

Relinquishment Report

PL454

22.04.2010



MC chairman Svend Erik Pettersson

EC chairman Trond H. Wierød

Drill or Drop decision – PL 454

PL 454 Recommendation

The evaluation of PL454 shows that the licence has two small prospects. The GCF's varies between 19-24% (individual reservoirs). The key risk factors are varying but the charge / migration is the key risk element. The P50 recoverable resources for the Jurassic prospect is 2,2 Mboe and 12Mboe for the Cretaceous prospect. A technical/economical evaluation has been performed on these Prospects giving a negative env.

With this resource basis the Management committee has decided to drop the PL454 License by end February 2010.

The evaluation of PL454 was presented in a Peer-Review, where the peers supported the recommendation given by the Management Committee.

Licence overview and work-commitment

PL 454 comprising most of the acreage of block 7/9 (508 km²) and was awarded in the APA 2007 on 29.2.2008 and is valid until 1.3.2013. The licence was awarded to ERN (100%) as operator. The licence commitment comprises reprocessing of existing 3D seismic covering the whole awarded acreage within the first 2-years period. The license commitment was met and the resulting seismic has the name MC3D_JHUN99_R09. A drill or drop decision is due end February 2010. Seismic reprocessing, seismic interpretation, petrophysics, sequence stratigraphy study, volume-calculations, risking and technical/economical evaluation have been performed.

Key facts:

License commitments met.

Drill-or-drop due 01.03.2010.

ERN acquired in APA 2007

Work program was to re-process 3D seismic data, which was done within the timeframe given. ERN also completed a petrophysical and a stratigraphical study

Production licence: 454

General information

NPDID production licence: 4909716
Licence status: ACTIVE
Licensing activity: TFO2007
Date granted: 29.02.2008
Date valid to: 01.03.2013
Original area: 507.976 km²
Current area: 507.976 km²

History

Current licensee(s)

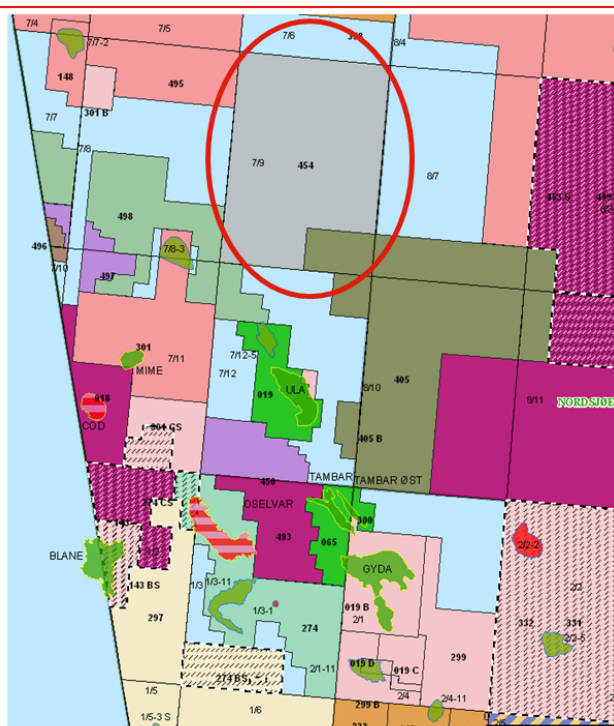
Period	Company	Interest [%]
29.02.2008 -	E.ON Ruhrgas Norge AS	100.000000

Current operator(s)

Period	Company
29.02.2008 -	E.ON Ruhrgas Norge AS

Current area(s)

Period	Nation	Block	Polygon	Area [km ²]
29.02.2008 -	NO	7/9	1	507.976



Location, structural setting and reservoirs

PL 454 license covers most of the acreage in the 7/9 block and is located on the Western margin of the Norwegian Danish basin, on the border of Jæren High. The 7/9 block is more or less split in half by the N-S trending Reke fault. Simplified, the main basin areas in the Southern North Sea include the Viking Graben to the west, the Central Graben to the south, the Stord Basin in the north-east and the Egersund basin and the Åsta graben in the south-east. These basins are separated by a series of topographic highs of which the Utsira High in the quadrant 25 and 26 area partly separates the Viking Graben from the Stord Basin. Likewise, the Jæren high in the quadrant 7 and 8 separates the Central Graben from the Egersund Basin. The block is located some 30Km North of the Ula Field, 30Km North East of the 7/8-3 and 40Km South East of the 7/2-2 discoveries.

Levels regarded as reservoirs within the license are of Danian - Maastrichtian age for the Cretaceous. The Jurassic Ula Fm. is mainly deposited in the mid- late Volgian.

Initially the Paleocene level was also considered as a prospective level. However, after semi regional studies regarding the sediment influx from the North West of the Forties sst. together with evaluation of structural elements and seismic amplitudes the chance of reservoir is regarded as slim to no chance of reservoir presence.

Prospects description, volumes and risking

The **Han Solo and Skrubbe** prospects are 3-way dip closures dependent on fault seal. The Jæren high in the quadrant 7 and 8 separates the Central Graben from the Egersund Basin. In the transitions from the high areas to the deep basins, a series of down faulted rotated terrace areas are formed, such as the Gudrun Terrace on the transition between the Utsira High and the Southern Viking Graben in quadrant 16 and 25 area. The 7/9 block is positioned on the Jæren High which is up thrown compared with the Central Graben deepening to the south-west.

The volume-calculations are based on Area Depth curves from top and base reservoir, which will give the GRV. The areal extent of the trap is 4,35km² and the gross reservoir thickness of up to 180m for the chalk prospect. However, the high porous Ekofisk Fm. is only a couple of meters thick in the 7/9-1 well at top of the salt dome. The Ula Fm. sst is approximately 10m thick in the 7/9-1 well, thickening down flank from the salt dome and the areal extent of this prospect is calculated to 3,71Km². The shallowest points of the traps are at 2082m for the chalk prospect and 2330m for the Jurassic Ula Fm. prospect.

The main risks are attached to charge / migration. The overall GCF is calculated to be 19% for the chalk prospect and 24% for the Jurassic prospect. P50 potential recoverable resource of 12Mboe for the chalk and 2,2 Mboe for the Ula Fm. prospect.

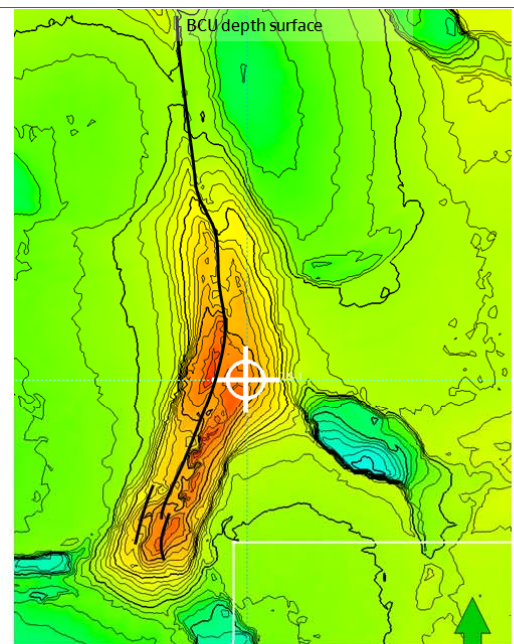
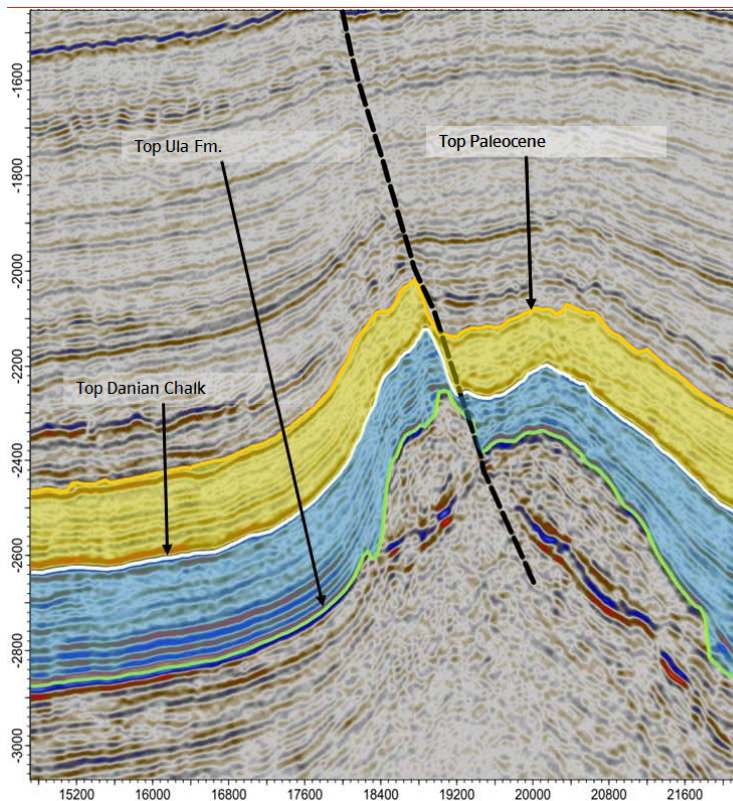
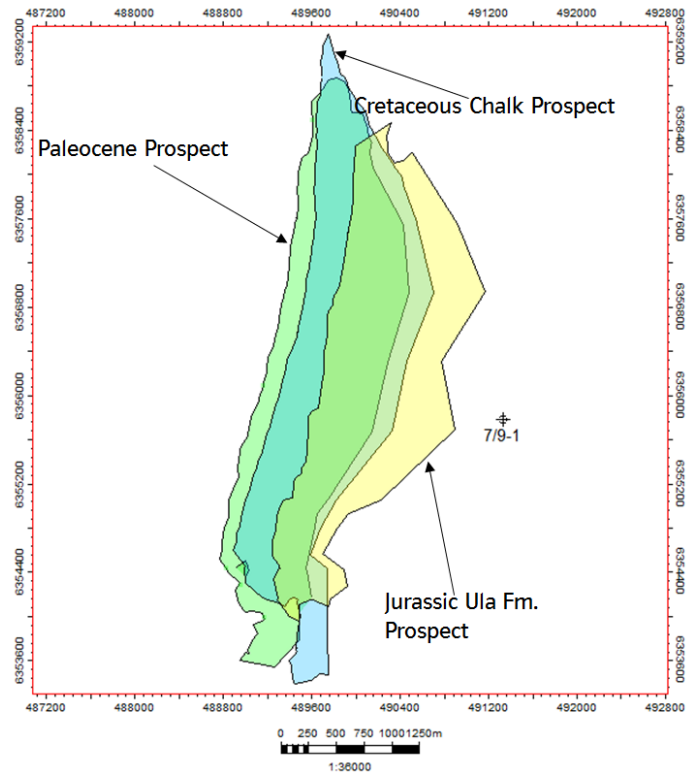
Cretaceous:

Han Solo (Re-worked chalk Tor & Ekofisk Fm. 3-way Dip Closure with Fault Seal) GCF 19 P50 recoverable of 12 Mboe.

Jurassic:

Skrubbe W (Ula Fm. Sst. 3-way dip Closure with Fault Seal) GCF 24 P50 recoverable 2,2 Mboe.

Of these multi-storey reservoirs the Cretaceous Chalk is the driver of the prospect and will be shown in detail

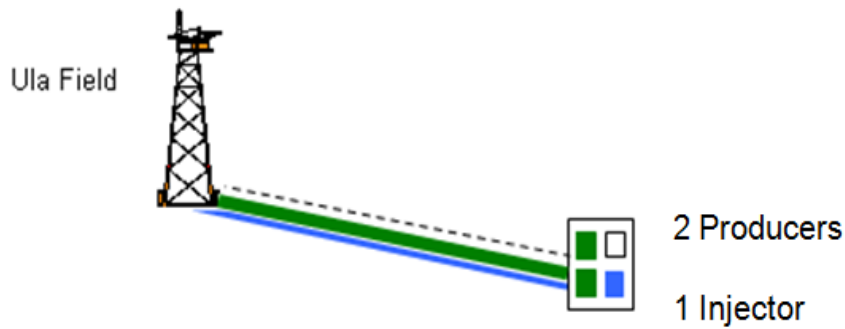


- 3-way Dip Closure in Footwall block at all reservoir levels
- Same trap type for 2 layer multi-storey reservoir

Technical/economical evaluation of the Han Solo and Skrubbe Prospects

Based on the very small volumes from the Skrubbe prospects it was decided that the Cretaceous Han Solo prospect should alone be used for the technical end economical evaluation of the license.

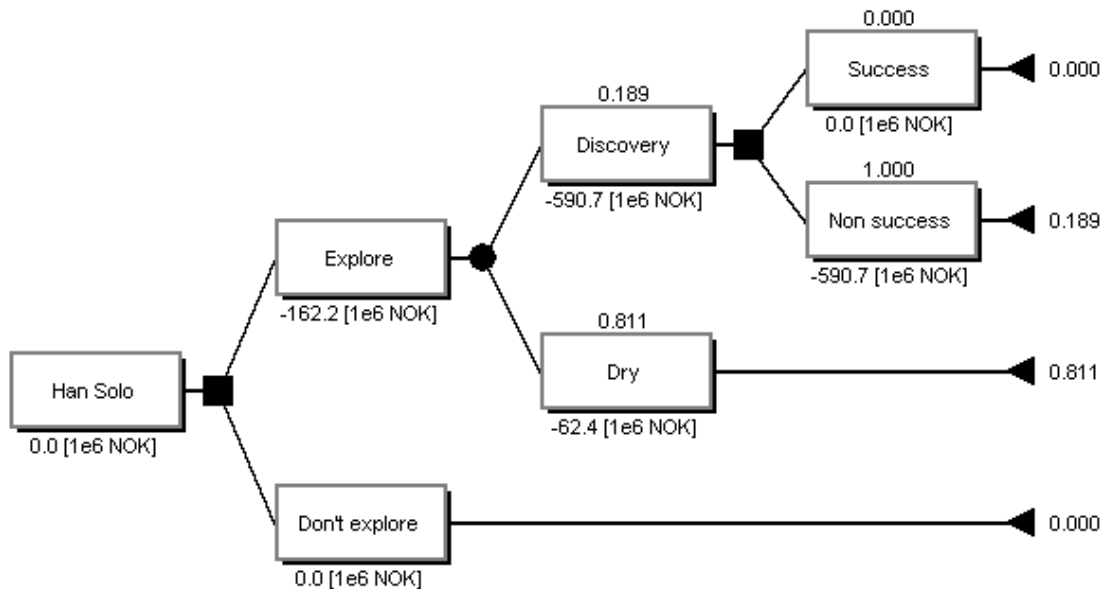
P50



The development is assumed to be a simple template (water-depth 130m) with water-injection, production and umbilical tied back to the Ula Field located some 25Km to the South. The necessary water injection will be supplied from the Ula facilities. There are uncertainties related to available space and capacities on the Ula Platform which may mean additional topsides modification cost not taken into account in the evaluation.

For the P50 volume case economic it is assumed that an exploration is drilled in 2012. Two oil producers are anticipated with the first pre-drilled in 2017 with production start in 2018. E.ON corporate assumptions November 2009, 'Management View' scenario economic model and price assumptions has been used. The IRR is set to 9,7%. Tariffs for oil are 100NOK/Sm³ and for gas 30 øre/m³.

The evaluation of the P50 case gives a negative emv 162MNOK with a IRR of 9,7%.



Conclusion and recommendation

The evaluation of PL454 shows that the prospects have too high risk and too small volumes.

- GCF varies between 19-24%
 - Key risk factor is charge / migration
- Due to the low potential/high risk of the prospects a tech/econ evaluation has only been performed for the largest prospect (Han Solo Prospect)

- Han Solo:
 - Negative economics – emv (-162MNOK) with at IRR of 9,7%
 - P50 volumes – 12Mboe oil
 - GCF = 19%

With this resource basis the Management committee has decided to drop the PL454 License by end February 2010.