

**General information**

Wellbore name	34/4-12 A
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	SNORRE
Discovery	34/4-1 Snorre
Well name	34/4-12
Seismic location	ST06M09. In-line: 6110. X-line: 4515
Production licence	057
Drilling operator	Statoil Petroleum AS
Drill permit	1293-L
Drilling facility	OCEAN VANGUARD
Drilling days	23
Entered date	27.01.2010
Completed date	18.02.2010
Release date	18.02.2012
Publication date	19.02.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE TRIASSIC
1st level with HC, formation	LUNDE FM
Kelly bushing elevation [m]	22.0
Water depth [m]	381.7
Total depth (MD) [m RKB]	2761.0
Final vertical depth (TVD) [m RKB]	2652.0
Maximum inclination [°]	28.6
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	LUNDE FM
Geodetic datum	ED50
NS degrees	61° 33' 8" N
EW degrees	2° 17' 37.7" E
NS UTM [m]	6824665.28
EW UTM [m]	462468.37



UTM zone	31
NPDID wellbore	6316

Wellbore history

**General**

Well 34/4-12 A (Lower Lunde Snorre) is a sidetrack to well 34/4-12 S, situated on the northern perimeter of the Snorre Field in the Northern North Sea. The surface location of the wells was chosen so as to reach two different prospects with a minimum of drilling and costs. The primary well 34/4-12 S targeted the Omega Nord prospect on a down faulted terrace northeast of the Snorre field while the 34/4-12 A sidetrack targeted the Lower Lunde Snorre prospect up-dip on the Snorre Fault Block itself. The main objective of the sidetrack was to prove oil in the Lower Lunde Member of the Triassic Lunde Formation. In addition the Middle Lunde Member was also expected to be penetrated by the well.

Operations and results

Well 34/4-12 A was kicked off at 1525 m from the primary well 34/4-12 S on 27 January 2010. It was drilled with the semi-submersible installation Ocean Vanguard to TD at 2761 m (2652 m TVD) in Late Triassic sediments of the Lunde Formation. No significant problem was encountered in the operations. The well was drilled with XP-07 oil based mud from kick-off to TD.

The well bore penetrated rocks of Tertiary, Cretaceous and Triassic age. The Jurassic was missing. The Lunde reservoir was encountered at 2563 m (2477 m TVD), which was 27 m TVD shallower than prognosed. Oil was proven in good quality reservoir sands within the Lunde Formation, from 2563 (2477 m TVD) down to an oil-water contact at 2668 m (2570 m TVD). The pressure data proved four slightly different pressure regimes separated by three pressure barriers. Good oil shows were recorded over the reservoir and continued under the OWC with the last show recorded at 2684 m (2580 m TVD). Otherwise no oil shows were reported from the well. The reservoir has a net to gross ratio of 0.31 in Middle Lunde Member and 0.48 in Lower Lunde Member. The total porosity in the Middle Lunde Member is 21% and it is 20% in the Lower Lunde Member. The Hydrocarbon saturation in the Middle Lunde Member is estimated to 63%, while it is 39% in the Lower Lunde Member.

A 54 m core was cut from 2590 to 2644 m within the reservoir, with 99.4% recovery. MDT fluid samples were taken at 2594.7 m (oil), 2642.5 m (oil), and at 2699.7 m (water). The samples were of good quality. Mud contamination in the oil samples was about 2.9 % and 6.4 %, respectively.

The well was permanently abandoned on 19 February 2010 as an oil discovery.

On 28 August 2017 the well was reclassified as an appraisal well for the discovery "34/4-1 SNORRE" from 1979.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1530.00	2760.00



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	2590.0	2643.7	[m]

Total core sample length [m]	53.7
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
404	NORDLAND GP
1105	UTSIRA FM
1130	NO FORMAL NAME
1197	HORDALAND GP
1697	ROGALAND GP
1697	BALDER FM
1715	LISTA FM
1806	SHETLAND GP
2558	CROMER KNOLL GP
2558	RØDBY FM
2561	MIME FM
2563	HEGRE GP
2563	LUNDE FM

Composite logs

Document name	Document format	Document size [MB]
6316	pdf	0.36

Logs





Log type	Log top depth [m]	Log bottom depth [m]
MDT	2563	2736
MWD LWD - ARCVRES6 TELE	2460	2756
MWD LWD - ARCVRES8 VADN8 ISON8 P	1589	2460
MWD LWD - ARCVRES9 TELE	1253	1529
MWD LWD - POWERDRIVE TELE	1529	1589
OBMI	2549	2761
PEX AIT DSI	2000	2761
PEX AIT DSI RR	2761	2050
VSP	584	2761

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	464.0	36	468.0	0.00	LOT
SURF.COND.	20	1248.0	26	1253.0	1.64	LOT
INTERM.	13 3/8	1514.0	17 1/2	1855.0	1.63	LOT
INTERM.	9 5/8	2459.0	12 1/4	2460.0	1.85	LOT
OPEN HOLE		2761.0	8 1/2	2761.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1515	1.48	29.0		XP-07 - #14	
1727	1.50	30.0		XP-07 - #14	
2359	1.62	31.0		XP-07 - #14	
2454	1.55	29.0		XP-07 - #14	
2577	1.62	33.0		XP-07 - #14	
2644	1.62	35.0		XP-07 - #14	
2761	1.62	29.0		XP-07 - #14	
2761	1.62	28.0		XP-07 - #14	