

**General information**

Wellbore name	6507/5-6 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	PLUGGED
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	SKARV
Discovery	6507/5-3 Ærfugl
Well name	6507/5-6
Seismic location	Survey BP 0501-R8-inline 1214 & crossline 1374 Enterypoint mudline
Production licence	212
Drilling operator	BP Norge AS
Drill permit	1294-L
Drilling facility	BORGLAND DOLPHIN
Drilling days	148
Entered date	12.01.2010
Completed date	08.06.2010
Plugged date	08.06.2010
Release date	08.06.2012
Publication date	08.06.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS
Discovery wellbore	NO
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	LYSING FM
Kelly bushing elevation [m]	31.0
Water depth [m]	325.0
Total depth (MD) [m RKB]	4991.0
Final vertical depth (TVD) [m RKB]	2907.0
Maximum inclination [°]	70.8
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	LANGE FM
Geodetic datum	ED50
NS degrees	65° 44' 19.36" N
EW degrees	7° 39' 20.52" E



NS UTM [m]	7291629.85
EW UTM [m]	438363.83
UTM zone	32
NPDID wellbore	6321

Wellbore history

General

Well 6507/5-6 S was drilled from the Skarv A template on the Revfall Fault Complex in the Norwegian Sea. The objective of the well was to prove gas in Late Cretaceous reservoir rocks (the Lysing formation) in the Snadd North prospect. It was drilled primarily for data acquisition to identify the presence and producability of the Lysing reservoir, with the well path planned for optimal data recovery, but the well was also planned to be used as a producer.

Operations and results

Exploration well 6507/5-6 S was spudded with the semi-submersible installation Borgny Dolphin on 12 January 2010. The well was drilled as the fourth well in the batch drilling operations for the 17 1/2" and 12 1/4" sections on the Skarv A template. Initially the well was drilled to 4454 m. Then, due to hole instability and operational problems, the well was plugged back and sidetracked from 2346.4 m after a core was taken in the reservoir. Reservoir logs are therefore primarily taken in the sidetrack T2. Final TD was reached at 4991 m (2906.7 m TVD) in Late Turonian age claystone in the Lange Formation. The well was drilled with seawater and hi-vis pills down to 1122 m and with Carbosea oil based mud from 1129 m to TD in both the main and sidetrack well bores.

The Lysing Formation was encountered at 4676 m (2798 m TVD). Good quality hydrocarbon-bearing sandstones were discovered. A total thickness of 32 m TVD of Lysing sandstone was drilled, with net/gross of 0.88 and average effective porosity of 0.21. The sandstones in the core were of mixed quality, predominantly medium-fine grained and hydrocarbon-stained. The reservoir was hydrocarbon bearing throughout. No oil shows were reported from the well.

One 18 m core was cut in Lysing Formation sandstone from 4436 m to 4454 m, in the main bore 6507/5-6 S. Gas condensate samples were taken with the RCI tool at 4737 m and at 4710.5 m in the sidetrack well bore.

The well was permanently abandoned on 8 June 2010 as a gas discovery.

Testing

No drill stem test was performed.

Reclassification

On 13 October 2017 the well was reclassified as an appraisal well for the discovery "6507/5-3 SNADD" from 2000.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1150.00	4990.00

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	4436.0	4454.5	[m]

Total core sample length [m]	18.5
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
356	NORDLAND GP
356	NAUST FM
1476	KAI FM
2288	HORDALAND GP
2288	BRYGGE FM
2712	ROGALAND GP
2712	TARE FM
2842	TANG FM
2897	SHETLAND GP
2897	SPRINGAR FM
2930	NISE FM
4676	CROMER KNOLL GP
4676	LYSING FM
4772	LANGE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL GR CN TTRM 18 5/8	356	1080
MWD - CAL SON PRESSURE	0	0
MWD - DEN NEU CAL SON	2538	4426



MWD - DIR	356	446
MWD - GR RES ECD DIR	446	2548
MWD - GR RES ECD DIR-	2538	4426
MWD - GR RES ECD DIR DEN NEU-	0	0
SBT GR CCL 13 5/8	1100	2378

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	439.0	36	446.0	0.00	LOT
SURF.COND.	18 5/8	1136.0	24	1143.0	1.67	LOT
INTERM.	13 5/8	2538.0	17 1/2	2548.0	1.67	LOT
INTERM.	9 7/8	4679.0	12 1/4	4689.0	1.90	LOT
OPEN HOLE		4991.0	8 1/2	4881.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
349	1.03			SPUD MUD	
1144	1.05			SPUD MUD	
1529	1.50	41.0		OBM	
2548	1.51	33.0		OBM	
3413	1.58	36.0		OBM	
4183	1.58	35.0		OBM	
4430	1.60			Water	
4430	1.60			Water	
4430	1.20			Brine	
4436	1.60	36.0		OBM	
4570	1.60	38.0		OBM	
4991	1.60	35.0		OBM	
5017	1.53			Brine	
5017	1.50			Synthetic	

Thin sections at the Norwegian Offshore Directorate



Depth	Unit
4436.88	[m]
4438.73	[m]
4439.35	[m]
4441.34	[m]
4442.52	[m]
4445.95	[m]
4446.60	[m]
4448.30	[m]
4450.55	[m]
4452.36	[m]
4453.95	[m]

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]
6321 Formation pressure (Formasjonstrykk)	pdf	0.26

