PL255 D

Status report (relinquishment)





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1 History of PL255 D

History of the production Licence

PL255 D is situated on the Halten Terrace, Norwegian Sea, covering part blocks 6406/6 & 6406/5 (Fig. 1.1) between Jasper (6406/6-6S), Linnorm (6406/9-1) and 6406/5-1 volatile oil discoveries.

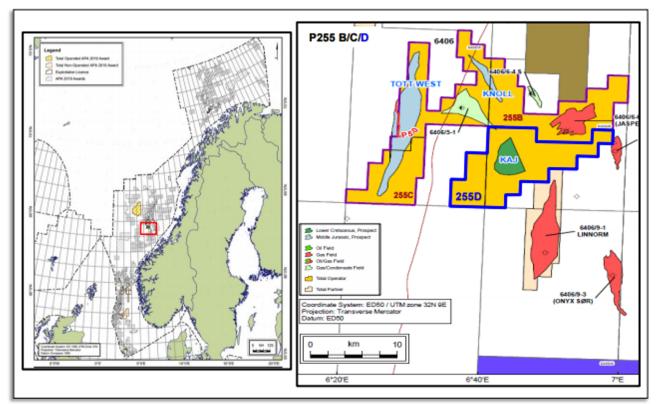


Fig. 1.1 PL255 D location map

PL255 D was awarded on 2 March 2018 following APA 2017 to TotalEnergies operator 40%, Petoro 30% and Equinor 30%. The licence acted as protection acreage in a high-side (p10 or larger) discovery case for the Jasper prospect located in PL 255 B (Fig. 1.2). Well 6406/6-6 S drilled Jasper in Q3 2018 on PL255 B, proving an uncommercial gas condensate discovery (4 mmboe). No separate licence commitments for PL255 D are specified to those existing in PL255 B/C. As such, there are no remaining commitments in PL255 D. The budget and meetings for PL255 D were combined with the larger PL255 B/C budget and meetings.



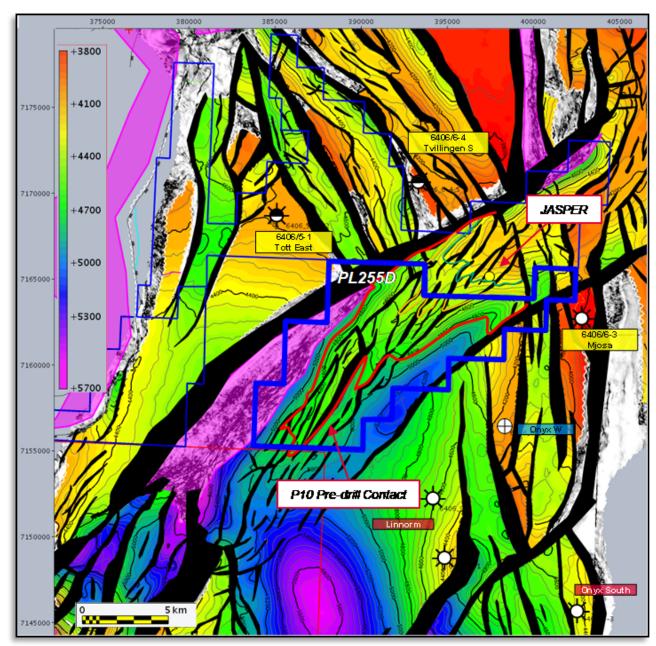


Fig. 1.2 Top reservoir map for Jasper prospect

The PL255 D License covers an area of 106,959 km² in water depth of approximately 300m. The area was originally a part of the PL255 license awarded in 2000 (Shell Op. 30%, Petoro 30%, Equinor 20%, Total 20%). In 2015, Shell proposed to relinquish the areas around the Linnorm discovery to reduce area fees. Subsequently, Total and Equinor applied for operatorship of a Northern carve-out area. The license PL255 B/C was then awarded in Summer 2016 (with Total as operator with 40%, Equinor 30% and Petoro 30%).



2 Database

PL255 D license is fully covered by PGS15005 data (Fig. 2.1). Acquired by PGS in 2015 and then processed to PSDM in 2017. TotalEnergies have followed the processing of PGS15005 closely and input into the final velocity model built to best illuminate pre-BCU target objectives. The seismic is generally of very good quality with only local degradation due to complex geology (severe faulting) and masking effects (gas cloud). Angle stacks up to 55° are available, but only stacks up to 39° were used as inputs for AVO seismofacies and elastic inversion cubes. Key well data used in the prospect evaluation is summarized in Fig. 2.1.

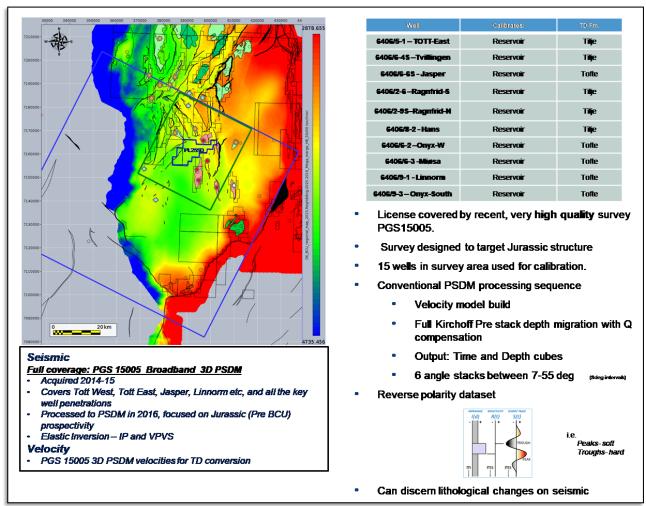


Fig. 2.1 Database



3 Jasper well results and post mortem

PL255 D was intended as protection acreage for a high case (p10 volume) Jasper discovery scenario. The Jasper exploration well 6406/6-6 S, drilled in PL255 B, was spudded on the 16th August 2018, and reached formation TD at 4911m MD on the 1st November 2018. Sidetrack 6406/6-6 A aimed to confirm a GWC was initiated on 17th November 2018 and reached formation TD at 4869m MD on 10th December 2018.

6406/6-6 S calibrated a gross reservoir interval of 106m vertical thickness in the Garn formation, 144m in the lle formation and 23m in the Tofte formation (Fig. 3.1). A core of 27m was taken in the Upper lle formation. The well encountered hydrocarbons mainly in degraded reservoir facies, gas was sampled in the best reservoir over the mid lle formation. Pressure acquisition attempts in the Garn and Upper lle formations could not confirm the presence of a connected column. The lower lle and Tofte were of good to excellent reservoir quality but water bearing. Even though the resistivity tool could not be logged over the lle Interval, Neutron density responses acquired in the side-track allowed the establishment of a tentative fluid distribution interpretation along the main hole and the sidetrack. The large Jasper volume case that could extend into PL255 D is excluded. For further discussion of the Jasper discovery, refer to the discovery evaluation report.



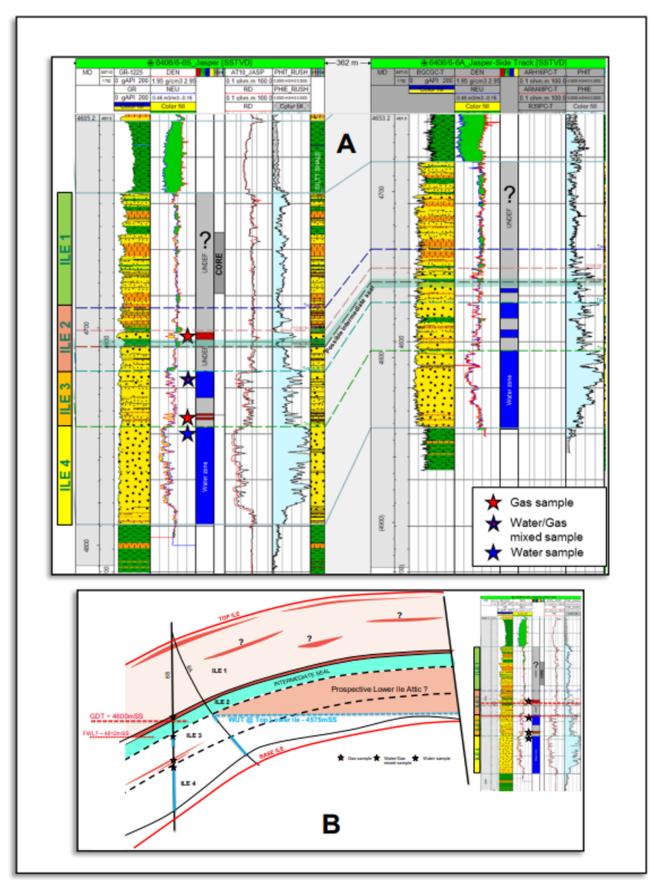


Fig. 3.1 6406/6-6 S Jasper & 6406/6-6A Sidetrack



4 Remaining prospectivity

The Kaj prospect (Fig. 4.1) has been identified in the Lange Fm. Amplitude maps from the far anglestack of PGS15005 highlight the presence of a sandy fairway at Lange Fm interval. Structural mapping using the same velocity depth conversion model as for Jasper, suggest likely communication with the sands/silts already crossed by 2 Linnorm wells, 6406/9-1 & 6406/9-2. To the North West of PL255 D, sandstone of Lange Fm has been encountered in 6406/2-6, 6406/2-9 (Ragnfrid) and 6406/2-8 may locate along the same fairway.

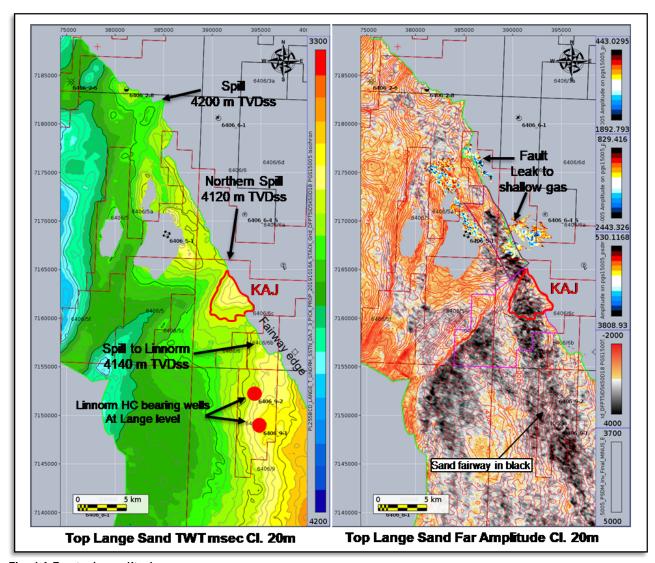


Fig. 4.1 Farstack amplitudes

Outside of fairways, the Lange sand is shaly or silty as in Jasper (6406/6-6 S) and Tott-East (6406/5-1 T2). Considering the sand distribution calibrated by wells and seismic amplitudes, the chance of reservoir presence is very likely at Kaj Prospect. However, risk is related to reservoir quality as demonstrated by the low mobility observed during pressure measurements in Linnorm and Ragnfrid wells (all MDT attempts were tight or supercharged).

The Kaj prospect is assessed as having potential gas and condensate with a range of 1/9/38 mmboe (P90/P50/P10 - volume range) with a Pg 28%.



5 Conclusions

Considering the low remaining prospectivity on the PL255 D license following Jasper well results it was agreed in the licence partnership to relinquish this licence in its entirety.