



Generell informasjon

Brønnbane navn	35/9-3
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	35/9-3 (Hamlet)
Brønn navn	35/9-3
Seismisk lokalisering	NH 9405- INLINE 2925 & CROSSLINE 7511
Utvinningstillatelse	153
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	906-L
Boreinnretning	WEST VANGUARD
Boredager	50
Borestart	23.09.1997
Boreslutt	11.11.1997
Frigitt dato	11.11.1999
Publiseringsdato	23.05.2006
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE CRETACEOUS
1. nivå med hydrokarboner, formasjon.	KYRRE FM
2. nivå med hydrokarboner, alder	EARLY CRETACEOUS
2. nivå med hydrokarboner, formasjon	AGAT FM
Avstand, boredekk - midlere havflate [m]	22.0
Vanndybde ved midlere havflate [m]	348.0
Totalt målt dybde (MD) [m RKB]	2783.0
Totalt vertikalt dybde (TVD) [m RKB]	2781.0
Maks inklinasjon [°]	6
Temperatur ved bunn av brønnbanen [°C]	91
Eldste penetrerte alder	PRE-DEVONIAN
Eldste penetrerte formasjon	BASEMENT



Geodetisk datum	ED50
NS grader	61° 28' 51.76" N
ØV grader	3° 58' 30.17" E
NS UTM [m]	6816921.17
ØV UTM [m]	551938.12
UTM sone	31
NPDID for brønnbanen	3206

Brønnhistorie

General

Well 35/9-3 is located on the Måløy Slope ca 55 km west off Florø town and ca 11 km North of the Gjøa Discovery. The primary objective of the well was to prove commercial oil and gas resources in the C3 prospect of the Early Cretaceous Agat Formation. Secondary targets were seen in the Late Cretaceous to Early Paleocene.

Operations and results

Wildcat well 35/9-3 was spudded with the semi-submersible installation West Vanguard on 23 September 1997 and drilled to TD at 2783 m, 13 m into Basement rock. Due to repeated mud loss during drilling at about 1900 m depth, the well was technically side-tracked (35/9-3 T2) from 1827 m and to TD. The well was drilled with spud mud down to 1150 m and ANCO 2000 mud from 1150 m to TD.

The well discovered hydrocarbons in reservoir sandstones of the Late Cretaceous, Kyrre Formation and of the Early Cretaceous, Agat Formation. No hydrocarbons were accumulated in the thin sand interval of the Cretaceous Jorsalfare Formation. The main target Agat Formation reservoir contained hydrocarbons in a 44 m sequence of mixed sand and shale layers (2657.5 - 2701.5 m). The uppermost sand layer contained gas with a GOC at 2666.5 m depth. The discovery may relate to an accumulation within a small structural closure at this level.

MDT samples confirmed formation water in the thin sand intervals in the lower part of the Rødby reservoir zone, except in the lowermost sand interval, where oil was sampled. The MDT test showed low mobility and pressure draw down from barriers in the vicinity of the well in these sand layers. The reservoir interval of the Kyrre Formation consisted of stacked thin sands separated by shale layers in the interval 1868 -1904,5 m. The GWC was found at 1896 m and probably relates to a small structural closure with a fill-spill to the east.

A total of five cores were cut in the Agat and Kyrre reservoir intervals. Core no 1 was cut in the first well bore, the other four were cut in the sidetrack. MDT gas samples were taken at 1883.6 m, 1870 m, and 1887.9 m in the Kyrre Formation. MDT samples were taken at 2700.6 m (oil), 2683.7 m (oil), 2681.5 m (oil), 2676.5 m (oil), 2670 m (oil), and 2662.5 m (gas). MDT sampling at 2689.2 m and 2693.5 m retrieved water.

The well was plugged and abandoned on 11 November 1997 as a gas and oil discovery.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1150.00	2783.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1885.0	1903.4	[m]
2	1870.0	1888.8	[m]
3	2663.0	2675.3	[m]
4	2676.0	2703.3	[m]
5	2703.2	2730.8	[m]

Total kjerneprøve lengde [m]	104.4
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1870-1875m



1875-1880m



1880-1885m



1885-1880m



2663-2668m



2668-2673m



2673-2675m



2676-2681m



2681-2686m



2686-2691m



2691-2696m



2696-2700m



2701-2703m



2703-2708m



2708-2713m



2713-2718m



2718-2723m



2723-2728m



2728-2730m

Palynologiske preparater i Sjøkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1760.0	[m]	DC	RRI
1815.0	[m]	DC	RRI
1825.0	[m]	DC	RRI
1830.0	[m]	DC	RRI

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
370	NORDLAND GP
622	ROGALAND GP
622	BALDER FM
677	SELE FM
790	LISTA FM
1157	VÅLE FM
1247	SHETLAND GP
1247	JORSALFARE FM
1310	KYRRE FM
2365	BLØDØKS FM
2380	SVARTE FM
2598	CROMER KNOLL GP
2598	RØDBY FM
2658	AGAT FM



2703	RØDBY FM
2770	BASEMENT

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
3206_35_9_3	pdf	0.46

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
3206_1	pdf	7.67

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
3206_35_9_3_COMPLETION_REPORT	pdf	34.69

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CST GR	1910	2657
FMI DSI NGT AMS	1786	2734
HALS TLD HGNS AMS	1868	2779
HALS TLD HGNS DSI AMS	370	1798
HALS TLD HGNS DSI AMS	1735	1926
MDT GR ACTS	1869	1887
MDT GR ACTS	2659	2705
MDT GR ACTS	2675	2700
MWD - GR RES DIR	370	2783
VSP GR	1310	2740

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	431.0	36	432.0	0.00	LOT
OPEN HOLE		435.0	24	435.0	0.00	LOT
SURF.COND.	13 3/8	1141.0	17 1/2	1150.0	0.00	LOT
INTERM.	9 5/8	1798.0	12 1/4	1810.0	0.00	LOT
OPEN HOLE		2783.0	8 1/2	2783.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
1102	1.15	15.0		WATER BASED	
1150	1.25	16.0		WATER BASED	
1810	1.26	19.0		WATER BASED	
1870	1.23	18.0		WATER BASED	
1902	1.25	19.0		WATER BASED	
1935	1.22	18.0		WATER BASED	
2050	1.22	19.0		WATER BASED	
2262	1.14	15.0		WATER BASED	
2676	1.14	16.0		WATER BASED	
2783	1.14	15.0		WATER BASED	

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]
3206 Formation pressure (Formasjonstrykk)	pdf	0.22

