
PL628 Relinquishment report

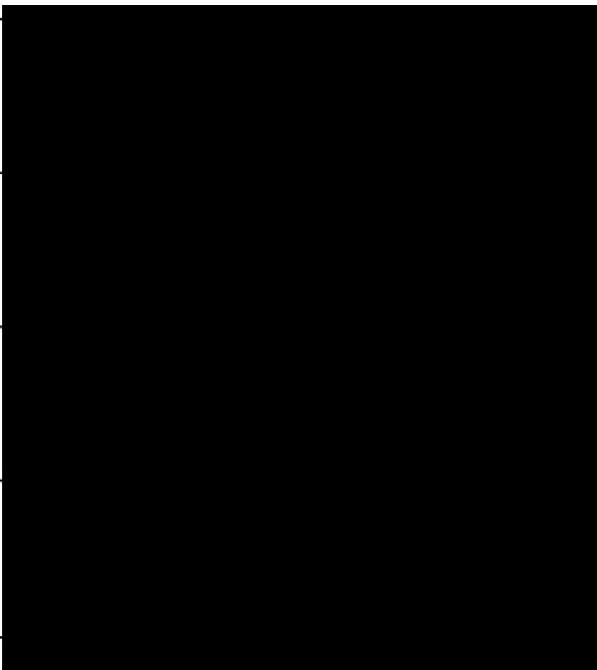
Title: PL628 Relinquishment report		
Document no. :	Contract no.:	Project:

Classification: Internal	Distribution: Corporate Statoil
Expiry date: 2016-04-06	Status Final

Distribution date: 2015-04-10	Rev. no.:	Copy no.: 1
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Author(s)/Source(s): [REDACTED]	
Subjects: Relinquishment report - PL628 - Tastaveden	
Remarks:	
Valid from: 2015-04-10	Updated:
Responsible publisher: EXP NOR ELNS	Authority to approve deviations:

Techn. responsible (Organisation unit / Name): EXP NOR ELNS LUH [REDACTED]
Responsible (Organisation unit/ Name): EXP NOR ELNS LUH [REDACTED]
Recommended (Organisation unit/ Name): EXP NOR ELNS [REDACTED]
Approved by (Organisation unit/ Name): EXP NOR ELNS LUH [REDACTED]



License Relinquishment Report PL628

Reference is made to the letter sent to MPE dated 21.11.2014 (our reference: AU-EXP NOR ELNS-00111) regarding the relinquishment of production license 628 (PL628). This report outlines the key license history, database, prospects and technical evaluation of PL628 and fulfills the requirement by the NPD for a license status report within 3 months of relinquishment.

1 KEY LICENSE HISTORY

Production License 628 is located in the Stord Basin in blocks 25/6, 25/9, 26/4, 26/7 (Figure 1) and was awarded on February 3rd 2012 as a part of the 2011 APA round. Statoil AS was awarded operatorship with 80% share, and Petoro AS was given a 20% share. In 2013 Statoil farmed down to 50% ownership when Petrolia Norway AS and Repsol Exploration Norge AS entered the license with 10% and 20% respectively. Work obligations were to perform relevant geological and geophysical studies and to drill a well within three years. The initial period for PL628 expires on the 3rd of February 2018.

Well 25/9-4 (Figure 2) was drilled in January/February 2014, and proved the Middle Jurassic reservoir to be dry in the Tastaveden prospect in PL628. No further prospectivity of commercial value is seen in the license. The deadline for a BOK decision is on the 3rd of February 2015. Due to the dry well, a BOK will be negative; hence the license will expire in 2015. The work obligations are fulfilled and the license partnership wishes to relinquish production license 628.

Work obligations

Task	Expiry date
Perform relevant geological and geophysical studies	03.02.2015
Drill well	03.02.2015
BOK – Decision to start field development	03.02.2015
BOV - Decision to prepare a plan for development	03.02.2017
PUD - Hand in plan for development and operation	03.02.2018
Expiry of initial period	03.02.2018
Relinquishment report	03.02.2018

The following Management and Exploration committee meetings have been held in the license:

- MC meeting - 28.03.2012
- EC/MC meeting - 05.11.2012
- EC/MC meeting - 23.04.2013
- EC/MC meeting - 06.03.2014
- EC/MC meeting - 12.11.2014

In addition the following work meetings have been arranged in the license:

- MC Work meeting - 10.09.2012
- EC Work meeting - 05.09.2013

2 DATABASE

The seismic survey used for technical evaluation is the 3D survey NO07M01 and key wells are 26/4-1, 25/6-1, 25/6-2, 25/9-1, 25/9-2 S, 25/9-3 in addition to the recently drilled 25/9-4 well in the license (Figure 1).

3 REVIEW OF GEOLOGICAL FRAMEWORK

PL628 is located in the Stord Basin, east of the northern part of the Utsira High. One structure has been tested within the license: the Tastaveden prospect with main reservoir target in the Middle Jurassic Vestland Group (Figures 1 and 2). Well 25/9-4 was drilled in 2014 with TD in the Sleipner Formation of the Vestland Group. The main objectives of the well was to test the volume potential and to prove commercial volumes within the Tastaveden prospect, as well as proving migration of hydrocarbons into the area either from the South Viking Graben or the Stord Basin. The well proved to be dry with no indications of hydrocarbons, most likely do to the failure of long distance migration from the South Viking Graben. Failure of the fault seal towards the Utsira High cannot be ruled out. The well encountered thick Viking Group source rocks which are not expected to be mature in the Stord Basin.

4 PROSPECT UPDATE

The Tastaveden oil prospect was originally evaluated as two scenarios: a minimum scenario called Tastaveden North and an upside scenario called Tastaveden Greater. Tastaveden North had a higher probability of discovery (21%) than Tastaveden Greater (6%) due to a lower risk on migration and fault seal in the northern part of the prospect. Re-interpretation of the Top Reservoir (Top Vestland Group) after the license was awarded did however change the view on the two scenarios. The new interpretation resulted in a considerably smaller Tastaveden North closure because the spill point was moved shallower. Consequently the volumes were significantly reduced (Table 1). Tastaveden Greater was not affected. The 25/9-4 well was therefore decided to be placed in a location to test the potential of Tastaveden Greater.

Well 25/9-4 tested the Hugin and Sleipner Formations, but did not encounter any hydrocarbons. The well tested the minimum economical volume of the Tastaveden prospect; hence no further potential is seen at Middle Jurassic level in PL628.

One additional reservoir segment is identified at Staffjord Group level (Glittertind prospect) 500 m below the Tastaveden prospect (Figures 3 and 4). The concept is a 3-way closure downfaulted from the Utsira High. This prospect is independent of the Tastaveden well result since it relies on a different source rock; intra Staffjord Group coal layers within the Stord Basin. Migration would occur in carrier beds below the regional Dunlin Formation seal. The expected hydrocarbon phase would be gas. However, the maturity levels of the Staffjord Group coals are predicted to be lower than that needed for significant hydrocarbon expulsion to occur. In addition, the play concept requires long distance migration as the kitchen area is prognosed to be in the eastern part of the Stord Basin. The presence of mature source rocks capable of generating commercial quantities of petroleum in the Stord Basin is yet to be proven, hence the prospect has a very low chance of success (7.3%) (Table 3).

5 TECHNICAL EVALUATIONS

The remaining Glittertind prospect has small recoverable resources (Table 2), and does not qualify for a stand alone development. The development plan for the Glittertind prospect is therefore a subsea gas development with tie-back to the Heimdal installation. One template at seabed is planned for this solution.

6 CONCLUSIONS

The work program for PL628 has been fulfilled: relevant geological and geophysical studies have been performed and a commitment well has been drilled. Well 25/9-4 proved a dry Tastaveden prospect of Middle Jurassic age. The technical evaluation of the remaining prospectivity in PL628 has given one prospect of early Jurassic age at Staffjord Group level, which is seen as non-commercial. Based on these findings, the PL628 partnership wish to let the license expire the 3rd of February 2015.

7 FIGURES

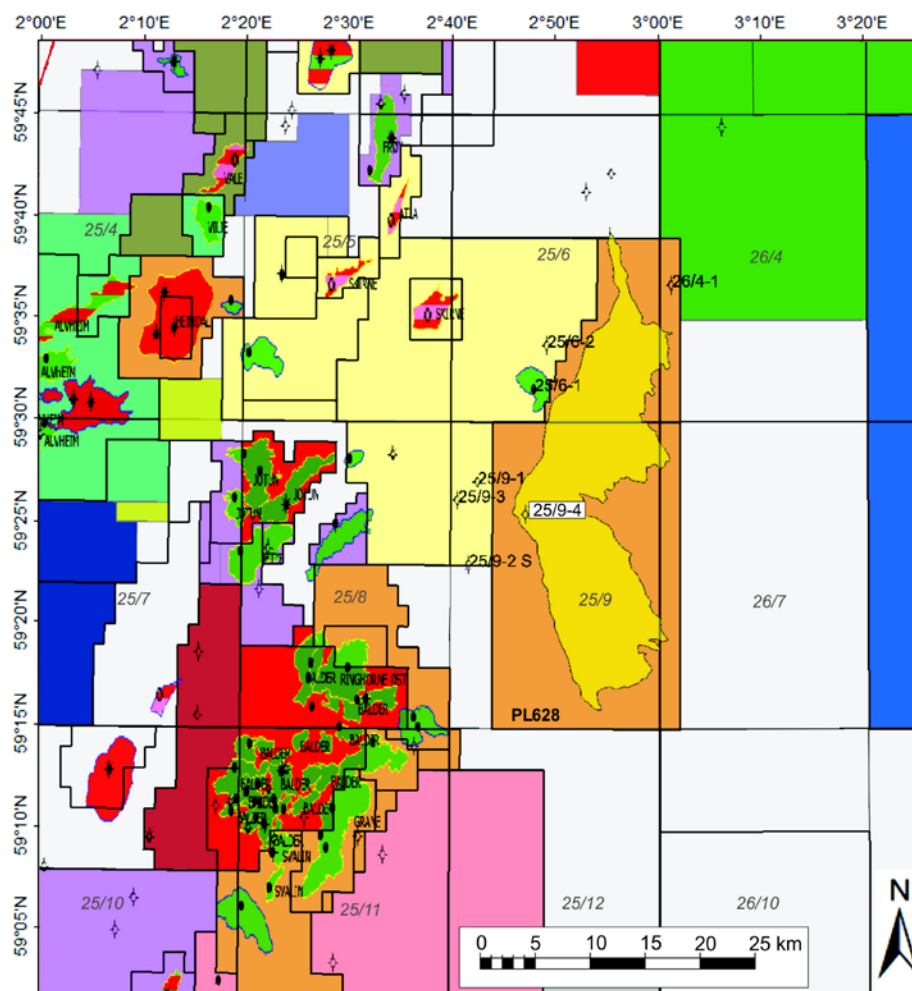


Figure 1: Location map. Position of the PL628 license, maximum prospect outline of Tastaveden (yellow) and the well location for 25/9-4 with respect to discoveries and licenses in the area.

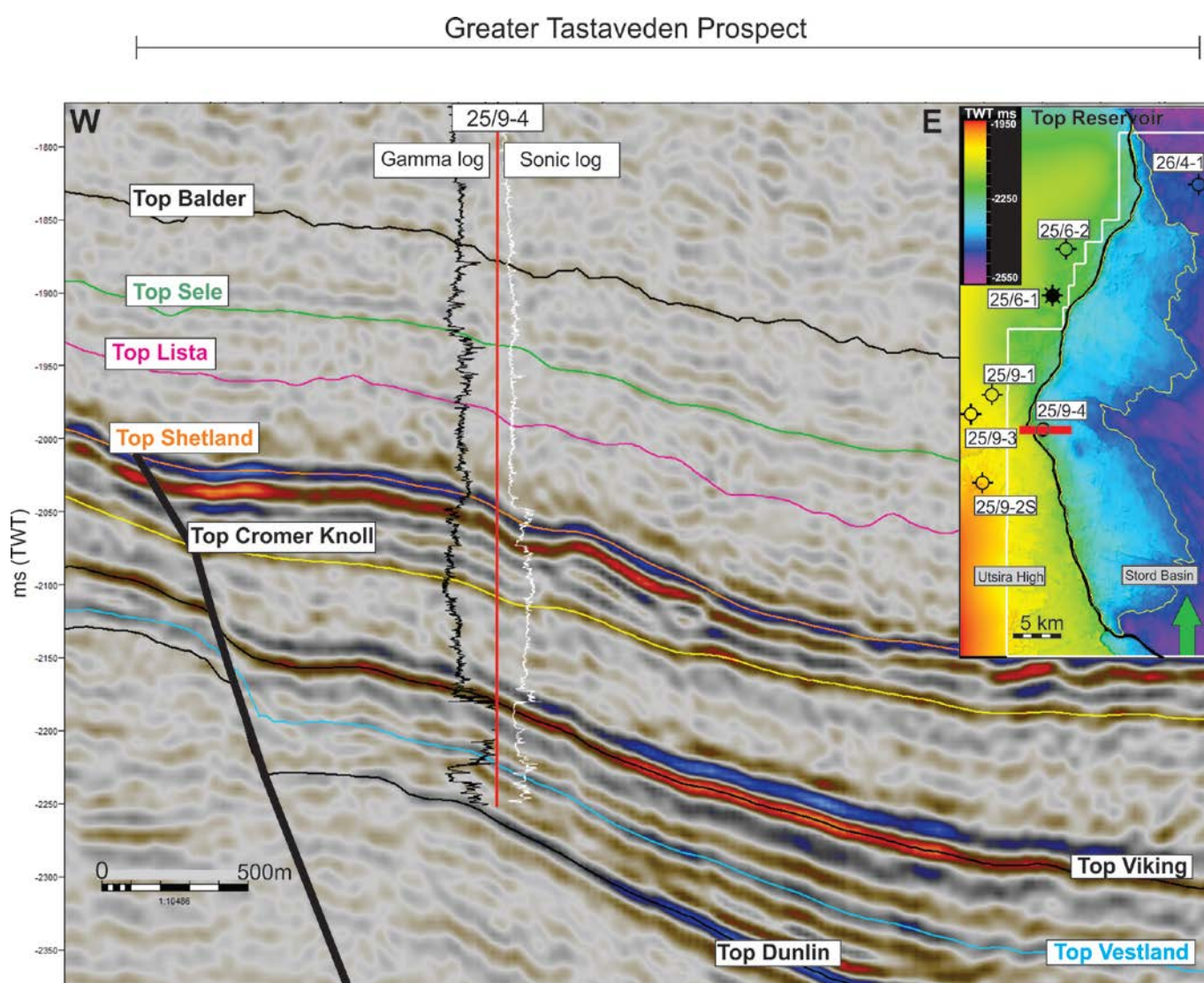


Figure 2: Seismic cross section through the Tastaveden prospect and well 25/9-4.

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Table 1: Updated recoverable resources for Tastaveden North.

Prospect	Version	Unrisked recoverable resources						
		Oil 10 ⁶ Sm ³			Gas 10 ⁹ Sm ³			Total oe
		P90	Mean	P10	P90	Mean	P10	Mean
Tastaveden North	APA 2011	1,3	4,21	6,88	0,14	0,49	0,85	4,7
Tastaveden North	2012 Update	0,46	1,36	2,67	0,05	0,16	0,31	1,51

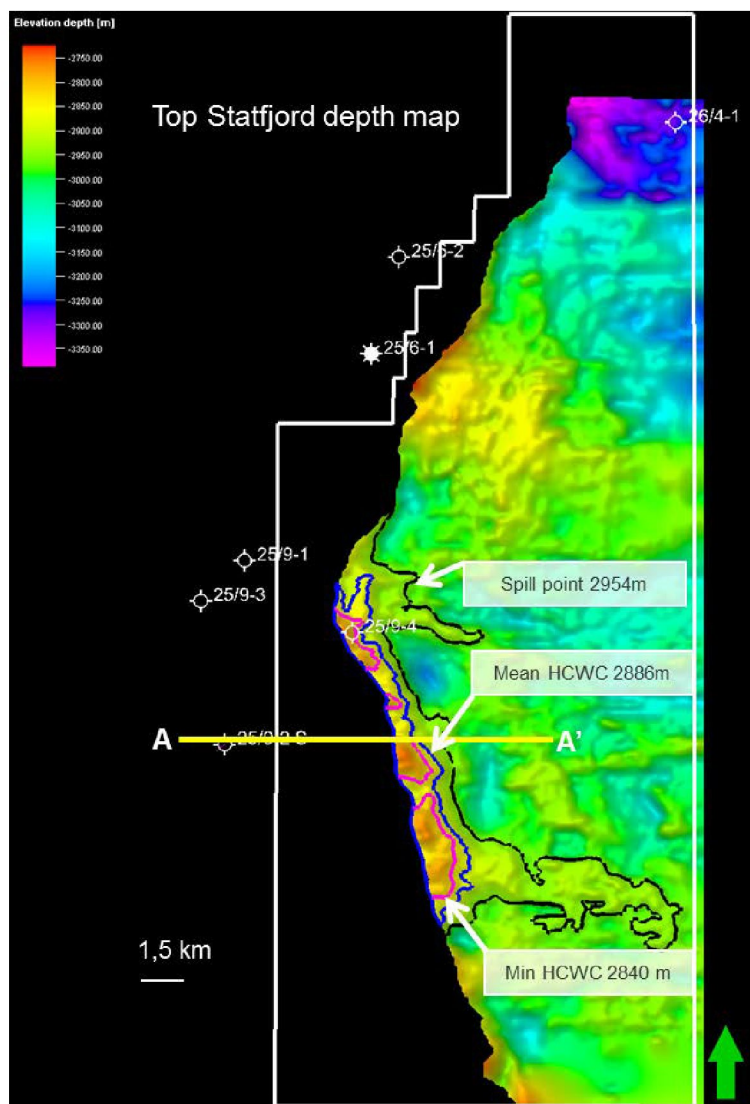


Figure 3: Top Statfjord Group depth map. Minimum contact, mean contact and spill point of the Glitterind prospect is highlighted.

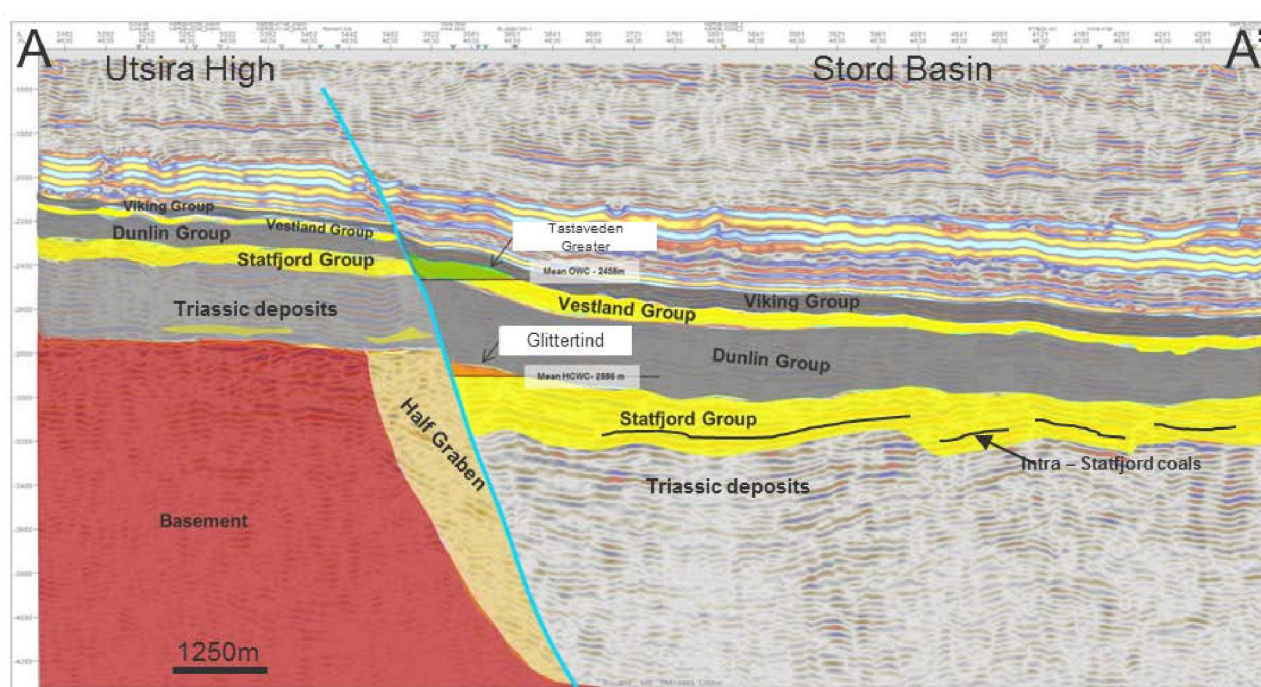


Figure 4: Seismic cross section through the Tastaveden and Glittertind prospects.

Table 2: Volume assessment for the Glittertind prospect. The volume assessment for Glittertind has a weighted scenario of 80% gas and 20% oil. The business case is based on the gas case only. The table shows the calculated volumes for in-place and recoverable gas resources, and the total recoverable resources includes oil as well as gas.

Prospect	In-place resources Gas (MSm ³ oe)			Recoverable resources Gas (MSm ³ oe)			Total rec. resources MSm ³ oe		
	P90	Mean	P10	P90	Mean	P10	P90	Mean	P10
Glittertind	3,3	10,5	21,4	1,96	6,33	12,80	2,15	7,37	15,2

Table 3: Probability of discovery for Glittertind.

Prospect	P-Play			P-Prospect							Discovery
	Reser- voir	Source	Seal	Reservoir		Source			Trap		
				pres- ence	produci- bility	pres- ence	migra- tion	hc- phase	geo- metry	seal	Pg (%)
Glittertind	1	0,6	1	0,9	0,8	0,7	0,6	1	1	0,4	7,3