General information

Wellbore name	6609/10-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6609/10-2
Seismic location	inline 4127 & crossline 3076(MC3D-NNE2000)
Production licence	483 S
Drilling operator	Det norske oljeselskap ASA (old)
Drill permit	1240-L
Drilling facility	SONGA DELTA
Drilling days	29
Entered date	05.09.2009
Completed date	03.10.2009
Release date	16.01.2011
Publication date	16.06.2011
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	29.0
Water depth [m]	265.0
Total depth (MD) [m RKB]	2528.0
Final vertical depth (TVD) [m RKB]	2528.0
Maximum inclination [°]	1.9
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	GREY BEDS (INFORMAL)
Geodetic datum	ED50
NS degrees	66° 2' 29'' N
EW degrees	9° 3' 6'' E
NS UTM [m]	7324709.97
EW UTM [m]	502341.29
UTM zone	32
NPDID wellbore	6188

Wellbore history

General

Well 6609/10-2 was drilled in the Helgeland Basin in the Norwegian Sea. The main objective was to test the hydrocarbon potential of the Lower Jurassic Båt Group in the Trolla Prospect, with the Early Jurassic Tilje and Åre formations as the main targets. The Middle Jurassic Garn and Ile formations were secondary targets. Well 6609/10-2 was planned as a vertical exploration well with TD 200 m into the Triassic Grey Beds at approximately 2525 m MD-RKB.

Operations and results

Wildcat well 6609/10-2 was spudded with the semi-submersible installation Songa Delta on 5 September 2009 and drilled to TD at 2528 m in the Late Triassic Grey Beds. A water kick was taken at 1640 m, in a thin permeable zone below seismic resolution. The well was closed in with an observed shut-in pressure of 1.43 sg EMW. The water kick was circulated out before displacing the well to kill mud and drilling continued. The well was drilled with spud mud down to 352 m, with AQUAMUL KCl/Polymer mud from 352 m to 1237 m, and with AQUACOL KCl/Polymer/glycol mud from 1237 m to TD.

The Fangst Group was present in form of 37 m thick Ile Formation and 45 m of Ror Formation, despite its presence being highly uncertain prior to drilling. The Tilje Formation was encountered at 2054 m while top Åre Formation was encountered at 2142 m. The main Båt Group reservoir was 367 m thick of which 182 m (50 %) was net sand according to log interpretation. Except for increased background gas readings when penetrating Jurassic coal seams, no hydrocarbons were detected in the reservoir section. Results from the analysis of Isotube gas samples confirmed the absence of hydrocarbons in the well. No hydrocarbon shows were recorded in the well.

No coring was undertaken due to dry hole. A Vertical Seismic Profile (VSP) tool was the only wire line log that was run. No wire line pressures or fluid samples were taken.

The well was permanently abandoned on 3 October 2009 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
370.00	2528.00

Cuttings available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
294	NORDLAND GP
294	NAUST FM
1233	KAI FM
1316	BRYGGE FM
1427	ROGALAND GP
1427	TARE FM
1525	TANG FM
1562	SHETLAND GP
1562	SPRINGAR FM
1639	NISE FM
1676	CROMER KNOLL GP
1676	LANGE FM
1850	VIKING GP
1850	SPEKK FM
1869	MELKE FM
1969	FANGST GP
1969	ILE FM
2006	BÅT GP
2006	ROR FM
2054	TILJE FM
2142	ÅRE FM
2418	GREY BEDS (INFORMAL)

Composite logs

Document name	Document format	Document size [MB]
6188_6609_10_2	pdf	0.43

Logs

Log type	Log top depth [m]	Log bottom depth [m]
GEOWAVES GR	294	2479
LWD - GR RES	353	1237
LWD - GR RES	1237	1888
LWD - GR RES DEN NEU SON	1888	2518

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	349.0	36	352.0	0.00	LOT
SURF.COND.	13 3/8	1229.0	17 1/2	1237.0	1.88	LOT
INTERM.	9 5/8	1881.0	12 1/4	1888.0	1.97	LOT
OPEN HOLE		2528.0	8 1/2	2528.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
352	1.06			SPUD MUD	
483	1.18	15.0		KCL/POLYMER	
1237	1.30	13.0		KCL/POLYMER	
1888	1.47	23.0		KCL/POLYMER	
2209	1.20	20.0		KCL/POLYMER	
2528	1.47	23.0		KCL/POLYMER	
2528	1.20	21.0		KCL/POLYMER	