



Generell informasjon

Brønnbane navn	16/1-6 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	16/1-6 S (Verdandi)
Brønn navn	16/1-6
Seismisk lokalisering	SNST3D-inline 4379 & crossline 5037
Utvinningstillatelse	167
Boreoperatør	Statoil ASA (old)
Boretillatelse	1052-L
Boreinnretning	BORGLAND DOLPHIN
Boredager	17
Borestart	22.05.2003
Boreslutt	07.06.2003
Frigitt dato	07.06.2005
Publiseringsdato	15.06.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	EOCENE
1. nivå med hydrokarboner, formasjon.	GRID FM
2. nivå med hydrokarboner, alder	PALEOCENE
2. nivå med hydrokarboner, formasjon	HEIMDAL FM
Avstand, boredekk - midlere havflate [m]	31.0
Vanndybde ved midlere havflate [m]	112.0
Totalt målt dybde (MD) [m RKB]	1997.0
Totalt vertikalt dybde (TVD) [m RKB]	1909.0
Maks inklinasjon [°]	33.6
Temperatur ved bunn av brønnbanen [°C]	87
Eldste penetrerte alder	PALEOCENE



Eldste penetrerte formasjon	EKOFISK FM
Geodetisk datum	ED50
NS grader	58° 59' 27.95" N
ØV grader	2° 17' 43.07" E
NS UTM [m]	6539424.89
ØV UTM [m]	459501.21
UTM sone	31
NPDID for brønnbanen	4711

Brønnhistorie

**General**

Wildcat well 16/1-6 S is located on the Utsira High in the North Sea. The objective was to test the hydrocarbon potential of the Verdandi prospect on Paleocene level in a favourable position with respect to an observed DHI, interpreted tentatively as a gas-oil contact in a reservoir sand.

Operations and results

Wildcat well 16/1-6 S was spudded with the semi-submersible installation Borgland Dolphin on 22 May 2003 and drilled to TD at 1997 m in the Late Cretaceous Ekofisk Formation. Sidewall coring and VSP logging could not be performed below 1762 m due to hole problems. Apart from this no significant problems were encountered in the operations. The well was drilled with seawater and viscous bentonite/polymer pills down to 551 m, with KCl/polymer/glycol (Glydril) mud from 551 m to 1200 m, and with oil based mud (Novatec pseudo oil based) from 1200 m to TD.

MWD logs and drill gas indicated shallow gas in a sandstone stringer at 603 m. This gas correlate well with nearby wells, particularly well 16/1-4.

Grid sandstones were encountered between 1489.5 m (1451 m TVD MSL) to 1685 m (1617.5 m TVD MSL). Top Heimdal Formation came in at 1861.5 m (1765 m TVD MSL). It proved to be slightly deeper and significantly thinner than expected. Hydrocarbons were proven in the Grid sands as well as in the Heimdal sand. A distinct gas peak of 2.55 %, C1 to C4, was recorded from 1498 m in the upper Grid Formation. Log responses indicated thin, hydrocarbon filled stringers of sand positioned above the massive Grid sandstone. Cuttings exhibited calcareous sand with traces of hydrocarbon stain and with spotty to even, bright, bluish white, direct fluorescence with instant, white cut fluorescence. MDT hydrocarbon samples confirmed the presence of oil, with a density of 0.857 g/cm³. No shows were seen in the underlying, massive Grid sandstone with logs confirming a water-wet sandstone. Furthermore gas was found in the Heimdal Formation with a ?gas down to? situation. One conventional core was cut from 1872 m to 1899 m in the Heimdal Formation. Sidewall cores were recovered from the Grid Formation sandstones. MDT hydrocarbon samples were collected from 1499 m in the Grid Formation and 1870.5 m in the Heimdal Formation. Oil based mud contamination was as high as 59 % in the Heimdal sample which gave limited value for PVT analysis. The oil sample collected in the Grid sandstone was of good quality with contamination calculated to 16 %.

The well was permanently abandoned on 7 June as an oil and gas discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
560.00	1989.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerter i Sokkeldirektoratet



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 15.5.2024 - 13:38

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1872.0	1898.9	[m]

Total kjerneprøve lengde [m]	26.9
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1972-1876m



1876-1880m



1880-1884m



1884-1888m



1888-1890m



1894-1896m



1896-1898m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
143	NORDLAND GP
722	UTSIRA FM
783	NO FORMAL NAME
830	HORDALAND GP
866	SKADE FM
1154	NO FORMAL NAME
1490	GRID FM
1550	NO FORMAL NAME
1597	GRID FM
1602	NO FORMAL NAME
1672	GRID FM
1685	NO FORMAL NAME



1783	ROGALAND GP
1783	BALDER FM
1817	SELE FM
1824	LISTA FM
1862	HEIMDAL FM
1876	LISTA FM
1932	VÅLE FM
1977	SHETLAND GP
1977	EKOFISK FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
4711	pdf	0.19

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
4711_1	pdf	0.07

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
4711_16_1_6_S_COMPLETION_LOG	.pdf	1.01
4711_16_1_6_S_COMPLETION_REPORT	.PDF	10.94

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CST GR	1495	1748
MDT GR	1499	1881
MWD - AUTOTRACK MPR	1169	1997
MWD - MPR	203	1206
PEX AIT DSI	1197	1992





VSP GR	240	1745
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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	203.0	36	303.0	0.00	LOT
SURF.COND.	20	546.0	26	546.0	1.82	LOT
INTERM.	13 3/8	1197.0	17 1/2	1197.0	1.60	LOT
OPEN HOLE		1997.0	8 1/2	1997.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
207	1.03			SW / BENTONITE 1	
551	1.14	15.0		GLYDRIL 10	
1206	1.21	13.0		GLYDRIL 74	
1711	1.38	29.0		NOVATEC 55	

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]
4711 Formation pressure (Formasjonstrykk)	pdf	0.19

