



Generell informasjon

Brønnbane navn	7/11-1
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	COD
Funn	7/11-1 Cod
Brønn navn	7/11-1
Seismisk lokalisering	NJV 5704 SP: 1238
Utvinningstillatelse	018
Boreoperatør	Phillips Petroleum Company Norway
Boretillatelse	10-L
Boreinnretning	OCEAN VIKING
Boredager	111
Borestart	26.02.1968
Boreslutt	15.06.1968
Frigitt dato	15.06.1970
Publiseringsdato	15.01.2013
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS/CONDENSATE
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	EOCENE
1. nivå med hydrokarboner, formasjon.	INTRA BALDER FM SS
2. nivå med hydrokarboner, alder	PALEOCENE
2. nivå med hydrokarboner, formasjon	FORTIES FM
Avstand, boredekk - midlere havflate [m]	27.0
Vanndybde ved midlere havflate [m]	78.0
Totalt målt dybde (MD) [m RKB]	3974.0
Maks inklinasjon [°]	11.5
Temperatur ved bunn av brønnbanen [°C]	145
Eldste penetrerte alder	LATE PERMIAN
Eldste penetrerte formasjon	ZECHSTEIN GP
Geodetisk datum	ED50



NS grader	57° 4' 15.6" N
ØV grader	2° 26' 24.4" E
NS UTM [m]	6325570.43
ØV UTM [m]	466051.28
UTM sone	31
NPDID for brønnbanen	149

Brønnhistorie

General

Well 7/11-1 was drilled on eastern side of the Breiflabb Basin in the southern North Sea, ca 3km from the UK Border. The main objective was to test the hydrocarbon potential of the Tertiary and the Mesozoic sediments. Specific objectives were Paleocene sandstone, the Late Cretaceous carbonate section, and the Jurassic. Sandstones in the Early Cretaceous and Triassic were seen as possible secondary targets.

Operations and results

Wildcat well 7/11-1 was spudded with the semi-submersible installation Ocean Viking on 26 February 1986 and drilled to TD at 3974 m in Late Permian Zechstein Salt. The only significant drilling problem encountered was sloughing of shale between ca 1675 m and 2315 m. Deviation was negligible above 3500 m, from where it increased from 4.5 deg to 11.5 deg at approximately 3960 m. The true vertical depth therefore probably is 4-5 m short of measured depth at TD. A Drispac-Flosal-Desco mud system was used to a depth of 3290 m. At this depth the system was converted to a sodium chloride saturated Drispac-Flosal-Desco system. The salt saturated system was used to total depth.

The well proved gas and condensate in three tests in a 5 m thick intra-Balder Formation sand (DST 5) and the Forties Formation from top at 2904 m down to 2989 m (DST 3 and 4). Below this depth DST 1 and 2 produced only minor amounts of hydrocarbons due to tight formation. Top salt came in under the Late Cretaceous Hidra Formation at 3740 m.

Three cores were taken in the Paleocene sandstone in the intervals 2922.7 - 2932.8 m, 2932.8 - 2949.9 m, and 2952.9 - 2966.9 m. A fourth core at TD had no recovery. No wire line fluid samples were taken.

The well was permanently abandoned on 15 June 1968 as a gas/condensate discovery.

Testing

Five drill stem tests were performed.

DST 1 was performed from the interval 3124 to 3161 m. This test produced only diesel with "dark brown dissolved hydrocarbon".

DST 2 was performed from the interval 3101 to 3108 m. This test produced 0.8 m3 oil in water out of 5 m3 in total.

DST 3 was performed from the interval 2977 to 2989 m. The test produced 106 Sm3 condensate and 167000 Sm3 gas /day through a 5/8" choke. This corresponds to a Gas/Condensate Ratio of 1575 Sm3/Sm3. Reported reservoir temperature was 113 deg C.

DST 4 was performed from the interval 2904 to 2956 m. The test produced 135 Sm3 condensate and 714000 Sm3 gas /day through a 3/4" choke. This corresponds to a



Gas/Condensate Ratio of 5280 Sm³/Sm³. Maximum flow on variable chokes up to 2" was up to 430 Sm³ condensate and 1254000 Sm³ gas /day . Reported reservoir temperature was 110 deg C.

DST 5 was performed from the interval 2877 to 2882 m. The test produced 76 Sm³ condensate and 184000 Sm³ gas /day through a 26/64" choke. This corresponds to a Gas/Condensate Ratio of 2412 Sm³/Sm³. Reported reservoir temperature was 109 deg C.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
484.63	3962.40

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerter i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	9589.0	9618.5	[ft]
2	9622.0	9644.0	[ft]
3	9688.0	9701.0	[ft]

Total kjerneprøve lengde [m]	19.7
Kjerter tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
105	NORDLAND GP
1527	HORDALAND GP
2868	ROGALAND GP
2868	BALDER FM
2883	SELE FM
2904	FORTIES FM



3069	MAUREEN FM
3173	SHETLAND GP
3173	TOR FM
3454	HOD FM
3700	BLODØKS FM
3703	HIDRA FM
3740	ZECHSTEIN GP

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
149_GCH_1	pdf	0.82
149_GCH_2	pdf	1.39

Dokumenter - eldre Sökkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
149_01_WDSS_General_Information	pdf	0.21

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
149_7_11_1_CLASTIC_SEDIMENTS	PDF	1.68
149_7_11_1_COD	PDF	6.31
149_7_11_1_COMPLEX_LITHOLOGY_ANALYSIS	PDF	8.71
149_7_11_1_CONTINUOUS_DIPMETER	PDF	3.97
149_7_11_1_CORE_ANALYSIS_CALCULATION_CORE_NO-3	PDF	0.11
149_7_11_1_CORE_DESCRIPTION	PDF	0.36
149_7_11_1_CORE_DESCRIPTION_CORE_NO-1	PDF	0.15
149_7_11_1_CORE_STUDY	PDF	1.06
149_7_11_1_DIAGRAM_PSI_TESTING	PDF	2.87
149_7_11_1_DRILLING_FLUID_SUMMARY	PDF	4.40
149_7_11_1_DRILLING_MUD_RECORD	PDF	3.14
149_7_11_1_DRILLING_MUD_REPORT	PDF	5.72





149 7 11 1 DRILLING MUD REPORT 1	PDF	10.12
149 7 11 1 DRILL STEM TEST DATA	PDF	2.71
149 7 11 1 DRILL STEM TEST DATA TEST NO-1	PDF	0.50
149 7 11 1 DRILL STEM TEST DATA TEST NO-2	PDF	0.87
149 7 11 1 DRILL STEM TEST DATA TEST NO-3	PDF	0.69
149 7 11 1 DRILL STEM TEST DATA TEST NO-4	PDF	1.22
149 7 11 1 DRILL STEM TEST DATA TEST NO-5	PDF	1.19
149 7 11 1 FORMATION TEST	PDF	1.02
149 7 11 1 GAS LIQUID AND COMPOSITE WELL STREAM COMPOSITIONS	PDF	0.14
149 7 11 1 KONTINENTALSOKKELEN MIDLE RTIDIG AVBRUDD I ARBEIDE	PDF	0.40
149 7 11 1 LOG ANALYSIS	PDF	1.81
149 7 11 1 RAPPORT GEOCHIMIQUE COMPLEMENTAIRE	PDF	1.36
149 7 11 1 THE MICROPALAEONTOLOGY AND STRATIGRAPHY	PDF	17.09
149 7 11 1 VELOCITY SURVEY	PDF	2.82
149 7 11 1 VELOG PROCESSING CODIFIED	PDF	9.24
149 7 11 1 WELL COMPLETION REPORT	PDF	1.61
149 7 11 1 WELL COMPLETION REPORT 1	PDF	1.59
149 7 11 1 WET SAMPLES	PDF	0.07

Dokumenter - Sjøkeldirektoratets publikasjoner

Dokument navn	Dokument format	Dokument størrelse [KB]
149 01 NPD Paper No.10 Lithology Well 7 11 1	pdf	24.45
149 02 NPD Paper No.10 Interpreted Lithology log Well 7 11 1	pdf	68.80
149 03 NPD Paper No.10 Lithologic Correlation chart Well 7 11 1	pdf	32.57
149 04 NPD Paper No.10 Paleocene Correlation map Well 7 11 1	pdf	12.36

Borestrengtester (DST)





Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3124	3162	0.0
2.0	3102	3109	6.3
3.0	2979	2988	15.8
4.0	2904	2956	19.0
5.0	2877	2882	10.3

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				
2.0				
3.0				113
4.0				110
5.0				109

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0					
2.0					
3.0	106	167000			1575
4.0	135	714000			5280
5.0	76	184000			2412

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL	2165	3124
CCL	2744	3128
CDM	452	3970
FDC	1965	3970
GR	61	452
IES	452	3149
LL	3125	3970
ML	3125	3970
MLL	452	3970
SGR	452	3970



SNP	1965	3148
VSP	452	3974

Foringsrør og formasjonsstyrketester

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	141.0	36	141.0	0.00	LOT
SURF.COND.	20	457.0	26	463.0	0.00	LOT
INTERM.	13 3/8	1965.0	17 1/2	1982.0	0.00	LOT
INTERM.	9 5/8	3124.0	12 1/4	3145.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
0	1.14	60.0		waterbased	
1219	1.07	40.0		waterbased	
1981	1.14	60.0		waterbased	
2469	1.39	50.0		waterbased	
2896	1.49	50.0		waterbased	
3139	1.55	50.0		waterbased	
3974	1.43	40.0		waterbased	

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
9500.00	[ft]
9500.00	[ft]
9510.00	[ft]
9530.00	[ft]
9560.00	[ft]
9570.00	[ft]
9590.00	[ft]
9890.00	[ft]
10150.00	[ft]
9638.50	[ft]