General information

Wellbore name	24/9-13
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	24/9-13 (Rumpetroll)
Well name	24/9-13
Seismic location	DN15M01 Inline 17256 Xline 9555
Production licence	869
Drilling operator	Aker BP ASA
Drill permit	1733-L
Drilling facility	DEEPSEA NORDKAPP
Drilling days	31
Entered date	16.06.2019
Completed date	16.07.2019
Plugged date	16.07.2019
Release date	16.07.2021
Publication date	10.11.2021
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	EOCENE
1st level with HC, formation	HORDALAND GP
Kelly bushing elevation [m]	33.0
Water depth [m]	117.7
Total depth (MD) [m RKB]	2305.0
Final vertical depth (TVD) [m RKB]	2305.0
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	HEIMDAL FM
Geodetic datum	ED50
NS degrees	59° 17' 51.89'' N
EW degrees	1° 46' 2.45'' E
NS UTM [m]	6574008.68
EW UTM [m]	429792.70
UTM zone	31
NPDID wellbore	8613

Wellbore history

General

Well 24/9-13 was drilled to test the Rumpetroll prospect in the Vana Sub-basin in the North Sea, about 6 kilometres southwest of the Bøyla field. The primary objective was to prove petroleum in reservoir rocks (sand injectites) in the Eocene.

Operations and results

Wildcat well 24/9-13 was spudded with the semi-submersible installation Deepsea Nordkapp on 16 June 2019 and drilled to TD at 2305 m in the Paleocene Heimdal Formation. After reaching TD and gas was gas was discovered a planned technical side-track was initiated for coring and fluid samples. The side-track 24/9-13 ST2 was kicked off from 1724 m in the main bore and drilled to TD at 2176 m. The side-track was drilled close to vertical with an 18 m centre-to-

centre distance from the main bore at TD. Operations proceeded without significant problems. The main bore was drilled with KCl/polymer/GEM mud down to 1412 m and with Innovert oil-based mud from 1412 m to TD. The side-track was drilled with Innovert oil-based mud all through.

Well 24/9-13 encountered gas in the interval 1943.5 to 1946.6 m in the primary well bore, whereof a total of 2 metres of sandstone with mainly good reservoir quality. The same sandstone was partially cored in the side-track. Several intra-Balder Formation sandstone layers with mainly good reservoir quality were also encountered in the interval 2074 to 2122 m. Net sandstone in Balder is 17 m and petrophysical analyses indicated they could be oil-bearing. The Balder sands were not present in the side-track. The sandstones are interpreted as being remobilised sand from the Heimdal and Hermod formations and injected into overlying stratigraphy in the Rogaland and Hordaland groups. The Heimdal Formation sandstone was water-wet.

No fluid contacts could be established. An oil show was described on a core chip from the gas-bearing injectite sand in the side-track, otherwise there were no shows above the oil-based mud in main bore or side-track.

Four cores were attempted in the technical side-track. Of these, core 1 from 1936 to 1942 had no recovery due to junk in the core head, while core 2 from 1942 to 1969 m had 99% recovery, core 3 from 2072 to 2099 m had 101% recovery and core 4 from 2099 to 2127 had 101% recovery. Core 2 had one meter of sandstone from 1943 to 1944, otherwise all recovered core was claystone. RDT fluid samples were taken in the side-track at 1946.15 m (gas).

The well was permanently abandoned on 16 July 2019 as a gas discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
250.00	2305.00

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
2	1942.4	1968.9	[m]
3	2072.0	2099.3	[m]
4	2099.3	2126.5	[m]

Total core sample length [m]	81.0
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
151	NORDLAND GP
151	UNDIFFERENTIATED
264	UTSIRA FM
763	HORDALAND GP
763	SKADE FM
1104	GRID FM
1325	UNDIFFERENTIATED
1944	NO FORMAL NAME
1947	UNDIFFERENTIATED
2004	ROGALAND GP
2004	BALDER FM
2074	NO FORMAL NAME
2122	SELE FM
2166	HERMOD FM
2178	LISTA FM
2225	HEIMDAL FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
LWD - ABG DIR DGR XDR XBAT ALD	1415	2305
LWD - CTN PWD MRIL GT	1415	2305

LWD - DIR	150	216
LWD - DIR GR RES PWD	216	1412

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	213.4	42	215.0	0.00	
SURF.COND.	13 3/8	1399.0	17 1/2	1412.0	1.58	FIT
INTERM.	9 5/8	1703.0	12 1/4	1715.0	1.45	FIT
OPEN HOLE		2176.0	8 1/2	2176.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
216	1.20			Water	
1120	1.25			Water	
1405	1.30			Synthetic	
1412	1.27			Synthetic	
1412	1.30			Water	
1420	1.30			Synthetic	
1495	1.27			Synthetic	
1500	1.30			Synthetic	
1936	1.30			Synthetic	
2154	1.29			Synthetic	
2176	1.30			Synthetic	
2305	1.30			Synthetic	