General information

Wellbore name	7324/2-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	BARENTS SEA
Well name	7324/2-1
Seismic location	3D survey MC3D:inline 2170 & xline 7584
Production licence	615
Drilling operator	Statoil Petroleum AS
Drill permit	1523-L
Drilling facility	TRANSOCEAN SPITSBERGEN
Drilling days	18
Entered date	01.06.2014
Completed date	18.06.2014
Release date	18.06.2016
Publication date	18.06.2016
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	40.0
Water depth [m]	444.0
Total depth (MD) [m RKB]	1090.0
Final vertical depth (TVD) [m RKB]	1090.0
Maximum inclination [°]	2.8
Bottom hole temperature [°C]	29
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	SNADD FM
Geodetic datum	ED50
NS degrees	73° 51' 47.9'' N
EW degrees	24° 32' 29.9'' E
NS UTM [m]	8198587.61
EW UTM [m]	423751.01
UTM zone	35
NPDID wellbore	7481

Wellbore history

General

Well 7324/2-1 was drilled to test the Apollo prospect on the western flank of the Hoop Graben in the Barents Sea. The primary objective was to prove an economic volume of hydrocarbons in the Stø, Nordmela, Tubåen and Fruholmen formations in the Early-Middle Jurassic.

Operations and results

Wildcat well 7324/2-1 was spudded with the semi-submersible installation Transocean Spitsbergen on 1 June 2014 and drilled to TD at 1090 m in the Late Triassic Snadd Formation. A pilot well was drilled to a depth of 640 m to look for shallow gas. No shallow gas was encountered in the pilot hole. No significant problem was encountered in the operations. Drilling of the top hole down to the reservoir section was very fast, too fast for the well site geologist and mud logger to get good cuttings samples and look for shows in sandstone stringers. The well was drilled with seawater and hi-vis sweeps down to 639 m, with KCl/Polymer/Glycol mud from 639 m to 791 m, and with Low Sulphate/KCl/Polymer/Glycol mud from 791 m to TD.

Top of the Jurassic Stø Formation was penetrated at 849 m, with sandstones from 857 m to top of the Late Triassic Fruholmen Formation at 871 m. These sandstones had moderate reservoir quality. Unfortunately, they were water wet. The Nordmela and Tubåen formations were not present in the well. The only hydrocarbon indications in the well were oil shows, described in the sidewall cores from the Snadd Formation between 893 m and 929 m.

No cores were cut. MDT water samples were taken at 857.7 m.

The well was permanently abandoned on 18 June 2014 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]
650.00	1090.00

Cuttings available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
647.0	[m]	DC	ROBERTSO
660.0	[m]	DC	ROBERT
670.0	[m]	DC	ROBERT

676.0	[m]	DC	ROBERT
682.0	[m]	DC	ROBERT
688.0	[m]	DC	ROBERT
694.0	[m]	DC	ROBERT
700.0	[m]	DC	ROBERT
706.0	[m]	DC	ROBERT
712.0	[m]	DC	ROBERT
718.0	[m]	DC	ROBERT
730.0	[m]	DC	ROBERT
740.0	[m]	DC	ROBERT
760.0	[m]	DC	ROBERT
770.0	[m]	DC	ROBERT
780.0	[m]	DC	ROBERT
790.0	[m]	DC	ROBERT
796.0	[m]	DC	ROBERT
802.0	[m]	DC	ROBERT
808.0	[m]	DC	ROBERT
814.0	[m]	DC	ROBERT
820.0	[m]	DC	ROBERT
823.0	[m]	DC	ROBERT
826.0	[m]	DC	ROBERT
829.0	[m]	DC	ROBERT
832.0	[m]	DC	ROBERT
835.0	[m]	DC	ROBERT
838.0	[m]	DC	ROBERT
841.0	[m]	DC	ROBERT
843.5	[m]	SWC	ROBERT
844.0	[m]	DC	ROBERT
847.0	[m]	DC	ROBERT
850.0	[m]	DC	ROBERT
850.5	[m]	SWC	ROBERT
853.0	[m]	DC	ROBERT
856.0	[m]	DC	ROBERT
859.0	[m]	DC	ROBERT
868.0	[m]	DC	ROBERT
877.0	[m]	DC	ROBERT
883.0	[m]	SWC	ROBERT
886.0	[m]	DC	ROBERT
890.7	[m]	SWC	ROBERT
895.0	[m]	DC	ROBERT

900.0	[m]	SWC	ROBERT
904.0	[m]	DC	ROBERT
913.0	[m]	DC	ROBERT
922.0	[m]	DC	ROBERT
931.0	[m]	DC	ROBERT
938.0	[m]	SWC	ROBERT
940.0	[m]	DC	ROBERT
949.0	[m]	DC	ROBERT
958.0	[m]	DC	ROBERT
967.0	[m]	DC	ROBERT
976.0	[m]	DC	ROBERT
978.5	[m]	SWC	ROBERT
985.0	[m]	DC	ROBERT
989.0	[m]	SWC	ROBERT
994.0	[m]	DC	ROBERT
1003.0	[m]	DC	ROBERT
1012.0	[m]	DC	ROBERT
1021.0	[m]	DC	ROBERT
1030.0	[m]	DC	ROBERT
1039.0	[m]	DC	ROBERT
1048.0	[m]	DC	ROBERT
1057.0	[m]	DC	ROBERT
1066.0	[m]	DC	ROBERT
1075.0	[m]	DC	ROBERT
1084.0	[m]	DC	ROBERT
1090.0	[m]	DC	ROBERT

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
484	NORDLAND GP
484	NAUST FM
544	ADVENTDALEN GP
544	KOLMULE FM
694	KOLJE FM
737	KNURR FM
755	HEKKINGEN FM
757	FUGLEN FM
849	KAPP TOSCANA GP

849	STØ FM
871	FRUHOLMEN FM
894	SNADD FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
FMI MSIP	790	1090
HRLA ZAIT PEX ECS	689	1098
MDT	853	1080
MSCT	843	989
MSIP PEX ECS ZAIT	484	791
MWD - TELE	482	536
MWD - TELE ARCVRES8	536	794
MWD - TELE675 RAB6 PERI15	791	1090
VSP	480	1080

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	533.0	36	536.0	0.00	
INTERM.	13 3/8	629.1	17 1/2	639.0	1.20	FIT
PILOT HOLE		640.0	8 1/2	640.0	0.00	
LINER	9 5/8	790.0	12 1/4	791.0	1.47	FIT
OPEN HOLE		1090.0	8 1/2	1090.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
593	1.12	15.0		KCl/Polymer/GEM	
791	1.14	17.0		Low Sulphate/KCl/Polymer/Glycol	
791	1.12	21.0		KCl/Polymer/Glycol	
791	1.12	21.0		KCl/Polymer/Glycol	
791	1.14	17.0		Low Sulphate/KCl/Polymer/Glycol	

825	1.14	17.0		Low Sulphate/KCl/Polymer/Glycol	
1090	1.14	18.0		Low Sulphate/KCl/Polymer/Glycol	