



General information

Wellbore name	34/3-2 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	34/3-2
Seismic location	inline 5165 & crossline 3224
Production licence	373 S
Drilling operator	BG Norge AS
Drill permit	1282-L
Drilling facility	WEST ALPHA
Drilling days	67
Entered date	25.10.2009
Completed date	30.12.2009
Release date	30.12.2011
Publication date	03.01.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	18.0
Water depth [m]	409.0
Total depth (MD) [m RKB]	4331.0
Final vertical depth (TVD) [m RKB]	4315.0
Maximum inclination [°]	10.4
Bottom hole temperature [°C]	148
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	STATFJORD GP
Geodetic datum	ED50
NS degrees	61° 48' 45.06" N
EW degrees	2° 49' 16.33" E
NS UTM [m]	6853471.85
EW UTM [m]	490577.12
UTM zone	31
NPDID wellbore	6249



Wellbore history

General

The 34/3-2 S Jordbær Øst well was drilled on the northern fringes of the Tampen Spur and adjacent to BG's recent Jordbær oil discovery. The Jordbær Øst prospect is a down-faulted hanging wall to the Jordbær oil discovery. The primary targets for the Jordbær Øst well was the Lower Jurassic shallow marine Cook Formation and the secondary target was the fluvial dominated Statfjord Formation. The two reservoir targets are separated by Jurassic Claystone and siltstones of the Dunlin Group. The well location and path was planned to avoid shallow gas.

Operations and results

Wildcat well 34/3-2 S was spudded with the semi-submersible installation West Alpha on 25 October 2009 and drilled to TD in the Eriksson Member of the Statfjord Formation at 4331 m (4315.3 m TVD). The well started with a 9 7/8" pilot hole to 1028 m to check for shallow gas. No shallow gas was seen. The main well was drilled vertical down to the end of the 17 1/2" section, deviated to 10 degrees through the 12 1/4" section and back to vertical before the 8 1/2" section, to hit the Cook and Statfjord reservoir targets. The well was drilled with seawater and hi-vis sweeps down to 1030 m, with Glydril mud from 1030 m to 2403, with Versatec oil based mud from 2403 to 3882 m, and with Versatherm oil based mud from 3882 m to TD.

Sandstones belonging to the Cook Formation were encountered dry at 4011.7 m (3990.0 m TVD). The Cook Formation sandstones had an average porosity of 17.8% net when using a 10% cut off and an average permeability from logs of 9.17 mD. Some parts of the core contain sands with multi-Darcy permeability. The Nansen Member of the upper Statfjord Formation was penetrated at 4273 m (4256 m TVD). The Nansen Member consisted of relatively clean sandstones with minor thin limestone stringers, and it was dry. It had a net thickness of 28.3 m (at 10%) cut-off and an average porosity of 17% net, with an average permeability of 21.4 mD.

Gas readings while drilling were slightly elevated in the Cook Formation sandstones but no significant fluorescence was seen in the mud. A 27 m core was cut from 4053 to 4080 m. The core had fluorescence that was marginally above the OBM and post well analysis indicated the presence of oil in saturations of around 5 - 30% from Dean Stark measurements in some zones in the core. However, no moveable hydrocarbons were recovered during the extensive MDT programme. MDT water samples were taken at 4285.91 m, 4050.02 m, 4075.47 m, and at 4025 m (dual packer).

The well was permanently abandoned on 30 December 2009 as a dry well with non-moveable hydrocarbons.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1040.00	4329.00

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	4053.0	4079.9	[m]

Total core sample length [m]	26.9
Cores available for sampling?	YES

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST		0.00	0.00	WATER		YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
427	NORDLAND GP
1377	UTSIRA FM
1450	HORDALAND GP
1983	ROGALAND GP
1983	BALDER FM
2012	SELE FM
2032	LISTA FM
2121	SHETLAND GP
2121	JORSALFARE FM
2303	KYRRE FM
3417	TRYGGVASON FM
3679	CROMER KNOLL GP
3679	MIME FM



3688	VIKING GP
3688	HEATHER FM
3857	DUNLIN GP
3857	DRAKE FM
4012	COOK FM
4104	BURTON FM
4210	AMUNDSEN FM
4273	STATFJORD GP

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT APS LDS GR	3789	4342
CMR	3878	4336
ECS HNGS	3826	4335
LWD - GR RES NEU DEN ECS	3860	4331
LWD - GR RES SON	422	2403
LWD - GR RES SON NEU DEN	2380	3882
MDT	4010	4040
MDT	4045	4290
MSCT	3495	4300
OBMI DSI	3798	4344
VSI	479	4310

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	492.0	36	492.0	0.00	LOT
SURF.COND.	20	1024.0	26	1030.0	0.00	LOT
INTERM.	13 3/8	2396.0	17 1/2	2403.0	1.67	LOT
INTERM.	9 5/8	3876.0	12 1/4	3882.0	1.93	LOT
OPEN HOLE		4331.0	8 1/2	4331.0	0.00	LOT

Drilling mud



Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1030	1.37	24.0		KCl/Poly/Glycol	
1030	1.37	27.0		KCl/Poly/Glycol	
1377	1.37	26.0		KCl/Poly/Glycol	
2225	1.39	23.0		KCl/Poly/Glycol	
2303	1.37	25.0		KCl/Poly/Glycol	
2403	1.38	26.0		KCl/Poly/Glycol	
2764	1.57	48.0		Versamud	
3234	1.61	43.0		Versamud	
3859	1.66	45.0		Versamud	
3882	1.88	36.0		Versamud	
3882	1.91	35.0		Versamud	
3882	1.87	35.0		Versamud	
3882	1.70	44.0		Versamud	
3894	1.92	41.0		Versamud	
4053	1.92	41.0		Versamud	
4331	1.92	50.0		Versamud	