

**General information**

Wellbore name	34/10-46 A
Type	EXPLORATION
Purpose	WILDCAT
Status	RE-CLASS TO DEV
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	GULLFAKS
Discovery	34/10-46 A
Well name	34/10-46
Seismic location	
Production licence	050
Drilling operator	Statoil ASA (old)
Drill permit	1032-L
Drilling facility	GULLFAKS A
Drilling days	44
Entered date	01.02.2002
Completed date	16.03.2002
Plugged date	16.03.2002
Release date	16.03.2004
Publication date	03.05.2004
Purpose - planned	WILDCAT
Reclassified to wellbore	34/10-A-48 A
Reentry	NO
Content	OIL/GAS
Discovery wellbore	YES
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	NO FORMAL NAME
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	82.2
Water depth [m]	134.0
Total depth (MD) [m RKB]	6860.0
Final vertical depth (TVD) [m RKB]	2106.0
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	TARBERT FM
Geodetic datum	ED50
NS degrees	61° 10' 33.86" N



EW degrees	2° 11' 23.22" E
NS UTM [m]	6782830.47
EW UTM [m]	456420.11
UTM zone	31
NPDID wellbore	4500

Wellbore history

p>General

Well 34/10-46 A was drilled to a structure 5 km southwest of the Gullfaks field. Due to a water-filled Statfjord Formation in segment D1 in well 34/10-46 S, it was decided to drill a side track, 34/10-46 A to the Brent Group prospect D1. The objectives of the well were to prove oil in a Cretaceous/Brent Group prospect in D1 and to be a water injector in Tarbert Formation.

Operations

The wildcat well 34/10-46 A was spudded on 2 February 2002 from the permanent installation Gullfaks A and drilled to TD at 6860 m (2105,5 m TVD RKB) in the late Cretaceous Shetland Group. The well was drilled with OBM to TD.

Kick-off point was at 3930 m (1667 m TVD MSL). In well 34/10-46 S/46 A/46 B the Brent Group in segment E1 and the Statfjord Formation in segment D1 were reached by the 12 1/4" section. At 6344 m (1920 m TVD MSL, 5 m deeper than prognosed) a gas-filled, pressure-depleted sandstone was encountered. A loss situation arose when drilling out of the sandstone and casing was set close to the top sandstone. From 6401 m to TD the well encountered Shetland shale three times and the Tarbert Formation twice.

The well missed the geological target (40 m to the west of target) and drilled too close to the western edge of the structure. This has resulted in a large uncertainty concerning the age of the uppermost sandstone between 6344 m and 6401 m. The most likely interpretation of the section is Cretaceous age. The well proved a gas column of 20 m in this sandstone (Krans Member/Kyrre Formation) and an oil column of 2 m in the Brent Group. Neither the gas-oil contact nor the oil-water contact was identified due to shale lithology at the respective depths.

The MDT measurements in the Cretaceous sandstones penetrated in 46 A show a pore pressure corresponding to ~1,36 sg EMW, as indicated by pressure prognosis given prior to drilling.

No fluid samples were collected and no coring was performed in the well.

Running the liner in well 34/10-46 A failed due to restrictions in the hole, and the well was plugged back to the 9 5/8" shoe. Pulled out of hole with cement stringer on 16 March 2002 and the well was re-classed to development well 34/10-A-48 A.

Testing

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
3960.00	6862.00

Cuttings available for sampling?	YES
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Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
216	NORDLAND GP
1728	HORDALAND GP
2230	ROGALAND GP
2230	BALDER FM
2530	LISTA FM
3251	SHETLAND GP
6344	NO FORMAL NAME
6475	BRENT GP
6475	TARBERT FM
6592	SHETLAND GP
6709	BRENT GP
6709	TARBERT FM

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
4500 34 10 46 A COMPLETION LOG	.TIF	47.78
4500 34 10 46 A COMPLETION REPORT	.PDF	0.58

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD LWD - GR	3930	6400
MWD LWD - GR RES DEN NEU	6400	6860
PEX MDT	6400	6860

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
INTERM.	9 5/8	6346.0	12 1/4	6400.0	0.00	LOT
OPEN HOLE		6860.0	8 1/2	6860.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
3935	1.64	55.0		VERSAVERT	
4440	1.64	57.0		VERSAVERT	
5089	1.64	56.0		VERSAVERT	
6304	1.64	59.0		VERSAVERT	
6354	1.50	32.0		VERSAVERT	
6400	1.50	42.0		VERSAVERT	
6716	1.50	40.0		VERSAVERT	
6860	1.50	32.0		VERSAVERT	

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]
4500 Formation pressure (Formasjonstrykk)	pdf	0.22

