



General information

Wellbore name	6507/11-8
Type	EXPLORATION
Purpose	WILDCAT
Status	PLUGGED
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	YTTERGRYTA
Discovery	6507/11-8
Well name	6507/11-8
Seismic location	
Production licence	062
Drilling operator	Statoil ASA (old)
Drill permit	1143-L
Drilling facility	STENA DON
Drilling days	34
Entered date	31.05.2007
Completed date	03.07.2007
Plugged date	03.07.2007
Release date	03.07.2009
Publication date	03.07.2009
Purpose - planned	WILDCAT
Reclassified from wellbore	6507/11-V-1 H
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	GARN FM
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	ILE FM
Kelly bushing elevation [m]	24.0
Water depth [m]	300.5
Total depth (MD) [m RKB]	2773.0
Final vertical depth (TVD) [m RKB]	2772.0
Maximum inclination [°]	4.2
Bottom hole temperature [°C]	97
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM



Geodetic datum	ED50
NS degrees	65° 6' 41.74" N
EW degrees	7° 30' 33.21" E
NS UTM [m]	7221898.70
EW UTM [m]	429994.97
UTM zone	32
NPDID wellbore	5562

Wellbore history

General

Well 6507/11-8 is located on the eastern part of the Halten Terrace, just north of the Midgard discovery. It was drilled on the Yttergryta structure with the primary objective to identify gas in Garn and Ile Formations. The secondary objective of well 6507/11-8 was to acquire data and test for possible hydrocarbons in the Tilje and Åre Formations.

Operations and results

Well 6507/11-8 was spudded with the semi-submersible installation Stena Don on 31 May 2007 and drilled to TD at 2773 m in Early Jurassic sediments of the Åre Formation. Well 6507/11-8 was drilled with spud mud down to 366 m, with BARASILC KCl mud from 366 m to 1800 m, and with a KCL/polymer/glycol mud from 1800 m to TD. Shallow gas was predicted at 526 - 648 m, but no shallow gas was observed.

The lithology down to top Garn Formation at 2416 m was mainly claystone with no reservoir quality. The petrophysical evaluation showed high hydrocarbon saturation in the Garn and Ile Formations, and excellent reservoir quality with 28% porosity and up to 6 Darcy permeability. MDT pressure data showed that the reservoir was in a dynamic stage of depletion due to production from the Åsgard Field (Midgard discovery). A gas down-to situation was proven, and it is assumed that the original, pre-production contact has been common with the Midgard Field contact at 2515 m (2490 m TVD MSL). Apart from the gas in the target reservoir there were no significant hydrocarbon indications in the well.

Two cores were cut at 2427.3 to 2452.5 m in the Garn/Not Formations and at 2462 to 2505 m in the Ile Formation. MDT gas/condensate samples were taken at 2424 m (PVT analysis, single stage separation: condensate/gas ratio = 20740 Sm³/Sm³, condensate density = 0.792 g/cm³, gas gravity = 0.695) and at 2463 m (PVT analysis, single stage separation: condensate/gas ratio = 18000 Sm³/Sm³, condensate density = 0.789 g/cm³, gas gravity = 0.695). MDT water samples were taken at 2615 m. Extreme invasion profiles were visible from the resistivities, and there was concern this should affect the gas samples. However the samples proved of good quality.

The well was suspended on 3 July 2007 as a gas discovery. In 2008 it was completed as a gas producer.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
510.00	2773.30

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2427.7	2451.1	[m]
2	2462.0	2506.1	[m]

Total core sample length [m]	67.5
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
325	NORDLAND GP
325	NAUST FM
1399	KAI FM
1763	HORDALAND GP
1763	BRYGGE FM
2000	ROGALAND GP
2000	TARE FM
2059	TANG FM
2205	SHETLAND GP
2205	NISE FM
2359	CROMER KNOLL GP
2359	LYR FM
2373	VIKING GP
2373	SPEKK FM
2391	MELKE FM
2416	FANGST GP
2416	GARN FM
2447	NOT FM
2459	ILE FM
2519	BÅT GP
2519	ROR FM



2594	TILJE FM
2701	ÅRE FM

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	357.0	36	360.0	0.00	LOT
SURF.COND.	20	494.0	26	500.0	1.36	LOT
INTERM.	13 3/8	1790.0	17 1/2	1795.0	0.00	LOT
INTERM.	9 5/8	2393.0	12 1/4	2396.0	1.37	LOT
OPEN HOLE		2773.0	8 1/2	2773.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
501	1.18	17.0		SILICATE	
1090	1.21	17.0		SILICATE	
1800	1.30	16.0		SILICATE	
2394	1.20	13.0		KCL/POLYMER	
2394	1.20			KCL/POLYMER/GLY COL	

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
5562 Formation pressure (Formasjonstrykk)	pdf	0.27

