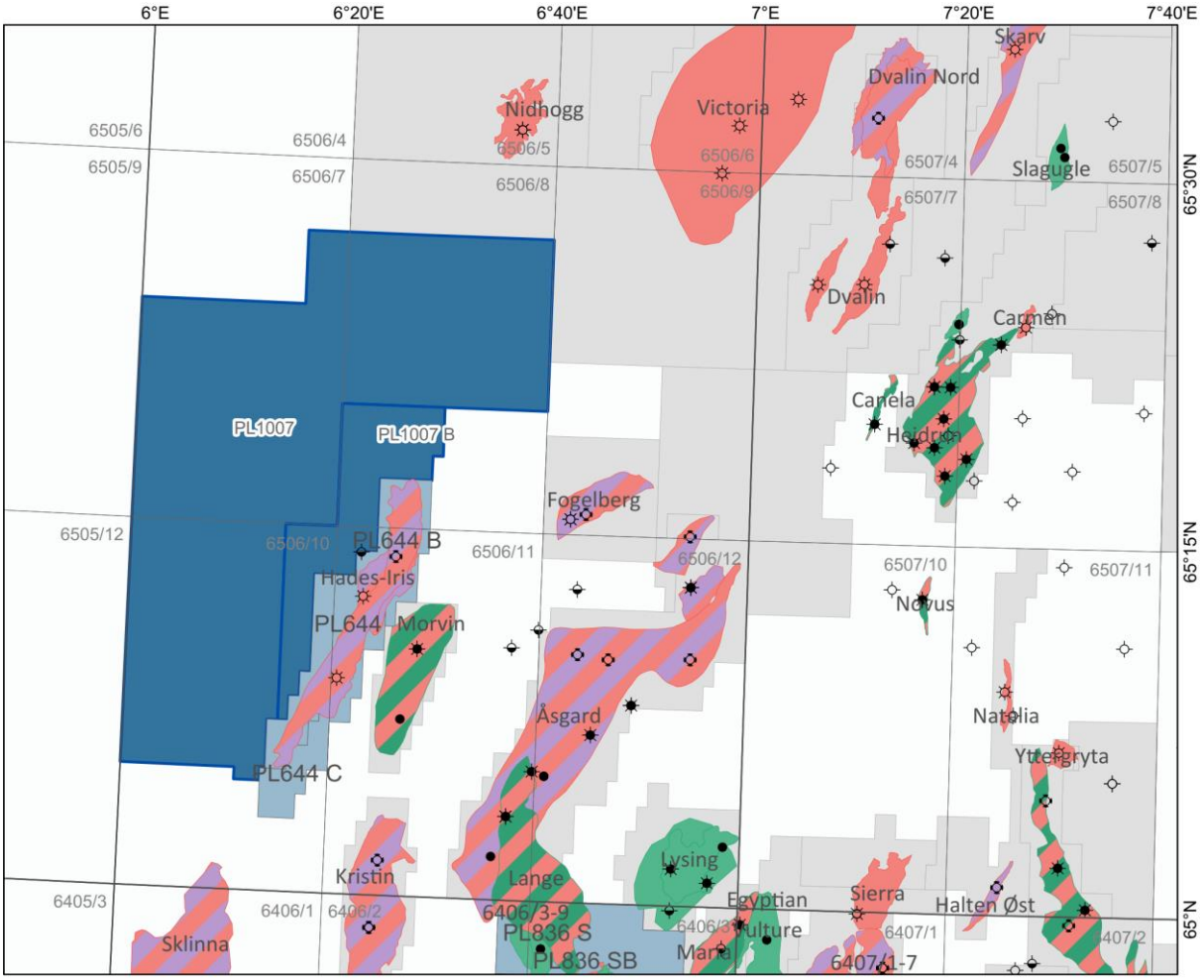
Relinquishment report PL 1007 & PL 1007 B



2022

Table of Contents

List of Figures

List of Tables

1 Licence History

PL1007 and PL1007 B are located in the Norwegian Sea covering parts of blocks 6506/7, 8, 10 and 11 (Fig. 1.1).

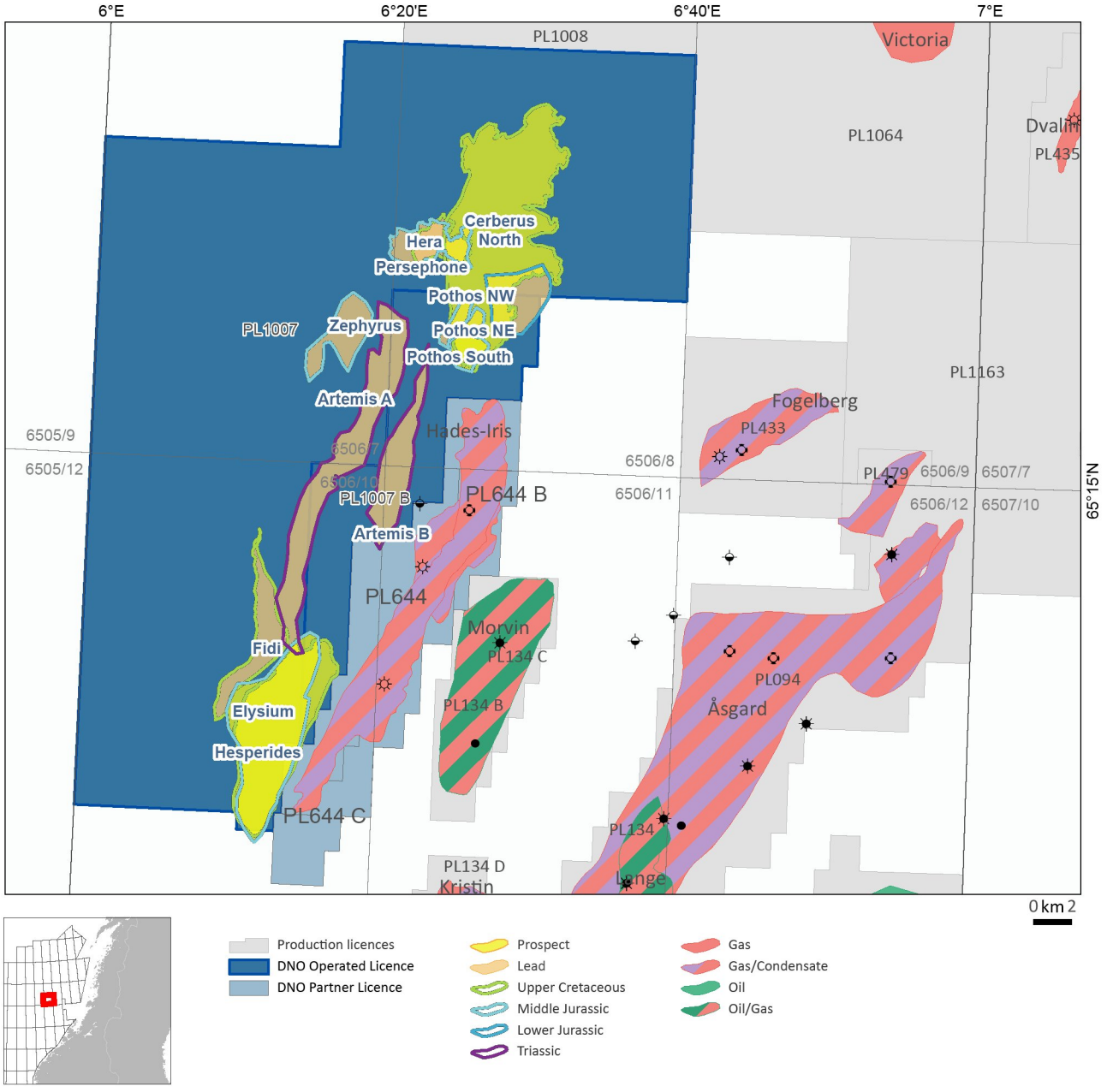


Fig. 1.1 Location map

The PL1007 licence was awarded to DNO Norge AS as Operator on 1 March 2019 through the 2018 APA licensing round, with OMV (Norge) AS, Sval Energi AS and Equinor Energy AS as partners. The licence partnership at the time of relinquishment is shown in Table 1.1

Table 1.1 PL1007 & PL1007 B partnership

Company	Equity
DNO Norge AS	40% and operator
OMV (Norge) AS	20%
Sval Energi AS	20%
Equinor Energy AS	20%

The work commitment at the time of award consisted of reprocessing 3D seismic data prior to the initial drill or drop decision on 1 March 2021. A one year licence decision extension was applied for and was granted by the authorities on 11 November 2020, with a new drill or drop decision of 1 March 2022. Subsequently, a second licence decision extension was applied for and was granted on 14 January 2022 with a new drill or drop decision of 1 September 2022. The additional acreage of PL1007 B was awarded as an area extension to PL1007 as part of the APA 2021 licensing round with the same conditions as PL1007 on 11 March 2022.

The following meetings were held in the licence:

2019

- Exploration/ Management Committee Licence Kick-Off Meeting: 24 April 2019
- Exploration/ Management Committee Licence Meeting: 11 September 2019
- Exploration/ Management Committee Licence Meeting: 10 December 2019

2020

- Exploration Committee Work Meeting: 29 January 2020
- Exploration/Management Committee Licence Meeting: 18 June 2020
- Exploration/Management Committee Licence Meeting: 10 November 2020

2021

- Exploration Committee Work Meeting: 26 March 2021
- Exploration/Management Committee Licence Meeting: 24 November 2021

2022

- Exploration Committee Work Meeting: 11 February 2022
- Exploration Committee Work Meeting: 20 April 2022
- Exploration/Management Committee Licence Meeting: 14 June 2022 w/ recommendation DoD

Since the award, the Joint Venture has fulfilled the work programme and matured prospectivity in a number of plays.

Evaluations of new seismic data and integration with regional structural, sedimentological and geophysical studies concluded that the Elysium Prospect (identified in the original APA 2018 application) was very high risk and not viable. Focus in the licence shifted to additional prospectivity with the Middle Jurassic Pothos South and overlying Upper Cretaceous Cerberus North prospects identified as drill candidates.

Economical analysis indicated negative project economics for both the Pothos South and Cerberus North prospects in the P90, P50 and mean scenarios, with only the P10 scenarios delivering a positive NPV. Based on limited resources and negative to marginal expected economics on the main prospects, Cerberus North and Pothos South do not meet the requirements to make a positive drill decision in PL1007.

2 Database Overview

2.1 Seismic data

The common seismic database used to evaluate the licence is shown in Fig. 2.1. In order to derisk and better define the prospectivity in the area, the first phase of work commitments included seismic reprocessing of parts of the MC3D-HVG2013, MC3D-HVG2011, BG0801 and SKHN99 (SRNE99) surveys. The licence group agreed to include parts of these surveys into a new merged and reprocessed survey carried out by WesternGeco AS. This resulted in the delivery of the DNO20M01 survey in January 2021. DNO20M01 then became the survey used for evaluation of the licence prospectivity going forwards.

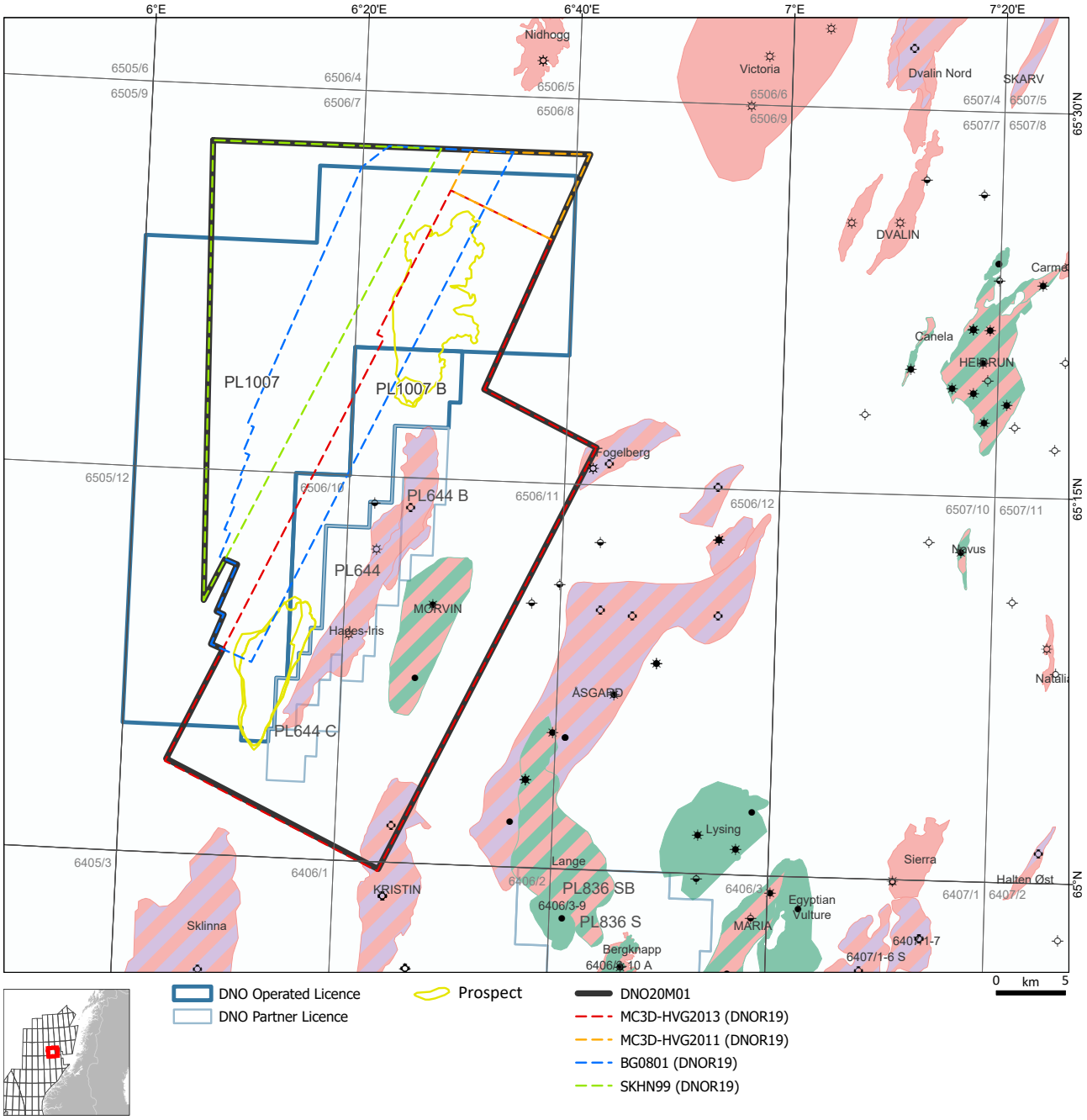


Fig. 2.1 PL1007 seismic data

DNO20M01 is a reprocessing and merge of:

- MC3D-HVG2013, acquired by Multiklient Invest AS (PGS). NPDID: 7900
- MC3D-HVG2011, acquired by PGS Geophysical AS. NPDID: 7379
- BG0801, acquired by CGG for BG Norge AS. NPDID: 4508
- SKHN99 (SRNE99), acquired by PGS NOPEC A/S. NPDID: 4013

DNO20M01 was reprocessed by PL1007 and all datasets have been loaded to DISKOS. The final data for DNO20M01 is given in Table 2.1.

Table 2.1 DNO20M01 datasets

DATASET NAME	S1 DATASET ID	DATA TYPE	PROCESSING TYPE
DNO20M01-PL1007-KPSTM-RAW-FULL-STACK	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSTM-RAW-NEAR-STACK	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSTM-RAW-NEARMID-STACK	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSTM-RAW-MID-STACK	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSTM-RAW-MIDFAR-STACK	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSTM-RAW-FAR-STACK	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-FULL-STACK-IN-TIME	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-NEAR-STACK-IN-TIME	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-NEARMID-STACK-IN-TIME	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-MID-STACK-IN-TIME	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-MIDFAR-STACK-IN-TIME	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-FAR-STACK-IN-TIME	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-FULL-STACK-IN-DEPTH	5.4.4.1	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-NEAR-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-NEARMID-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-MID-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-MIDFAR-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSDM-RAW-FAR-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG RAW
DNO20M01-PL1007-KPSTM-FINAL-FULL-STACK	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSTM-FINAL-NEAR-STACK	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSTM-FINAL-NEARMID-STACK	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSTM-FINAL-MID-STACK	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSTM-FINAL-MIDFAR-STACK	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSTM-FINAL-FAR-STACK	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-FULL-STACK-IN-TIME	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-NEAR-STACK-IN-TIME	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-NEARMID-STACK-IN-TIME	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-MID-STACK-IN-TIME	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-MIDFAR-STACK-IN-TIME	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-FAR-STACK-IN-TIME	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-FULL-STACK-IN-DEPTH	5.4.4.2	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-NEAR-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-NEARMID-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-MID-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-MIDFAR-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSDM-FINAL-FAR-STACK-IN-DEPTH	5.4.4.3	POST STACK	MIG FIN
DNO20M01-PL1007-KPSTM-ETA-INTERVAL	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSTM-SMOOTH-VPN-INTERVAL	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSDM-AZIMUTH-IN-DEPTH	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSDM-DELTA-IN-DEPTH	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSDM-DIP-IN-DEPTH	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSDM-EPSILON-IN-DEPTH	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSDM-VP0-IN-DEPTH	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSDM-VPZ-IN-DEPTH	5.4.6.1	VELOCITY	OTHER VEL
DNO20M01-PL1007-KPSTM-RAW-CMP-GATHERS	5.4.3.2	PRESTACK	PRESTACK
DNO20M01-PL1007-KPSTM-FINAL-CMP-GATHERS	5.4.3.2	PRESTACK	PRESTACK
DNO20M01-PL1007-KPSDM-RAW-CMP-GATHERS-IN-DEPTH	5.4.3.2	PRESTACK	PRESTACK
DNO20M01-PL1007-KPSDM-RAW-CMP-GATHERS-IN-TIME	5.4.3.2	PRESTACK	PRESTACK
DNO20M01-PL1007-KPSDM-FINAL-CMP-GATHERS-IN-DEPTH	5.4.3.2	PRESTACK	PRESTACK
DNO20M01-PL1007-KPSDM-FINAL-CMP-GATHERS-IN-TIME	5.4.3.2	PRESTACK	PRESTACK
SRNE99-MC3D-SKHN99DNOR20-DEMULTIPLE-SHOT-GATHERS	5.4.3.2	PRESTACK	PRESTACK
BG0801DN0R20-DEMULTIPLE-SHOT-GATHERS	5.4.3.2	PRESTACK	PRESTACK
MC3D-HVG2013DNOR20-DEMULTIPLE-SHOT-GATHERS	5.4.3.2	PRESTACK	PRESTACK
MC3D-HVG2011DNOR20-DEMULTIPLE-SHOT-GATHERS	5.4.3.2	PRESTACK	PRESTACK

2.2 Well data

An overview of the common well database is provided in Table 2.2. The common well database consists of 27 wells used to evaluate the licence.

Table 2.2 Well database

Well	NPDID	Result	Year	Release status	TD stratigraphy	TD (m TVD RKB)	Petro-physics	Well tie	Rock physics	Field/ Discovery
6406/1-2	4762	Gas / Cond.	2003	Released	Red Beds	4500			x	Sklinna South
6406/1-4	5183	Dry	2005	Released	Red Beds	4596	x			Sklinna South
6406/3-9	6594	Oil	2012	Released	Lange Fm	4183	x			T-Rex
6407/1-6 S	7086	Gas / Cond.	2013	Released	Ror Fm	4250	x			Rodriguez
6407/1-7 A	7436	Gas / Cond.	2014	Released	Lange Fm	3602	x			Solberg
6506/5-1 S	8961	Gas	2020	Released	Lange Fm	3225	x	x	x	Nidhogg
6506/6-1	4122	Gas	2000	Released	Åre Fm	5491	x	x	x	Victoria
6506/6-2	6960	Dry	2013	Released	Lange Fm	3366	x	x	x	Victoria
6506/9-2 S	6332	Gas / Cond.	2010	Released	Åre Fm	4805	x			Fogelberg
6506/9-3	7207	Gas / Cond.	2013	Released	Åre Fm	4692	x			Smørbukk North
6506/9-4 A	8411	Gas	2018	Released	Tofte Fm	4497	x			Fogelberg
6506/9-4 S	8355	Gas	2018	Released	Tofte Fm	4738	x			Fogelberg
6506/11-1	1216	Gas Shows	1988	Released	Åre Fm	4679		x	x	Smørbukk G
6506/11-2	1754	Oil / Gas	1991	Released	Åre Fm	4813	x			Smørbukk
6506/11-3	1973	Shows	1992	Released	Not Fm	4350	x	x	x	Sklinna North
6506/11-4 S	2736	Oil	1996	Released	Åre Fm	5110	x			Smørbukk
6506/11-6	3306	Gas / Cond.	1998	Released	Åre Fm	5275	x			Kristin
6506/11-7	3322	Oil / Gas	2001	Released	Åre Fm	4978	x	x		Morvin
6506/11-8	5295	Oil	2006	Released	Tilje Fm	4990	x	x	x	Morvin
6506/11-9 S	6852	Shows	2012	Released	Åre Fm	5330	x			Cooper
6506/11-10	8317	Gas / Cond.	2018	Released	Ror Fm	4536	x	x	x	Hades-Iris
6506/11-11 S	8759	Gas	2019	Released	Ror Fm	4443	x	x	x	Hades-Iris
6506/11-12 S	9057	Gas	2020	Released	Lange Fm	4150	x			Hades
6506/12-3	468	Oil / Gas	1985	Released	Tilje Fm	4360		x	x	Smørbukk South
6506/12-4	475	Shows	1985	Released	Åre Fm	4457		x	x	Smørbukk Alpha
6506/12-6	1342	Gas / Cond.	1986	Released	Åre Fm	4741				Smørbukk
6507/7-1	4955	Dry	2004	Released	Lange Fm	3745	x			Dvalin

3 Geological and Geophysical Studies

Listed below is a summary of the work done in PL1007 with descriptions of the geological and geophysical studies carried out:

Seismic merge and reprocessing (DNO20M01)

- A full seismic reprocessing from field data and merge of all the surveys MC3D-HVG2013, MC3D-HVG2011, BG0801 and SKHN99 was performed by WesternGeco AS, delivering a high-quality PSDM 3D data set in January 2021. The reprocessing project DNO20M01 fulfilled the licence commitments. The final deliverables significantly enhanced prospect definition and have been utilised for interpretation work, depth conversion and geophysical modelling.

Seismic Interpretation and Well Ties

- Detailed regional and prospect scale seismic interpretation, in addition to multiple well to seismic ties for key wells in and around the licence area, have been carried out on DNO20M01. The Sklinna Ridge North is structurally complex and detailed interpretation has been necessary to better understand prospectivity across multiple levels in the stratigraphy.

Depth Conversion

- A velocity model was provided as part of the final deliverables for the DNO20M01 reprocessing project. In addition, DNO carried out licence depth conversions and velocity modeling focused on correcting reservoir maps for shallow, Neogene, velocity anomalies over key prospects in the PL1007 and PL1007 B licences. The final models, including shallow anomaly corrections, were used to depth convert key prospects in the licence.

Structural Reconstruction study

- A regional interpretation and structural 2D reconstruction study by Terractiva was performed in 2021 to better understand the regional depositional and structural history of the area. The results of the project are used to evaluate and risk prospectivity. A key impact of the study was an increased understanding on the distribution of the Garn Formation on the Sklinna Ridge North, increasing the reservoir presence risk on the Elysium Prospect.

Geophysical Modelling

- DNO carried out pre-stack, model based elastic inversion of the entire Sklinna Ridge North structure using conditioned angle stacks as input. The main objectives of this inversion were the quantification of elastic properties for fluid saturation characterisation and reservoir quality assessment within the whole structure. The inversion project used the following steps:
  - Seismic offset gathers were conditioned using Pre-Stack Pro software to clean and correct the data for both offset stacking (interpretation) and inversion. Main elements of the conditioning workflow were optimised radon filters, random noise removal and residual move-out correction.
  - Seismic data frequency and amplitude analysis for lateral and vertical seismic signal stationary assessment.
  - Well-to-seismic ties, well log data cross-plot analysis (in-situ and fluid substituted logs), rock physics and forward modelling of key wells located both in the licence and from nearby analogues.
  - Initial model building, implementing two different strategies in parallel: the first one consisting of the kriging of low pass filtered well logs in a stratigraphic grid; the second one relying on DNO20M01 PSDM migration velocities only.
  - Attribute maps generation for target intervals. Interpretation of lateral elastic properties variation in regards of rock physics templates derived from the well logs.
- Two independent inversions were run, the first one focusing on the Garn Formation and the second one focused on the Lower Cretaceous.
- The conditioned offset stacks and inversion volumes were used for interpretation and risking of the Pothos South and Cerberus North prospects.

Basin Modeling, migration modeling, source rock evaluation and semi-regional geochemical evaluation of oil families

- A basin modeling and hydrocarbon migration study was conducted by Torena AS as part of the Cerberus North Prospect evaluation and the PL1007 B licence extension application in August 2021. The results of the study are used for volumetrics and risking of key prospects.

Petrophysical evaluations

- Petrophysical well log conditioning and evaluation was carried out on key wells in the licence to give a consistent data set for determining reservoir quality at multiple reservoir levels. The wells interpreted are given in Table 2.2. Deliverables from the study included formation averages, depth trend plots (PHIE, N/G & PERM) and CPI plots used for prospect volumetrics and risking.

Sedimentological studies

- The PL1007 partners are also in PL644 and have access to a Sklinna Ridge North focused study carried out by Geolink for PL644. The available Geolink data combines wireline logs, biostratigraphic data and seismic interpretation for building a high-resolution sequence stratigraphic framework. The Geolink database was updated with a focus on the Garn Formation on the Sklinna Ridge North area and delivered in 2021 as part of the PL644 production licence work. Well interpretation, correlations and facies maps from the study are used for prospect volumetrics and risking.
- DNO has carried out an in-house 'Regional Cretaceous Study' of the Lange and Lysing formations, including mapping of major unconformities, maximum flooding surfaces and reservoir levels across the Halten and Dønna terraces, as well as seismic to well ties and rock physics modeling of the Lange and Lysing formation sandstones. Further sedimentological studies were based on core material. All the results of the study are not available to PL1007. Nevertheless, the results were partly shared with the licence and used to inform prospect volumetrics and risking in Cretaceous prospectivity.

Hydrocarbon and seal evaluation

- DNO has proprietary access to a multiclient project carried out by Geo Provider that investigates hydrocarbon shows, types and possible seals in wells within the Norwegian Sea. Knowledge from this study is integrated in to DNO's prospect assessments and risking for PL1007 and PL1007 B.

TGS - Facies Map Browser (FMB)

- The TGS FMB provides regional sequence stratigraphic studies based on well data and biostratigraphy. Knowledge from this study has bee used during preparation of palaeogeographic maps, well correlations, well evaluations and in risking prospects.

Prospect Evaluation

- Detailed prospect mapping and evaluation of main prospects in the licence, in addition to technical economical evaluation on the main prospects (Cerberus North and Pothos South).

4 Prospect Update

The prospects and leads applied for in APA 2018 are shown in Fig. 4.1, with resources and risk summarised in Table 4.1.

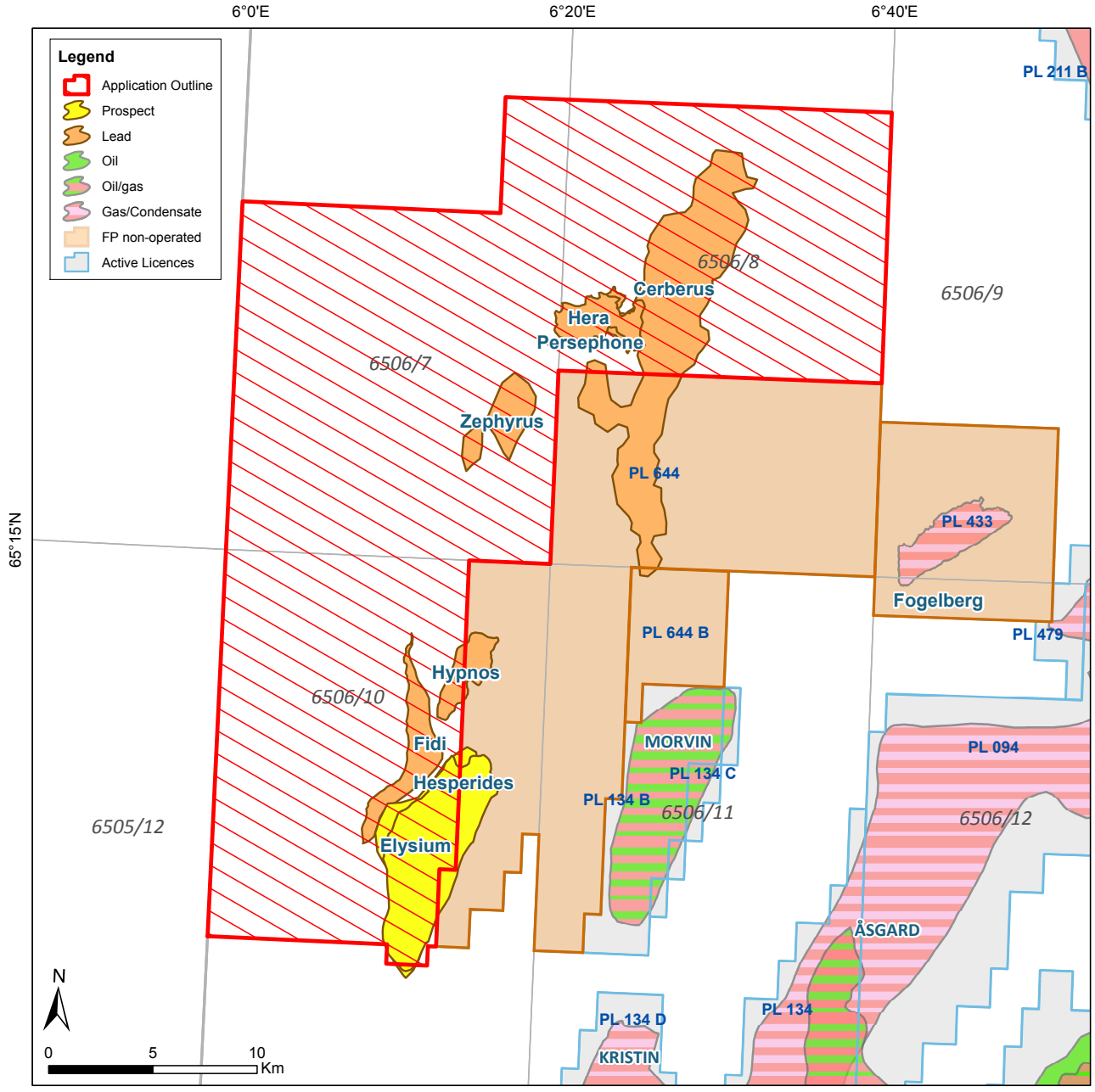


Fig. 4.1 PL1007 prospectivity at award in March 2019 Map from original application summary for APA 2018.

APA 2018

The main prospect at the time of award was the Elysium Prospect in the Middle Jurassic Garn Formation. Overlying Elysium, prospectivity was also identified in the Hesperides Prospect in the Cretaceous Lange Formation. In addition, six leads in the Middle Jurassic and Upper Cretaceous were identified.

Table 4.1 PL1007 resource summary 2019 Summary of prospect and lead volumes and risk at the time of licence award in March 2019.

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)						
6506/10 Elysium	P	Gas	0.55	7.19	17.10	1.27	14.50	34.80	0.29	90.0	Garn Fm / Bajocian	3880	Morvin	10
6506/10 Hesperides	P	Gas	0.21	0.71	1.35	2.59	7.37	13.20	0.20	90.0	Lange Fm / Turonian	3720	Morvin	10
6506/7 Zephyrus	L	Gas	0.22	1.92	4.54	0.50	3.79	8.73	0.20	100.0	Garn Fm / Bajocian	4200	Morvin	15
6506/8 Hera	L	Gas	0.13	1.04	2.52	0.28	2.09	5.03	0.22	100.0	Garn Fm / Bajocian	4500	Morvin	18
6506/8 Persephone	L	Gas	0.05	0.19	0.39	0.56	2.01	3.89	0.20	100.0	Lange Fm / Turonian	4100	Morvin	18
6506/10 Hypnos	L	Gas	0.05	0.17	0.32	0.64	1.76	3.13	0.20	50.0	Lange Fm / Turonian	3800	Morvin	10
6506/10 Fidi	L	Gas	0.08	0.28	0.53	0.99	2.88	5.21	0.08	100.0	Lange Fm / Turonian	4000	Morvin	10
6506/8 Cerberus	L	Gas	0.26	0.81	1.52	3.11	8.46	14.60	0.12	65.0	Lysing Fm / Coniacian	3300	Morvin	10

Elysium Prospect

Elysium was the main prospect in PL1007 at the time of application. Interpreted as a horst block structure at BCU, with an unconformity at its base defined by subcropping, steeply dipping beds. The age of the identified unconformity was uncertain and was interpreted as Permian. The section between the two unconformities was characterised by flat lying reflectors, with some bright soft amplitudes, especially near the top, and was interpreted to be Jurassic aged sandstones, most likely of the Garn Fm. Key risks at the time of award were reservoir and retention. The mean recoverable volume calculated at the time of application was 7.19 Msm^3 oil and 14.5 Gsm^3 gas with a 29 % chance of success.

Hesperides Prospect

The Hesperides Prospect was identified overlying the Elysium Prospect. Defined as a large faulted anticline mapped within the Lange Formation, age equivalent to the hydrocarbon-charged reservoir discovered in the 6506/11-10 Hades Discovery well. The anticlinal trap was interpreted to contain strong soft amplitudes similar to those observed in the Hades Discovery. The key risk at the time of application was reservoir. The mean recoverable volume calculated at the time of application was 0.71 Msm^3 oil and 7.37 Gsm^3 gas with a 20 % chance of success.

Middle Jurassic: Zephyrus and Hera leads

Two additional leads were identified below the BCU towards the northern end of the Sklinna Ridge, called Hera and Zephyrus, analogous to the Iris Discovery. Small structural closures were mapped; however, being located on the edge of the 3D coverage meant that the leads were in a region of poor data quality. Hera was interpreted as a small four-way dip closed structure with potential for containing Garn Formation sandstone. The Zephyrus Lead is more complex, relying on an element of down-thrown trap seal.

Upper Cretaceous: Cerberus, Persephone, Hypnos and Fidi leads

Three additional Lange Formation leads (Fidi, Hypnos and Persephone) and one Lysing Formation lead (Cerberus) were identified. Persephone and Hypnos are four-way dip closed structures, while Fidi was interpreted as a down-faulted closure. An absence of strong far offset amplitudes indicated some risk on the development of significant reservoir; however, all these leads were located towards the edges of the existing 3D datasets, where data quality was very poor. The Cerberus Lead was identified as a largely stratigraphic trap defined by a 53 km^2 far angle amplitude anomaly within possible sandstones of the lower part of the Lysing Formation.

2019-2022 Update

The prospectivity at time of relinquishment of PL1007 and PL1007 B is shown in Fig. 4.2, with resources summarised in Table 4.2.

The studies carried out from 2019-2022 (3 Geological and Geophysical Studies) have been used to update the prospectivity in PL1007 and PL1007 B. A number of the prospects and leads outlined in the original application have been downgraded and are interpreted to have low potential to generate economically viable resources.

Fig. 4.2

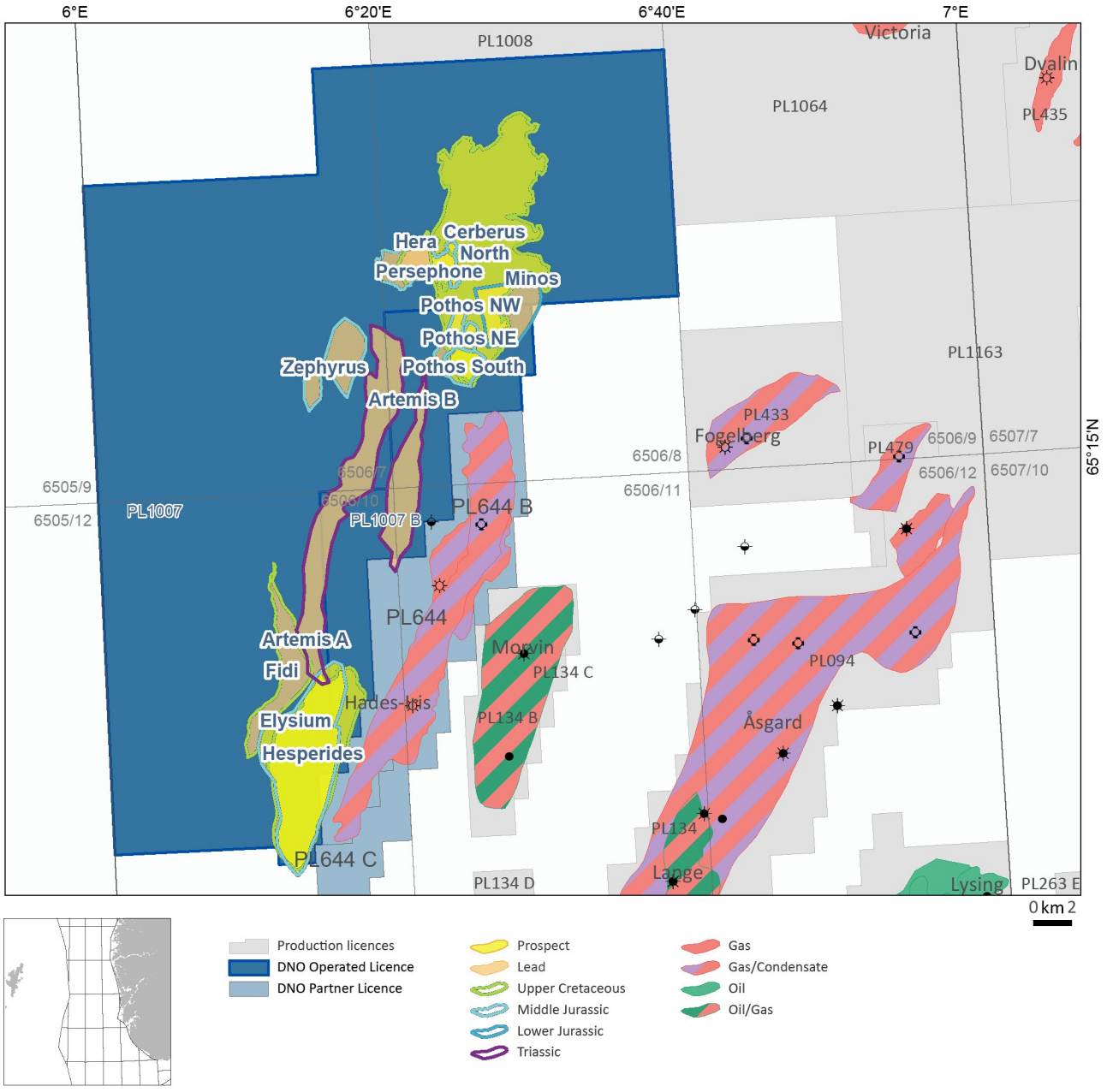


Fig. 4.2 PL1007 prospectivity at relinquishment in September 2022

Table 4.2 PL1007 and PL1007 B resource summary 2022

Prospect name	D/ P/L	Case	Unrisked recoverable resources						Prob. of disc.	Resources in PL1007 / 1007 B (%)	Reservoir		Nearest relevant infrastructure	
			Oil (10^6Sm^3)			Gas (10^9Sm^3)					Litho-/ Chronostrati-graphical level	Reservoir depth (m MSL)	Name	km (>0)
			P90	Mean	P10	P90	Mean	P10						
Pothos South	P	Gas	0.73	1.67	2.89	1.69	3.70	6.43	0.28	100	Garn Fm / Bajocian	4450	Iris-Hades	11
Cerberus North	P	Gas	0.31	0.40	0.80	1.07	3.11	5.29	0.17	100	Lange Fm / Turonian	3305	Iris-Hades	14
Elysium	P	Gas	0.55	7.19	17.10	1.27	14.50	34.80	0.05	98	Garn Fm / Bajocian	3880	Iris-Hades	14
Hesperides	P	Gas	0.06	0.34	0.65	0.86	4.48	8.06	0.14	100	Lange Fm / Albian	3695	Iris-Hades	14
Pothos NE	L	Gas	0.05	0.26	0.59	0.14	0.66	1.54	0.28	100	Garn Fm / Bajocian	4490	Iris-Hades	12
Pothos NW	L	Gas	0.02	0.33	0.85	0.06	0.84	2.24	0.28	100	Garn Fm / Bajocian	4480	Iris-Hades	12
Minos	L	Gas	0.05	0.30	0.63	0.20	1.12	2.42	0.17	100	Åre Fm / Sinemurian	>4500	Iris-Hades	13
Zephyrus	L	Gas	0.22	1.92	4.54	0.50	3.79	8.73	0.20	100	Garn Fm / Bajocian	4200	Iris-Hades	12
Hera	L	Gas	0.13	1.04	2.52	0.28	2.09	5.03	0.22	100	Garn Fm / Bajocian	4500	Iris-Hades	16
Persephone	L	Gas	0.05	0.19	0.39	0.56	2.01	3.89	0.20	100	Lange Fm / Turonian	4100	Iris-Hades	16
Hypnos	L	Gas	0.05	0.17	0.32	0.64	1.76	3.13	0.20	50	Lange Fm / Turonian	3800	Iris-Hades	6
Fidi	L	Gas	0.08	0.28	0.53	0.99	2.88	5.21	0.08	100	Lange Fm / Turonian	4000	Iris-Hades	10
Artemis A	L	Gas									Red Beds / Triassic	4400	Iris-Hades	7
Artemis B	L	Gas									Red Beds / Triassic	4450	Iris-Hades	4

Elysium Prospect

Presence of Garn Formation reservoir was identified as the key risk at the application stage for the Elysium Prospect. To mitigate this a structural study investigated the possibility of the Garn Formation being present at the Elysium Prospect location on the Sklinna Ridge North. It concluded that the potential for preserved Garn Formation reservoir on the high is very low, significantly downgrading the chance of success. Following the structural study, Elysium has significant risk on reservoir presence. The final evaluation concluded using the same resource estimates as in the APA, but with a significantly lower chance of geological success.

Hesperides Prospect

Reservoir was identified as the key risk at the application stage with geophysical studies proposed to mitigate the risk. Geophysical studies gave a negative conclusion from the geophysical modelling of the strong soft amplitudes used to initially define the prospect as Lange Formation sandstones. Regional studies and mapping of Cretaceous late Cenomanian to early Turonian turbidites (lower Lange Formation) concluded that the deposition of these sandstones onto the southern parts of the Sklinna Ridge North in the Hesperides location was unlikely. The amplitudes are more likely soft Albian shales. The prospect age has been modified to Albian. The final evaluation concluded using new resource estimates based on new mapping, sedimentological, petrophysical and geophysical analysis and a higher reservoir presence risk.

Middle Jurassic: Zephyrus and Hera leads

The Zephyrus and Hera leads remain difficult to define in an area of poor data quality on the DNO20M01 survey.

Upper Cretaceous: Persephone, Hypnos and Fidi leads

The Persephone, Hypnos and Fidi leads have not been worked further during the licence period due to limited volume potential.

Artemis A and Artemis B leads

The Artemis leads are part of a sub-salt, Triassic Red Beds play identified by the PL644 licence. Strategically, the PL1007 licence concluded that it would be prudent to test this high risk play in the PL644 licence first.

The subsequent focus for the licence was on maturing prospects which could possibly provide a positive Drill or Drop decision. Mapping of the new DNO20M01 survey identified two opportunities; The Middle Jurassic Pothos South Prospect and Upper Cretaceous Cerberus North Prospect. These two prospects could also offer the possibility of being tested by one exploration well.

The Pothos prospectivity contains one prospect (Pothos South) and two leads (Pothos North East and Pothos North West).

Pothos South Prospect

The Pothos South Prospect is a Middle Jurassic sandstone reservoir of the Bajocian to Bathonian Garn Formation, analogous to the nearby Iris discoveries (6506/11-10, 6506/11-11 S). The Pothos South Prospect is located on the northeastern side of the Sklinna Ridge North and comprises an area of approximately 2.2 km^2. It is mapped on DNO20M01 as a BCU to decollement thick containing subtle dipping stratigraphy, that could be analogous to the Garn Formation reservoir in the Iris Discovery (Fig. 4.3). The structure is poorly imaged and dependent on model driven interpretation techniques. The crest of the structure is at 4450 m TVD SS with potential spill down to a maximum of 4785 m TVD SS. The main risk is on reservoir, with both presence and quality carrying significant risk. The interpreted trap also carries significant risk as it is dependent on a number of complex seal elements (Fig. 4.4), all of which need to work to sufficiently fill the prospect. A gas case has been considered with similar fluids to the analogous Iris Discovery.

Reservoir is interpreted to be Middle Jurassic Bajocian to Bathonian Garn Formation sandstones sourced from the Sklinna Ridge North as part of a tidal marine system. Nearby wells 6506/11-10, 11 S & 3 confirm a Sklinna Ridge North sourced tidally deposited Garn Formation that can preserve reservoir quality sandstones at the expected burial depth at Pothos South due to clay coating. Preservation of reservoir quality sandstones is facies dependent and there is a risk that the necessary facies has not been deposited in the Pothos South location. There is also a risk of erosion of the reservoir by younger unconformities (6506/11-3 analogue); a risk that we are seeing the preservation of older stratigraphy and reservoir is absent (basin well tie analogue) and a reservoir quality risk from inversion studies supporting lower quality reservoir.

Trap is interpreted to contain both a geometry and a seal risk. The trap geometry is dependent on jump correlation of the Iris area well tied top reservoir into the Pothos Area and varies depending how the jump correlation is considered. There are also a number of different ways to interpret the area depending on the model chosen. The stratigraphy of the top, lateral and base seal is also uncertain and contains significant risk.

The recoverable mean volume for the Pothos South Prospect is 3.58 Mm^3 OE. Probability of success is 28%.

Pothos North East and Pothos North West leads

North of the Pothos South Prospect, two additional leads have been identified in the same play. These are the Bajocian to Bathonian Middle Jurassic Garn Formation leads of Pothos North East and Pothos North West. Both are difficult to define on the current data (DNO20M01). They offer potential future upside but would be dependent on a commercial success at Pothos South.

Cerberus North Prospect

The Cerberus North Prospect is a Cretaceous sandstone in the late Turonian Lange Fm. Identified as part of a regionally mappable Cretaceous deep marine sandstone system that brought sands into the Sklinna North area during the late Turonian to Conacian. After the APA 2018 evaluation, the Cerbeus Lead was split into the Cerberus North Prospect and some small non-prospective, geophysically different, southern segments. The Cerberus North Prospect covers an area of approximately 55 km^2, and is located on the northeastern side of the Sklinna Ridge North. The prospect is identified and defined by a strong soft amplitude response on the far stack seismic that is taken to represent reservoir sandstones. The crest of the structure is at 3305 m TVD SS with potential structural spill down to a at 3400 m TVD SS Fig. 4.5. The trap in the minimum case is a 3-way fault dependent closure; fault bound to the west. In upside cases an element of stratigraphic trapping is needed to the north, east and south. Top seal is provided by Upper Cretaceous shales and mudstones. The main risk is on trap, followed by reservoir.

The trap is dependent on a number of complex elements in the minimum case. A long, small displacement fault zone with likely sand on sand juxtaposition at reservoir level at numerous places needs to seal to trap migrating

hydrocarbons. No fault seal analysis has been carried out. Lysing Formation sands containing gas shows are deposited over the whole area (penetrated in all wells) and could act as a top seal risk, with sands leaking towards the Nidhogg Discovery (6506/5-1 S).

Reservoir is interpreted to be an Upper Cretaceous late Turonian Lange Formation sandstone equivalent in quality to the regionally proven, slightly younger Conacian sandstones in the Lysing Fm. The late Turonian interval is not proven to contain sandstones in the area so there is a presence risk. There is also a chance that if present, the reservoir will be at the distal end of the depositional system and be low in quality.

The recoverable mean volume for the Cerberus North Prospect is 3.5 Mm^3 OE. Probability of success is 22%.

An overview of the in place and recoverable resources for the Pothos South and Cerberus North prospects, in addition to success summaries for the remaining prospectivity in PL1007 and PL1007 B are given in Table 4.2.

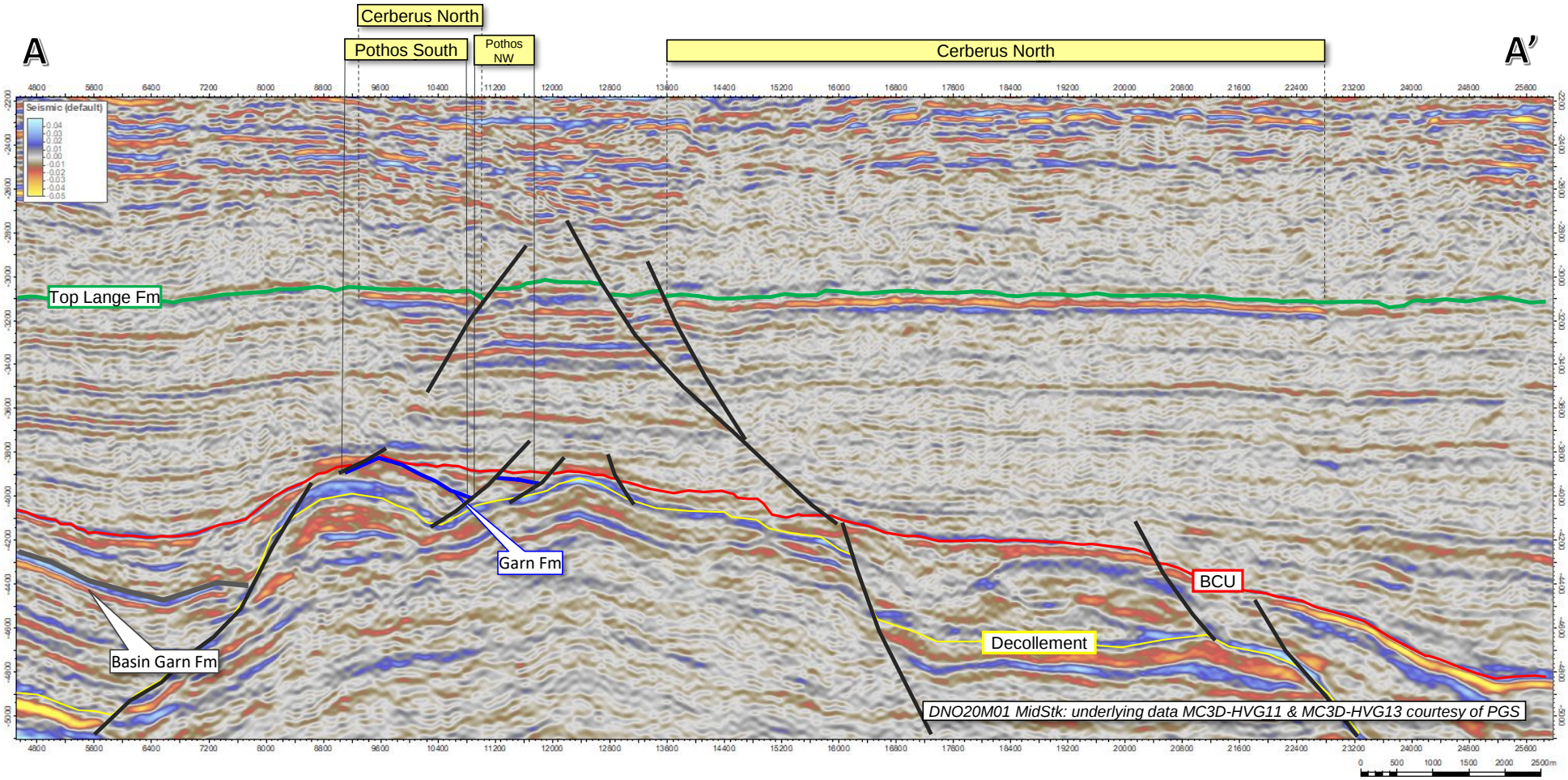


Fig. 4.3 Seismic TWT section A - A' Composite line taken from the survey DNO20M01 selected to illustrate the Pothos South and Cerberus North prospects. Location is illustrated on Fig 4.4 and Fig 4.5.

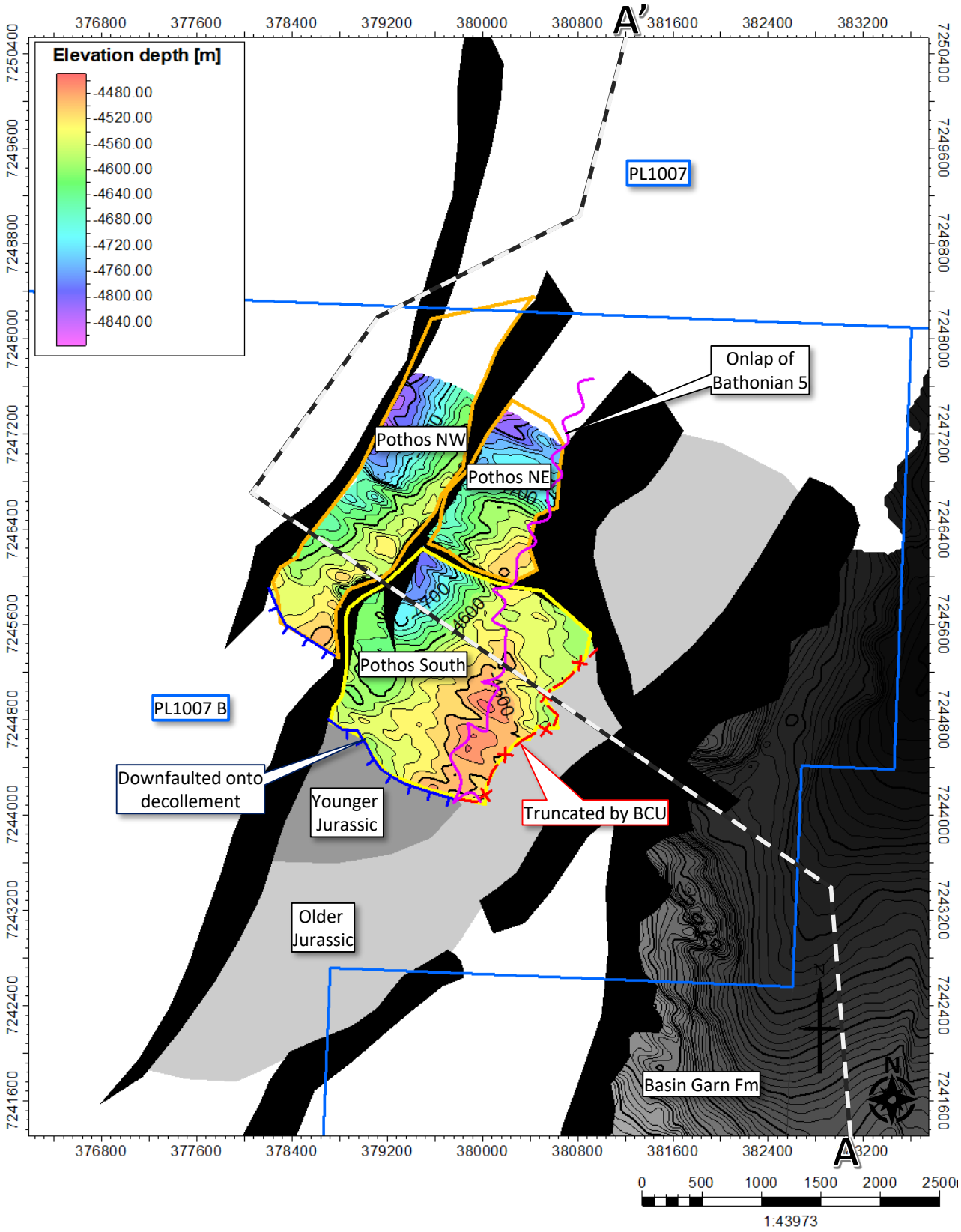


Fig. 4.4 Pothos South Prospect top reservoir, Garn Formation The map shows the interpreted top reservoir depth structure map in the Pothos area with the Pothos South Prospect and Pothos North East and Pothos North West leads highlighted. The parts of the area covered by the seismic line A-A` (Fig 4.3) is also shown.

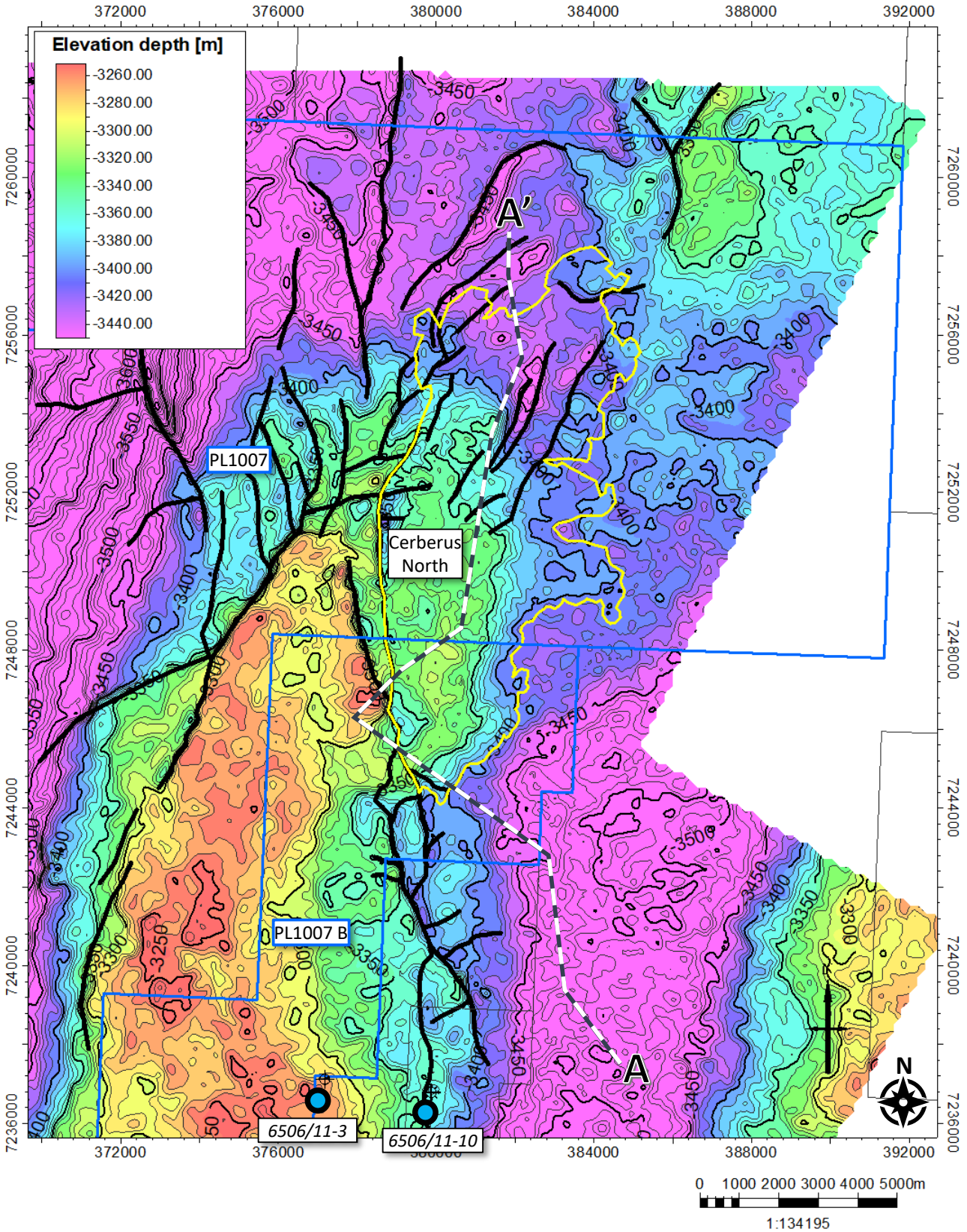


Fig. 4.5 Cerberus North Prospect top reservoir, late Turonian Lange Fm The map shows the interpreted top reservoir depth structure map in the Cerberus North Prospect area. The seismic location of seismic line A-A` (Fig 4.3) is shown.

5 Technical Assessment

The key prospects in the licence are Pothos South and Cerberus (100% of area within PL1007 and PL1007 B).

Neither Pothos South nor Cerberus North are within drilling reach from the Iris/Hades template and therefore require a short (circa 10 km) tie back to the production template.

Pothos Southis a deeply buried Middle Jurassic gas prospect (4450 m TVD SS) that lies within the HPHT province of the Norwegian Sea close to other HPHT fields, with assumed reservoir properties similar to the Iris Discovery. Reservoir parameters in the evaluation consider permeabilities up to 1D combined with porosities in the range of 17-21%. Pothos South is expected to consist of good quality sandstones based on evaluations of nearby analogue wells (6506/11-3, -10 and -11) and mean gas RF is expected around 65% (Iris B analogue).

The Cerberus North Prospect is expected to be gas. It has an elongated shape and is expected to have low hydrocarbon density within the reseroir. It is likely to have poor reservoir properties (permeabilities 10-100mD) and low intra-sand connectivity. With these considerations in mind it requires a large drainage area and RF is assumed with a mean of 30% (Hades analogue).

The proposed development scenario is drilling 2 wells in Cerberus North and 1 in Pothos South from a shared 4-slot template, and production through the Iris/Hades development towards existing Åsgard facilities.

Production start-up is planned for 2030 with an 8 to 10 years production period, extending the plateau production from Iris/Hades. Initial expected field rates are circa 1.1 Msm^3 gas and ca 450 sm^3 of condensate per day for Pothos South and just below 1 MSm^3 gas and 280 sm^3 of condensate per day for Cerberus (P50 case). An extended processing agreement with Åsgard (ÅTS) would be needed to be in place.

Economical analysis of the gas cases indicated negative project economics for both the Pothos South and Cerberus North prospects in the P90, P50 and mean scenarios, with only the P10 scenarios delivering a positive NPV.

6 Conclusion

Following the 2018 APA licensing round, PL1007 was awarded in 2019 to DNO Norge AS (Operator), OMV (Norge) AS, Sval Energi AS and Equinor Energy AS. The licence was extended to include additional acreage in PL 1007 B following the 2021 APA licensing round. The work commitment at the time of award was to reprocess 3D seismic data prior to the initial drill or drop decision (1 March 2021). An initial one year licence extension was applied for in 2020 and was granted. A second, 6 month extension period, was applied for and granted in 2021, with the final drill or drop decision being 9 September 2022.

Leading up to the drill or drop decision, several G&G studies have been implemented to attempt to derisk and mature key prospects to drillable candidates.

The Joint Venture has fulfilled the work programme with the key prospects Pothos South and Cerberus North being matured to drillable candidates using the high quality DNO20M01 reprocessed 3D data. Due to poor or marginal project economics there is a low chance of these being commercially successful.

Based on the limited resources and negative/marginal economics on the main prospects, Pothos South and Cerberus North do not meet the requirements to make a positive drill decision in PL1007 and PL1007 B.

The licencees came to a unanimous decision to relinquish PL1007 and PL1007 B, and the SMIL application was submitted to the authorities on 23 August 2022. MPE approval of relinquishment (bortfall) was recieved on 22 September 2022.