



Generell informasjon

Brønnbane navn	25/4-8
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	ALVHEIM
Funn	25/4-3 (Gekko)
Brønn navn	25/4-8
Seismisk lokalisering	line 1300 & cross line 5150 (NH9603)
Utvinningstillatelse	203
Boreoperatør	Marathon Petroleum Norge AS
Boretillatelse	1065-L
Boreinnretning	DEEPSEA BERGEN
Boredager	20
Borestart	03.06.2003
Boreslutt	22.06.2003
Frigitt dato	22.06.2005
Publiseringsdato	22.06.2005
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	PALEOCENE
1. nivå med hydrokarboner, formasjon.	HEIMDAL FM
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	122.0
Totalt målt dybde (MD) [m RKB]	2286.0
Totalt vertikalt dybde (TVD) [m RKB]	2286.0
Maks inklinasjon [°]	0.7
Eldste penetrerte alder	PALEOCENE
Eldste penetrerte formasjon	HEIMDAL FM
Geodetisk datum	ED50
NS grader	59° 30' 52.34" N
ØV grader	2° 3' 47.24" E



NS UTM [m]	6597875.29
ØV UTM [m]	446977.93
UTM sone	31
NPDID for brønnbanen	4765

Brønnhistorie

General

Well 25/4-8 was the second exploratory test of a large, irregular 4-way closure known as the Gekko structure, discovered by well 25/4-3 in 1974. The reservoir target was the Paleocene Heimdal formation, in a mapped culmination 1.7 km to the WNW of the discovery well. While well 25/4-3 found 8 m of hydrocarbons in a structurally low position, well 25/4-8 was expected to encounter a hydrocarbon column of 45m with an anticipated oil/water contact at 2107 m TVD SS.

Operations and results

Wildcat well 25/8-4 was spudded with the semi-submersible installation Deepsea Bergen on 3 June 2003 and drilled to TD at 2286 m in the Paleocene Heimdal Formation. Some problems with hole fill were experienced in the top 36" hole and repeated drill string stalling and sticking in the 17 1/2" section. After setting the 13 3/8" casing at 796 m these problems ceased and the well was drilled on to TD with no significant problems. The well was drilled with seawater down to 803 m and with Carbosea oil based mud from 803 m to TD.

Significant gas peaks were recorded in the interval 2096 m to 2129 m. Drilled cuttings were adversely affected by the use of PDC bits, especially in the sandstone intervals, and hydrocarbon shows were affected by the use of oil-based mud in the 8 1/2" hole section. Oil shows were however recorded on cores from 2082 m to 2134 m. Petrophysical evaluation of wire line logs acquired demonstrated that sands within the Lista Formation were gas bearing and that the Heimdal Formation is gas and oil bearing at the location with a gas-oil contact (GOC) at 2121.8 m (2098.8 m TVD SS) and an oil-water contact (OWC) at 2128.5 m (2105.5 m TVD SS). The OWC was 1.5 m shallow compared to that described for the exploration well 25/4-3 and is consistent with shows described from core and cuttings within the Heimdal. Two conventional cores were cut in the interval 2082 m to 2136 m in the Lista and Heimdal Formations. Fluid samples were taken with the MDT tool at 2097 m (gas), 2120 m (gas), and 2127.2 m (oil).

The well was permanently abandoned on 22 June as a gas and oil appraisal well.

Testing

No drill stem test was performed.

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Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1500.00	2286.20

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sökkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2082.0	2107.1	[m]
2	2109.0	2135.6	[m]

Total kjerneprøve lengde [m]	51.7
Kjerner tilgjengelig for prøvetaking?	YES

Oljeprøver i Sökkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST		2120.00	0.00	OIL		YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
145	NORDLAND GP
385	UTSIRA FM
509	NO FORMAL NAME
777	HORDALAND GP
1219	GRID FM
1305	NO FORMAL NAME
1922	ROGALAND GP
1922	BALDER FM
2011	SELE FM
2060	LISTA FM
2113	HEIMDAL FM

Spleisede logger





Dokument navn	Dokument format	Dokument størrelse [KB]
4765_25_4_8	pdf	0.28

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
4765_25_4_8_COMPLETION_LOG	.PDF	27.17
4765_25_4_8_COMPLETION_REPORT	.PDF	0.61

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
M LWD - GR	205	803
MDT GR	2092	2182
PEX AIT DSI HNGS	145	2284
VSI GR	631	2280

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	206.0	36	208.0	0.00	LOT
SURF.COND.	13 3/8	796.0	17 1/2	803.0	0.00	LOT
OPEN HOLE		2082.0	12 1/4	2082.0	1.45	LOT
OPEN HOLE		2286.0	8 1/2	2286.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Tyngtegrense [Pa]	Type slam	Dato, måling
0	1.03			SEAWATER	
560	1.08			SPUD MUD	
803	1.14	45.0		KCL	
1309	1.28	23.0		OIL (ENVIRON)	
2286	1.28	21.0		OIL (ENVIRON)	





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]
4765 Formation pressure (Formasjonstrykk)	pdf	0.22

