



General information





Wellbore name	25/8-8 B
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	JOTUN
Discovery	25/8-8 S Jotun
Well name	25/8-8
Seismic location	ES 9403- INLINE 2672 & CDP 2131
Production licence	027 P
Drilling operator	Esso Exploration and Production Norway A/S
Drill permit	831-L
Drilling facility	VILDKAT EXPLORER
Drilling days	13
Entered date	12.10.1995
Completed date	24.10.1995
Release date	24.10.1997
Publication date	20.10.2003
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	PALEOCENE
1st level with HC, formation	HEIMDAL FM
Kelly bushing elevation [m]	25.0
Water depth [m]	126.5
Total depth (MD) [m RKB]	2510.0
Final vertical depth (TVD) [m RKB]	2178.0
Maximum inclination [°]	46.6
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	LISTA FM
Geodetic datum	ED50
NS degrees	59° 25' 51.87" N
EW degrees	2° 24' 18.73" E
NS UTM [m]	6588357.70
EW UTM [m]	466254.24
UTM zone	31
NPDID wellbore	2696



Wellbore history

General

Well 25/8-8 S was drilled to test the Paleocene Heimdal Formation sandstones (Tau Prospect) located southeast of the Jotun Field and north east of the Balder Field on the east margin of the South Viking Graben. The well was planned with flexibility to be sidetracked into two other reservoir segments from the same 13 3/8" casing. The well proved oil in the target and two sidetracks were drilled. Well 25/8-8 A was the first sidetrack and the objective was to appraise the discovery in the primary well and to evaluate the sand quality in the eastern segment of the Tau Structure. Well 25/8-8 B was the second sidetrack and the objective was to appraise and evaluate resource potential in the western segment of the 25/8-8 S Discovery and to confirm oil-water and possibly gas-oil contacts.

Operations and results

Exploration well 25/8-8 S was spudded with the semi-submersible installation "Vildkat Explorer" on 22 August 1995 and drilled deviated to TD at 2592 m (2343.7 m TVD SS) in the Late Jurassic Draupne Formation. The well was drilled to 1058 m with seawater and high viscosity gel pills. From 1058 m to TD the well was drilled using an oil-based mud, "Safemul". MWD-GR-Res was used during drilling. MWD-resistivity failed at 872 m and the hole was drilled to 1058 m without resistivity log. No shallow gas was observed. The 13 3/8" casing was set at 1046.5 m.

When the second run with the MDT was done, the MDT cable became stuck. The cable broke at the casing shoe, leaving the tool and about 1000 m of cable in the hole. A fishing job was performed to get the tool and cable out. The fishing job was successful and the rest of the logging program was completed.

The target Heimdal Formation was penetrated at 2236 m and was found hydrocarbon bearing. A GOC is indicated within the interval 2244.9-2252.0 m (2057.0-2063.0 m TVD SS) based on ELAN log analysis, pressure analysis and geochemical analyses. Available well data indicate an OWC at 2283.5 m (2089.3 m TVD SS) with oil saturation up to 5 m TVD deeper. Three 27-metre cores were cut in the Lista and Heimdal Formations in the interval 2228 m to 2309 m. Fluid samples were taken in the first MDT run at 2244.2 m (gas) and 2260.0 m (oil). After testing the well was plugged back to the 13 3/8" casing and the casing pulled to get ready for the first sidetrack, 25/8-8 A.

Sidetrack 25/8-8 A was kicked off from below the 13 3/8" casing shoe at 1080 m on 26 September 1995 and drilled to a TD of 2601.3 m (2158.1 m TVD SS) in the Early Paleocene Ty Formation. The wellbore was drilled with "Safemul" oil based mud from kick off to TD. Based on MDT pressures and extensive MDT sampling 25/8-8 A confirmed oil and gas in the Heimdal Formation with a GOC estimated at 2057.8 m TVD SS and an OWC estimated at 2094.5 m TVD SS. It also proved the amount of sand and reservoir quality decrease eastwards from the original 25/8-8 S well location. Borehole 25/8-8 A was not drill stem tested. Four conventional cores were cut in the Lista and Heimdal Formations in the interval 2414 m to 2522 m. MDT fluid samples were recovered from the Heimdal Formation at depths 2430 m (gas), 2445.6 m (gas), 2453 m (oil), and 2457.8 m (oil). Post-well organic geochemical analyses indicated some "diesel" contamination in the oil samples. After logging sidetrack 25/8-8A was plugged and abandoned as an oil and gas appraisal well.

The second sidetrack, 25/8-8 B, was kicked off from 1080 m on 11 October 1995 and drilled to a total depth of 2510 m (2152 m TVD SS) in the Paleocene Lista Formation. The well was drilled with oil-based mud from kick off to TD.

Pressures and extensive MDT sampling confirmed the oil and water gradients and



defined the OWC in the Heimdal Formation. The oil water contact was found at 2428.9 m (2094.7 m TVD SS). The well was not drill stem tested. Three cores were cut in the Lista and Heimdal Formations from 2375 m to 2441 m. After logging sidetrack 25/8-8 B was plugged back and abandoned as an oil and gas appraisal well.

The primary wellbore 25/8-8 S was permanently abandoned on October 24, 1995 as an oil and gas discovery, named the 25/8-8 S Jotun Discovery.

Testing

Well 25/8-8 S was drill stem tested. The main interval 2258 m - 2267 m produced a little sand (1%) at 795 Sm³/day and was chocked back to 628 Sm³/day for the main flow. GOR was 70 Sm³/Sm³. After the main flow, a lower interval 2275-2279 m was perforated with tubing conveyed gun and the two intervals were flowed co-mingled at 1065 Sm³/day with traces of sand. GOR was 70 Sm³/Sm³.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1060.00	2510.00

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	2375.0	2381.1	[m]
2	2387.0	2414.0	[m]
3	2414.0	2441.8	[m]

Total core sample length [m]	60.8
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1060.0	[m]	DC	STRAT
1160.0	[m]	DC	STRAT
1220.0	[m]	DC	STRAT
1241.0	[m]	SWC	STRAT
1260.0	[m]	DC	STRAT
1280.0	[m]	SWC	STRAT
1311.0	[m]	SWC	STRAT



1330.0	[m]	DC	STRAT
1350.0	[m]	DC	STRAT
1390.0	[m]	DC	STRAT
1425.0	[m]	SWC	STRAT
1430.0	[m]	DC	STRAT
1470.0	[m]	DC	STRAT
1490.0	[m]	DC	STRAT
1510.0	[m]	DC	STRAT
1550.0	[m]	DC	STRAT
1590.0	[m]	DC	STRAT
1630.0	[m]	DC	STRAT
1670.0	[m]	DC	STRAT
1710.0	[m]	DC	STRAT
1724.0	[m]	SWC	STRAT
1760.0	[m]	DC	STRAT
1812.0	[m]	SWC	STRAT
1850.0	[m]	DC	STRAT
1903.0	[m]	SWC	STRAT
1940.0	[m]	DC	STRAT
1980.0	[m]	DC	STRAT
2010.0	[m]	SWC	STRAT
2050.0	[m]	DC	STRAT
2090.0	[m]	DC	STRAT
2132.0	[m]	SWC	STRAT
2150.0	[m]	DC	STRAT
2173.4	[m]	SWC	STRAT
2180.0	[m]	DC	STRAT
2180.0	[m]	DC	STRAT
2190.0	[m]	DC	STRAT
2205.3	[m]	SWC	STRAT
2220.0	[m]	DC	STRAT
2240.0	[m]	DC	STRAT
2242.7	[m]	SWC	STRAT
2252.0	[m]	SWC	STRAT
2268.0	[m]	SWC	STRAT
2278.7	[m]	SWC	STRAT
2290.0	[m]	DC	STRAT
2300.0	[m]	DC	STRAT
2310.0	[m]	DC	STRAT
2316.1	[m]	SWC	STRAT



2325.4	[m]	SWC	STRAT
2331.5	[m]	SWC	STRAT
2339.5	[m]	SWC	STRAT
2351.4	[m]	SWC	STRAT
2360.0	[m]	DC	STRAT
2375.0	[m]	DC	STRAT
2375.0	[m]	C	STRAT
2380.0	[m]	C	STRAT
2394.0	[m]	C	STRAT
2408.0	[m]	C	STRAT
2419.0	[m]	C	STRAT
2421.0	[m]	C	STRAT
2438.0	[m]	C	STRAT
2441.0	[m]	C	STRAT
2451.0	[m]	SWC	STRAT
2460.0	[m]	DC	STRAT
2469.0	[m]	SWC	STRAT
2482.0	[m]	SWC	STRAT
2490.0	[m]	DC	STRAT
2500.0	[m]	DC	STRAT
2510.0	[m]	DC	STRAT

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
152	NORDLAND GP
474	UTSIRA FM
610	NO FORMAL NAME
668	HORDALAND GP
668	SKADE FM
1025	NO FORMAL NAME
1191	SKADE FM
1233	NO FORMAL NAME
1313	GRID FM
1336	NO FORMAL NAME
2173	ROGALAND GP
2173	BALDER FM
2243	SELE FM
2327	LISTA FM



2382	HEIMDAL FM
2446	LISTA FM

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
2696_25_8_8_B_COMPLETION_REPORT_AND_LOG	pdf	38.86

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT IPL EPT HNGS	1046	2508
CST GR	1241	2497
MDT GR	2383	2445
MDT GR	2402	2402
MULTISHOT SURVEY	1062	2503
MWD - GR RES DIR	1046	2502
UBI DSI GR	1046	2500
VSP	500	2490

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	214.0	36	214.0	0.00	LOT
SURF.COND.	13 3/8	1046.0	17 1/2	1047.0	1.72	LOT
OPEN HOLE		2510.0	8 1/2	2510.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1078	0.00			OIL BASED	

Thin sections at the Norwegian Offshore Directorate





Depth	Unit
2441.65	[m]
2434.25	[m]
2436.25	[m]
2430.50	[m]
2427.50	[m]
2425.30	[m]
2422.50	[m]
2418.75	[m]
2418.50	[m]
2417.50	[m]
2412.25	[m]
2406.25	[m]
2409.30	[m]
2402.25	[m]
2401.10	[m]
2399.85	[m]
2397.25	[m]
2383.25	[m]
2391.75	[m]
2391.00	[m]
2390.60	[m]
2369.25	[m]
2387.50	[m]

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]
2696_Formalion_pressure_(Formasjonstrykk)	pdf	0.22

