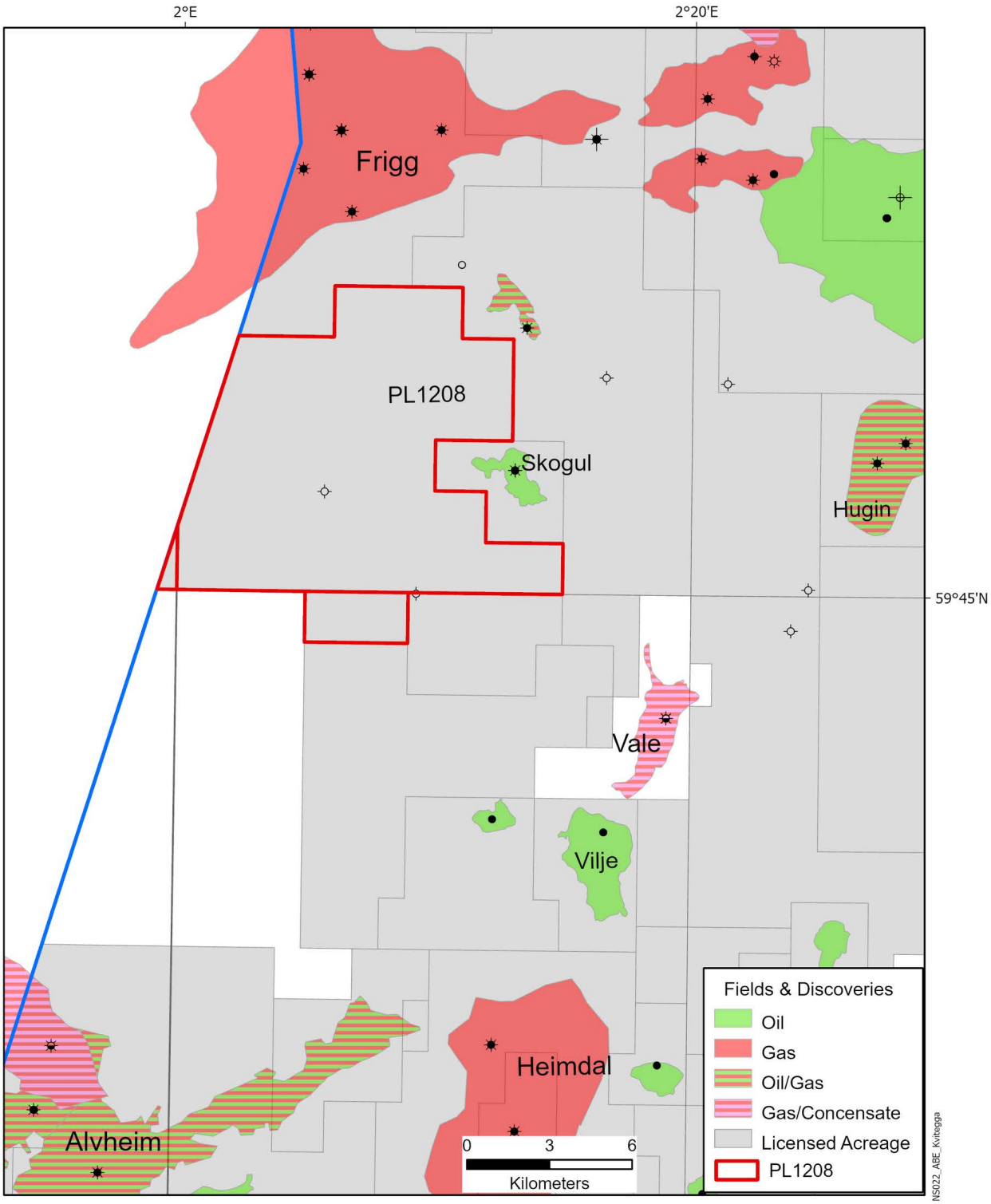
Status Report
PL1208



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1 Key License History

Production license 1208 is located in the North Sea, 20km North of the Alvheim field and approximately 10km south of the Frigg field as shown in Fig. 1.1. The license was awarded March 15th 2024 and consists of parts of blocks 24/3, 25/1 and 25/4. The main prospect within the license is Kvitegga which is shown on the map in Fig. 1.1. The license work obligation was to acquire existing CSEM data, CSEM inversion, acquire modern reprocessed 3D seismic data, and geology and geophysics studies over a period of two years. A drill-or-drop decision is required by March 15th 2026. The work program has been fulfilled by the operator and a decision to relinquish the license has been taken by the partnership. The partnership in the PL1208 license is listed in Table 1.1.

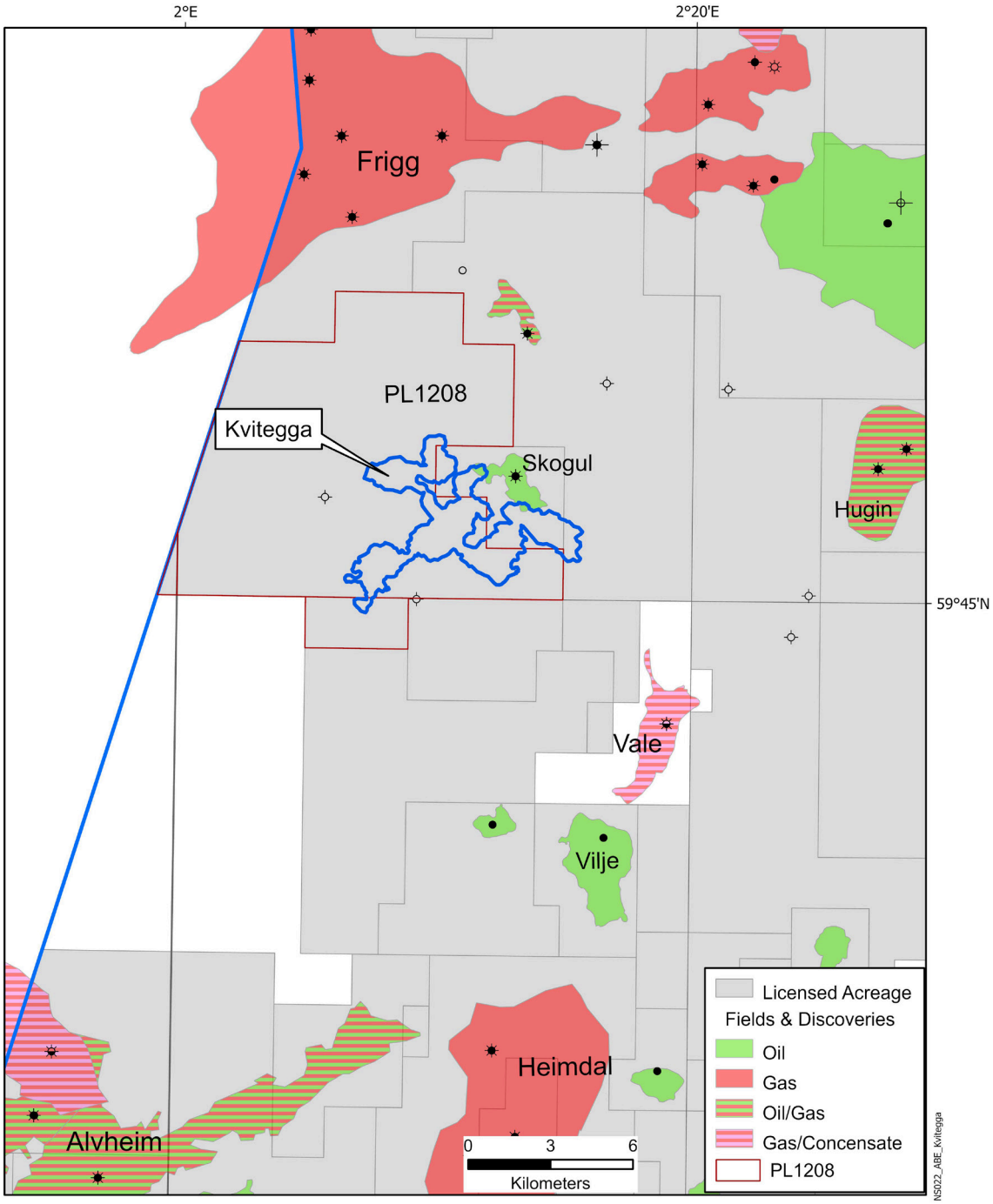

Fig. 1.1 PL1208 Location Map.

Table 1.1 PL1208 Partnership

PL1208 Partnership	
ConocoPhillips Skandinavia AS (Operator)	60%
Aker BP ASA	40%

Based on the overall prospect mapping, CSEM inversion results, volume estimation, and risking, ConocoPhillips and its partners have concluded that the prospect in the PL1208 license is too complex and carries too high risk to justify drilling an exploration well and have therefore decided to surrender the license. The estimated recoverable volume for the Kvitegga prospect is between 10 and 88 mmboe with a mean of 46 mmboe, however only 70% of this is within the PL1208 license. The risk is considered high and the estimated probability of success is 12%, including a downgrade due to absence of any EM anomaly associated with the prospect. The PL1208 work obligations and license milestones are listed in Table 1.2.

Table 1.2 PL1208 Milestones

Work obligation	Decision	Deadline
Drill or drop	Not to drill	15.03.2026
Drill exploration well	Decision to concretize (BoK)	15.03.2028
Conceptual studies	Decision to continue (BoV)	15.03.2030
Prepare plan for development	Submit plan for development (PDO)	15.03.2031

A total of six meetings were held in the license including EC work meetings and ECMC meetings, as listed in Table 1.3.

Table 1.3 PL1208 License Meetings

Meeting Date	Purpose	Committee
April 11th 2024	Start-up	ECMC
June 20th 2024	Work meeting	EC
October 24th 2024	Work meeting	EC
November 25th 2024	Year End	ECMC
June 20th 2025	Mid Year	ECMC
November 25th 2025	Year End	ECMC

2 Database

2.1 Seismic Database

PGS16M01-PGS15917VIK is a regional multi-client pre-stack merge and reprocessing of several 3D seismic surveys covering the South Viking Graben, the outline is shown in purple on the map in Fig. 2.1. This dataset was used in the original interpretation of the Kvitegga prospect during the APA application. Aker BP, which is partner in license 1208, performed a full reprocessing of the seismic covering the Alvheim area and the surrounding exploration licenses, including PL1208 and the Kvitegga prospect. ConocoPhillips is partner in the Alvheim licenses and purchased this data, ABP24M03, covering the area shown in green on the map. This data was used in the updated interpretation and evaluation of Kvitegga, as part of the work program and license obligations.

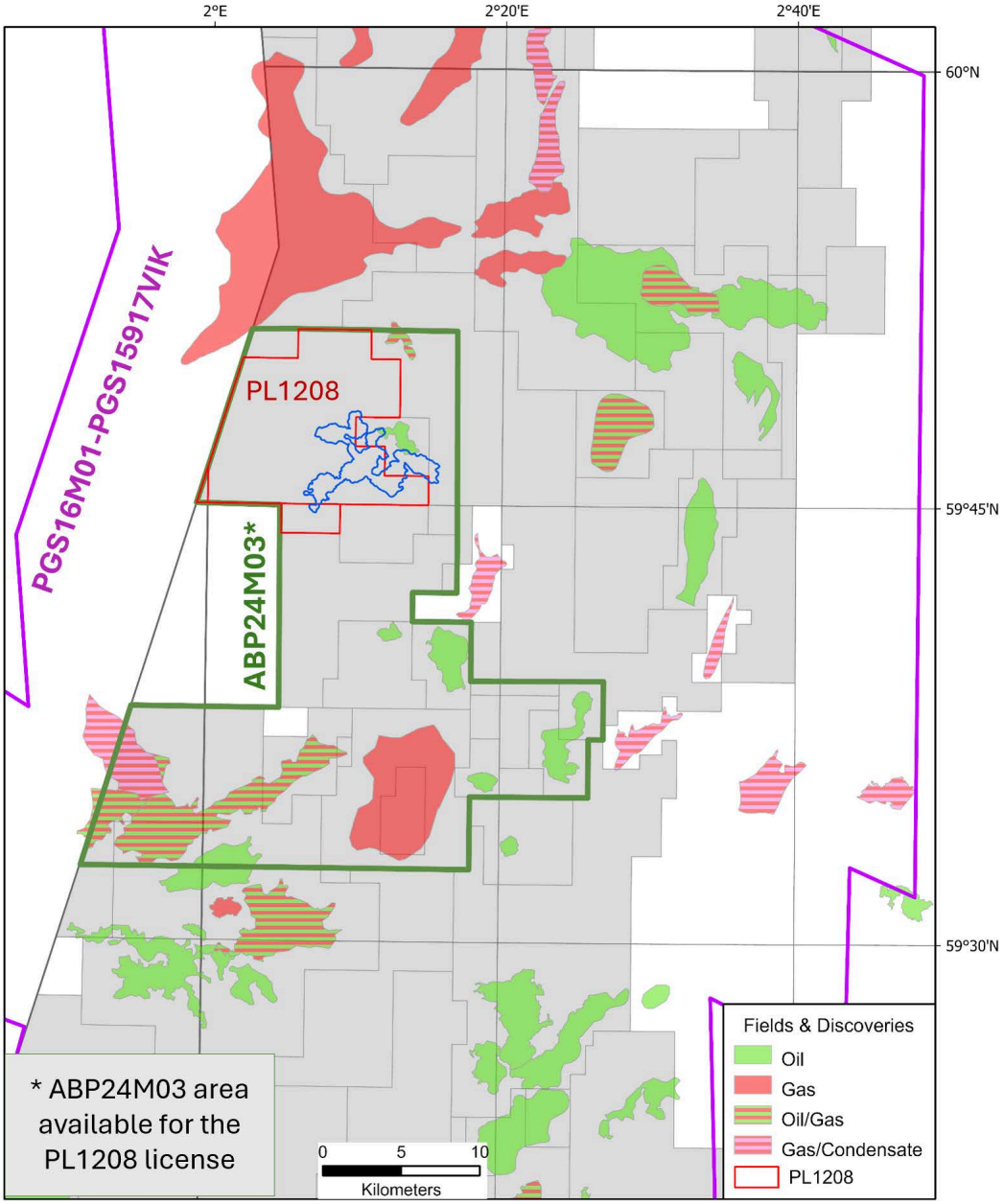

Fig. 2.1 Seismic Database Map PL1208 is covered by the reprocessed ABP24M03 seismic shown in green. This was used in the evaluation of Kvitegga.

The ABP24M03 reprocessing included significant focus on denoise and demultiple, and a FWI velocity model up to 18Hz. In other areas the reprocessing also included dual azimuth data and FWI to higher frequencies.

Table 2.1 Seismic Database

Seismic Survey	Original Data	NPDID	Status	Comments
MC3D SVG2011	Unique	7378	Available	
PGS16M01-PGS15917VIK	MC3D SVG2011	-	Available	Merged and reprocessed seismic
ABP24M03	MC3D SVG2011	-	Not available	Seismic reprocessing by Viridien for AkerBP

2.2 EM database

The MCPL737 EM survey was acquired by EMGS in 2015 and covers the southwestern part of the Kvitegga prospect. The survey was proposed for the common database for the license and agreed upon by the partners, the acquisition outline is shown in Fig. 2.2. Both EMGS and AkerBP performed new inversions of the CSEM data in support of the license work program.

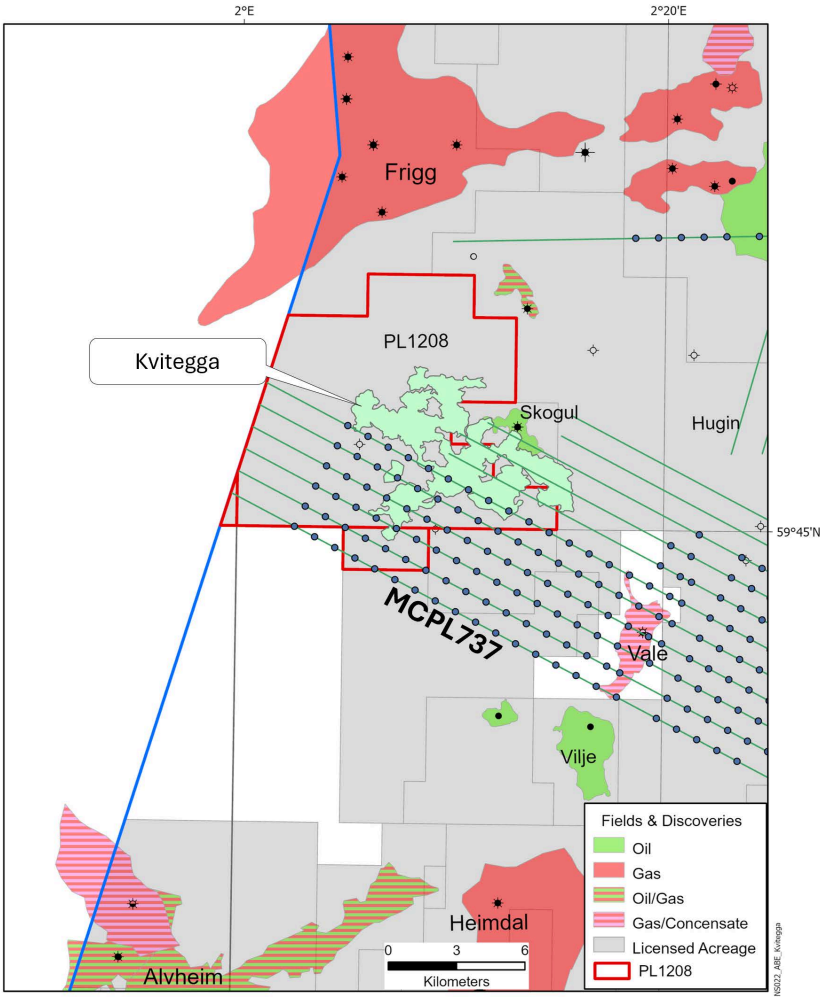

Fig. 2.2 MCPL737 Common database EM

2.3 Well database

The wells in the common data base can be found in Table 2.2, and are labelled on the map in Fig. 2.3. Key wells are marked with an asterisk in the table. All wells are released.

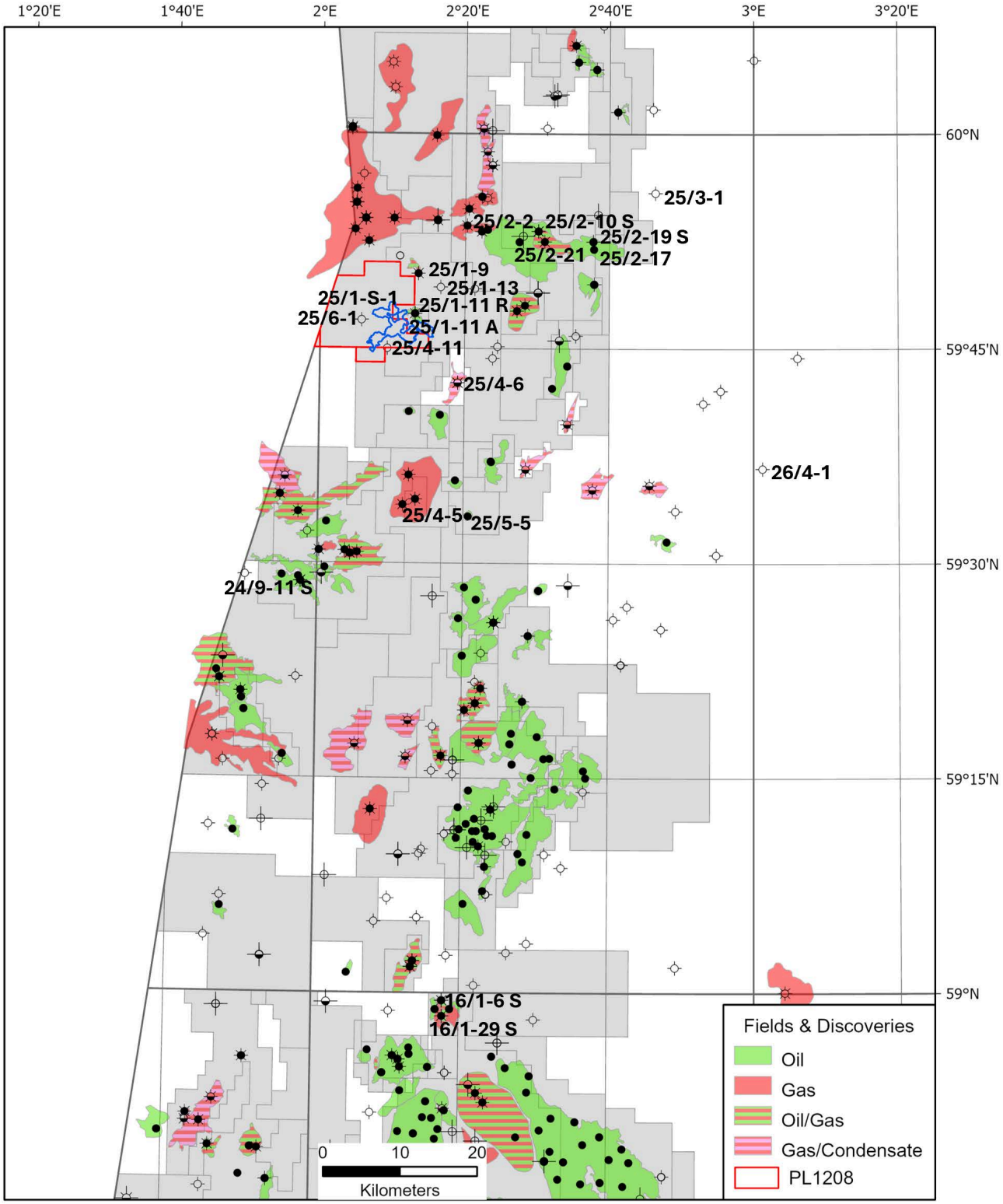

Fig. 2.3 Well Database Map Wells in the common data base for the license are labelled on the map.

Table 2.2 Well Database

Well	Drilling Year	NPD Status	TD Age	NPDID	Field/Discovery
16/1-6 S	2003	Oil/Gas	Paleocene	4711	Verdandi
16/1-29 S (*)	2018	Oil/Gas	Pre-Devonian	8383	Symra
24/9-11 S	2017	Dry	Paleocene	8158	
25/1-11 R (*)	2010	Dry	Oligocene	6368	Skogul
25/1-11 A (*)	2010	Oil/Gas	Eocene	6376	Skogul
25/1-6 (*)	1987	Dry	Late Cretaceous	352	
25/1-9	1986	Oil/Gas	Late Cretaceous	1001	Litjklakken
25/1-13	2019	Dry	Paleocene	8658	
25/1-S-1	2019-2020	Oil	Eocene	8799	Skogul
25/2-10 S	1985	Oil/Gas	Paleocene	855	Frigg-GammaDelta
25/2-2 (*)	1974	Oil/Gas	Late Cretaceous	354	Øst Frigg
25/2-17	2009	Oil	Paleocene	6215	25/2-17
25/2-19 S	2017	Oil	Paleocene	8249	Frigg-Gamma-Delta Appraisal
25/2-21	2017	Oil	Oligocene	8814	Liartårnet
25/3-1	1989	Dry	Late Triassic	1419	
25/4-11 (*)	2017	Dry	Paleocene	8227	
25/4-5 T2	1981	Oil/Gas	Triassic	201	Heimdal
25/4-6 S	1991	Gas/Condensate	Early Jurassic	1703	Vale

25/5-5 (*)	1995	Oil	Paleocene	2661	Tir
26/4-1	1987	Dry	Triassic	1046	
Well Database - Key wells marked by (*).					

3 Results of Geological and Geophysical studies

The license work obligation was to acquire and invert existing CSEM data, acquire modern reprocessed 3D seismic and geology and geophysics studies over a period of two years.

Seismic reprocessing and prospect mapping on data

The ABP24M03 reprocessing has been used in the updated seismic interpretation and prospect mapping of Kvitegga. The reprocessing included significant focus on denoise and demultiple, and an FWI velocity model up to 18Hz and has improved resolution and gather flatness. This has increased the confidence in the amplitude understanding and the trap is better defined. The prospect outline used in the volume calculations has been reduced to exclude small disconnected geobodies, the difference between the APA 2023 outline and the current outline is shown in Fig. 4.1.

Amplitude analysis and incorporation of rock physics

Based on rock physics modelling work done during the APA work, the expected AVO response for oil filled Grid sands, is Class II, IIp or III depending on amount of cementation, depth, anisotropy and porosity. In any case the amplitudes should brighten with offset. Chi angle analysis has shown that chi angle 15° should give the best correlation to fluid, while chi angle 45° should indicate lithology. This assumption is based on rock physics modelling and chi angle analysis, however there are several pitfalls and the wells included in the study are located relatively far away from Kvitegga. This adds uncertainty to the amplitude story, and the lack of depth conformance reduces the confidence that the amplitudes indicate hydrocarbons. Kvitegga shows a weak peak/trough which brightens with offset of varying degree across the prospect. Minimum amplitude maps extracted from for near and far stacks are shown in Fig. 3.1.

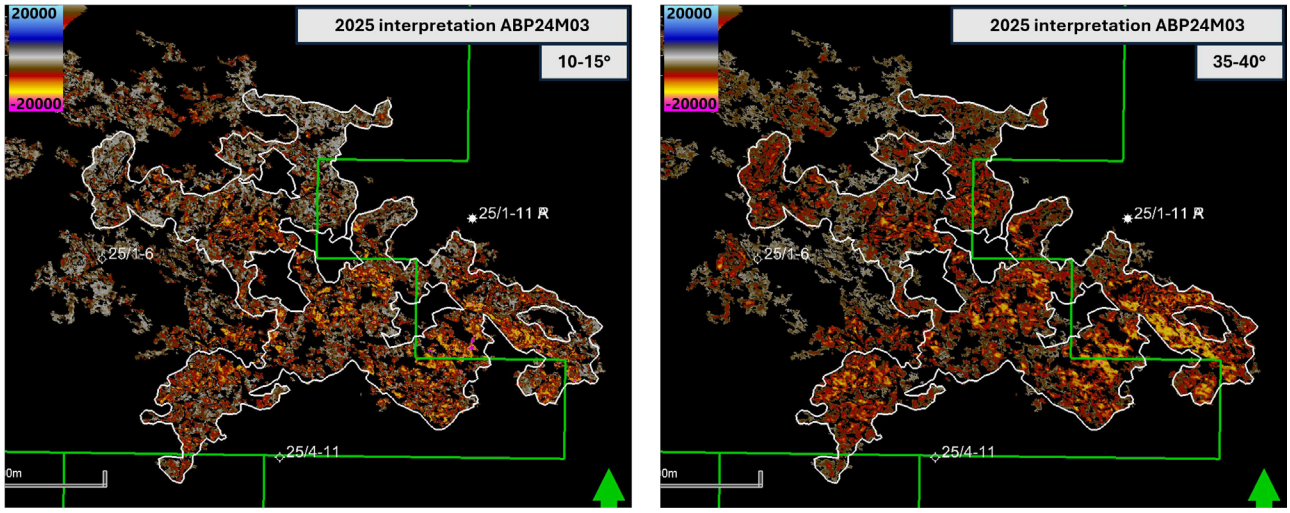

Fig. 3.1 Minimum amplitude map Kvitegga near and far Brightening of amplitudes with offset is observed at the Kvitegga prospect, in accordance with expectations for an oil filled Grid sand.

4 Prospect Updates

4.1 Prospect mapping

The play concept comprises remobilized Grid slope-channel reservoir sealed by Horda/Lark marine shales, with charge from Draupne/Heather via vertical leakage near Skogul and/or lateral Paleogene carriers. At the time of application the prospect was characterized to have between 12-118 mmboe with a 14% chance of success. Trap (0.4) and Charge (0.5) were seen as the key risks.

The updated prospect mapping has been done on the Aker BP reprocessed seismic ABP24M03 completed in late 2024. Fig. 4.1 shows the prospect outline in 2026 compared to the original APA outline. The reduced area is due to updated seismic interpretation and the exclusion of the smaller, more disconnected geobodies.

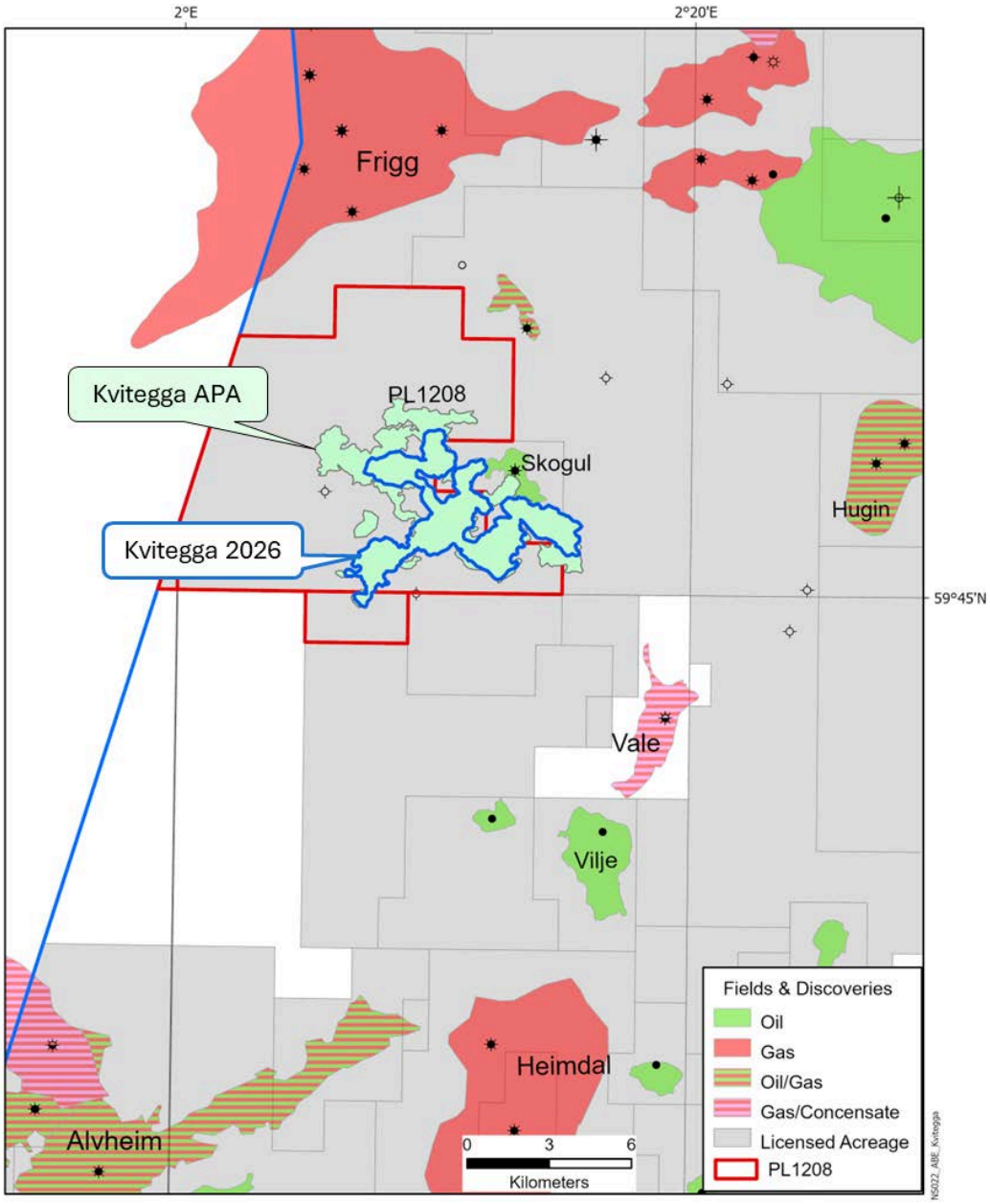

Fig. 4.1 Kvitegga updated prospect mapping

After performing detailed mapping on conditioned seismic, updated basin modeling, and AVO studies, the prospect is now assessed to have a 22% geological P_S and a volume range of 10-88 mmboe. The P_S has been adjusted downwards to 12% when considering the results from the EM feasibility and the inversion covering parts of the prospect. The EM modelling indicates that if Kvitegga was filled with economically viable hydrocarbons one should see an EM response. No such response is observed in the processed data that covers the southwestern part of the prospect. This is described in more detail in 3 Results of Geological and Geophysical studies.

Kvitegga is a stratigraphic pinch out trap, where the shallowest part of the trap is to the north and southwest, as shown on the depth map in Fig. 4.2. A trough, brightening with offset, over a peak is interpreted to be top and base reservoir. The trough dims or pinches out to the edges of the prospect and is also highly affected by remobilisation and faulting. The 25/1-6 well to the west of Kvitegga found no sand in Grid, while 25/1-11 A and R (Skogul) found a thin, but good quality Grid sand downdip, shown in Fig. 4.3. This sand is interpreted to be disconnected from the Kvitegga prospect, however it is included as a sensitivity for the spill point on Kvitegga.

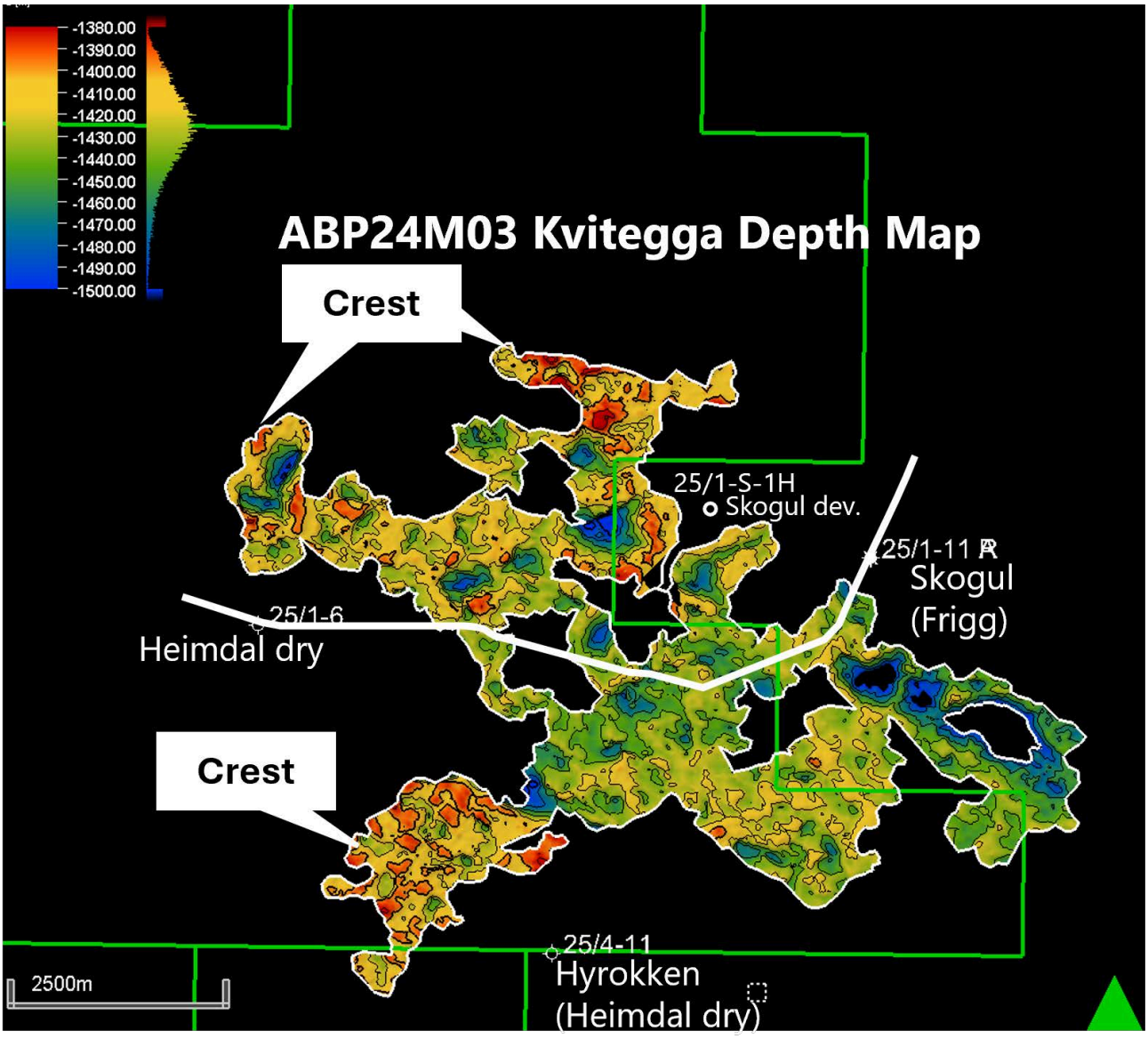

Fig. 4.2 Kvitegga Depth map

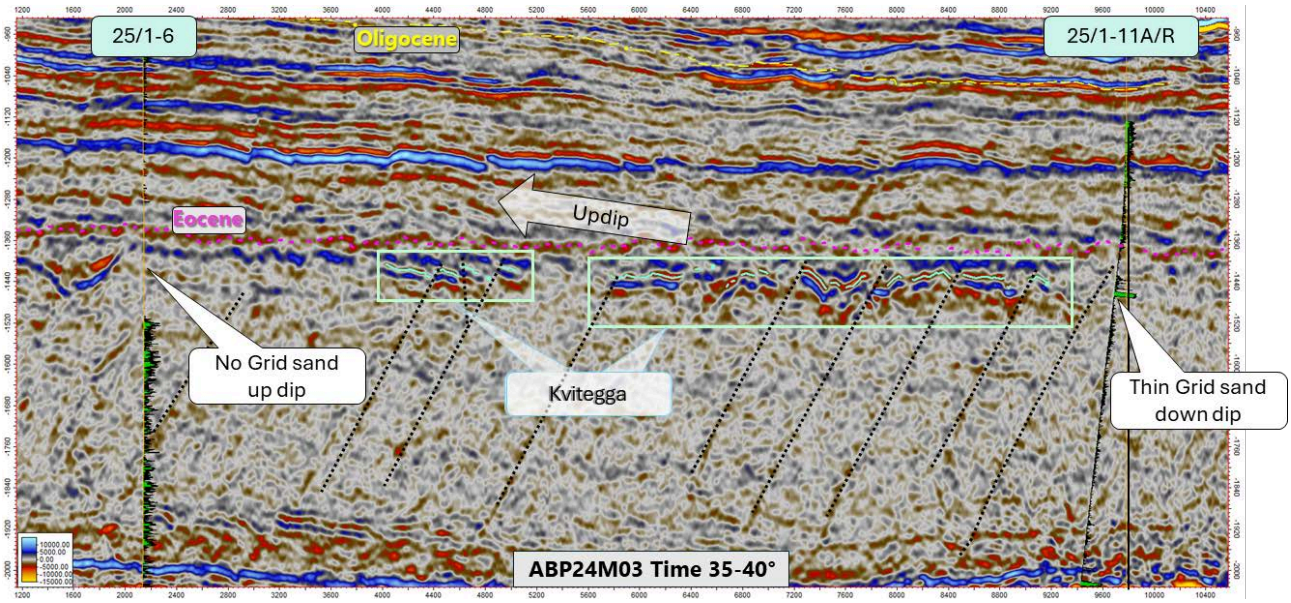

Fig. 4.3 Kvitegga trap definition

Fig. 4.4 shows a cross section across the Kvitegga prospect on the chi 15º data, which has been used as a fluid indicator. Fig. 4.5 shows a minimum amplitude map of the same attribute, where the bright amplitudes should indicate where there is hydrocarbons. The cross section and the map show how complex Kvitegga is with both remobilisation and faulting which will cause compartmentalisation of the reservoir and would be very challenging to develop.

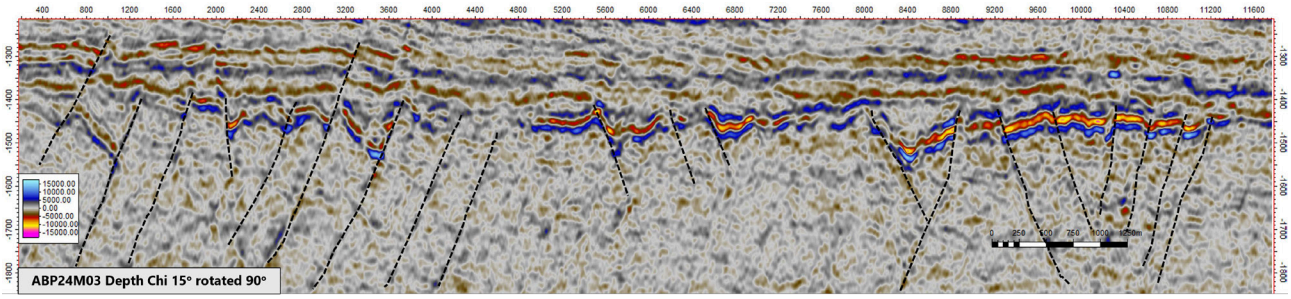

Fig. 4.4 Chi 15 cross section ABP24M03 chi 15 rotated 90 degrees showing the Kvitegga complexity with both remobilization and faulting. The line shown is highlighted in the chi 15 minimum amplitude map below.

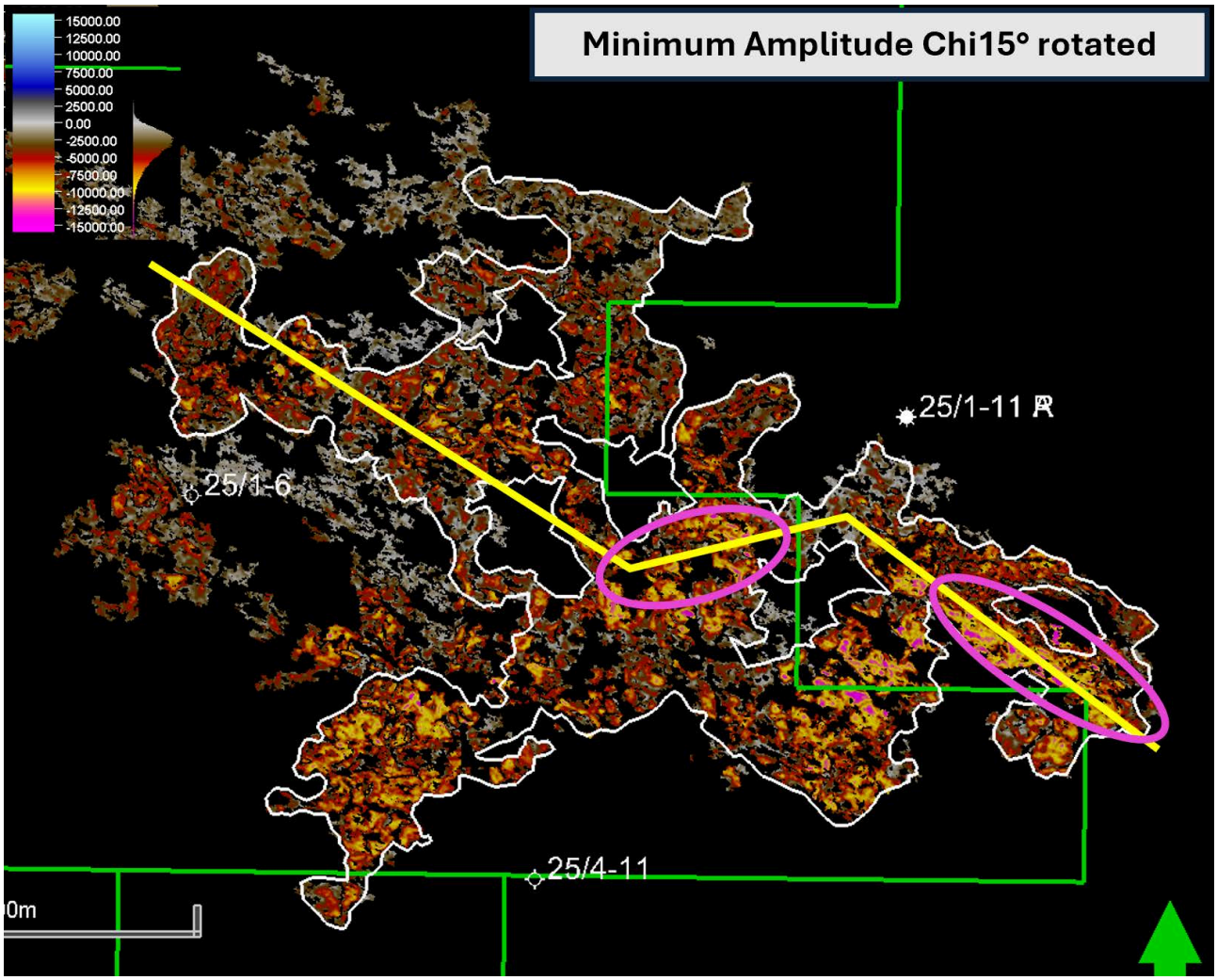

Fig. 4.5 Kvitegga minimum amplitude map chi 15

The seismic amplitude analysis indicates that the Grid sands could be charged. The response is patchy and not conformable to depth apart from potentially some segmented mini closures. The AVO response varies across the prospect, and no clear trend or hydrocarbon overprint can explain the observations in a consistent predictive manner. After the work program execution, the operator concludes that the prospect is more likely to contain hydrocarbons in smaller patches, but these are economically insignificant and would be difficult to exploit due to small connected areas and consequently thin columns.

4.2 Risking

Reservoir Presence and Quality: Reservoir presence is considered a very low risk. Even though net to gross is an uncertainty, the reservoir quality is expected to be very good given the shallow burial depth and the high porosities and permeabilities measured in analogue sandstone of the Grid Formation and other Paleogene levels in the neighboring wells.

Trap Geometry: The trapping mechanism of Kvitegga is stratigraphic pinch out trap, however due to the complexity of the structure the trap extent and the quality of the trap is highly uncertain. The reprocessed data and the updated interpretation increased the confidence in mapping the trap limits slightly, but it still remains the key risk for the prospect.

Charge: The main proven source rocks in the North Sea are the marine shales of the Upper Jurassic Viking Group, the Heather and Draupne formations. They are mature and prolific in the Viking Graben, and are linked to numerous oil and gas discoveries. Kvitegga overlies late-oil to early-gas mature Heather and Draupne Formation source rocks. Source presence and quality is not considered as a risk for

Kvitegga. However, Kvitegga could be charged from vertical leakage at or near Skogul, though Kvitegga does not directly overly Skogul and that could prove challenging. Alternative charge routes from the north and south have also been proposed, though the area lacks offset Grid discoveries to prove a working system in the area. Given the lack of proven Grid Fm. charge and the potential long-distance lateral charge route needed, the charge risk is considered relatively high.

Seal and Retention: Capillary top and base seal of the Horda Formation shale is modelled to be excellent. However, Kvitegga could be connected to a shallower injectite complex.

Amplitude risking: The amplitude response on Kvitegga is consistent with expectations for a hydrocarbon-filled sand. The amplitudes increase with offset, exhibiting characteristics of a Class II to III AVO anomaly, with variation across the prospect. However, there are several pitfalls and the limited conformance to structure decreases the confidence in the amplitude response. No amplitude uplift or downgrade has been given to the prospect.

Table 4.1 Kvitegga Prospect Risking

Kvitegga Prospect	Probability
Reservoir Presence and Quality	0.9
Trap Geometry	0.5
Seal and Retention	0.8
Charge	0.6
Ps	0.22
Ps_{EM}	**0.12**

4.3 Volumes

The estimated recoverable volume for the Kvitegga prospect is between 10 (P90) and 88 (P10) mmboe with a mean of 46 mmboe. However, only 70% of the volumes are within the PL1208 license, 8- 32 (34) - 62 mmboe. The upside of the volumes has been reduced since the APA 2023 application due to several factors:

- Area reduction - the updated interpretation and geobody extraction has shown how compartmentalised the reservoir is and some of the smaller and disconnected geobodies are excluded from the volume calculations.
- Recovery factor - the recovery factor has been reduced mainly due to the assumption that the oil is likely biodegraded and therefore relatively viscous and the reservoir is believed to be heavily segmented. The recovery factor is correlated to the spill point, the shallower the spill point, the more segmented the reservoir will be, and the recovery factor will be lower.

4.4 Leads

The only additional lead identified in the license is a small 4-way closure at Heimdal level highlighted in blue on the map in Fig. 4.6. A similar 4-way trap has been identified and drilled just to the west of this closure, in well 25/1-6 and found a thick good quality Heimdal sand, but with no hydrocarbons and no shows. The 25/4-11 well to the south and the Skogul well to the East, 25/11-A, did not have shows in Heimdal either. The volume potential for this lead is small and the migration risk is considered high, and has therefore not been worked further.

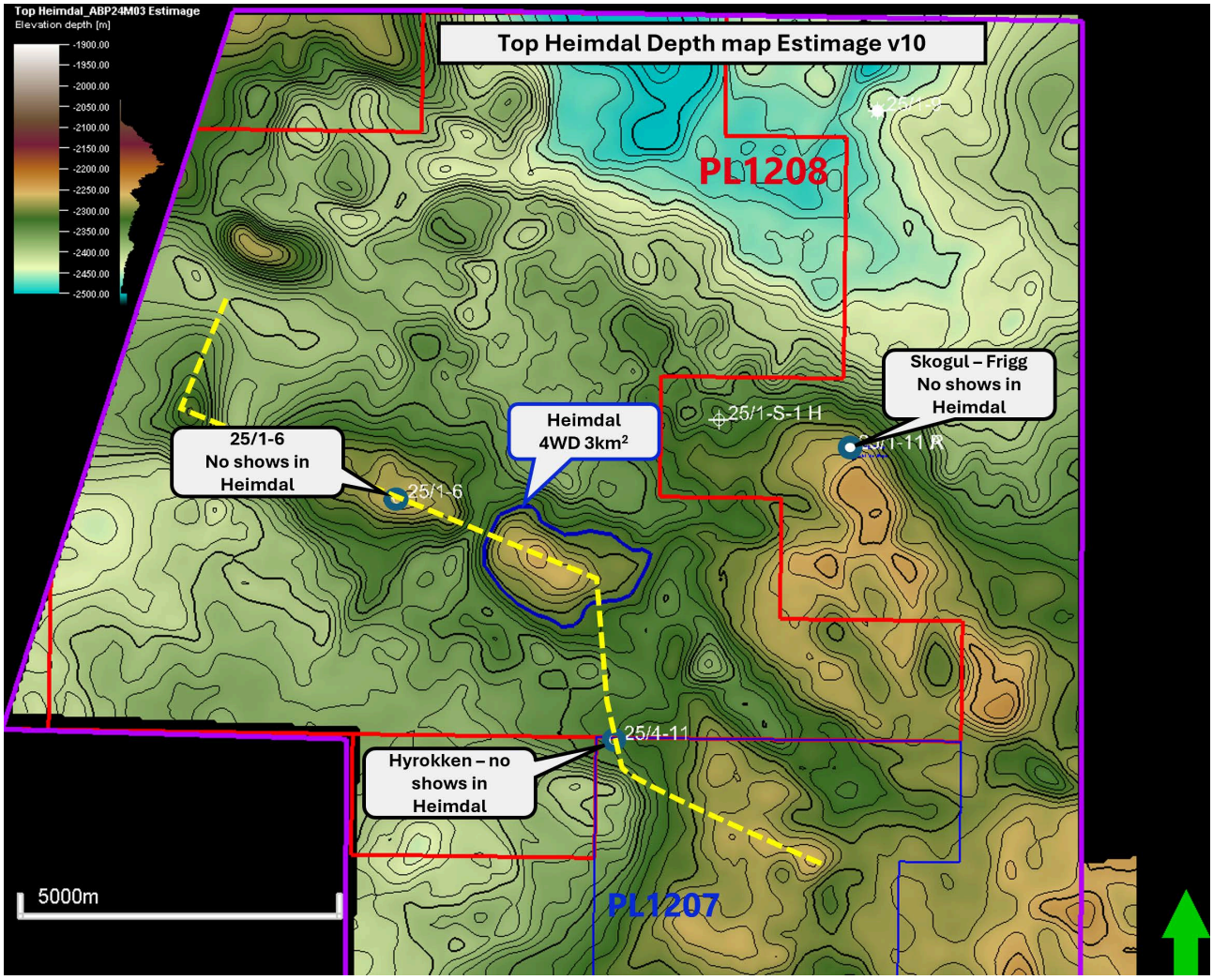

Fig. 4.6 Top Heimdal Depth map

5 Technical Evaluations

Multiphase tie-back to Alvheim was considered as a development option, but due to the high geological risk and the complexity of the reservoir, no further economic evaluations was conducted.

6 Conclusions

The PL1208 work program has been fulfilled. The integrated evaluation of the CSEM data and updated seismic interpretation on newly reprocessed data indicates that the geological risk associated with the Kvitegga prospect is unacceptably high. The management committee has therefore agreed not to drill an exploration well in PL1208 and to surrender the license in 2026.