



General information





Wellbore name	2/8-8
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	VALHALL
Discovery	2/8-6 Valhall
Well name	2/8-8
Seismic location	LINE 75-19 SP.650
Production licence	006
Drilling operator	Amoco Norway Oil Company
Drill permit	143-L
Drilling facility	DEEPSEA SAGA
Drilling days	127
Entered date	10.11.1975
Completed date	15.03.1976
Release date	15.03.1978
Publication date	16.10.2012
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	TOR FM
2nd level with HC, age	LATE CRETACEOUS
2nd level with HC, formation	HOD FM
Kelly bushing elevation [m]	25.0
Water depth [m]	70.0
Total depth (MD) [m RKB]	2667.0
Bottom hole temperature [°C]	77
Oldest penetrated age	EARLY CRETACEOUS
Oldest penetrated formation	RØDBY FM
Geodetic datum	ED50
NS degrees	56° 16' 49.81" N
EW degrees	3° 24' 12.71" E
NS UTM [m]	6237510.96
EW UTM [m]	524985.88
UTM zone	31
NPDID wellbore	278



Wellbore history

General

Well 2/8-8 was drilled to appraise the Valhall discovery in the southern North Sea. The well is reference well for the Hod Formation.

Operations and results

Appraisal well 2/8-8 was spudded with the semi-submersible installation Deepsea Saga on 10 November 1975 and drilled to TD at 2667 m in the Early Cretaceous Rødby Formation. While running the 13 3/8-inch casing, returns (125 barrels) were lost while pumping plug. While cementing the 9 5/8-inch casing, the cement slurry was not properly displaced, and the casing was cemented back on the inside to 1022 m. Three days were lost due to this in drilling out the cement. Otherwise the well was drilled without significant problems. The well was drilled with sea water and hi-vis mud down to 169 m, with sea water/gel mud from 169 m to 402 m, and with lignosulphonate/gypsum mud from 402 m to TD.

Oil shows were recorded at several levels above the chalk reservoir: 1320 - 1329 m had fair shows on siltstones; 1390 to 1426 m had poor shows in shales and limestone; 1512 to 1676 m had oil staining with fluorescence and cut in shales; and 2050 to 2400 m had poor to fair shows in thin stringers of limestone and dolomite. Top of the chalk reservoir, Tor Formation, was encountered at 2447. It was oil bearing and had shows down to 2591 m. No shows were recorded below 2591 m.

At total of 47.7 m core was recovered in 14 cores from 2450 to 2600.9 m. The overall recovery was 39 %. No wire line fluid samples were taken.

The well was permanently abandoned on 15 March 1978 as an oil appraisal well.

Testing

Tests were conducted over five intervals. Sand-water hydraulic fracture treatments were conducted on Tests 2, 3 and 4.

Test 1 tested the interval 2585 to 2595 m towards the base of the Hod Formation. The well was opened for flow during 34.6 hrs. 3.8 m³ cushion water and unmeasured oil and gas were produced to surface while 8 m³ oil cut water was reversed out of the test string.

Test 2 tested the interval 2556 to 2567.9 m in the Hod Formation. The test produced 455 Sm³ oil /day through a 48/64" choke. The GOR was 123 Sm³/Sm³.

Test 3 tested the interval 2507 to 2514.9 m in the Hod Formation. The test produced on average 180 Sm³ oil /day. The GOR was 139 Sm³/Sm³ and the oil gravity was 38.1 deg API. The test also produced solids, plugging the chokes and causing unstable flow.

Test 4 tested the interval 2488 to 2492.7 m in the lower Tor Formation. The test produced 745 Sm³ oil /day through a 32/64" choke. The GOR was 218 Sm³/Sm³.

Test 5 tested the interval 2460 to 2464.6 m in the Tor Formation. The test produced 1222 Sm³ oil /day with open choke. The GOR was 199 Sm³/Sm³ and the oil gravity was 35.2 deg API.



Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
168.86	2667.00

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	8038.0	8083.0	[ft]
2	8083.0	8143.0	[ft]
3	8143.0	8158.0	[ft]
4	8160.0	8188.0	[ft]
5	8188.0	8196.6	[ft]
6	8218.0	8226.0	[ft]
7	8246.0	8251.0	[ft]
8	8276.0	8292.0	[ft]
9	8314.0	8345.0	[ft]
10	8345.0	8354.0	[ft]
11	8375.0	8390.0	[ft]
12	8393.0	8401.0	[ft]
13	8417.0	8433.0	[ft]
14	8515.0	8533.0	[ft]

Total core sample length [m]	86.1
Cores available for sampling?	YES

Core photos



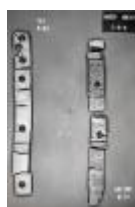
8160-8166ft



8160-8166ft



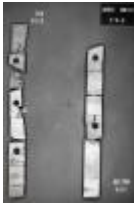
8166-8172ft



8166-8172ft



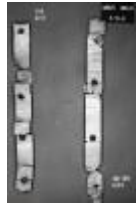
8172-8177ft



8172-8177ft



8177-8183ft



8177-8183ft



8183-8188ft



8183-8186ft



8188-8190ft



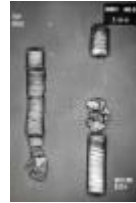
8188-8190ft



8190-8196ft



8190-8196ft



8218-8224ft



8218-8224ft



8224-8226ft



8224-8226ft



8246-8251ft



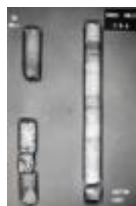
8246-8251ft



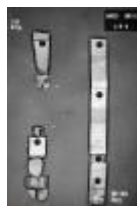
8276-8280ft



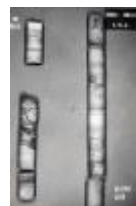
8276-8280ft



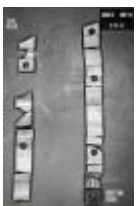
8314-8320ft



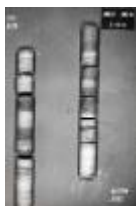
8314-8320ft



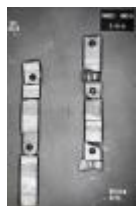
8320-8326ft



8320-8326ft



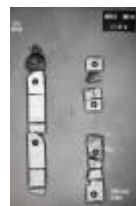
8326-8332ft



8326-8332ft



8332-8338ft



8332-8338ft



8338-8344ft



8338-8344ft



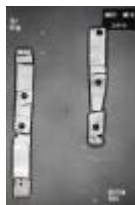
8338-8345ft



8344-8345ft



8345-8351ft



8345-8351ft



8351-8354ft



8351-8354ft



8375-8381ft



8375-8381ft



8381-8387ft



8381-8387ft



8387-8390ft



8387-8390ft



8393-8399ft



8393-8399ft



8399-8401ft



8399-8401ft



8417-8423ft



8417-8423ft



8423-8429ft



8423-8429ft



8429-8433ft



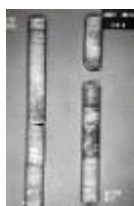
8429-8433ft



8515-8521ft



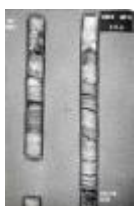
8515-8521ft



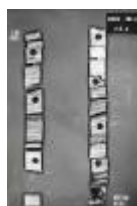
8521-8527ft



8521-8527ft



8527-8533ft



8527-8533ft

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
95	NORDLAND GP
1536	HORDALAND GP



2409	ROGALAND GP
2409	BALDER FM
2419	SELE FM
2429	LISTA FM
2447	SHETLAND GP
2447	TOR FM
2494	HOD FM
2601	BLODØKS FM
2603	HIDRA FM
2619	CROMER KNOLL GP
2619	RØDBY FM

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

Document name	Document format	Document size [MB]
278_01_WDSS_General_Information	pdf	0.29

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

Document name	Document format	Document size [MB]
278_2_8_8_Completion_log	pdf	1.29
278_2_8_8_Completion_report	pdf	31.99

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2585	2595	0.0
2.0	2556	2568	19.0
3.0	2507	2515	0.0
4.0	2488	2493	12.5
5.0	2460	2465	25.4

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





2.0	43.000	32.000		
3.0	44.600	23.300		
4.0				
5.0	44.000	36.000		

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0					
2.0	455				690
3.0	179		0.830		780
4.0	745				1225
5.0	1222		0.850		1118

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL	100	610
CBL	2095	2400
CBL VDL	2252	2637
CBL VDL GR CAL	2416	2667
DIP	2412	2666
DLL MSFL GR SP CAL	2413	2660
FDC CNL GR CAL	2413	2668
FDL CNL GR CAL	100	2426
GR SON CAL	1285	2423
GR SON CAL	2413	2664
IES SP	1287	2426
IES SP	2413	2668
VELOCITY	1285	2423
VELOCITY	2413	2664

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	169.0	36	169.0	0.00	LOT
SURF.COND.	20	380.0	26	388.0	1.31	LOT
INTERM.	13 3/8	1285.0	17 1/2	1295.0	2.11	LOT



INTERM.	9 5/8	2411.0	12 1/4	2419.0	1.97	LOT
LINER	7	2659.0	8 1/2	2667.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
380	1.11			waterbased	
1284	1.23			waterbased	
2410	1.80			waterbased	
2445	1.85			waterbased	