

**General information**

Wellbore name	17/12-1 R
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	17/12-1 Vette
Well name	17/12-1
Seismic location	LINE 685 402 SP.160
Production licence	016
Drilling operator	Phillips Petroleum Company Norway
Drill permit	64-L2
Drilling facility	OCEAN VIKING
Drilling days	100
Entered date	14.03.1972
Completed date	21.06.1972
Plugged and abandon date	21.06.1972
Release date	21.06.1974
Publication date	25.04.2005
Purpose - planned	WILDCAT
Reentry	YES
Reentry activity	DRILLING/PLUGGING
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	SANDNES FM
Kelly bushing elevation [m]	27.0
Water depth [m]	115.0
Total depth (MD) [m RKB]	4298.0
Final vertical depth (TVD) [m RKB]	4298.0
Maximum inclination [°]	1.75
Bottom hole temperature [°C]	101
Oldest penetrated age	LATE PERMIAN
Oldest penetrated formation	ZECHSTEIN GP
Geodetic datum	ED50
NS degrees	58° 11' 17.3" N
EW degrees	3° 56' 22.2" E
NS UTM [m]	6450188.44



EW UTM [m]	555243.17
UTM zone	31
NPDID wellbore	514

Wellbore history

**General**

Exploration well 17/12-1R was drilled on the northern margin of the Egersund Basin in the North Sea, towards the Åsta Graben. Its primary target was Jurassic sands with estimated top at 2161 m (7090 feet) and with 61 m (200 feet) thickness. Sand developments within the Early Cretaceous and Triassic sections were regarded as secondary objectives. Planned TD was 8 m (25 feet) into the Zechstein salt.

The top hole down to TD in the 26" section at 458 m, well 17/12-1, had been spudded and drilled the year before by the jack-up installation Mærsk Explorer.

Well 17/12-1R is Reference Well for the Egersund Formation.

Operations and results

Well 17/12-1 was re-entered (17/12-1R) with the semi-submersible installation Ocean Viking on 14 March 1972 and drilled to TD at 4298 m, 165 m into the Late Permian Zechstein Formation. The well bore was drilled water based with a 3 % - 6 % diesel addition.

Top of the primary reservoir target was encountered in the Middle Jurassic at 2292 m. The reservoir section contained several sands separated by mudstone beds. The two uppermost sands in the Sandnes Formation were water wet. The next two sands below, in the Bryne Formation, yielded 162 Sm³ oil/day on a six hours test. The tests indicated an OWC between DST 1 and DST 7, i.e between 2337.2 m and 2344 m. No sands were encountered in the Early Cretaceous and sand development within the Triassic was limited to thin, fine to coarse grained, continental-type clastic beds. No conventional cores were cut and no fluid samples were taken on wire line. Twenty-six sidewall cores were recovered in the interval 1371 m to 2382 m.

The well was permanently abandoned on 21 June 1972 as an oil discovery.

Testing

Three out of 7 DST's produced oil and gas to surface.

DST 1 perforated the interval 2337.2 m to 2341.4 m and produced 141 Sm³ oil /day on a 12/64" choke. GOR was 20.5 Sm³/Sm³ and oil gravity was 29 deg API.

DST 2 perforated the interval 2316.4 m to 2325.0 m and produced 80 Sm³ oil /day on a 1 1/2" choke. GOR was 48 Sm³/Sm³ and oil gravity was 34.1 deg API.

DST 5 and DST 6 perforated the intervals 2316.4m to 2325 m, 2331.7 m to 2332.9 m, and 2337.2 m to 2341.4 m. After acid treatment DST 5 was run with full water cushion. This test did not produce. DST 6 was run without water cushion, and after clean-up flow this test produced 162 Sm³ oil/day through an 8/64" choke based on a 6 hrs flow. GOR was Sm³/Sm³ and oil gravity was 32.4 deg API.

DST 3 (2308.6 m to 2314.7 m) and DST 4 (2295.1 m to 2304.3) in the two uppermost sands did not produce hydrocarbons. DST 7 perforated the interval from 2344 m to 2347.9 m and did not produce hydrocarbons.

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Lithostratigraphy

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



450	HORDALAND GP
752	ROGALAND GP
752	BALDER FM
777	SELE FM
778	LISTA FM
781	VÅLE FM
785	SHETLAND GP
785	EKOFISK FM
807	TOR FM
1130	HOD FM
1206	BLODØKS FM
1210	CROMER KNOLL GP
1210	RØDBY FM
1339	SOLA FM
1482	ÅSGARD FM
1902	BOKNFJORD GP
1902	FLEKKEFJORD FM
1946	SAUDA FM
2167	TAU FM
2215	EGERSUND FM
2290	VESTLAND GP
2290	SANDNES FM
2306	BRYNE FM
2410	NO GROUP DEFINED
2410	GASSUM FM
2446	NO GROUP DEFINED
2446	SKAGERRAK FM
3965	SMITH BANK FM
4133	ZECHSTEIN GP

Composite logs

Document name	Document format	Document size [MB]
514	pdf	0.46

Geochemical information





Document name	Document format	Document size [MB]
514 1	pdf	0.28
514 2	pdf	0.22
514 3	pdf	0.42
514 4	pdf	0.29
514 5	pdf	1.41
514 6	pdf	1.48

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

Document name	Document format	Document size [MB]
514 01 WDSS General Information	pdf	0.24

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2337	2341	4.7
2.0	2316	2325	4.7
3.0	2316	2342	3.2

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				
2.0				
3.0				

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	140	4813	0.880		34
2.0	80	4277	0.860		53
3.0	159	7000	0.860		44

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	178.0	36	178.0	0.00	LOT
SURF.COND.	20	445.0	26	458.0	0.00	LOT
INTERM.	13 3/8	1084.0	17 1/2	1098.0	0.00	LOT
INTERM.	9 5/8	2408.0	12 1/4	2420.0	0.00	LOT
OPEN HOLE		4298.0	8 1/2	4298.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
176	1.07			seawater	
457	1.13			seawater	
1097	1.20	45.0		seawater	
2407	1.31	50.0		seawater	
3962	1.61	55.0		seawater	