

**General information**

Wellbore name	6507/3-4
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	ALVE
Discovery	6507/3-1 Alve
Well name	6507/3-4
Seismic location	ST9203R03-inline 4810 & x-line 3346
Production licence	159
Drilling operator	Statoil ASA (old)
Drill permit	1072-L
Drilling facility	WEST NAVIGATOR
Drilling days	48
Entered date	14.03.2004
Completed date	30.04.2004
Release date	30.04.2006
Publication date	06.06.2006
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS SHOWS
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	FANGST GP
Kelly bushing elevation [m]	36.0
Water depth [m]	372.0
Total depth (MD) [m RKB]	4092.0
Final vertical depth (TVD) [m RKB]	4089.0
Maximum inclination [°]	4.7
Bottom hole temperature [°C]	145
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	65° 59' 16.6" N
EW degrees	7° 50' 45.6" E
NS UTM [m]	7319233.71



EW UTM [m]	447598.86
UTM zone	32
NPDID wellbore	4905

Wellbore history

General

Well 6507/3-4 is located on the Alve structure, which is a horst, located in the north central part of block 6507/3 on the Dønna Terrace. The main objective of this appraisal well was to prove down flank oil resources in the Middle Jurassic sandstones of the Garn and upper Not Formations. The secondary objective was to prove oil in the Ile Formation.

Operations and results

Well was spudded with the vessel West Navigator on 14 March 2004 and drilled to TD at 4092 m in the Early Jurassic Åre Formation. The well was drilled with seawater and bentonite down to 1250 m, with KCl/polymer/glycol from 1250 m to 2300 m, and with oil based mud (Paratherm) from 2300 m to TD. A shallow gas warning class 1 was given for the interval between 950 to 1370 m, based on gas peaks observed in well 6507/3-1. A pilot hole was drilled down to 1250 m. No shallow gas was observed.

The well penetrated the reservoir below the hydrocarbon-water contact in the Garn, Not and Ile Formations. Top Garn Formation was encountered 7 m below prognosis. Moveable hydrocarbons were not proven, only shows throughout the Garn and Not Formations and discontinuous weak to moderate shows in the Ile, Ror, and Tilje Formations from 3805 m to 4000 m. Two cores were cut in the Garn, Not and Ile Formations and nine MDT water samples were collected in Garn, Ile and Tilje Formations. The Garn sample from 3726 m contained approx 2 dl of hydrocarbon fluid, which proved to be mud filtrate (base oil) with some dissolved residual oil from the formation.

The well was permanently abandoned on 30 April 2004 as a dry well with shows

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1260.00	4092.00

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	3728.0	3762.2	[m]
2	3764.0	3818.3	[m]

Total core sample length [m]	88.5
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
408	NORDLAND GP
408	NAUST FM
1313	KAI FM
1620	HORDALAND GP
1620	BRYGGE FM
1900	ROGALAND GP
1900	TARE FM
1942	TANG FM
1995	SHETLAND GP
1995	SPRINGAR FM
2124	NISE FM
2824	KVITNOS FM
2883	CROMER KNOLL GP
2883	LANGE FM
3040	LYR FM
3161	VIKING GP
3161	SPEKK FM
3185	MELKE FM
3725	FANGST GP
3725	GARN FM
3738	NOT FM
3786	ILE FM
3856	BÅT GP
3856	ROR FM
3919	TILJE FM
4047	ÅRE FM



Geochemical information

Document name	Document format	Document size [MB]
4905_1	pdf	2.48

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT MSIP EMS GR ACTS ECRD	3600	4092
DSI IPLT GR ACTS	1700	3686
DSI ZVSP GPIT GR	1250	4055
IPLT ECS CMR200 GR ACTS ECRD	3650	4092
MDT GR ACTS ECRD	3725	4045
MDT GR ACTS ECRD	3725	3949
MDT GR ACTS ECRD	3736	0
MSCT GR ACTS	3725	3980
MWD - DIR GR RES PRESS	1253	2310
MWD - GR RES PWD SURV	3686	3728
MWD - GR RES PWD SURV MRIL	3819	4092
MWD - MPR DCP DIR	470	1250
MWD MPR DCP - DIR GR RES PRESS	2310	3686

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	468.0	36	470.0	0.00	LOT
SURF.COND.	20	1241.0	26	1250.0	1.57	LOT
INTERM.	13 3/8	2300.0	17 1/2	2310.0	1.80	LOT
INTERM.	9 5/8	3677.0	12 1/4	3686.0	1.55	LOT
OPEN HOLE		4092.0	8 1/2	4092.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1250	1.35	14.0		SW / BENTONITE 1	





1930	1.54	25.0		GLYDRIL 12	
2310	1.54	25.0		GLYDRIL 12	
3030	1.50	29.0		PARATHERM	
3677	1.37	24.0		PARATHERM	
3726	1.37	24.0		PARATHERM	
3727	1.37	24.0		PARATHERM	

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]
4905 Formation pressure (Formasjonstrykk)	pdf	0.28

