



Generell informasjon

Brønnbane navn	15/12-4
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	VARG
Funn	15/12-4 Varg
Brønn navn	15/12-4
Seismisk lokalisering	ST 8315/106 SP. 2105
Utvinningstillatelse	038
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	433-L
Boreinnretning	DEEPSEA BERGEN
Boredager	49
Borestart	13.09.1984
Boreslutt	31.10.1984
Frigitt dato	31.10.1986
Publiseringsdato	15.08.2008
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	HUGIN FM
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	87.0
Totalt målt dybde (MD) [m RKB]	3157.0
Totalt vertikalt dybde (TVD) [m RKB]	3156.0
Maks inklinasjon [°]	2.5
Temperatur ved bunn av brønnbanen [°C]	114
Eldste penetrerte alder	TRIASSIC
Eldste penetrerte formasjon	NO GROUP DEFINED
Geodetisk datum	ED50
NS grader	58° 3' 9.16" N



ØV grader	1° 54' 11.61" E
NS UTM [m]	6435232.25
ØV UTM [m]	435264.02
UTM sone	31
NPDID for brønnbanen	438

Brønnhistorie

Wildcat well 15/12-4 is located on the Maureen Terrace in the South Viking Graben in the North Sea. The primary objectives were the Palaeocene Heimdal Formation and sandstones of Jurassic and Triassic age. Secondary objectives were the Frigg Formation and fractured limestone in the Cretaceous.

Operations and results

Well 15/12-4 was spudded with the semi-submersible installation Deepsea Bergen on 13 September 1984 and drilled to TD at 3157 m, 17 m into the Triassic Group. Operations were completed within the time schedule and with very few problems. The well was drilled with seawater and gel down to 505 m, with gypsum polymer from 505 m to 2680 m, and with lignosulphonate from 2680 m to TD.

No Heimdal or Frigg sands were encountered in the well. From logs and cores hydrocarbons were seen in the uppermost part of the Cretaceous chalk in the interval 2490 ? 2515 m. Core analysis and log analysis indicated very poor reservoir properties in this chalk. The water saturation was high (60 - 80 %) and the permeability was extremely low (0.01 - 0.5 mD). A 1.5 meter oil column was seen in the Jurassic sandstone, from 2911.5 to 2913 m with a transition zone down to 2915.5. Apart from these two intervals there were no shows or other hydrocarbon indications in the well.

Four cores were cut, one in the Palaeocene, two in the Late Cretaceous and one in the Late Jurassic sequence. One FMT run was made in the Cretaceous. Here, no pressure points out of 19 attempts were successful due to seal failure and very low permeability in the formation. One attempt to get sample at 2439.5 m failed due to tight formation. In the Jurassic a segregated FMT sample was taken at 2912 m (5.8 l oil with a density of 0.847 g/cm³ in the 2 3/4 gallon chamber) and a second segregated sample at 2913.5 m (0.5 l oil and 9 l water/mud filtrate in the 2 3/4 gallon chamber).

The well was permanently abandoned on 31 October 1984 as an oil discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
180.00	3157.50

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2439.0	2449.0	[m]
2	2494.5	2498.7	[m]
3	2499.0	2513.6	[m]
4	2902.0	2919.7	[m]

Total kjerneprøve lengde [m]	46.5
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2439-2444m



2444-2449m



2494-2498m



2499-2504m



2504-2509m



2509-2513m



2902-2907m



2908-2914m



2914-2919m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2285.0	[m]	DC	
2297.5	[m]	SWC	
2307.5	[m]	SWC	
2327.5	[m]	SWC	
2347.5	[m]	SWC	
2367.5	[m]	SWC	
2387.5	[m]	SWC	
2407.5	[m]	SWC	



2427.5	[m]	SWC	
2447.5	[m]	SWC	
2467.5	[m]	SWC	
2477.5	[m]	SWC	
2507.5	[m]	SWC	
2537.5	[m]	SWC	
2567.5	[m]	SWC	
2597.5	[m]	SWC	
2627.5	[m]	SWC	
2657.5	[m]	SWC	
2687.5	[m]	SWC	
2717.5	[m]	SWC	
2747.5	[m]	SWC	
2777.5	[m]	SWC	
2797.5	[m]	SWC	

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
110	NORDLAND GP
1098	UTSIRA FM
1278	HORDALAND GP
2320	ROGALAND GP
2320	BALDER FM
2335	SELE FM
2393	LISTA FM
2464	VÅLE FM
2476	SHETLAND GP
2476	EKOFISK FM
2494	TOR FM
2621	HOD FM
2712	CROMER KNOLL GP
2712	RØDBY FM
2735	SOLA FM
2759	ÅSGARD FM
2784	VIKING GP
2784	DRAUPNE FM
2892	HEATHER FM
2912	VESTLAND GP



2912	HUGIN FM
3134	SLEIPNER FM
3140	NO GROUP DEFINED

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
438_1	pdf	0.33
438_2	pdf	15.83
438_3	pdf	0.73

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
438_01_WDSS_General_Information	pdf	0.21
438_02_WDSS_completion_log	pdf	0.27

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
438_01_15_12_4_CompletionReport_and_Completionlog	pdf	21.19
438_02_15_12_4_Final_well_report	pdf	12.35
438_03_15_12_4_Geological_progn.press.pre d.	pdf	2.32
438_03_15_12_4_Geological_progn.press.pre d. encl 1	pdf	0.16
438_03_15_12_4_Geological_progn.press.pre d. encl 2	pdf	1.44
438_04_15_12_4_PVT_Analysis	pdf	0.26
438_05_15_12_4_Routine_core_analysis	pdf	0.95
438_06_15_12_4_Sampling_report	pdf	0.41
438_07_15_12_4_Shallow_gas_study	pdf	0.63
438_07_15_12_4_Shallow_gas_study_encl 1	pdf	1.45
438_07_15_12_4_Shallow_gas_study_encl 1 0	pdf	1.25
438_07_15_12_4_Shallow_gas_study_encl 1 1	pdf	2.88
438_07_15_12_4_Shallow_gas_study_encl 2	pdf	1.40





438_07_15_12_4_Shallow_gas_study_encl_3	pdf	1.88
438_07_15_12_4_Shallow_gas_study_encl_4	pdf	1.87
438_07_15_12_4_Shallow_gas_study_encl_5	pdf	1.49
438_07_15_12_4_Shallow_gas_study_encl_6	pdf	2.01
438_07_15_12_4_Shallow_gas_study_encl_7	pdf	1.18
438_07_15_12_4_Shallow_gas_study_encl_8	pdf	3.04
438_07_15_12_4_Shallow_gas_study_encl_9	pdf	2.12

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CDL CNL GR CAL	1599	3157
CDL GR CAL	504	1622
DIFL BHC AC GR SP CAL	170	3157
DLL MLL GR	1599	3157
FMT	2438	2482
FMT	2901	3146
FMT	2911	2913
HR DIP	1599	3157
VELOCITY	660	3150

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	171.0	36	173.0	0.00	LOT
SURF.COND.	20	505.0	26	520.0	1.44	LOT
INTERM.	13 3/8	1601.0	17 1/2	1620.0	1.84	LOT
INTERM.	9 5/8	2666.0	12 1/4	2680.0	1.86	LOT
OPEN HOLE		3179.0	8 1/2	3179.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
110	1.03	55.0	5.3	WATER BASED	17.09.1984
171	1.07	49.0	4.5	WATER BASED	17.09.1984
240	1.07	49.0	4.5	WATER BASED	17.09.1984





520	1.08	46.0	20.0	WATER BASED	17.09.1984
523	1.11	40.0	9.6	WATER BASED	19.09.1984
772	1.14	42.0	10.0	WATER BASED	20.09.1984
945	1.14	47.0	12.0	WATER BASED	21.09.1984
1213	1.14	45.0	12.0	WATER BASED	24.09.1984
1491	1.14	49.0	13.0	WATER BASED	24.09.1984
1620	1.14	44.0	12.0	WATER BASED	24.09.1984
1877	1.14	45.0	9.0	WATER BASED	28.09.1984
2272	1.14	46.0	9.0	WATER BASED	01.10.1984
2374	1.20	44.0	8.6	WATER BASED	01.10.1984
2439	1.25	45.0	9.1	WATER BASED	01.10.1984
2450	1.25	42.0	8.6	WATER BASED	02.10.1984
2495	1.25	45.0	10.0	WATER BASED	03.10.1984
2511	1.25	43.0	9.1	WATER BASED	04.10.1984
2516	1.25	46.0	9.6	WATER BASED	05.10.1984
2584	1.30	42.0	9.0	WATER BASED	08.10.1984
2626	1.30	45.0	10.0	WATER BASED	08.10.1984
2680	1.30	47.0	10.0	WATER BASED	08.10.1984
2680	1.30	44.0	5.8	WATER BASED	15.10.1984
2717	1.30	54.0	5.8	WATER BASED	15.10.1984
2758	1.30	55.0	5.8	WATER BASED	15.10.1984
2803	1.35	55.0	6.0	WATER BASED	16.10.1984
2861	1.35	52.0	6.0	WATER BASED	17.10.1984
2902	1.35	59.0	5.6	WATER BASED	18.10.1984
2920	1.35	60.0	5.6	WATER BASED	19.10.1984
3034	1.35	56.0	7.0	WATER BASED	22.10.1984
3146	1.35	62.0	6.7	WATER BASED	22.10.1984
3157	1.35	76.0	6.7	WATER BASED	23.10.1984
3157	1.35	76.0	6.7	WATER BASED	24.10.1984
3157	1.35	61.0	6.2	WATER BASED	22.10.1984

Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
438 Formation pressure (Formasjonstrykk)	pdf	0.23

