

Relinquishment Report

PL572S

25th April 2012



MC Chairman: Svend Erik Pettersson

EC Chairman: Trond H. Wierød

PL572S Partner: Rocksource ASA

Relinquishment date: 3rd February 2012

Drill or Drop decision – PL 572S

PL 572S Recommendation

The Operators evaluation of PL572S has identified a multi-storey prospect in the Jurassic (Aragorn). The Geological Chance Factor (GCF) varies between 10-20% (individual reservoirs). The key risk elements are identified as charge / migration and retention. The volumes and estimated chance of success of the Jurassic prospective levels are as follows:

P50 Recoverable	Volumes in Mboe	GCF
Sognefjord	66,5	20
Fensfjord	111	10
Krossfjord	122	10
SUM	199,5	

Based on the high Charge risk, as also demonstrated by the dry 31/8-1 well immediately to the north, the PL572 partners have decided to drop the license.

The Triassic potential has not been further addressed due to the fact that the key risk element, charge had to be de-risked sufficiently in order to make the main prospect more attractive. Without proven charge into the Sognefjord the probability of having charge from the Draupne/Heather Fms into the Triassic reservoirs is extremely low and there is currently no evidence of a functioning deeper source rock.

Licence overview and work-commitment

PL 572S consists of acreage within blocks 31/11 and 26/2. The License was awarded in the APA 2011 on 04.02.2011 and is valid until 04.02.2019. The licence was awarded to E.ON Ruhrgas Norge as the operator (55%) and Rocksource ASA (45%). The licence commitment comprised seismic interpretation and analysis, collecting EM data and to perform basin modelling studies with an emphasis on Charge and Migration. The license commitments are fulfilled. A “seismic or drop decision” was due February 2011.

Production licence: 572 S

General information

NPDID production licence: 20108160
Licence status: ACTIVE
Licensing activity: TFO2010
Date granted: 04.02.2011
Date valid to: 04.02.2019
Original area: 1036.227 km²
Current area: 1036.227 km²

History

Current licensee(s)

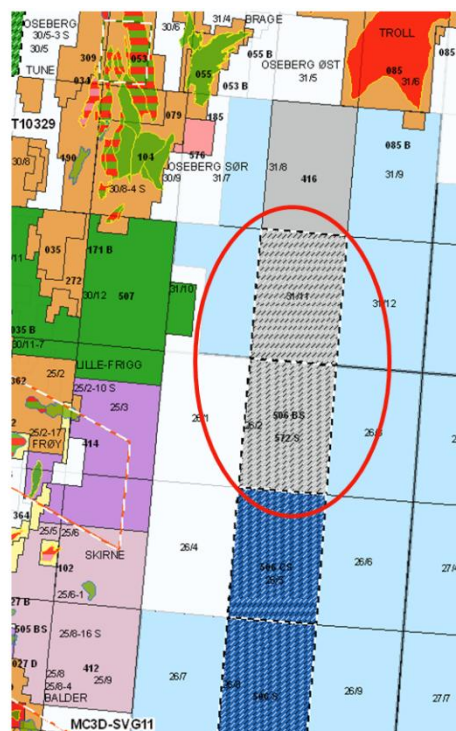
Period	Company	Interest [%]
04.02.2011 -	Rocksource ASA	45.000000
-	E.ON Ruhrgas Norge AS	55.000000

Current operator(s)

Period	Company
04.02.2011 -	E.ON Ruhrgas Norge AS

Current area(s)

Period	Nation	Block	Polygon	Area [km ²]	Vertical limitations
04.02.2011 -	NO	26/2	1	520.058	Applies for all levels below base Cretaceous
-	NO	31/11	2	516.169	Applies to all levels below base Cretaceous



Location, structural setting and reservoirs

The PL 572S license covers the area comprised by the blocks 31/11 and 26/2 in the Northern Stord Basin. The blocks are located east of the Western Bjørgvin Arch and approximately 70 km west of the Øygarden Fault Complex. The closest infrastructure is the Troll Field some 41 km to the north-northeast and some 37 km northwest to Oseberg Sør. Whereas the Oseberg Field can be found on the northern elongation of the Utsira High and Troll on the Horda Platform, the PL572S Aragorn prospect is located on the northern rim of the Stord Basin and hence part of a different province than the two mentioned above. The prospect is a 4-way dip closure in the P90 case, whereas the more optimistic cases are dependent on Fault Seal and therefore by definition a 3-way dip closure. Potential reservoirs within the license are found throughout the entire Jurassic interval.

Prospects description, volumes and risking

The **Aragorn prospect** is a multi-storey prospect. The prospect outlines for the different Jurassic targets have similar geometry, small 4-way dip closures for the P90 cases and 3-way dip closures dependent on fault seal for the more optimistic ones. The top of The Sognefjord Fm. is eroded by the BCU unconformity.

Exploro AS has performed charge and migration studies for the License, in which the conclusion is that the prospect area is in a migration shadow from the traditional Viking Graben kitchen area, and that any charge of hydrocarbons into the reservoirs must be dependent on generation and expulsion from a local kitchen. The study indicates that some charge could be received by the Sognefjord formation, but due to the limited amount of oil expulsion from a local kitchen in the most positive case no charge is received in Fensfjord and Krossfjord formations. However the potential generation of charge is very sensitive to small changes in the modelling parameters which are well below the uncertainties in the data; i.e.

given the uncertainty envelope in formation depth and temperature gradient it is possible to have the source either immature or just entering the early oil generation window. The results of the study are therefore considered to be inconclusive and not sufficient to de-risk charge for the prospect.

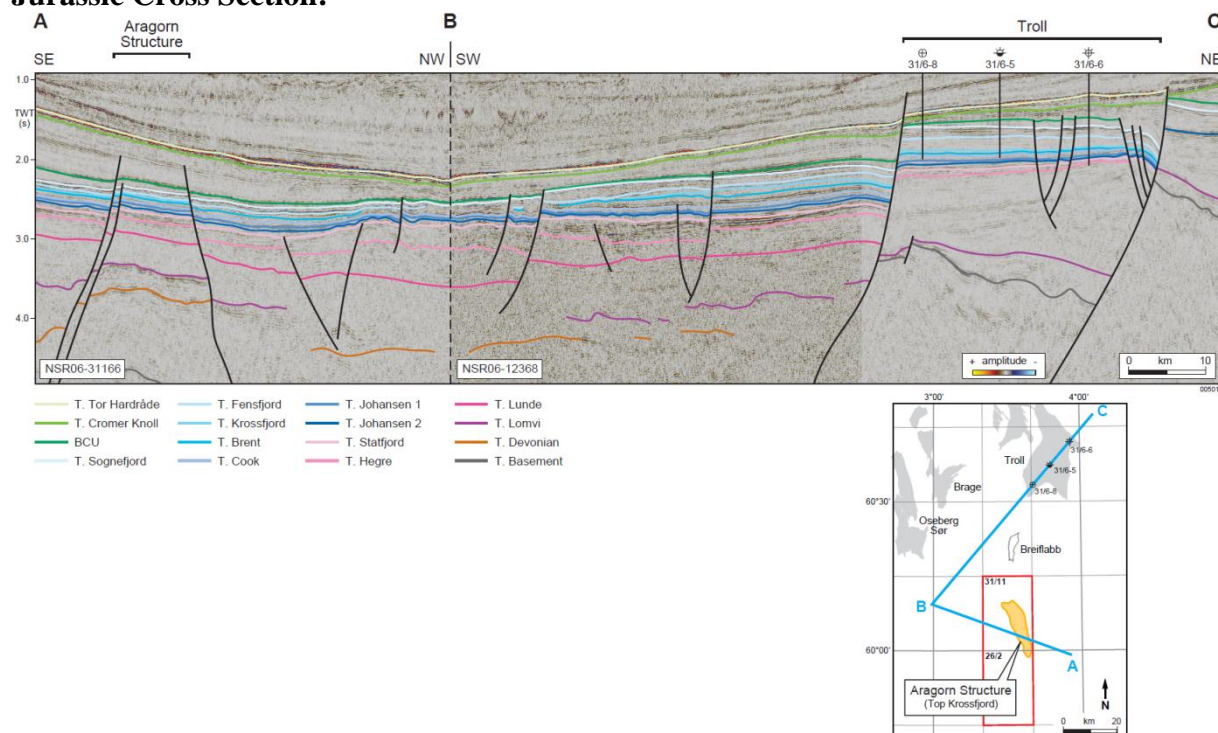
In addition the Geochemistry report from the dry Breiflabb well (31/8-1) concludes the source rocks north of Aragorn prospect are immature. Finally, a CSEM line acquired for the license showed no sign of hydrocarbon effect

The Operator has performed an AVO / fluid substitution study on the nearby Breiflabb prospect in Block 31/8 in order to identify any potential direct hydrocarbon indications. Based on the fluid substitution modelling in Breiflabb the presence of gas would create a different seismic response than in-situ water. No such response is visible in the data covering PL572S

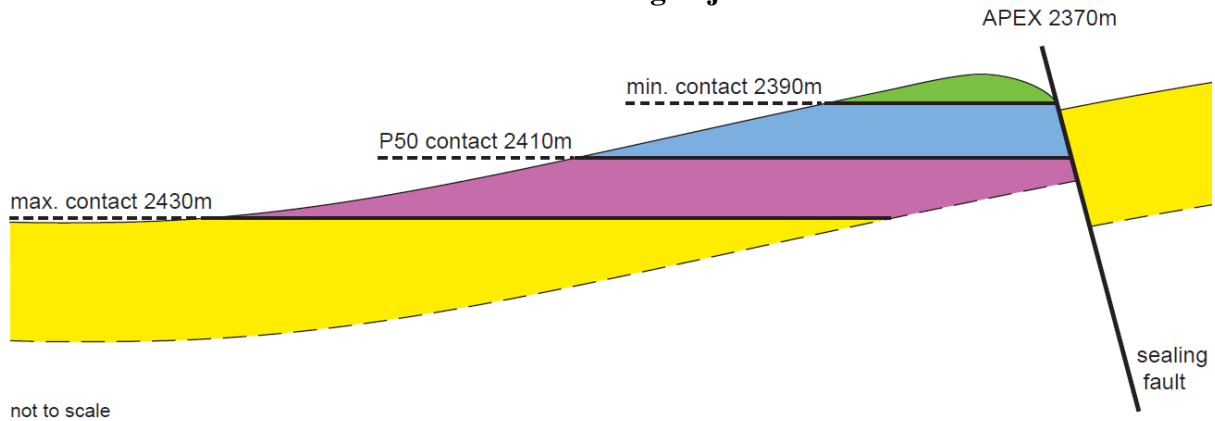
The volume calculations are based on Area Depth curves with top / thickness as input, to determine the gross rock volume. The crests of the traps are at 2370m for the Top Sognefjord Fm. prospect and 4160m for the deepest Triassic prospect (Top Lomvi).

The main risks are attached to charge / migration and retention. The overall GCF is calculated to be between 10-20% for the Jurassic prospects. The volumes are shown in the table above.

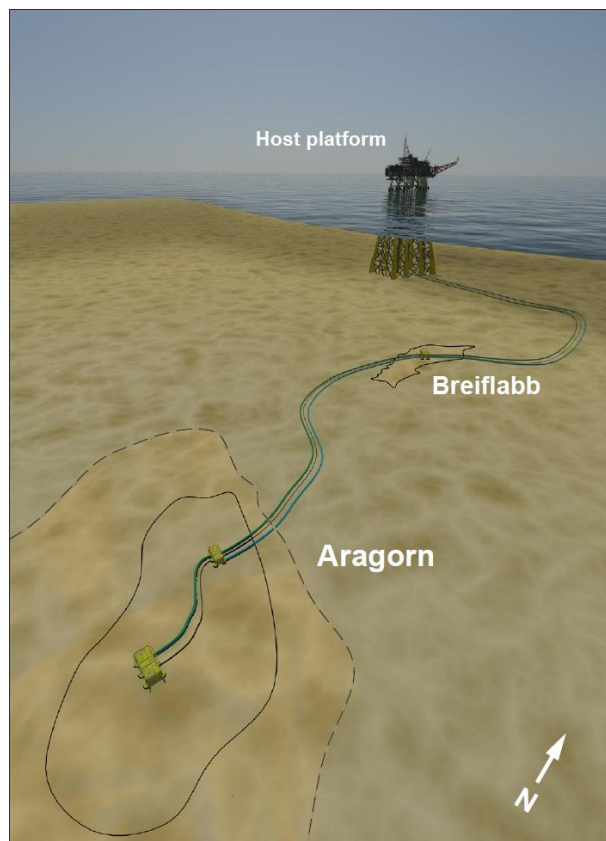
Jurassic Cross Section:



Cross Section with different fill scenarios for Sognefjord Fm.



Technical/economical evaluation of the prospectivity in the PL572S License



The proposed concept for development of Aragorn was a subsea tieback to Breiflabb (water depth 300m). Development studies carried out in PL416 demonstrate that the Breiflabb Prospect, with volumes equivalent to Aragorn, could be developed as a subsea tieback to a nearby field centre, with robust economy.

The Breiflabb Prospect was envisaged as a subsea tieback to Oseberg or Troll Fields, based on a single template, with oil production and water injection wells. The template would have to be equipped with sufficient capacity to connect the pipelines and umbilicals for Aragorn.

The Aragorn Prospect would most likely require two subsea templates, each with four wellslots. The template located nearest to Breiflabb would have two water injection wells and two oil production wells. The second template, located farther south would have two production wells and two slots for future wells. Both templates will have capabilities, in case this is required, for future wells or nearby tie-ins.

A combined development as described above is expected to be economic, however given that Breiflabb was proven to be dry its feasibility is currently questionable.

Conclusion and recommendation

The evaluation of PL 572S shows that the prospects have too high risk due to the lack of evidence for an effective hydrocarbon charge

With this resource and risk basis, ERN as the Operator has proposed to drop the PL572S License. The partner in this License, Rocksource ASA is in agreement with the Operator.