General information

Wellbore name	1/9-5
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	TOMMELITEN GAMMA
Discovery	1/9-4 Tommeliten Gamma
Well name	1/9-5
Seismic location	PG-03.SP 210
Production licence	044
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	203-L
Drilling facility	DYVI BETA
Drilling days	75
Entered date	03.10.1978
Completed date	16.12.1978
Release date	16.12.1980
Publication date	01.04.2012
Purpose - planned	APPRAISAL
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	37.0
Water depth [m]	75.0
Total depth (MD) [m RKB]	3450.0
Final vertical depth (TVD) [m RKB]	3449.5
Maximum inclination [°]	10
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	HOD FM
Geodetic datum	ED50
NS degrees	56° 29' 27.69'' N
EW degrees	2° 57' 55.27'' E
NS UTM [m]	6260871.29
EW UTM [m]	497866.50
UTM zone	31
NPDID wellbore	248

Wellbore history

General

Well 1/9-5 was drilled in the Feda Graben in the southern North Sea, in the saddle between the Tommeliten Gamma-structure and the intrusive salt plug forming the Tommeliten Delta structure. The purpose of the well was to appraise the Tommeliten Gamma discovery made by 1/9-4 and to test the hydrocarbon potential and reservoir quality of the Ekofisk and Tor formations.

Operations and results

Appraisal well 1/9-5 was spudded with the jack-up installation Dyvi Beta on 3 October 1978 and drilled to TD at 3450 m in the Late Cretaceous Hod Formation. The pipe got stuck at 3426 m during a clean-up trip. When trying to come loose the hook broke and the drill string dropped in the hole. This event caused material damage and rig shut-down for three days, but nobody was injured. When fishing the drill string it came loose above the jar but the rest of the BHA (approximately 260 m) was left in the hole. The well was drilled with spud mud down to 435 m, with a lime/"Morex" mud system from 435 m to 1377 m, with lime/"Morex"/Drispac mud from 1377 m to 2725 m, and with lignosulphonate/lignite mud from 2725 m to TD. A lot of hole problems occurred in the 17 1/2" and 12 1/4" sections and this was attributed to the lime/"Morex" mud system.

The Ekofisk Formation came in at 3207 m and the Tor Formation at 3282 m. No significant hydrocarbon shows were encountered in any section of the well.

One core was cut from 3215.5 to 3 233.5 m, proving a dry carbonate section. No wire line fluid samples were taken.

The well was permanently abandoned on 16 December 1978 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
180.00	3450.00

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	3215.7	3234.0	[m]

Total core sample length [m]	18.3

Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
112	NORDLAND GP
1766	HORDALAND GP
2981	ROGALAND GP
2981	BALDER FM
3013	SELE FM
3095	LISTA FM
3192	VÅLE FM
3207	SHETLAND GP
3207	EKOFISK FM
3282	TOR FM
3346	HOD FM

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
248_01_WDSS_General_Information	pdf	0.20
248_03_WDSS_lithlog	pdf	0.06

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

Document name	Document format	Document size [MB]
248_1_9_5_Completion_log	pdf	2.37
248_1_9_5_Completion_report	pdf	61.54

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL	100	136
CBL VDL	100	2713
FDC CNL CAL GR	429	3450

HDT	2718	3448
ISF SONIC GR SP	110	3452

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	163.0	36	163.0	0.00	LOT
SURF.COND.	20	428.0	26	436.0	0.00	LOT
INTERM.	13 3/8	1367.0	17 1/2	1379.0	1.55	LOT
INTERM.	9 5/8	2715.0	12 1/2	2725.0	1.90	LOT
OPEN HOLE		3450.0	8 1/2	3450.0	1.91	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
220	1.05	56.0	30.0	spud mud	
1090	1.23	42.0	8.0	waterbased	
1420	1.50	20.0	31.0	waterbased	
2190	1.78	19.0	18.0	waterbased	
2450	1.80	24.0	18.0	waterbased	
3340	1.68	27.0	15.0	waterbased	