. The study resulted in a negative de-risking of the Upper Jurassic and Lower Cretaceous prospectivity in the license. Highest possibility for sand deposition during Upper Jurassic is identified as apron fan deposits in the hangingwall of the Statfjord Eastern main bounding fault as apron fans outside the license and as hyperpycnites / deep water gravity deposits to the North in the vicinity of the Tordis Field. None of the identified Upper Jurassic leads could be lifted to prospect status.

4 Prospect Update

The PL926 license application listed one prospect in the Middle Jurassic Brent Gp (Blue Libelle) and six leads in the Upper Cretaceous and Upper Jurassic. The original application summary resource potential are listed in Table 4.1 and the application summary prospect and leads outline map shown in Fig. 4.1. The unrisked mean recoverable resources estimated for the Blue Libelle prospect at the time of the application were 14.2 mmbo (oil case, Tarbert, Ness, Etive/Rannoch Fms). The probability of success was 27% with the trapping mechanism identified as the main risk factor.

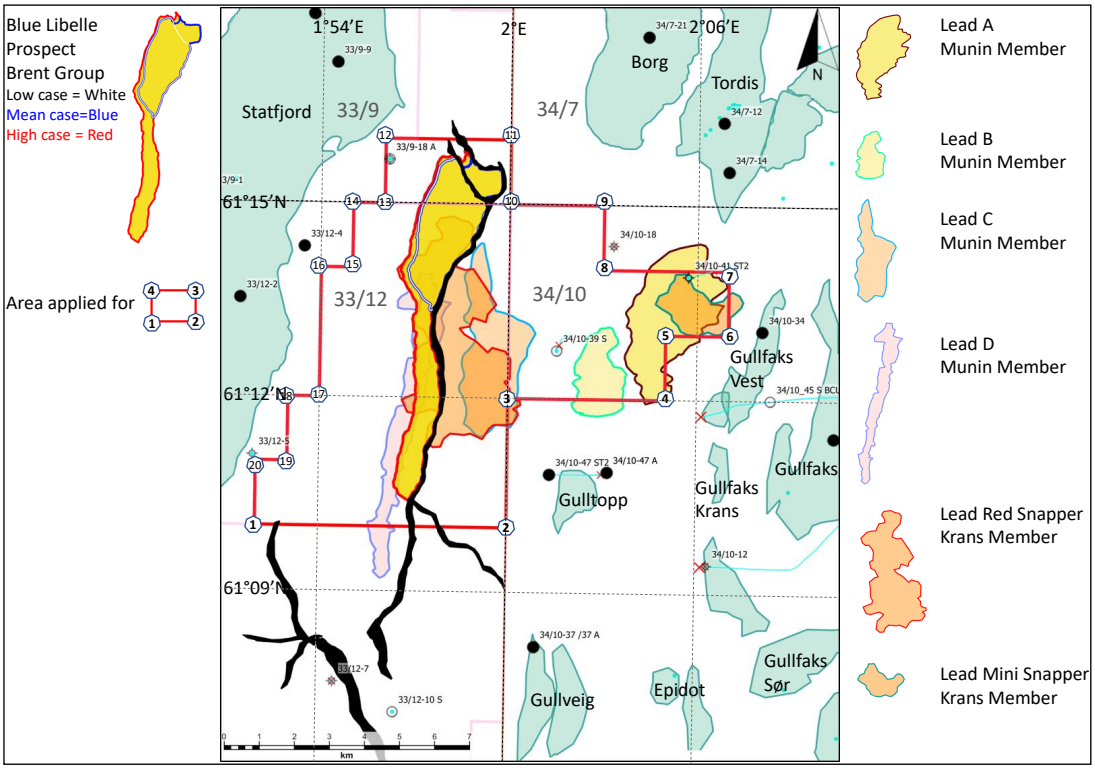


Fig. 4.1 Application area applied for and prospectivity

Table 4.1 Application resource summary (NPD table 2)

Discovery/ Prospect/ Lead name [1]	D/ P/ L [2]	Case (Oil/ Gas/ Oil&Gas) [3]	Unrisked recoverable resources [4]						Probability of discovery [5] (0.00 - 1.00)	Resources in acreage applied for [%] [6] (0.0 - 100.0)	Reservoir		Nearest relevant infrastructure [8]	
			Oil [10^6Sm^3] (>0.00)			Gas [10^9Sm^3] (>0.00)					Litho-/ Chrono-stratigraphic level [7]	Reservoir depth [m MSL] (>0)	Name	Km (>0)
			Low (P90)	Base (Mean)	High (P10)	Low (P90)	Base (Mean)	High (P10)						
Blue Libelle	P	Oil	7,70	14,20	22,20	0,70	1,80	3,30	0,27	100,0	Brent Gp/Middle Jurassic	3100	Gullfaks A	14
Red Snapper	L	Oil	3,40	8,70	15,10	0,40	1,00	1,90		95,0	Krans Mb/Upper Cretaceous	2180	Gullfaks A	10
Mini Snapper	L	Oil	0,90	2,20	4,00	0,10	0,30	0,50		95,0	Krans Mb/Upper Cretaceous	2030	Gullfaks A	6
Lead A	L	Oil	2,30	5,10	8,40	0,30	0,70	1,30		85,0	Munin Mb/Upper Jurassic	2100	Gullfaks A	7
Lead B	L	Oil	0,80	1,80	3,10	0,10	0,30	0,50		90,0	Munin Mb/Upper Jurassic	2350	Gullfaks A	8
Lead C	L	Oil	1,70	4,10	7,10	0,20	0,60	1,10		95,0	Munin Mb/Upper Jurassic	2650	Gullfaks A	11
Lead D	L	Oil	1,60	3,50	5,60	0,20	0,50	0,90		90,0	Munin Mb/Upper Jurassic	2850	Gullfaks A	13

The work carried out during the first exploration phase aimed at seismic reprocessing to increase data quality, remapping the prospectivity, geological and geophysical studies, source rock studies to mitigate source/migration and fault seal study. Results of evaluations went into updated volumes and risk.

Blue Libelle prospect

The main prospect, Blue Libelle, is defined as a downthrown 2-way fault dependent closure with prospectivity in the Middle Jurassic Brent Gp located located in the sub basin/half graben between the major Statfjord Field to the West and the Tordis/Gullfaks Fields to the East. Reservoir levels have been redefined to Tarbert and Etive Fms only. The license seismic interpretation and evaluation has been carried out on the DNO19 M01 PSDM dataset (see 2.1 Seismic data). Top and base Brent Gp was mapped with good confidence in most of the area. Fig. 4.2 shows the Top Tarbert Fm depth structural map, with the Blue Libelle prospect outlined. Fig. 4.3 show a seismic dip line trhough the Blue Libelle prospect. Trap risk has been changed from a combined 0.54 to Tarbert = 0.8 and Etive = 0.8 (fault seal risk moved to retention risk).

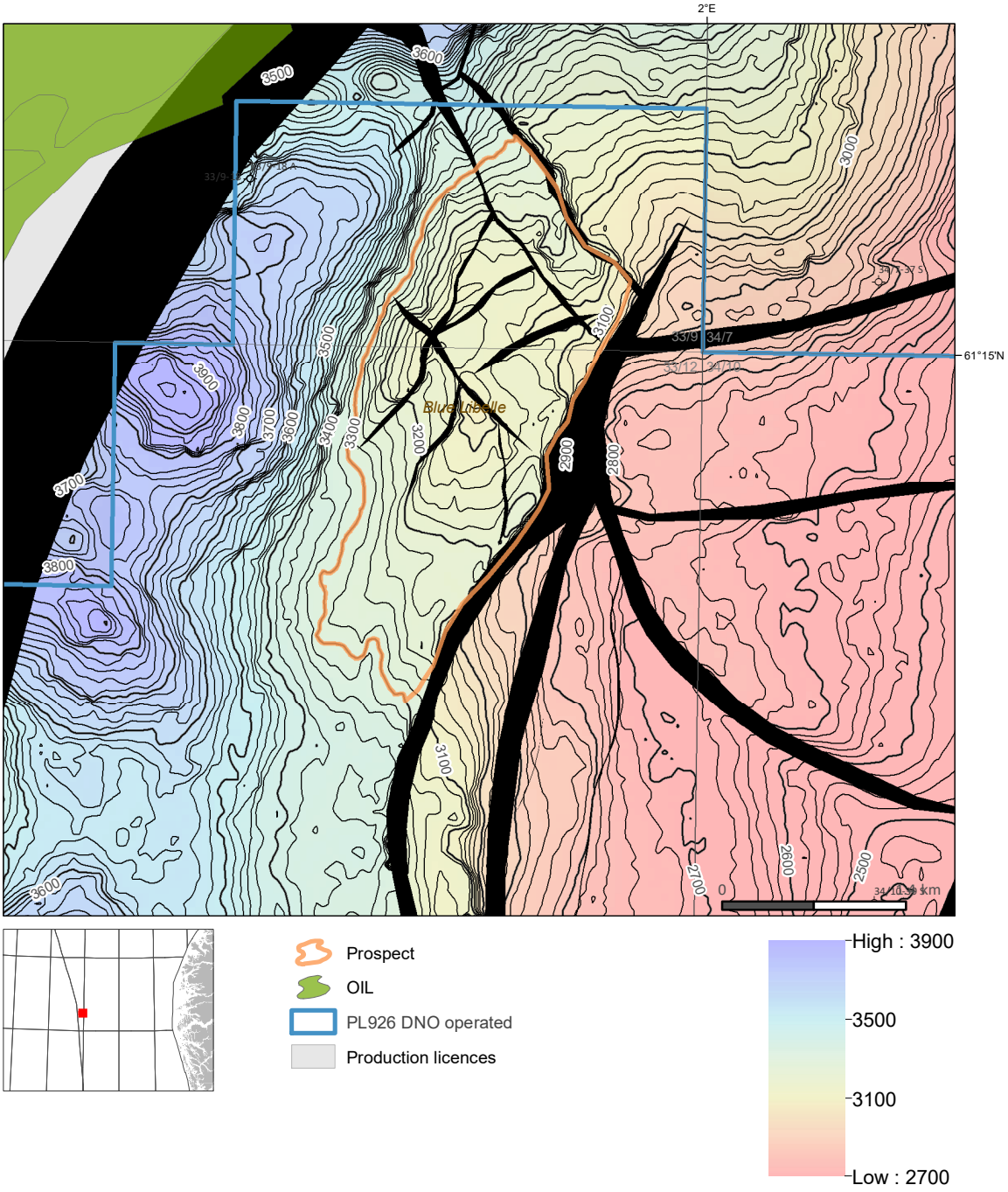


Fig. 4.2 Top Tarbert depth structure map Blue Libelle prospect outlined in orange.

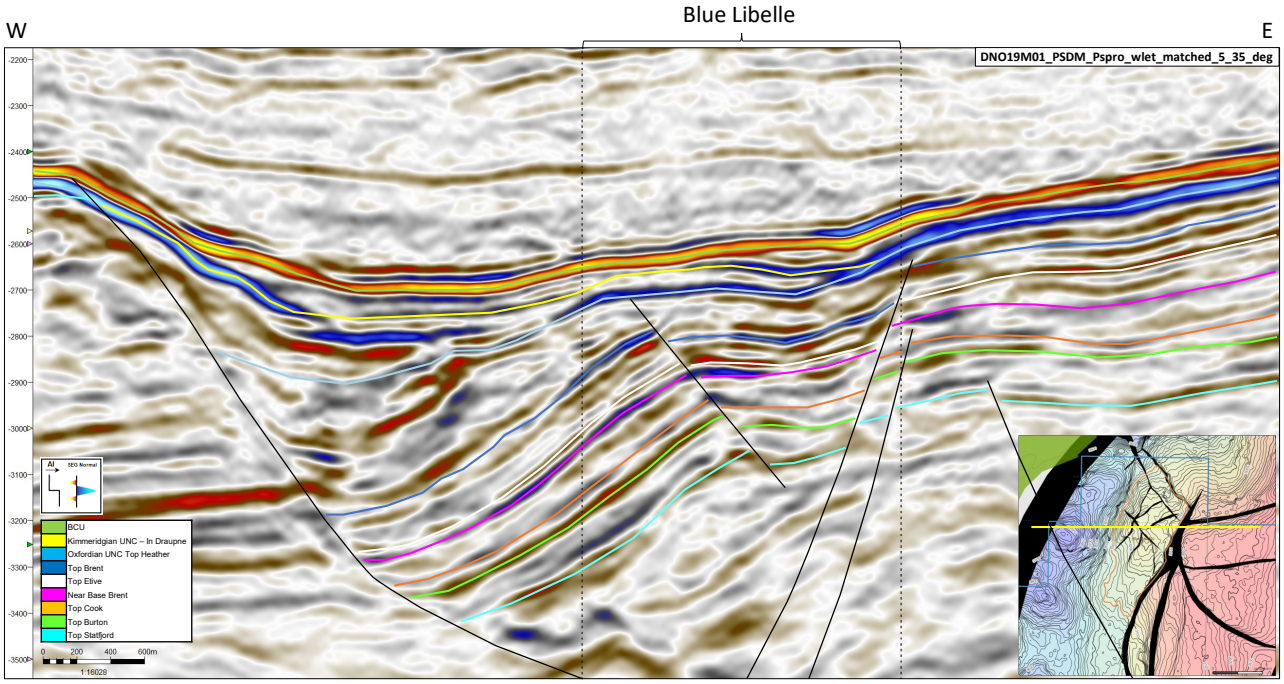


Fig. 4.3 Blue Libelle prospect seismic dip line License reprocessed data based on the CGG Horda survey. Courtesy CGG.

The Tarbert and Etive Fms are believed to be present at the prospect location, as shown by wells nearby and well known regional depositional pattern of the Brent Gp. Tarbert Fm sandstone is most likely present as a transgressive unit at Blue Libelle (but possibly partly eroded). The reservoir quality is somewhat uncertain due to patchy amplitude anomaly not confined to structure. LFP modelling and geophysical evaluation indicate calcite cemented Tarbert Fm sandstone with potential residual oil (see 3 Geological and Geophysical Studies). Application DHI confinement to structure cannot be replicated on the reprocessed dataset in the same way. There is a patchy amplitude pattern not conform to structure, likely related to cemented reservoir. Etive Fm sandstone is most likely present but the Etive sandstone thickness is uncertain. Reservoir quality is expected to be good. Reservoir risk has been changed from a combined 0.9 to Tarbert = 0.7 and Etive = 0.95.

Blue Libelle is located between several major oil fields in the Tampen area where the Draupne Fm is considered to be the major source rock. The license source rock and basin modelling study (3 Geological and Geophysical Studies) concludes that the Blue Libelle prospect, in contrast to the surrounding accumulations, seems to be located in a migration shadow from a Draupne Fm source. Hence, it seems unrealistic with charge from the Draupne Fm due to lack of migration contact with the prospect level. The prospect depends on hydrocarbon charge from the Heather Fm in a nearby local basin where the source rock is marginal to mid mature for oil expulsion. Source/ migration risk has been changed from a combined 0.7 to Tarbert = 0.54 and Etive = 0.48.

The trap seal is the main risk for the prospect, particularly the definition and seal capacity of the complex northern fault system. The northern fault may not be continuous. The displacements along the faults are not enough to offset the reservoirs, and the trap will rely on a good membrane seal which is believed not to be in place (see comments on trap seal study in 3 Geological and Geophysical Studies). Retention risk has been changed from a combined 0.8 to Tarbert = 0.3 and Etive = 0.3 (fault seal risk moved from trap in application).

Updated volumes and risk for Blue Libelle Tarbert is listed in Table 4.3. Updated volumes and risk for Blue Libelle Etive is listed in Table 4.4.

Leads

Evaluation of the remaining prospectivity included detailed seismic mapping of internal Upper Jurassic and Cretaceous packages, LFP modelling and seismic gather investigation. The most interesting, Vermillion, is defined as an Upper Jurassic wedge thickening down-dip to the West. It was originally defined as Intra Draupne or Heather. During the license period it was defined to Intra Heather based upon geophysical observations. An observed positive Intercept x Gradient anomaly could support HC in the lead location. Detailed investigation concluded that the observed Intercept x Gradient anomaly is likely not related to HC. It is potentially a top Tarbert Fm lithology

response, but there are issues with different offset frequency bands that could create false AVO. Trap delineation is challenging. Close-by structures with wells are draped by older Heather Fm deposited by a transgressive system, hence likely provenance material for the Vermillion "wedge" is shale. The Vermillion "structural nose" was probably a positive feature at the time of Upper Jurassic deposition and would likely put it in a sediment bye-pass location. Main risks are reservoir presence, trap & migration.

PL089 drilled 34/7-37S in 2020 targeting Upper Jurassic in the the 7-Fjell prospect. A southern extension of this prospect, was defined as a new lead in PL926. It was named 7-Fjell extension (see Fig. 1.1). The 34/7-27S NPD press release reported no Upper Jurassic sandstone or HC in the well. This had an negative impact on the lead. It is unlikely that there will be any sand or HC in the 7-Fjell extension location.

Multiple injectites are observed above Balder in the Tampen area. They are limited but present within PL926. Several Injectites with a hard seismic appearance, has been drilled through in several locations in the Tampen area who are calcite cemented sandstones. Injectites within PL926 have a hard seismic appearance. Hence, the license evaluation is that observed injectites are calcite cemented sandstones. Main risks reservoir quality, trap, migration.

After mapping and re-evaluation of remaining Upper Jurassic leads, they were concluded negative and the license were not able to de-risk these to prospect status. Negative evaluation of leads resulting in exclusion in the updated resource potential table (Table 4.2).

Table 4.2 License resource potential at relinquishment

Discovery/ Prospect/ Lead name	D/P/ L	Case (Oil)	Unrisked recoverable resources						Prob. of disc.	Resources in acreage applied for (%)	Reservoir		Nearest relevant infrastructure	
			Oil (10^6Sm^3)			Gas (10^9Sm^3)					Litho-/ Chrono-stratigraphical level	Reservoir depth (m MSL)	Name	km (>0)
			P90	Mean	P10	P90	Mean	P10						
Blue Libelle T	P	Oil	1,48	2.74	4.24	0.08	0.14	0.22	0,09	100,0	Tarbert Mb/ M. Jurassic	3050	Gullfaks A	14
Blue Libelle E	P	Oil	0,59	1,28	2,15	0,03	0,07	0,11	0,11	100,0	Etive Mb/ M. Jurassic	3100	Gullfaks A	14
Red Snapper	L	Oil								95,0	Krans Mb/Upper Cretaceous	2180	Gullfaks A	10
Mini Snapper	L	Oil								95,0	Krans Mb/Upper Cretaceous	2030	Gullfaks A	6
Blackfin (Lead A)	L	Oil								79,0	Munin Mb/Upper Jurassic	2100	Gullfaks A	7
Cubera (Lead B)	L	Oil								53,0	Munin Mb/Upper Jurassic	2350	Gullfaks A	8
Vermillion (Lead C)	L	Oil								78,0	Intra Heather/ Upper Jurassic	2650	Gullfaks A	11
Yellowtail (Lead D)	L	Oil								90,0	Munin Mb/Upper Jurassic	2850	Gullfaks A	13
7-Fjell extension	L	Oil								100,0	Munin Mb/Upper Jurassic	2700	Gullfaks A	13

Table 4.3 Updated NPD prospect table: Blue Libelle Tarbert

Block	33/9,33/12,34/10	Prospect name	Blue Libelle (Tarbert)	Discovery/Prosp/Lead	Prospect	Prosp 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:	Oil	Reported by company	DNO Norge AS	Reference document				Assessment year	2020
This is case no.:	1 of 1	Structural element	Tampen Spur	Type of trap	Structural	Water depth [m MSL] (>0)	140	Seismic database (2D/3D)	3D
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 [10^6 Sm^3] (>0.00)	4.28	6.28	7.59	22.50				
	Gas [10^9 Sm^3] (>0.00)					0.22	0.34	0.39	0.60
Recoverable resources	Oil [10^6 Sm^3] (>0.00)	1.48	2.05	2.74	4.24				
	Gas [10^9 Sm^3] (>0.00)					0.06	0.10	0.14	0.22
Reservoir Chrono (from)	Bathonian	Reservoir litho (from)	Tarbert Fm	Source Rock, chrono primary	Callovian	Source Rock, litho primary	Heather Fm	Seal, Chrono	Callovian
Reservoir Chrono (to)	Bathonian	Reservoir litho (to)	Tarbert Fm	Source Rock, chrono secondary	Bathonian	Source Rock, litho secondary		Seal, Litho	Heather Fm
Probability [fraction]									
Total (oil + gas + oil & gas case) (0.00-1.00)	0.09	Oil case (0.00-1.00)	1.00	Gas case (0.00-1.00)		Oil & Gas case (0.00-1.00)			
Reservoir (P1) (0.00-1.00)	0.70	Trap (P2) (0.00-1.00)	0.80	Charge (P3) (0.00-1.00)	0.50	Retention (P4) (0.00-1.00)	0.30		

Parametres:	Low (P90)	Base	High (P10)
Depth to top of prospect [m MSL] (> 0)		3050	
Area of closure [km^2] (> 0.0)	2.4	3.2	4.2
Reservoir thickness [m] (> 0)	98	128	157
HC column in prospect [m] (> 0)	125	150	200
Gross rock vol. [10^9 m^3] (> 0.000)	0.141	0.185	0.228
Net / Gross [fraction] (0.00-1.00)	0.44	0.62	0.80
Porosity [fraction] (0.00-1.00)	0.17	0.20	0.23
Permeability [mD] (> 0.0)	20.0	100.0	200.0
Water Saturation [fraction] (0.00-1.00)	0.25	0.30	0.35
Bg [Rm3/Sm3] (< 1.0000)			
1/Bo [Sm3/Rm3] (< 1.00)	0.78	0.81	0.84
GOR, free gas [Sm^3/Sm^3] (> 0)			
GOR, oil [Sm^3/Sm^3] (> 0)	44	52	60
Recov. factor, oil main phase [fraction] (0.00-1.00)	0.30	0.36	0.43
Recov. factor, gas ass. phase [fraction] (0.00-1.00)	0.30	0.36	0.43
Recov. factor, gas main phase [fraction] (0.00-1.00)			
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)			

Comments: For parametre section Base is Mean.

For NPD use:							
Temperature, top res [°C] (>0)	120			Innrapp. av geolog-init:	NPD will insert value	Registrert - init:	NPD will insert value	Kart oppdatert	NPD will insert value
Pressure, top res [bar] (>0)	400			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. VCL<0.4	2. PHI>0.12	3. Sw<0.6					Kart nr	NPD will insert value

Table 4.4 Updated NPD prospect table: Blue Libelle Etive

Block	33/9,33/12,34/10	Prospect name	Blue Libelle (Etive)	Discovery/Prosp/Lead		Prosp 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:	Oil	Reported by company	DNO Norge AS	Reference document	0			Assessment year	2020
This is case no.:	2 of 2	Structural element	Tampen Spur	Type of trap	Structural	Water depth [m MSL] (>0)	140	Seismic database (2D/3D)	3D
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 [10^6 Sm^3] (>0.00)	1.68	2.60	3.54	5.79				
	Gas [10^9 Sm^3] (>0.00)					0.09	0.11	0.18	0.30
Recoverable resources	Oil [10^6 Sm^3] (>0.00)	0.59	0.88	1.28	2.15				
	Gas [10^9 Sm^3] (>0.00)					0.03	0.04	0.07	0.11
Reservoir Chrono (from)	Bajocian	Reservoir litho (from)	Etive Fm	Source Rock, chrono primary	Callovian	Source Rock, litho primary	Heather Fm	Seal, Chrono	Bajocian
Reservoir Chrono (to)	Bajocian	Reservoir litho (to)	Etive Fm	Source Rock, chrono secondary	Bathonian	Source Rock, litho secondary		Seal, Litho	Ness Fm
Probability [fraction]									
Total (oil + gas + oil & gas case) (0.00-1.00)	0.11	Oil case (0.00-1.00)	1.00	Gas case (0.00-1.00)	0.00	Oil & Gas case (0.00-1.00)	0.00		
Reservoir (P1) (0.00-1.00)	0.95	Trap (P2) (0.00-1.00)	0.80	Charge (P3) (0.00-1.00)	0.50	Retention (P4) (0.00-1.00)	0.30		

Parametres:	Low (P90)	Base	High (P10)	*Comments: For parametre section Base is Mean.*
Depth to top of prospect [m MSL] (> 0)		3100		
Area of closure [km^2] (> 0.0)	1.3	1.8	2.6	
Reservoir thickness [m] (> 0)	13	21	29	
HC column in prospect [m] (> 0)	125	150	200	
Gross rock vol. [10^9 m^3] (> 0.000)	0.052	0.083	0.114	
Net / Gross [fraction] (0.00-1.00)	0.86	0.91	0.96	
Porosity [fraction] (0.00-1.00)	0.17	0.20	0.24	
Permeability [mD] (> 0.0)	20.0	100.0	200.0	
Water Saturation [fraction] (0.00-1.00)	0.25	0.30	0.35	
Bg [Rm3/Sm3] (< 1.0000)				
1/Bo [Sm3/Rm3] (< 1.00)	0.78	0.81	0.84	
GOR, free gas [Sm^3/Sm^3] (> 0)				
GOR, oil [Sm^3/Sm^3] (> 0)	44	52	60	
Recov. factor, oil main phase [fraction] (0.00-1.00)	0.30	0.36	0.43	
Recov. factor, gas ass. phase [fraction] (0.00-1.00)	0.30	0.36	0.43	
Recov. factor, gas main phase [fraction] (0.00-1.00)				
Recov. factor, liquid ass. phase [fraction] (0.00-1.00)				For NPD use:

Temperature, top res [°C] (>0)	120			Innrapp. av geolog-init:	NPD will insert value	Registrert - init:	NPD will insert value	Kart oppdatert	NPD will insert value
Pressure, top res [bar] (>0)	400			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. VCL<0.4	2. PHI>0.12	3. Sw<0.6					Kart nr	NPD will insert value

5 Conclusion

One prospect and seven leads have been mapped within PL926. The main prospect, Blue Libelle, has been downgraded in terms of resources and considered uneconomic. The remaining prospectivity is challenging to define in the license period evaluation or associated with too high risk. It has not been possible to de-risk these to prospect status. The license work programme has been fulfilled. Given the limited resources in PL926, the licensees have come to an unanimous decision to relinquish PL926.