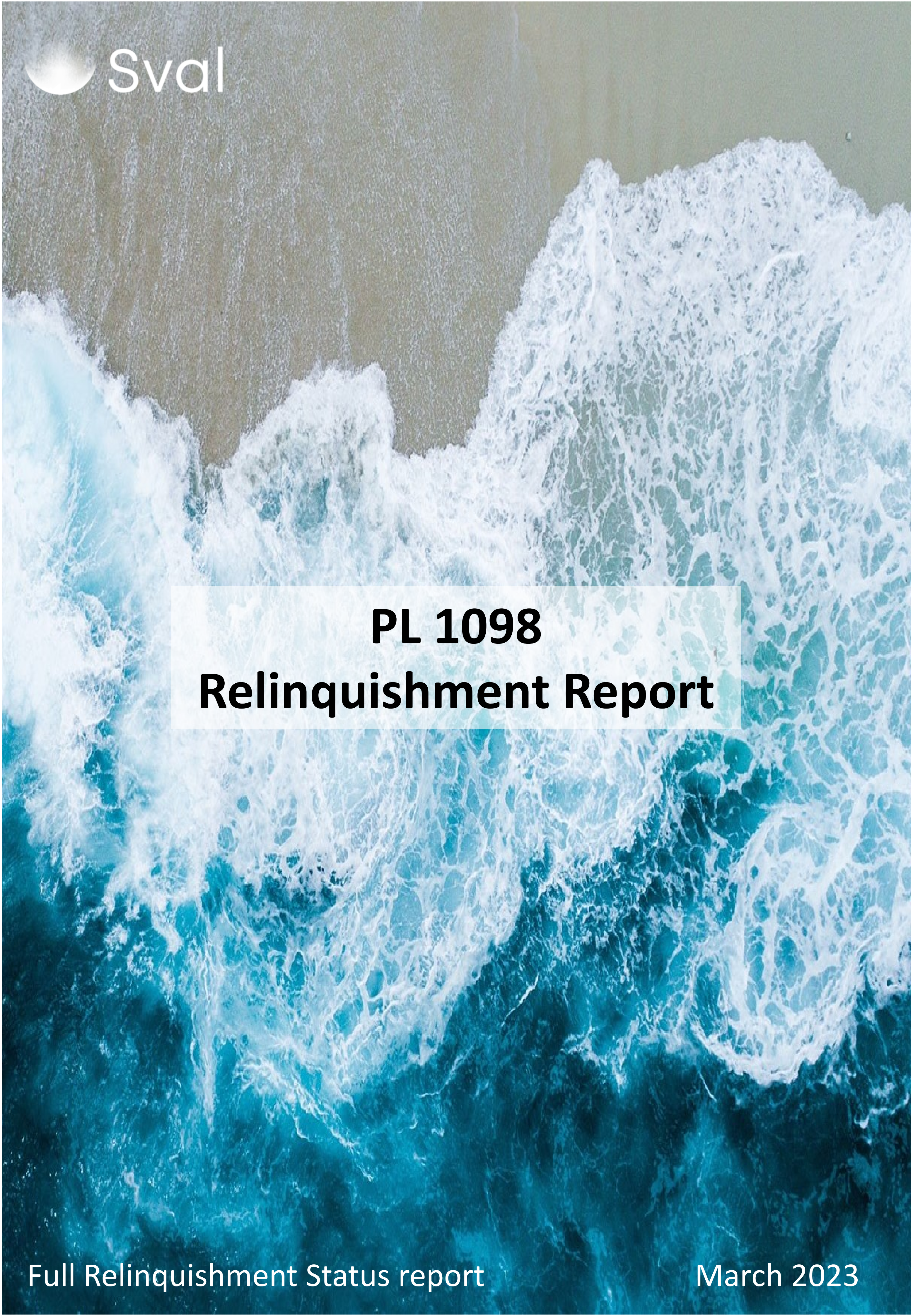

Sval

PL 1098
Relinquishment Report

Full Relinquishment Status report

March 2023

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1 History of the production licence

Production Licence 1098 is located in the northern part of the Heimdal Terrace, east of the Frøy Field and north of the Atla Field, covering parts of blocks 25/2 and 25/5 with a total area of 53 km² (Fig. 1.1). The licence was awarded 19th February 2021 (APA 2020) to a licence group consisting of Sval Energi AS and LOTOS Exploration and Production Norge AS. Sval Energi AS was granted operatorship with 50% equity and LOTOS as sole partner with 50% share. The partnership remained unchanged in the licence period.

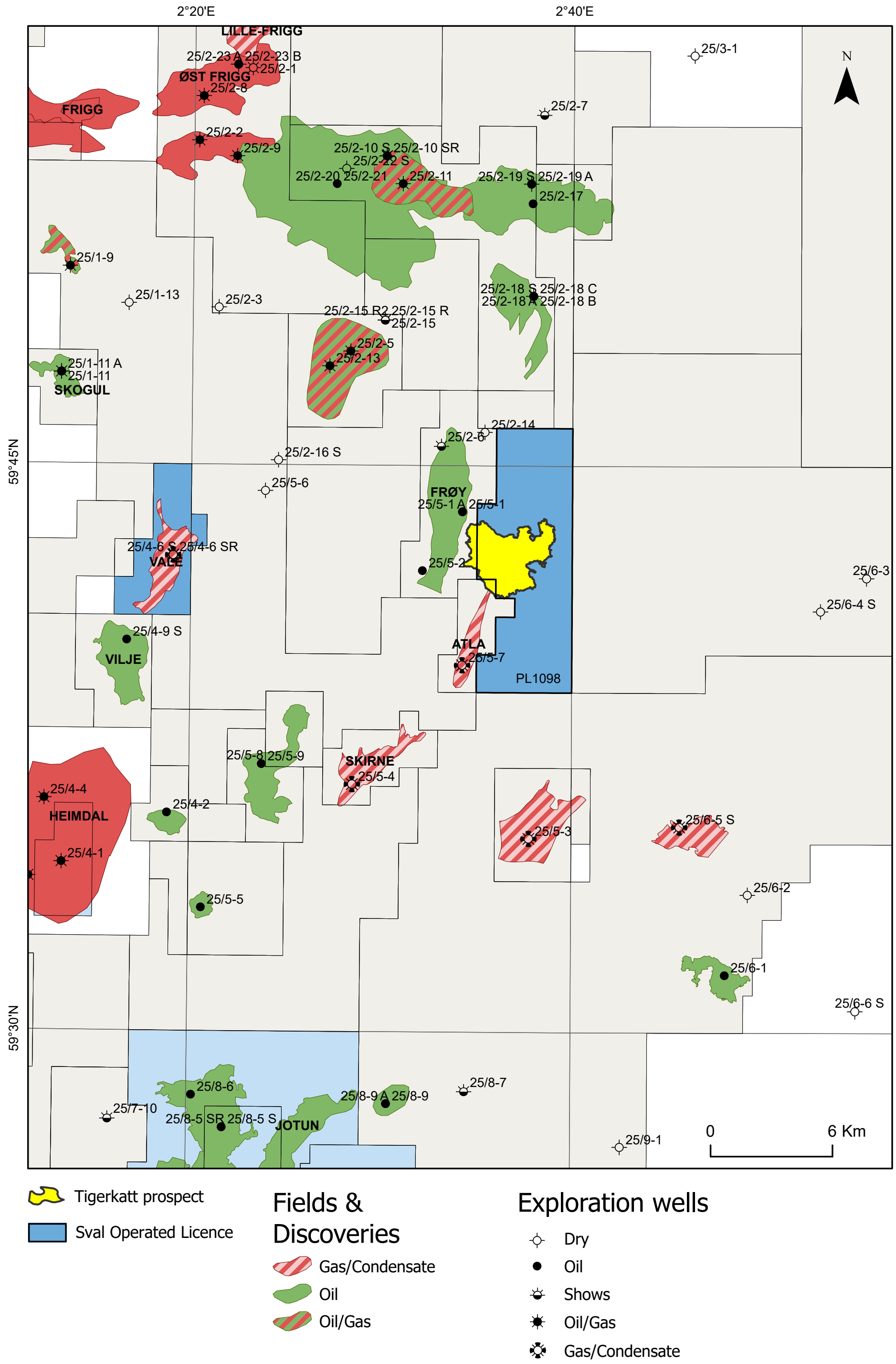

Fig. 1.1 Licence location and structural elements map

Map showing the extent of PL1098 and the location of the Tigerkatt prospect.

The main prospect identified in the application was Tigerkatt, a robust four-way dip closure comprising Late Paleocene Hermod Formation submarine fan reservoir. Charge and migration was assumed to be the key risk for the prospect.

The licence commitments were to perform G&G studies and evaluation to reach a drill or drop decision within two years of award. Given a drill decision the deadlines shown in Table 1.1 overleaf would apply.

Table 1.1 Work obligations and decisions

Commitments - Decisions	Deadline
G&G studies - Drill or Drop (DoD)	19.02.2023
Drill exploration well - Decision to Concretize (BoK)	19.02.2025
Conceptual studies - Decision to Continue (BoV)	19.02.2027
(PDO) prepare plan for development - (PDO) submit plan for development/Decision to enter extension period	19.02.2028

The technical evaluation of the prospectivity within the licence concluded that the licence does not contain prospects with an acceptable combination of volume and risk that supports drilling of an exploration well, hence the partnership reached a unanimous decision to drop the licence.

The Tigerkatt Prospect has been re-evaluated resulting in reduced volumes and increased geological risk. Charge is still seen as the major risk factor for the Tigerkatt Prospect. The charge and migration risk has increased compared to the APA 2020 evaluation mainly due to lack of seismic indications of hydrocarbons in the Tigerkatt Prospect and lack of petroleum content in the wells along the spill route to the east of Tigerkatt.

Table 1.2 Summarises the licence meetings held.

Table 1.2 EC and MC Meetings

Date	Licence Meetings	Description
11.03.2021	EC/MC	Initiate licence
03.06.2021	EC	Special study and interpretation status
23.06.2021	EC	Work meeting - result of special study
17.11.2021	EC/MC	Results of special studies and mapping status
02.06.2022	EC/MC	Result of final special study
22.09.2022	EC	Work meeting
11.16.2022	EC/MC	Relinquishment proposed

2 Database overviews

2.1 Seismic data

2.1 Seismic database

The common seismic database covers an area of approximately 132km^2, consisting of the licence area and in addition the Frøy Field west of the licence. The common seismic database coverage is shown in Fig. 2.1 and listed in Table 2.1.

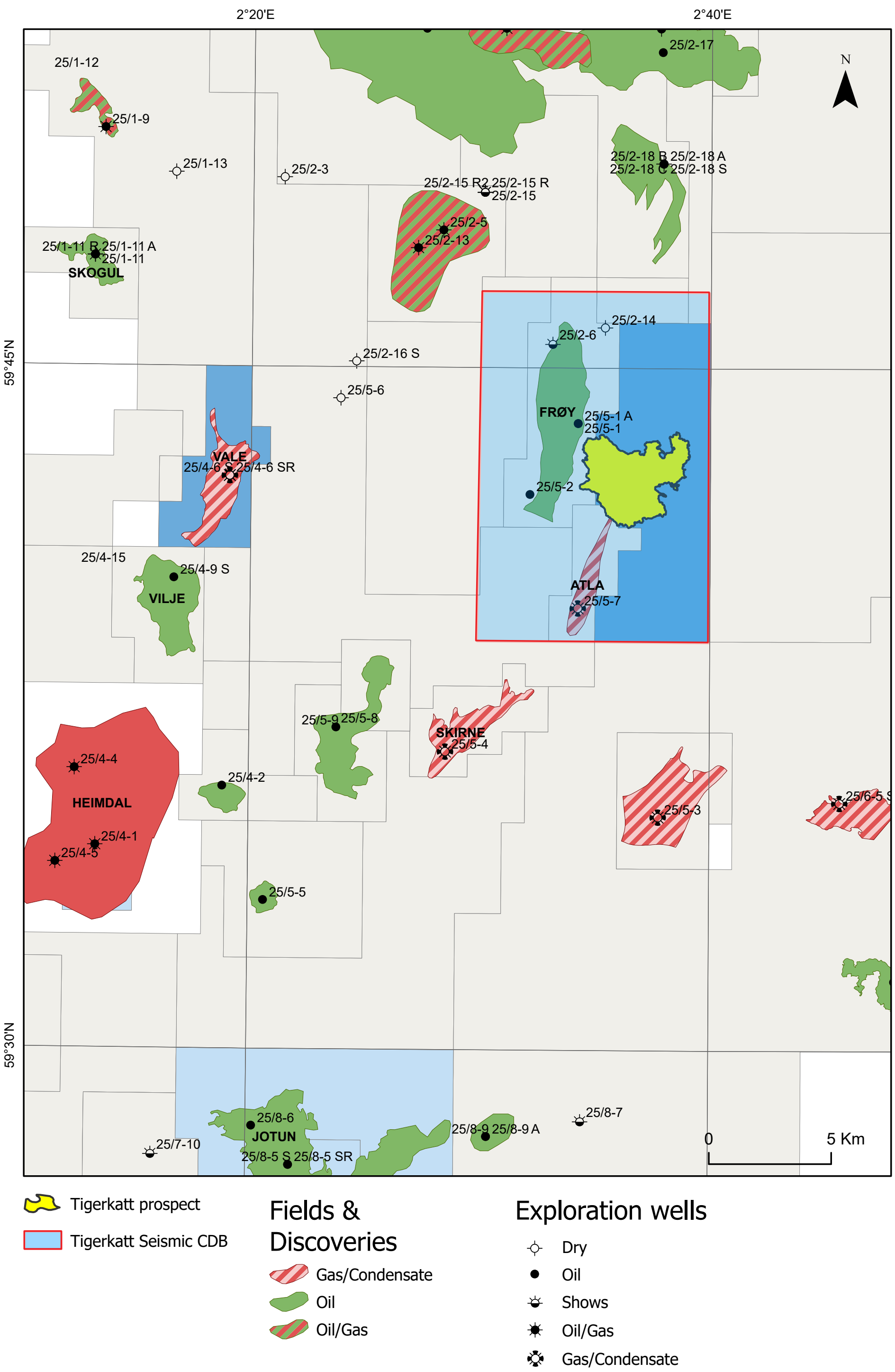

Fig. 2.1 Common seismic database map

PGS16M01-PGS15917VIK is a regional multi-client pre-stack merge and reprocessing of several 3D seismic surveys covering the South Viking Graben. PGS16M01-PGS15917VIK 3D dataset was used in the evaluation and is based on several Geostreamer broadband surveys (NVG09 (NPDID 7056), NVG10 (NPDID 7377) and NVG11 (NPDID 7189)). NVG09, NVG10 and NVG11 are market available. The data quality is very good. A special study has observed high noise level and some move-out issues (3 Result of geological and geophysical studies).

Table 2.1 Common seismic database

Survey name/Versions	Acquisition year	Class	Processing year	Comment
PGS16M01-PGS15917VIK	2009 - 2011	3D	2016	Based on Geostreamer broadband surveys NVG09, NVG10, NVG11
Full offset				Time and depth KPSDM
5-17 degrees				Time and depth PSDM
17-27 degrees				Time PSDM
27-33 degrees				Time PSDM
33-39 degrees				Time PSDM
39-45 degrees				Time PSDM
Full offset, BEAM migration				Time and depth

2.2 Well data

2.2 Well data

The wells in the common database are shown in Fig. 2.2 and listed in Table 2.2.

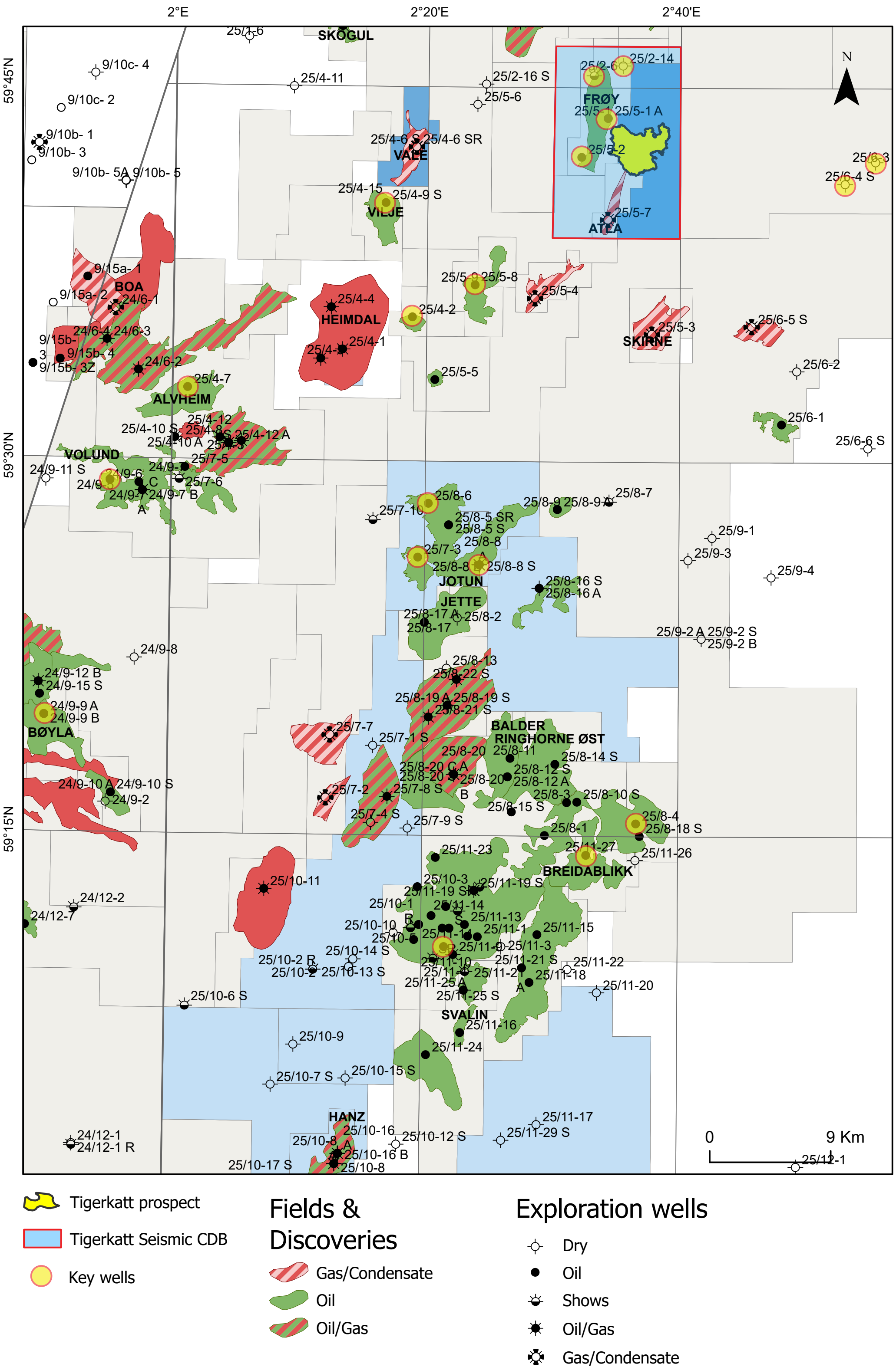

Fig. 2.2 Common well database

Wells used in the evaluation are indicated with a red circle and yellow fill

Table 2.2 Common well database

Well	NPDID	Operator	Licence	Purpose - Planned	Content	Completed date	Sval CPI
25/2-6	358	Elf Petroleum Norge AS	026	WILDCAT	OIL SHOWS	15.11.1977	
25/2-14	1712	Elf Petroleum Norge AS	026	WILDCAT	DRY	30.03.1991	Y
25/4-2	360	Elf Petroleum Norge AS	036	WILDCAT	OIL	06.12.1973	Y
25/5-1	884	Elf Petroleum Norge AS	102	WILDCAT	OIL	01.08.1987	Y
25/5-2	1346	Elf Petroleum Norge AS	102	WILDCAT	OIL	04.07.1989	Y
25/5-7	6423	Total E&P Norge AS	102 C	WILDCAT	GAS/ CONDENSATE	23.10.2010	Y
25/6-4 S	6507	Det norske oljeselskap ASA	414	WILDCAT	DRY	15.02.2012	Y
25/5-9	7345	Total E&P Norge AS	102 F	WILDCAT	OIL	25.02.2014	Y
25/4-9 S	4278	Norsk Hydro Produksjon AS	036	WILDCAT	OIL	29.09.2003	Y
25/6-3	3885	Det norske stats oljeselskap a.s	245	WILDCAT	DRY	11.11.1999	Y
25/4-7	4716	Marathon Petroleum Norge AS	203	WILDCAT	OIL	17.04.2003	
24/9-5	2244	Fina Production Licenses AS	150	WILDCAT	OIL	26.01.1994	
25/8-6	2573	Esso Exploration and Production Norway A/S	027 P	APPRAISAL	OIL	27.06.1995	
25/8-8 S	2646	Esso Exploration and Production Norway A/S	027 P	WILDCAT	OIL/GAS	24.09.1995	
24/9-9 S	6222	Marathon Petroleum Norge AS	340	WILDCAT	OIL	07.10.2009	
25/7-3	2623	Conoco Norway Inc.	103	WILDCAT	OIL	28.08.1995	
25/11-7	368	Esso Exploration and Production Norway A/S	001	APPRAISAL	OIL	27.10.1978	
25/11-27	7179	Statoil Petroleum AS	169 B2	WILDCAT	OIL	29.05.2013	
25/8-4	1986	Norsk Hydro Produksjon AS	169	WILDCAT	OIL	11.08.1992	

3 Results of geological and geophysical studies

Biostratigraphic study

The biostratigraphic study did entail a review of legacy biostratigraphy data and reports generated on 10 key wells nominated by Sval. PetroStrat would seek to delineate Tertiary sands in these 10 wells. The primary aim was the provision of a consistent stratigraphic database supporting a revised interpretation and correlation.

- Implications of the study
  - Very likely to have Lower Hermod Formation sand (T70/T75) in the Tigerkatt Prospect
  - Hermod depositional system moved to the north with time, stratigraphic seal element likely to the south only
  - Intra Balder Formation sandstones are limited in distribution and pose no risk to the trap of the Tigerkatt Prospect

Seismic conditioning

The input gathers are from PGS16M01-PGS15917VIK 3D survey (Geostreamer broadband surveys NVG09, NVG10, NVG11) Q Kirchhoff PSDM has been used to migrate the data. Residual Move-out (RMO), and Parabolic Radon have been applied post-migration to the input data. From the Baselining study, it has been noticed that the input data shows a high noise level and some move-out issues. Also, a good angle dependant amplitude behaviour (therefore a good gradient) would be required to identify the sands (Vp/Vs ratio would be required to map the sands). Move-out was a key part of the conditioning. In order to flatten the gathers in a very challenging geology, an approach with iterative passes of RMO - gather alignment have been chosen. Interference noise at target was the second issue. The noise was difficult to attenuate, only a harsh parametrization allowed to reduce it. This parametrization may alter the primary energy, therefore two sets of data have been delivered to Sval Energi.

- All QC performed after conditioning showed data quality improvements, but the data remains challenging for AVO analysis:
  - Better S:N ratio
  - Flatter gathers
  - Improved AVO behaviour

The phase seems stable up to 35° in good data quality areas but remains very sensitive to noise. The quality check of the AVA and the phase showed that the maximum useful angle would be just around 35°. Beyond that, phase distortion and noise alter the AVA fidelity.

Rock physics study

The main risk for the Tigerkatt Prospect is related to charge, mainly due to lack of seismic indications of hydrocarbons within the Tigerkatt Prospect. The rock physics study included a quick QC/edit logs available from 8 selected wells, rock physics cross-plotting, check for invasion, cementation, max burial depth, shale content etc. The study included well-to-seismic tie (of all angle stacks), fluid substitution and AVO forward modelling of brine and hydrocarbon saturated wells with synthetic and/or extracted wavelets to determine the strength of the hydrocarbon effect. The main conclusion of the study is that hydrocarbons should (negatively) brighten up on the fars, standing out from brine filled sands.

- Executive summary
  Hydrocarbons should (negatively) brighten up on the fars, standing out from brine filled sands
  - Hermod sands overlain by Sele (25/6-4S and 24/9-9S) should be close to transparent if brine filled, and bright trough if filled with hydrocarbons (class III/IV)
  - Hermod T80 sands (Upper) should be a trough on all angles, but hydrocarbons should be significantly brighter.
    - 25/5-2: T80 sand is approximately 10 meters thick, meaning the bright trough for brine is probably within (constructive) tuning thickness.
    - 25/2-14: T80 sand is approximately 30 meters thick, meaning the weak trough for brine case is probably outside tuning thickness, and hence is true brine response.
      - Oil and gas brightens up on the fars ((weak)class III).
  - Hermod T70 and Lower T80 sands (Lower) overlain by intra Sele Formation shale should be:
    - A peak if brine filled, and a possible phase change at far angles if filled with hydrocarbons (class I/IIP), assuming overlying shale is thick enough (~30 meters) to be resolved (as in 25/5-2)
    - Transparent if brine filled, and a trough at all angles if filled with hydrocarbons (class III), assuming overlying shale is not thick enough (~10 meters) to be resolved (as in 25/2-14)

Mud gas study

In this study the mud gas data from the wells were systematically analysed for hydrocarbon bearing and sealing zones. Hydrocarbon evaluation log (HEL) and Seal evaluation log (SEL) are generated for the wells. By using these two logs along with several other generated plots, advanced failure and success analysis are presented, and a more detailed understanding of the petroleum system and the different plays is gained.
Main observations from the mud gas study are that there are evidence of seepage/lateral migration in well 25/5-2.

Basin modelling

The objective of the basin modelling study was to investigate the charge model for the Tigerkatt Prospect. The charge model for the Tigerkatt Prospect is vertical migration of petroleum from the Frøy Field at Hugin Formation level up to the Hermod Formation along the eastern boundary fault of the Frøy Field. The study concluded that the amount of charge into Frøy Field is robust, and the modelling has shown that only 25% of Heather Formation acting as source rock is sufficient to fill both the Frøy Field and the Tigerkatt Prospect with oil.

Seismic reservoir characterization

Building on the Rock Physics study, an in-house seismic reservoir characterization study including the following was conducted:

- Pre-stack gather analysis
- 2D forward modelling
- EEI/CI analysis

The pre-stack gather analysis concluded that scattered AVO classes I & IIp were observed on the Hermod Formation sand reflection event but not conclusive for any potential HC accumulation and AVO attributes suggest that the target interval, Hermod sand, is extremely heterogeneous. 2D forward modelling concluded that the tuning thickness for the Hermod sand was 20m. Fluid substitution (Oil, API 30) creates polarity reversal of the base reservoir and class IIp AVO on top reservoir. Layer cake modelling concluded that a potential OWC (API 30) creates a flat event (DHI), but adding noise may remove it. Porosity perturbation by changing PHIE + - 5%, concludes that adding noise makes the interpretation of the top reservoir very challenging and porosities above 30% destroy the top reservoir response. The 2D forward modelling also concluded with anticline modelling that light oil creates a flat event in absence of noise. Heavy oil substitution (API 19) appear subtle to no seismic response and API 22 have weak seismic response, which can disappear by noise, no flat event. Key conclusion for EEI/CI analysis was that sand-shale separation in AIGI domain is possible and lithology angles for top and base reservoir were possible to estimate and use for interpretation.

Spectral decomposition

Using HDFD Blend 8.00Hz - 20.00Hz - 32.00Hz and applying the blend to three horizons, Balder Formation, Hermod Formation and Lista Formation. Comparing the frequency response within the Tigerkatt structure and the surrounding wells with and without Hermod Formation sands. The spectral decomposition indicated that there are similar frequency responses between the wells with Hermod Formation sandstone and within the Tigerkatt structure, but it was not conclusive.

4 Prospect update report

One prospect and one lead was identified in the APA 2020 application (Table 4.1).

Table 4.1 NPD Table 2 (APA2020 Application)

Discovery/Prospect/Lead name [1]	D/P/L [2]	Case (Oil/Gas/Oil&Gas) [3]	Unrisked recoverable resources [4] Oil [10^6Sm^3] (>0.00) Low (P90)	Base (Mean)	High (P10)	Gas [10^9Sm^3] (>0.00) Low (P90)	Base (Mean)	High (P10)	Probability of discovery [5] (0.00 - 1.00)	Resources in acreage applied for [%] [6] (0.00 - 100.0)	Reservoir: Litho-/ Chrono-stratigraphic level [7]	Reservoir depth [m MSL] (>0)	Nearest relevant infrastructure [8]: Name	Km (>0)
Tigerkatt	P	Oil	1.87	4.52	7.59	0.20	0.49	0.83	0.28	99.0	Hermod Fm/ Paleocene	2105	NOAKA	17
Tigerkatt Balder	L	Oil		2.92			0.32			99.0	Balder Fm/ Eocene	2080	NOAKA	17

Tigerkatt Prospect

In the APA 2020 application the Tigerkatt Prospect was identified as a low relief four-way dip closure comprising Hermod Formation reservoir with shales of the Sele and Balder formations providing top seal. The mean recoverable resources were estimated to be 4.5 million Sm^3 with a 28% probability of success. Charge was seen as the main risk element (P_{charge}=40%) with the prospect being reliant on leakage of oil from the Frøy Field along its eastern bounding fault into the shallower Hermod Formation.

The Tigerkatt interpretation and geological section (APA2020 Application) is shown in Fig. 4.1

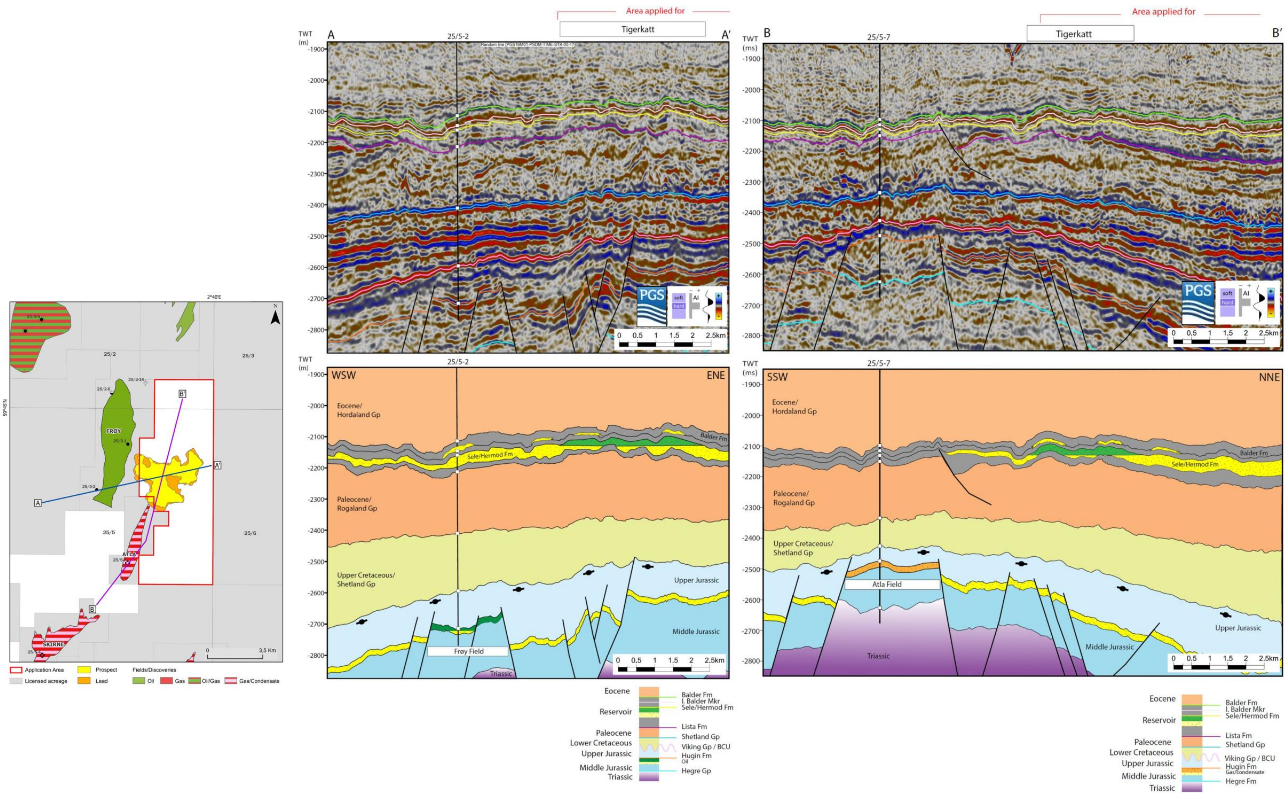

Fig. 4.1 Seismic and geological sections (APA2020 Application)
Left: Seismic and geological section in WSW-ENE direction. Right: Seismic and geological section in NNE-SSW direction. Line locations are shown in the prospect overview map.

A detailed prospect evaluation of the licence has been undertaken during Phase 1 of the work obligation. The Tigerkatt Prospect has been re-evaluated resulting in reduced geological probability of success. Fig. 4.2 demonstrates the original Tigerkatt Prospect outline from the APA2020 application and the re-evaluated Tigerkatt Prospect outline.

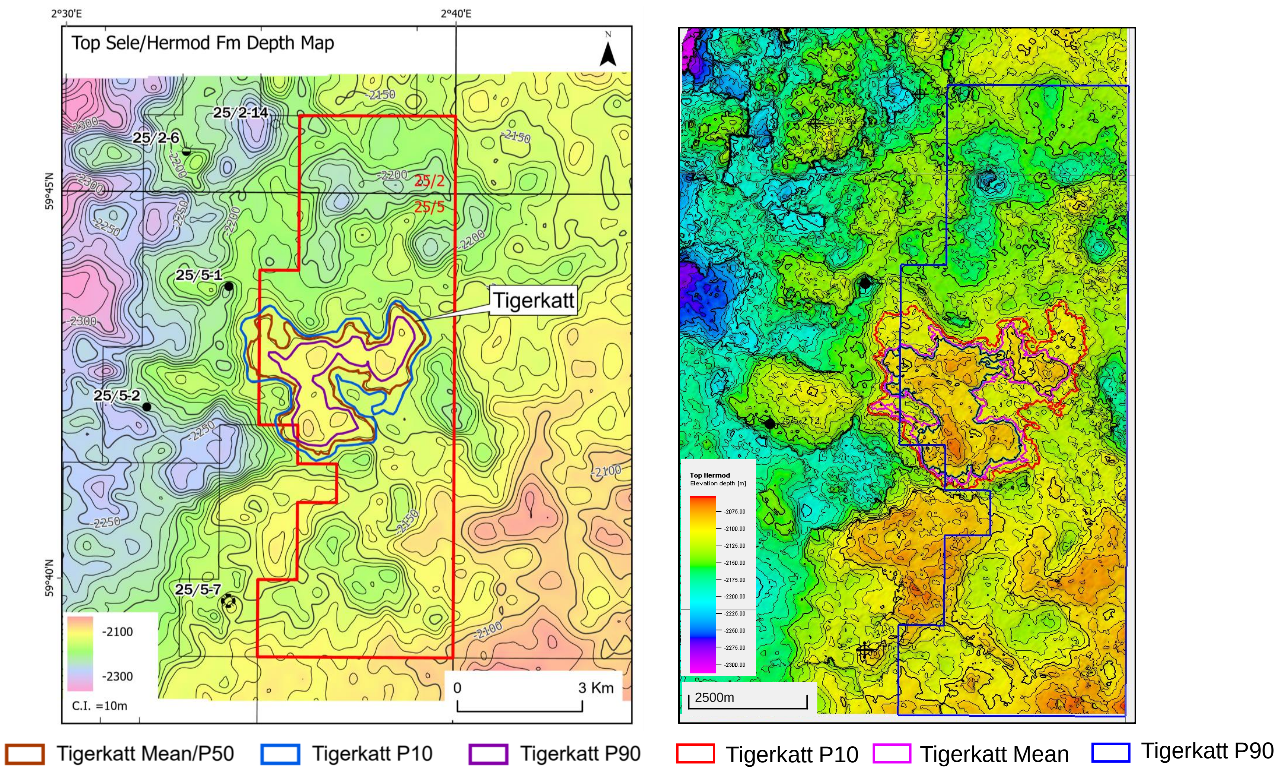

Fig. 4.2 Top reservoir structure map

Left: Top Sele/Hermod Formation horizon depth map with Tigerkatt Prospect outlines APA2020. Right: Re-evaluated Top Hermod Formation horizon depth map with updated Tigerkatt Prospect outlines

The sands of the Hermod Formation were deposited as submarine fans on the basin floor. The fan complex consists of stacked channels and splays with channels reaching the outermost part of the fan lobes. For the porosity and permeability estimates CPI's and core data were used. The porosities and permeabilities are in general excellent. The Tigerkatt Prospect relies on vertical migration from the Frøy Field via the field's eastern bounding fault. The basin modelling study concluded that a scenario with only 25% of Heather Formation shales acting as source rock is enough to fill up both the Frøy Field and the Tigerkatt Prospect with oil (3 Results of geological and geophysical studies). The regional deep marine shales of the Sele and Balder formations provide a robust top seal.

Applying the in-house seismic reservoir characterization study and EEI/CI analysis, lithology angles for top and base reservoir were estimated, creating chi angle cubes used for interpretation (Fig. 4.3). Interpreting the inverted data provided more confidence to the interpretation of both top and base reservoir. The top reservoir interpretation has higher confidence than the base reservoir interpretation.

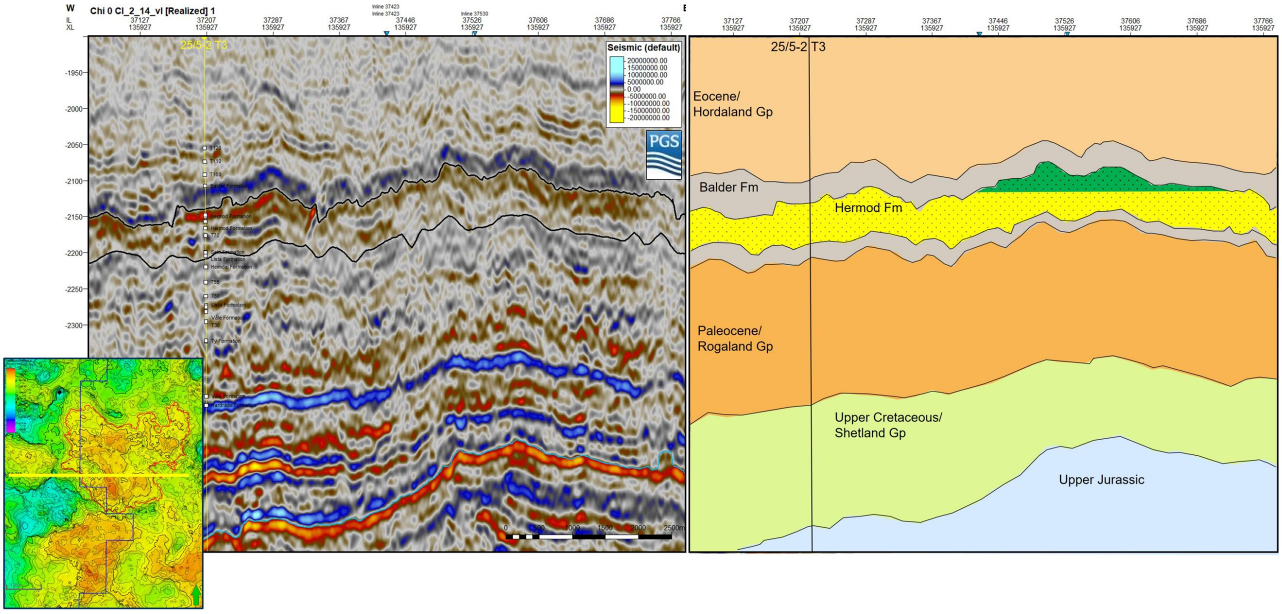

Fig. 4.3 Seismic and geological section in the W-E direction
Inverted seismic data chi angle 0.

The re-evaluated range of recoverable resources is estimated to be 3.05 - 5.25 - 7.87 million Sm^3 (P90 - mean - P10) with a 14% probability of success. Charge is still seen as the main risk element with a chance of 20%. There is no amplitude support for presence of petroleum in the prospect. A DHI (flat event) is expected in case of light oil. There are no indications of petroleum in the wells east of the Tigerkatt Prospect.

Prospect data (NPD Table 4) is given in Table 4.2 (from APA2020 Application) and in Table 4.3 (re-evaluated Tigerkatt Prospect).

Table 4.2 NPD Table 4 Tigerkatt Prospect (APA2020 Application)

Tigerkatt Prospect data

Table 4: Discovery and Prospect data (Enclose map)

Block	25/5	Prospect name	Tigerkatt	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)	No	Outside play (Y/N)	No				
Oil, Gas or O&G case:	Oil	Reported by company	Sval Energi	Reference document	APA 2020 Sval Energi application			Assessment year	2020
This is case no.:	1 of 1	Structural element	Heimdal Terrace	Type of trap	Structural	Water depth [m MSL] (>0)	110	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)	4.74	9.20	11.30	18.90				
	Gas [10^9 Sm^3] (>0.00)					0.50	0.89	1.22	2.07
Recoverable resources	Oil [10^6 Sm^3] (>0.00)	1.87	3.67	4.52	7.59				
	Gas [10^9 Sm^3] (>0.00)					0.20	0.37	0.49	0.83
Reservoir Chrono (from)	Paleocene	Reservoir litho (from)	Hermod Fm	Source Rock, chrono primary	Late Oxf. - Berr.	Source Rock, litho primary	Draupne Fm	Seal, Chrono	Eocene
Reservoir Chrono (to)	Paleocene	Reservoir litho (to)	Hermod Fm	Source Rock, chrono secondary	Oxfordian	Source Rock, litho secondary	Heather Fm	Seal, Litho	Sele and Balder fms
Probability [fraction]									
Total (oil + gas + oil & gas case) (0.00-1.00)	1.00	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)	1.00	Trap (P2) (0.00-1.00)	0.70	Charge (P3) (0.00-1.00)	0.40	Retention (P4) (0.00-1.00)	1.00		
Parametres:	Low (P90)	Base	High (P10)	*Stretched beta distributions are used for most parameters. P90 and P10 values are derived from the distribution plots. Mean values are used for the Base.*					
Depth to top of prospect [m MSL] (> 0)		2105							
Area of closure [km^2] (> 0.0)	4.4	6.6	8.8						
Reservoir thickness [m] (> 0)	59	72	85						
HC column in prospect [m] (> 0)	27	35	43						
Gross rock vol. [10^9 m^3] (> 0.000)	0.037	0.080	0.140						
Net / Gross [fraction] (0.00-1.00)	0.65	0.75	0.85						
Porosity [fraction] (0.00-1.00)	0.29	0.31	0.34						
Permeability [mD] (> 0.0)	400.0	4000.0	7000.0						
Water Saturation [fraction] (0.00-1.00)	0.17	0.25	0.33						
Bg [Rm3/Sm3] (< 1.0000)									
1/Bo [Sm3/Rm3] (< 1.00)	0.73	0.76	0.79						
GOR, free gas [Sm^3/Sm^3] (> 0)									
GOR, oil [Sm^3/Sm^3] (> 0)	95	108	122						
Recov. factor, oil main phase [fraction] (0.00-1.00)	0.35	0.40	0.45						
Recov. factor, gas ass. phase [fraction] (0.00-1.00)	0.35	0.40	0.45						
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)	70			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)	210			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. Phie > 0.1	2. Sw < 0.5	3. VWCL < 0.5					Kart nr	NPD will insert value

Table 4.3 NPD Table 4 Tigerkatt Prospect

Re-evaluated Tigerkatt Prospect data

Table 4: Discovery and Prospect data (Enclose map)

Block	25/5	Prospect name	Tigerkatt	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)	No	Outside play (Y/N)	No				
Oil, Gas or O&G case:	Oil	Reported by company	Sval Energi	Reference document	PL1098 Relinquishment report			Assessment year	2023
This is case no.:	1 of 1	Structural element	Heimdal Terrace	Type of trap	Structural	Water depth [m MSL] (>0)	110	Seismic database (2D/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)	7.34	9.80	10.90	15.10				
	Gas [10^9 Sm^3] (>0.00)					0.63	0.82	0.96	1.35
Recoverable resources	Oil [10^6 Sm^3] (>0.00)	2.73	3.75	4.82	7.30				
	Gas [10^9 Sm^3] (>0.00)					0.23	0.32	0.42	0.65
Reservoir Chrono (from)	Paleocene	Reservoir litho (from)	Hermod Fm	Source Rock, chrono primary	Oxfordian	Source Rock, litho primary	Heather Fm	Seal, Chrono	Eocene
Reservoir Chrono (to)	Paleocene	Reservoir litho (to)	Hermod Fm	Source Rock, chrono secondary		Source Rock, litho secondary		Seal, Litho	Sele and Balder fms
Probability [fraction]									
Total (oil + gas + oil & gas case) (0.00-1.00)	1.00	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)	0.80	Trap (P2) (0.00-1.00)	0.90	Charge (P3) (0.00-1.00)	0.20	Retention (P4) (0.00-1.00)	1.00		
Parametres:	Low (P90)	Base	High (P10)	*Comments*					
Depth to top of prospect [m MSL] (> 0)		2060							
Area of closure [km^2] (> 0.0)	4.2	6.1	10.4						
Reservoir thickness [m] (> 0)	58	81	107						
HC column in prospect [m] (> 0)	40	45	54						
Gross rock vol. [10^9 m^3] (> 0.000)	0.058	0.081	0.107						
Net / Gross [fraction] (0.00-1.00)	0.65	0.75	0.85						
Porosity [fraction] (0.00-1.00)	0.29	0.31	0.34						
Permeability [mD] (> 0.0)	400.0	4000.0	7000.0						
Water Saturation [fraction] (0.00-1.00)	0.17	0.25	0.33						
Bg [Rm3/Sm3] (< 1.0000)									
1/Bo [Sm3/Rm3] (< 1.00)	0.72	0.77	0.83						
GOR, free gas [Sm^3/Sm^3] (> 0)									
GOR, oil [Sm^3/Sm^3] (> 0)	76	88	101						
Recov. factor, oil main phase [fraction] (0.00-1.00)	0.30	0.44	0.60						
Recov. factor, gas ass. phase [fraction] (0.00-1.00)	0.30	0.44	0.60						
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)	70			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)	210			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. Phie > 0.1	2. Sw < 0.5	3. VWCL < 0.5					Kart nr	NPD will insert value

Tigerkatt Balder Lead

One lead, the Tigerkatt Balder Lead, was identified within the area applied for in the APA 2020 Application. The Tigerkatt Balder Lead relies on injected sands in the Balder Formation and is defined as a four-way dip closure at the interpreted Intra Balder Formation marker with Balder Formation and Hordaland Group shales acting as top seal.

The Balder Formation part of the top seal for the Tigerkatt Prospect could, however, be comprised by remobilised and injected sands from the Hermod Formation. Presence of these above Tigerkatt may provide additional hydrocarbon volume, Tigerkatt Balder Lead, or cause the prospect to spill at a shallower level depending on the sand geometry. Biostratigraphic study (3 Results of geological and geophysical studies) concluded that Intra Balder Formation sandstones are limited in distribution and pose no risk to the trap, therefore the Tigerkatt Balder Lead was no longer considered as a lead.

5 Technical evaluation

A detailed technical-economic evaluation was carried out for the Tigerkatt Prospect. The Tigerkatt Prospect was evaluated as a potential subsea tieback to the Yggdrasil (formerly NOAKA) development which is located approximately 17 km to the north of Tigerkatt. Hydrocarbon phase was assumed to be oil and the well count for the P50 case would be 2 producers and 1 water injector through a 4-slot combined production and water injection template. It was assumed 17 km PiP flowline, 17km WI flowline providing full voidage replacement and 17 km gas lift flowline to provide gas lift in the production wells.

After re-evaluating the Tigerkatt Prospect, charge is still seen as the main risk element (P_{charge} = 20%). The probability of success has been reduced from 28 % to 14% and the re-evaluated mean recoverable resources is estimated to be 5.25 million Sm^3. Seismic reservoir characterization study (3 Results of geological and geophysical studies) concluded that a DHI (flat event) is expected in case of light oil and there is no amplitude support for presence of petroleum in the Tigerkatt Prospect. This makes the prospect not a viable drilling target.

6 Conclusion

The prospectivity within PL1098 has been thoroughly evaluated and all the licence commitments have been fulfilled. As a result of the licence work the partnership has concluded that the licence does not contain attractive prospects or leads and the partnership has reached a unanimous decision to drop the licence. The geological risk of the main prospect, the Tigerkatt Prospect, is too high, and the volumes are moderate. The high risk is mainly related to charge and migration into the prospect, supported by the lack of seismic indications of hydrocarbons in the Tigerkatt Prospect and lack of petroleum in the wells drilled along the spill route to the east of the licence.

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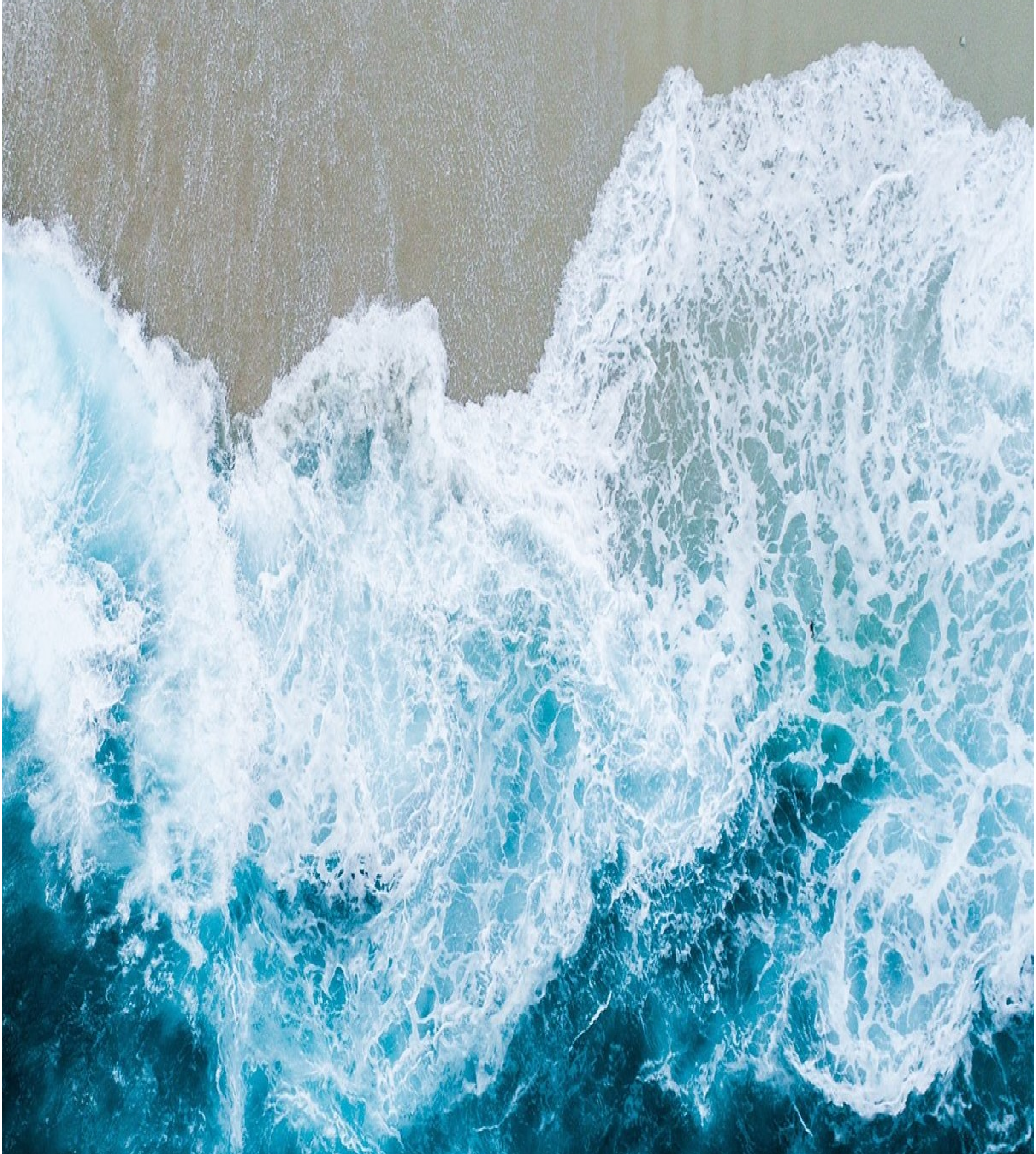

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