General information

Wellbore name	16/1-16 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	IVAR AASEN
Discovery	16/1-9 Ivar Aasen
Well name	16/1-16
Seismic location	LN902-R10 linjer 1365 & 6012
Production licence	457
Drilling operator	Wintershall Norge AS
Drill permit	1428-L
Drilling facility	BREDFORD DOLPHIN
Drilling days	26
Entered date	07.12.2012
Completed date	01.01.2013
Release date	01.01.2015
Publication date	11.03.2015
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	HUGIN FM
Kelly bushing elevation [m]	25.0
Water depth [m]	113.0
Total depth (MD) [m RKB]	2897.0
Final vertical depth (TVD) [m RKB]	2663.0
Maximum inclination [°]	55
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50
NS degrees	58° 54' 47.78'' N
EW degrees	2° 15' 54.62'' E
NS UTM [m]	6530777.71
EW UTM [m]	457674.77

UTM zone	31
NPDID wellbore	7095

Wellbore history

General

Well 16/1-16 A is a geological sidetrack to well 16/1-16 on the east side of the Gudrun Terrace towards the Utsira High in the North Sea. The primary well bore 16/1-16 found oil in two slightly differently pressured compartments in the Middle Jurassic Hugin Formation and the Triassic Skagerrak Formation (Asha prospect). Both pressure compartments were penetrated in oil-down-to settings. The objective of the 16/1-16 A sidetrack was to find the true Asha OWC by drilling down flank on the structure to the south.

Operations and results

Well 16/1-16 A was kicked off at 2047 m in main bore 16/1-16 on 7 December 2012. It was drilled with the semi-submersible installation Bredford Dolphin to TD at 2897 m (2663 m TVD) in the Triassic Skagerrak Formation. No significant problem was encountered in the operations. The well was drilled with water based Performadril mud from kick-off to TD.

The well encountered more than 30 m gross oil in a Hugin Formation of very good quality and which is much thicker than in 16/1-16. Top Hugin was at 2527 m. The oil/water contact was encountered at 2592.8 m (2465 m TVD), 6 metres TVD deeper than the OWC found in the western part of the Ivar Aasen Field. The Lower oil zone in a Skagerrak sand with a separate pressure regime was not present or very little developed in 16/1-16 A compared to16/1-16.

No cores were cut in the well. MDT fluid samples were taken at 2573 m (oil) and at 2610.5 m (water)

The well was permanently abandoned on 1 January 2013 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]
2055.00	2895.00

Cuttings 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
MDT		2685.20	0.00	OIL		NO

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
138	NORDLAND GP
791	UTSIRA FM
874	HORDALAND GP
950	SKADE FM
1221	NO FORMAL NAME
1633	GRID FM
1731	NO FORMAL NAME
1893	ROGALAND GP
1893	BALDER FM
1919	SELE FM
1931	LISTA FM
2035	SHETLAND GP
2035	TOR FM
2072	CROMER KNOLL GP
2072	ÅSGARD FM
2179	VIKING GP
2179	DRAUPNE FM
2424	HEATHER FM
2527	VESTLAND GP
2527	HUGIN FM
2729	HEGRE GP
2729	SKAGERRAK FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
GR MDT	2398	2452
MDT GR	2425	2647
MWD - DI	2048	2124

MWD - GR RES DEN NEU SON PP DI	2124	2897

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
OPEN HOLE		2897.0	8 1/2	2897.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
350	1.31	48.0		Performadrill	
1679	1.24	45.0		Performadrill	
2105	1.24	34.0		Performadrill	
2897	1.24	51.0		Performadrill	

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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