Generell informasjon

Brønnbane navn	2/1-12
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	2/1-12
Seismisk lokalisering	SG9502-INLINE 428 & X-LINE 1758
Utvinningstillatelse	019 C
Boreoperatør	BP Norway Limited U.A.
Boretillatelse	946-L
Boreinnretning	MÆRSK JUTLANDER
Boredager	34
Borestart	08.01.1999
Boreslutt	10.02.1999
Plugget og forlatt dato	10.02.1999
Frigitt dato	10.02.2001
Publiseringsdato	18.12.2002
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	68.0
Totalt målt dybde (MD) [m RKB]	3550.0
Totalt vertikalt dybde (TVD) [m RKB]	3550.0
Maks inklinasjon [°]	1.4
Temperatur ved bunn av brønnbanen [°C]	125
Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	BRYNE FM
Geodetisk datum	ED50
NS grader	56° 52' 13.28'' N
ØV grader	3° 18' 46.44'' E
NS UTM [m]	6303139.22
ØV UTM [m]	519074.96
UTM sone	31
NPDID for brønnbanen	3648

Brønnhistorie

General

In September of 1998 BP Norge became operator of the PL 019C licence. The 2/1-12 well was the first well in the licence. The main prospect was the Upper Jurassic Ula Formation. The prospect was prognosed as a four-way dip closure, sealed by Upper Jurassic mudstones. Secondary targets were provided by the Vale Formation sandstones (Tertiary) and by limestones of the Tor Formation (Cretaceous). Well control was provided by the Saga operated wells 2/2-2 (1982) and 2/2-5 (1992) and by the BP well 2/1-5 (1982).

Operations and results

Wildcat well 2/1-12 was spudded with the semi-submersible installation "Maersk Jutlander" on 8 January 1999 and reached a Total Depth of 3550.0 m on the 31st January 1999 in sediments of the Middle Jurassic Bryne Formation. A 12 1/4" pilot hole was drilled to 950 m and logged with the CDR tool and was then opened to 17 1/2". No indications of shallow gas were observed on logs.

At 2808 m, the well was shut in due to a 300 bbl water influx. Shut-in drill pipe pressure was 225 psi and Shut-in casing pressure 345psi. The influx was circulated out with 1.60 sg mud. Analysis of the DxC Exponent and sonic logs shows that the pore pressure was risen to 1.53 sg in the mudstone sequence overlying the Lista Formation at 2704 m. Drilling continued until a flow check was performed at a negative drill break and the well was found to be flowing.

At 3133 m a crack was noticed in the shaft of the top drive. The bit was pulled into the 9 5/8" casing and repairs were undertaken. These repairs required the well to be static for 42 hrs. After the repairs were completed, circulation was established and after 30 minutes of circulation gas increased to 41.2% and dark brown oil was observed over the shakers and in the header box. No shows were seen in the cuttings or in the electrical logs. Geochemical analysis of a sample of the oil showed it to be similar to the Gyda oil. The well was drilled entirely water based with sea water and bentonite hi-vis pills through 36" and 17 1/2" sections down to 950 m, sodium silicate (Barasilc) mud from 950 m to 2930 m, and with KCl polymer mud from 2930 m to TD.

The Ula Formation was encountered at 3250.7 m, 16.5 m higher than prognosed. The sand was of good quality, but no hydrocarbon shows were observed and LWD resistivity logs indicated the reservoir was water-wet.

MDT pressure measurements and sidewall cores were obtained in 8" hole. A detailed pressure survey of the Ula Formation was carried out using the MDT tool and showed the reservoir pressure lay on a water gradient. No conventional cores were taken. No fluid samples were collected. The well was plugged and abandoned as a dry hole on 11 February 1999.

Testing

No drill stem test was performed

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
91	NORDLAND GP
1607	HORDALAND GP
2150	VADE FM
2227	NO FORMAL NAME
2622	ROGALAND GP
2622	BALDER FM
2648	SELE FM
2672	FORTIES FM
2750	LISTA FM
2813	VIDAR FM
2903	LISTA FM
2920	VÅLE FM
2929	SHETLAND GP
2929	EKOFISK FM
2990	TOR FM
3140	CROMER KNOLL GP
3140	RØDBY FM
3144	SOLA FM
3153	TUXEN FM
3158	ÅSGARD FM
3250	TYNE GP
3250	MANDAL FM
3251	VESTLAND GP
3251	ULA FM
3341	TYNE GP
3341	FARSUND FM
3384	HAUGESUND FM
3513	VESTLAND GP
3513	ULA FM
3548	BRYNE FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
3648	pdf	0.34

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
3648_1	pdf	1.01

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
3648_2_1_12_COMPLETION_LOG	.pdf	2.85
3648_2_1_12_COMPLETION_REPORT	.pdf	24.89

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
AMS MDT GR	3526	3553
CST GR	3222	3545
LWD - CDR	163	944
LWD - CDR ADN GST ISONIC	2911	3535
LWD - CDR ISONIC	944	2911

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
SURF.COND.	30	164.0	36	165.0	0.00	LOT
INTERM.	13 3/8	937.0	17 1/2	950.0	1.80	LOT
INTERM.	9 5/8	2922.0	12 1/4	2922.0	1.77	LOT
OPEN HOLE		3550.0	8 1/2	3550.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
130	0.00			DUMMY	
140	1.03			WATER BASED MUD	

340	1.54	30.0		WATER BASED MUD	
829	1.03			SEAWATER	
950	1.03			SEAWATER	
953	1.30	17.0		WATER BASED MUD	
1600	1.39	29.0		WATER BASED MUD	
2200	1.50	35.0		WATER BASED MUD	
2801	1.50	28.0		WATER BASED MUD	
2808	1.60	27.0		WATER BASED MUD	
2866	1.60	28.0		WATER BASED MUD	
2903	1.60	26.0		WATER BASED MUD	
2925	1.60	25.0		WATER BASED MUD	
2925	1.62	27.0		WATER BASED MUD	
2930	1.55	26.0		WATER BASED MUD	
2944	1.54	30.0		WATER BASED MUD	
3133	1.53	28.0		WATER BASED MUD	
3154	1.54	25.0		WATER BASED MUD	
3200	1.54	30.0		WATER BASED MUD	
3321	1.54	36.0		WATER BASED MUD	
3542	1.54	30.0		WATER BASED MUD	
3550	1.54	30.0		WATER BASED MUD	

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]
3648_Formation_pressure_(Formasjonstrykk)	pdf	0.23