General information

Wellbore name	16/2-U-19
Type	OTHER
Purpose	APPRAISAL
Status	P&A
Multilateral	NO
Main area	NORTH SEA
Field	JOHAN SVERDRUP
Discovery	16/2-6 Johan Sverdrup
Well name	16/2-U-19
Production licence	265
Drilling operator	Statoil Petroleum AS
Drill permit	777-G
Drilling facility	DEEPSEA ATLANTIC
Drilling days	14
Entered date	29.11.2016
Completed date	12.12.2016
Release date	12.12.2018
Plugged and abondon date	12.12.2016
Publication date	12.12.2018
Purpose - planned	PILOT
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA DRAUPNE FM SS
Kelly bushing elevation [m]	30.0
Water depth [m]	114.0
Total depth (MD) [m RKB]	2017.0
Final vertical depth (TVD) [m RKB]	1900.0
Maximum inclination [°]	13.9
Bottom hole temperature [°C]	86
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	58° 52' 0.1'' N
EW degrees	2° 30' 5.3'' E
NS UTM [m]	6525465.75
EW UTM [m]	471246.54
UTM zone	31
NPDID wellbore	8063

Wellbore history

General

Well 16/2-U-19 was drilled on the Johan Sverdrup Field on the Utsira High in the North Sea. The primary objective was to reduce the depth, thickness and quality uncertainty of the Draupne reservoir for future producers. The secondary objective of the well was to gather geological information regarding the Draupne sand distribution in the Geitungen area of the Johan Sverdrup Field.

Operations and results

Well 16/2-U-19 was spudded with the semi-submersible installation Deepsea Atlantic on 29 November 2016 and drilled to TD at 2017 m (2009.6 m TVD) in Basement rock. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 1180 m and with Carbosea oil-based mud from 1180 m to TD.

Intra-Draupne Formation sandstone was encountered at 1907 m (1900 m TVD) and was directly overlying basement rock at 1943 m (1936 m TVD). The Intra Draupne Formation sandstone had excellent reservoir properties and was oil filled all through. The pressure level in the reservoir is about 1 bar under the pressure observed in August 2012 in 16/2-12, in line with the general rate of pressure depletion in the area. There were no shows in the well outside of the oil-bearing reservoir.

Two cores were cut from1896 in the Åsgard Formation to 1945 in the granitic basement. Recovery was 99.6% in core 1 and 96.6% in core 2. The depth shift from logger's depth is 1.1 m for core 1 and 1.15 m for core 2. No fluid sample was taken.

The well was permanently abandoned on 12 December 2016.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1180.00	2017.00

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	1896.0	1927.9	[m]
2	1928.0	1944.4	[m]

Total core sample length [m]	48.3
Cores available for sampling?	YES

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	36	207.3	42	213.0	0.00	
LINER	13 3/8	1168.6	17 1/2	1175.0	1.40	FIT
OPEN HOLE		2017.0	12 1/4	2017.0	0.00	

Logs

Log type	Log top depth [m]	Log bottom depth [m]
DSL CN ZDL ZMAC HIDEF IND	1068	2017
DSL FLEX MREX RCI	1661	2015
MREX GR	1160	2012
MWD - OTK	213	1175
MWD - OTK	1175	1896
MWD - OTK	1896	2017

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
144	NORDLAND GP
786	UTSIRA FM
947	HORDALAND GP
947	SKADE FM
1535	ROGALAND GP
1535	BALDER FM
1557	SELE FM
1579	LISTA FM
1659	SHETLAND GP
1659	EKOFISK FM
1669	TOR FM
1747	HOD FM
1817	BLODØKS FM
1821	SVARTE FM
1836	CROMER KNOLL GP
1836	RØDBY FM

1891	SOLA FM
1896	ÅSGARD FM
1907	INTRA DRAUPNE FM SS
1943	BASEMENT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1175	1.25	20.0		CARBOSEA	
1928	1.25	26.0		CARBOSEA	
1945	1.26	26.0		CARBOSEA	
1945	1.25	27.0		CARBOSEA	