General information

Wellbore name	16/1-15 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	EDVARD GRIEG
Discovery	16/1-8 Edvard Grieg
Well name	16/1-15
Seismic location	LN0902 R10 inline 1488 & crossline 5496
Production licence	338
Drilling operator	Lundin Norway AS
Drill permit	1354-L
Drilling facility	BREDFORD DOLPHIN
Drilling days	38
Entered date	06.04.2011
Completed date	13.05.2011
Release date	13.05.2013
Publication date	13.05.2013
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	EARLY CRETACEOUS
1st level with HC, formation	INTRA ÅSGARD FM SS
2nd level with HC, age	PRE-DEVONIAN
2nd level with HC, formation	BASEMENT
Kelly bushing elevation [m]	25.0
Water depth [m]	111.0
Total depth (MD) [m RKB]	2175.0
Final vertical depth (TVD) [m RKB]	2011.0
Maximum inclination [°]	34.5
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	58° 52' 23.82'' N
EW degrees	2° 15' 41.3'' E

NS UTM [m]	6526327.33
EW UTM [m]	457412.51
UTM zone	31
NPDID wellbore	6593

Wellbore history

General

Well 16/1-15A is a sidetrack to Well 16/1-15, drilled on the western side of the Utsira High in the North Sea. The primary well proved Tellus to be a continuation of the Luno Discovery, now officially named the Edvard Grieg Field. The objectives of the geological sidetrack, 16/1-15 AT2, were to prove thicker, high productivity sandstone sequences to add to the Luno reserves, and to provide seismic calibration of complex stratigraphy.

Operations and results

Appraisal well 16/1-15 A was kicked off at 599 m in well 16/1-15 on 6 April 2011. It was drilled with the semi-submersible installation Bredford Dolphin. The 12 1/4" hole was drilled to TD at 2041 m. When running 9 5/8" casing it got differentially stuck forcing a new sidetrack. It is believed that the casing stuck in Grid Formation sandstone. The 16/1 -15 A well bore was thus plugged back to the 20" casing and the technical sidetrack 16/1 -15 AT2 was kicked off from 584 m and drilled to final TD at 2175 m (2011 m TVD) in Basement rocks. The sidetrack was drilled with Performadril mud from kick-off to TD.

Well 16/1-15 AT2 proved 1 meter thick Intra Åsgard Formation Sandstone at 2067 m, overlying fractured basement. The sandstone was oil bearing and the basement had shows, but in this well bore the basement was found to be cemented and was considered unproductive. Oil shows were first recorded on the cores in the Intra Åsgard Formation Sandstone. They continued on the cores into the underlying basement where they were generally restricted to fractures. Below the cored interval sporadic shows were seen on cuttings down to a depth of 2124 m (1967.6 m TVD).

Four short cores were cut from 2066 to 2076.26 m, across the Intra Åsgard Formation Sandstone and into the Basement. The recovery was 100% and the core-log depth shifts were less than 0.5 m. MDT fluid samples were taken at 2067.83 m (oil), 2070.61 m (oil), and 2051.05 m (water).

The well was permanently abandoned on 13 May 2011 as an oil appraisal well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
610.00	2041.00

Cuttings available for sampling?	YES

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2066.0	2070.8	[m]
2	2070.8	2074.1	[m]
3	2074.1	2075.1	[m]
4	2075.1	2076.3	[m]

Total core sample length [m]	10.3
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
136	NORDLAND GP
778	UTSIRA FM
876	NO FORMAL NAME
915	HORDALAND GP
952	SKADE FM
1285	NO FORMAL NAME
1598	GRID FM
1729	NO FORMAL NAME
1889	ROGALAND GP
1889	BALDER FM
1899	SELE FM
1920	LISTA FM
2026	VÅLE FM
2043	SHETLAND GP
2043	EKOFISK FM
2057	TOR FM
2064	HOD FM
2067	CROMER KNOLL GP
2067	ÅSGARD FM

2068	INTRA ÅSGARD FM SS
2069	BASEMENT

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD LWD - GR RES DEN NEU AC PWD	545	2039

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	2050.0	12 1/4	2051.0	1.50	LOT
OPEN HOLE		2175.0	8 1/2	2175.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1002	1.39	28.0		PERFORMADRIL	
1154	1.35	33.0		PERFORMADRIL	
1314	1.35	32.0		PERFORMADRIL	
1314	1.35	33.0		PERFORMADRIL	
1572	1.39	39.0		PERFORMADRIL	
2041	1.42	45.0		PERFORMADRIL	
2175	1.20	29.0		PERFORMADRIL	

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]
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