

## PL713 Licence Surrender Report



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## 1 Key licence history

**License:** PL713 - blocks 7219/2, 7219/3, 7319/11, 7319/12

**Awarded:** June 21<sup>st</sup> 2013

**License period:** Expires June 21<sup>st</sup> 2017  
Initial period: 4 years

**License group:**

Statoil Petroleum AS	40% (Operator)
RN Nordic Oil AS	20%
Edison Norge AS	20%
North E&P AS	20%

**License area:** 1.214.547 km<sup>2</sup>

**Work programme:** One exploration well into Kolmule Formation or down to 1500 m

**Meetings helds:**

18.09.2013	ECMC
20.11.2013	ECMC
12.03.2014	ECMC
11.08.2014	EC pre-spud meeting
14.10.2014	EC post-well meeting
26.11.2014	ECMC
08.06.2015	EC
17.11.2015	ECMC
14.12.2016	ECMC

**Work performed:**

2013: License awarded and license start-up. Well planning.  
2014: Drilling of Well 7319/12-1 on the Pingvin prospect: gas discovery.  
Evaluation of the well results.  
2015: Evaluation of remaining resource potential in the license

**Reason for surrender:**

The Pingvin discovery has no economic potential as long as no nearby gas infrastructure and export options are available. No other drilling candidates have been identified in the license.

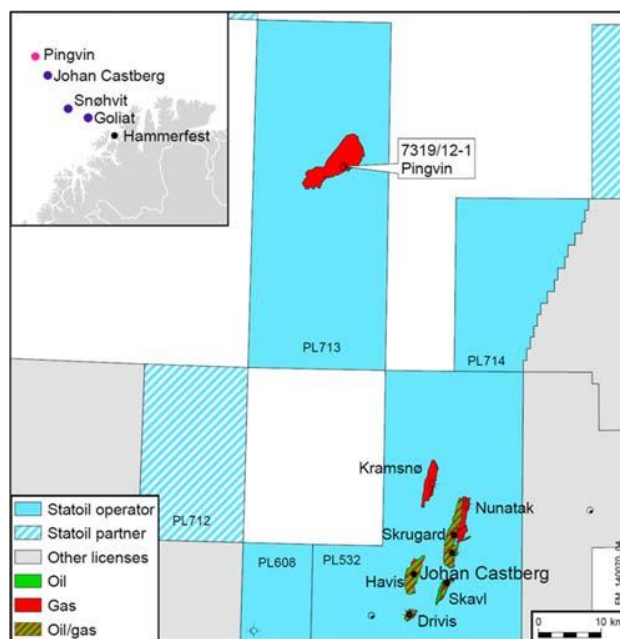


Figure 1. Area overview of PL 713.

## 2 Database

### 2.1 Seismic

The seismic data coverage available to the operator is shown in Figure 2. The 3D seismic data used for prospect evaluation and well planning were WG11001. These data were acquired in 2011 and at the time of drilling the only data in the common database in PL713. Following the Pingvin gas discovery, the southern part of SWB12 was included in the CDB to evaluate remaining prospectivity within the license.

The licensed area is also covered by The BARENTS SEA multi-client 3D CSEM data from EMGS, see Figure 2. The PING08 2D line were acquired in 2008 and the 3D survey in 2010. These data were also available to the operator prior to drilling

Table 1. Common seismic database in PL 713.

Survey name	NPDID	Survey year	Seismic type	Seismic operator	Market available
WG1101	7453	2011	3D	WesternGeco AS	Yes
SWB12	7569	2012	3D	Fugro Multi Client Services AS	Yes

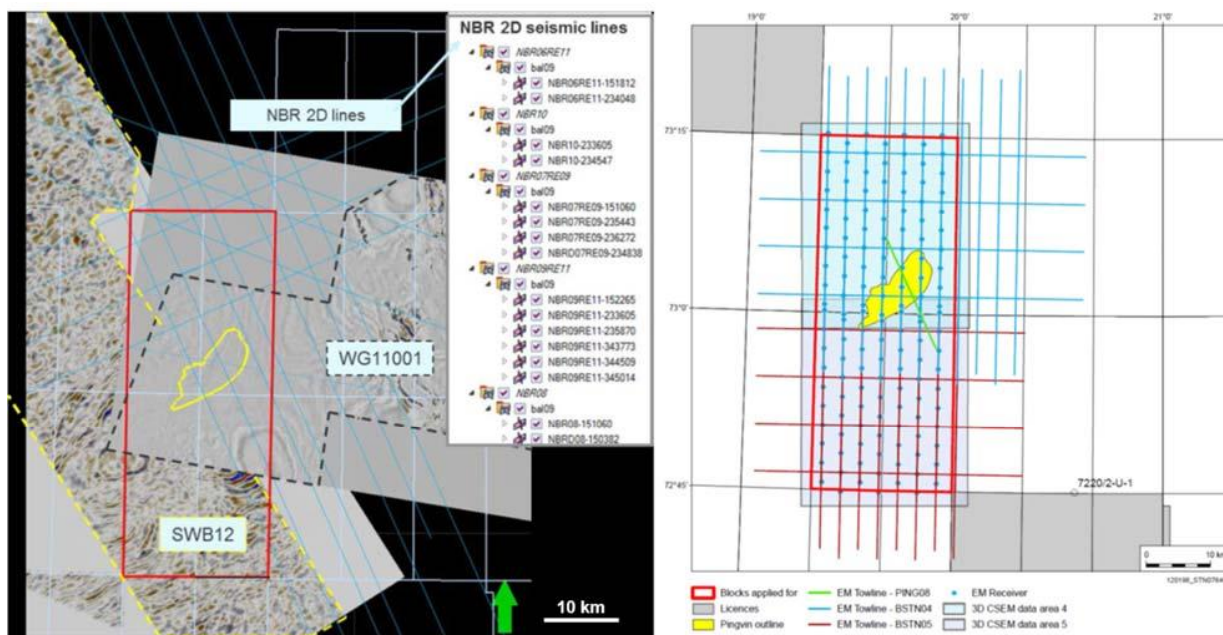


Figure 2. Common seismic database in PL 713 with the relevant 3D surveys. The Operator's CSEM database is shown to the right.

## 2.2 Wells

Only 7319/12-1 (Pingvin) is part of the CDB.

Table 2. Common well database in PL 713.

Well name	Year drilled	Age TD	Operator	Content
7319/12-1	2014	Early Cretaceous (Kolmule Fm.)	Statoil Petroleum AS	Gas

## 2.3 Special studies:

Special studies to evaluate the prospectivity within the license include mapping of the Cretaceous and Paleocene sequences, Seismic AVO analysis, CSEM inversions, post-well studies (e.g. biostratigraphy, petrography, geochemistry). Please refer to *Pingvin Discovery Evaluation Report*, submitted to the NPD in May 2015, for more details.

### 3 Review of geological framework

Reference is made to *Pingvin Discovery Evaluation Report* which was submitted to the NPD in May 2015.

### 4 Prospect update

The Pingvin well result demonstrates a working petroleum system and presence of Torsk Formation reservoir in the northern part of the Bjørnøya Basin. There are other leads and prospects in PL713 with similar seismic amplitude brights as Pingvin, but not large enough to give interesting gas volumes. [REDACTED]

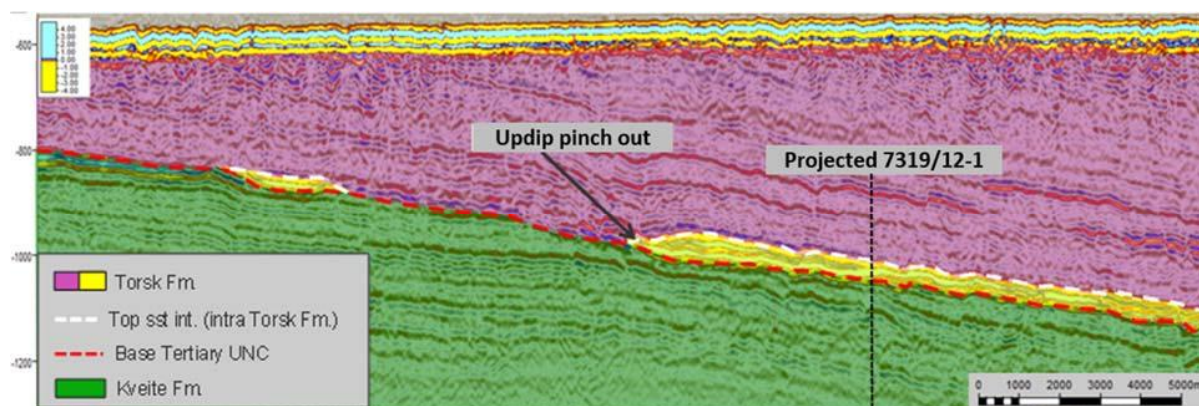


Figure 3. Geoseismic section through the upper part of Pingvin.

Three prospects in the same play model as proven in Pingvin have been evaluated in the southern part of PL713. They are all located around a salt diapir and can be described as stratigraphic up-dip pinch-out traps. Only one of the prospects have a clear seismic AVO class III response similar to Pingvin. [REDACTED]

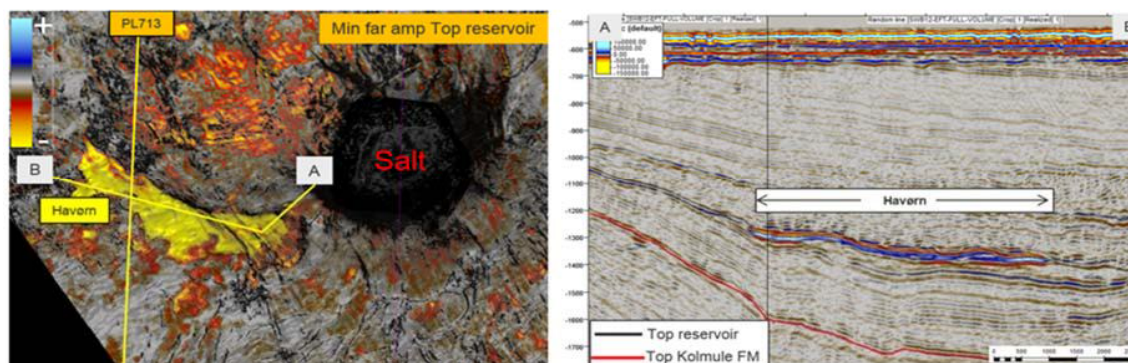


Figure 4. [REDACTED]

Discovery/ Prospect/ Lead name	D/ P/ L	Unrisked recoverable resources						Probability of discovery	Part in acreage applied for %	Reservoir		Distance to infra- structure (km)
		Oil 10 <sup>6</sup> Sm <sup>3</sup>			Gas 10 <sup>9</sup> Sm <sup>3</sup>					Litho-/ Chrono- stratigraphic level	Reservoir depth (m MSL)	
		Low	Base	High	Low	Base	High					
Pingvin	P	16.20	26.70	38.80	5.45	8.43	11.76	33 %	100	Kviting Fm.	850	175
Bjørnøya 1	L	–	–	–	–	–	–	–	80	Kviting Fm.	1300	170
Bjørnøya 2	L	–	–	–	–	–	–	–	100	Kviting Fm.	1300	165
Bjørnøya 3	L	–	–	–	–	–	–	–	100	Kviting Fm.	1030	170
Bjørnøya 4	L	–	–	–	–	–	–	–	100	Kviting Fm.	1200	170
Bjørnøya 5	L	–	–	–	–	–	–	–	100	Kolmule Fm.	1370	170
Bjørnøya 6	L	–	–	–	–	–	–	–	100	Kolmule Fm.	1410	170
Bjørnøya 7	L	–	–	–	–	–	–	–	95	Kolmule Fm.	3470	165
Bjørnøya 8	L	–	–	–	–	–	–	–	100	Kolmule Fm.	1518	175
Bjørnøya 9	L	–	–	–	–	–	–	–	100	Kolmule Fm.	1555	175
Bjørnøya 10	L	–	–	–	–	–	–	–	100	Kviting Fm.	540	185
Bjørnøya 11	L	–	–	–	–	–	–	–	100	Kviting Fm.	550	185

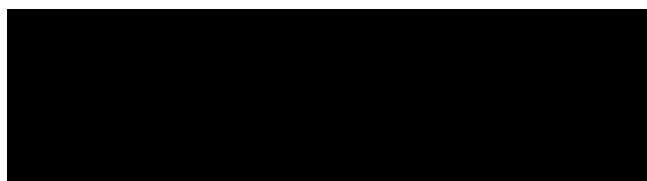
 Table 3. Prospects and leads presented in 22<sup>nd</sup> Concession round application.


Table 4: Discovered volumes in 7319/12-1 Pingvin.

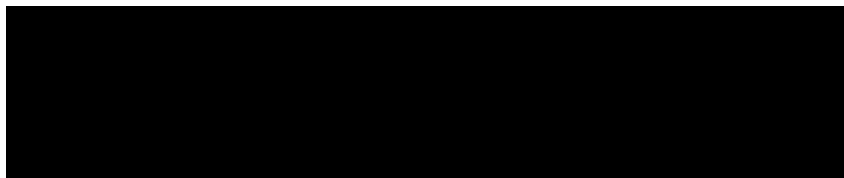
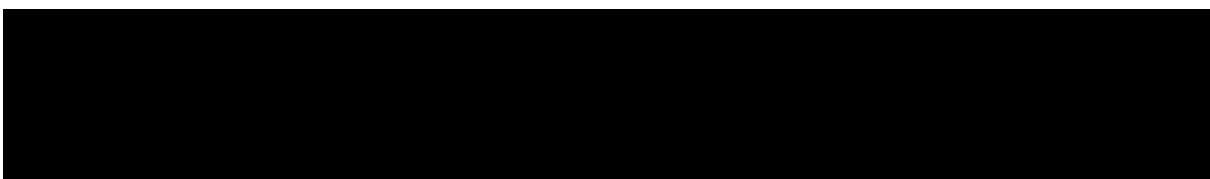


Table 5: Remaining prospectivity within PL 713.

## 5 Technical evaluations

An updated technical-economical analysis was conducted for the Pingvin discovery in March 2017.

The development solution consists of four satellites and vertical gas producers tied-back to the Johan Castberg FPSO 65 km to the southeast.



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## 6 Conclusions

After post-well analysis and evaluation of further exploration potential, there is alignment in the partnership that the license will be surrendered at expiry in June 2017. The Pingvin discovery has no economic potential as long as no nearby gas infrastructure and export options are available. No other drilling candidates have been identified in the license. Key takeaways from the work in PL 713 and surroundings should be of great interest for amplitude-driven exploration in a gas prone area.

## 7 References

Statoil 2015. Discovery Evaluation Report 7319/12-1 Pingvin. 74 pp.