General information

Wellbore name	2/7-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	ELDFISK
Discovery	2/7-1 Eldfisk
Well name	2/7-1
Seismic location	LINE PG-031430 S SP.452
Production licence	018
Drilling operator	Phillips Petroleum Company Norway
Drill permit	42-L
Drilling facility	OCEAN VIKING
Drilling days	131
Entered date	03.08.1970
Completed date	11.12.1970
Release date	11.12.1972
Publication date	30.09.2015
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	PALEOCENE
1st level with HC, formation	EKOFISK FM
Kelly bushing elevation [m]	27.0
Water depth [m]	71.0
Total depth (MD) [m RKB]	4572.0
Maximum inclination [°]	8.6
Bottom hole temperature [°C]	160
Oldest penetrated age	LATE JURASSIC
Oldest penetrated formation	VESTLAND GP
Geodetic datum	ED50
NS degrees	56° 25' 44.68'' N
EW degrees	3° 12' 14.21'' E
NS UTM [m]	6253994.05
EW UTM [m]	512579.07
UTM zone	31
NPDID wellbore	179

Wellbore history

an lang=EN-GB>General

Well 2/7-1 was drilled on the Eldfisk structure on the Lindesnes Ridge in the North Sea. The primary objective was to test the Late Cretaceous to Paleocene chalk sequence that had proved oil in the Ekofisk structure north of Eldfisk. A secondary objective was to test older Mesozoic sediments

Operations and results

Wildcat well 2/7-1 was spudded with the semi-submersible installation Ocean Viking on 3 August 1970 and drilled to TD at 4573 m in the Vestland Group. The well was drilled with seawater and hi-vis sweeps down to 588 m, with seawater/Drill Aid mud from 588 m to 3102 m, and with seawater/lignosulphonate mud from3102 m to TD.

Top of the Danian chalk sequence, Ekofisk Formation, is at 2934 m, while top of the Cretaceous chalk, Tor Formation, is at 3014 m. In this first well on the structure, only small amounts of live hydrocarbons were found in the Ekofisk carbonates.

Three cores were cut from 2956.6 to 2987.3 m in the Ekofisk Formation. A fourth core was cut from 3032.8 to 3041.9 m. No fluid sample was taken.

The well was permanently abandoned on 11 December 1970 as an oil discovery

Testing

A drill stem test was performed in the interval 2942 to 2954 m plus 2957 to 2975 m in the Danian chalk (Ekofisk Formation). The flow rate after acidizing was too small to measure. The recovered fluid was composed of 65% oil and 35% water. The oil density was 32.2 °API.

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	9700.0	9721.0	[ft]
2	9721.0	9751.0	[ft]
3	9751.0	9797.6	[ft]
4	9950.0	9981.0	[ft]

Total core sample length [m]	39.2
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
98	NORDLAND GP

1681	HORDALAND GP
2820	ROGALAND GP
2820	BALDER FM
2831	SELE FM
2873	LISTA FM
2918	VÅLE FM
2934	SHETLAND GP
2934	EKOFISK FM
3014	TOR FM
3047	HOD FM
3292	BLODØKS FM
3303	HIDRA FM
3423	CROMER KNOLL GP
3423	RØDBY FM
3707	TYNE GP
3707	MANDAL FM
3730	FARSUND FM
4258	VESTLAND GP

Geochemical information

Document name	Document format	Document size [MB]
179_GCH_1	pdf	2.25
179_GCH_2	pdf	0.36
179_GCH_3	pdf	0.49

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

Document name	Document format	Document size [MB]
179_01_WDSS_General_Information	pdf	0.17

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

Document name	Document format	Document size [MB]
179_2_7_1_COMPLETION_LOG	pdf	2.48
179_2_7_1_COMPLETION_REPORT	pdf	18.42

Documents - Norwegian Offshore Directorate papers

Document name	Document format	Document size [MB]
179_01_NPD_Paper_No.30_Geology_of_the_Eldfisk_Area__Well_2_7_1	pdf	72.88
179_02_NPD_Paper_No.32_Late_Jurassic-early_Tertiary_Correlation_chart_Profile_3__Well_2_7_1	pdf	0.74
179_03_NPD_Paper_No.30_Early_Tertiary-Late_Jurassic_Correlation_chart_Eldfisk__Well_2_7_1	pdf	0.82

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2942	2975	0.0

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0					

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHC GR	579	4499
CBL	137	4253
DLL	3088	4264
FDC	2439	4502
GR	137	579
GRN	2896	4268
HDT	3088	4268
IES	579	4502

LL7	2439	3102
ML MLL C	2744	4502
SNP	2439	4502
SRS	579	4499

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	136.0	36	136.0	0.00	
SURF.COND.	20	579.0	26	588.0	0.00	
INTERM.	13 3/8	1592.0	17 1/2	1601.0	0.00	
INTERM.	9 5/8	3088.0	12 1/4	3106.0	0.00	
LINER	7	4267.0	8 1/2	4268.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
365	1.10			seawater	
609	1.56	47.0		waterbased	
2743	1.71	46.0		waterbased	
3200	1.71	46.0		waterbased	
3657	1.76	48.0		waterbased	
3820	1.88	45.0		waterbased	
4185	1.90	46.0		waterbased	
4572	1.93	45.0		waterbased	