



Generell informasjon

Brønnbane navn	34/7-18
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TORDIS
Funn	34/7-18
Brønn navn	34/7-18
Seismisk lokalisering	GE - 8431R: ROW 95 & COLUMN 1075
Utvinningstillatelse	089
Boreoperatør	Saga Petroleum ASA
Boretillatelse	690-L
Boreinnretning	WEST ALPHA
Boredager	60
Borestart	20.07.1991
Boreslutt	17.09.1991
Frigitt dato	17.09.1993
Publiseringsdato	28.02.2008
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	PALEOCENE
1. nivå med hydrokarboner, formasjon.	LISTA FM
Avstand, boredekk - midlere havflate [m]	18.0
Vanndybde ved midlere havflate [m]	242.5
Totalt målt dybde (MD) [m RKB]	2443.0
Totalt vertikalt dybde (TVD) [m RKB]	2443.0
Maks inklinasjon [°]	2.6
Temperatur ved bunn av brønnbanen [°C]	83
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	DRAKE FM
Geodetisk datum	ED50
NS grader	61° 19' 10.75" N



ØV grader	2° 6' 40.26" E
NS UTM [m]	6798878.30
ØV UTM [m]	452410.07
UTM sone	31
NPDID for brønnbanen	1819

Brønnhistorie

**General**

Well 34/7-18 is located on the Vigdis Field on Tampen Spur in the Northern North Sea. It was designed to drill and test a Jurassic Prospect (Segment IV of the C Plus structure), between the Snorre and Tordis Fields. The well was drilled in a high position on a gently dipping structure where the top of the Brent Group is eroded. The primary objective was to test the presence, reservoir quality and fluid contacts in the prospect. A secondary objective was to test the pressure regimes in the Jurassic sequence, including possible depletion associated with pressure communication, previously identified in the nearby Tordis Field. A boulder bed was expected at 303 m, and shallow gas could occur at 394 m and 546 m.

Operations and results

Wildcat well 34/7-18 was spudded with the semi-submersible installation West Alpha on 20 July 1991 and drilled to TD at 2443 m in the Early Jurassic Drake Formation. Problems with retrieving core no 2 led to 4 days lost while fishing. During plug and abandon the cut and pull tool twisted off and 9 x 8" DC and 7 x 5" HWDP was left on seabed. Three days were lost while clearing the seabed and cutting the casing and retrieving the well head, which was eventually retrieved using explosives. Shallow gas was encountered in the pilot hole and a boulder bed was indicated from drilling parameters at 342 m. The well was drilled with spud mud down to 1115 m, and with KCl mud from 1115 m to TD.

In the Nordland and Hordaland Groups, the well penetrated mainly claystones with relatively minor sandstone intervals. A Paleocene oil discovery was made, and two cores were cut in the Lista Formation, Rogaland Group. These were cut in the interval 1774 - 1782 m, of which 6.3 m were recovered. RFT pressure measurements and fluid sampling, the latter without success, were carried out in addition to a drill stem test.

The top of the Brent Group reservoir was penetrated at 2284 m which was 20 m shallower than prognosed. The Jurassic section comprised an eroded Middle Jurassic Brent Group and the Early Jurassic Dunlin Group. A total of 3 cores were cut in the Brent Group between 2285 and 2306 m, with a recovery of 20.5 m. The upper part of a sandstone interpreted to be a Ness Formation sandstone (2284 - 2290 m) had traces of oil with a calculated oil saturation up to 25% in the best zones. No oil gradient and hence no OWC could be established from the pressure gradient analysis. Small amounts (40 - 300 ml) of oil were recovered in RFT samples from 2284.5 and 2284.6 m.

Apart from the zones with live oil minor shows were recorded in sand layers in the interval 1375 to 1585 m in the Hordaland Group and in siltstone laminae in the interval 2120 to 2250 m in the Shetland Group. No shows were recorded below 2288.5 m.

The pressure gradient of the Brent Group showed the same depletion as observed in well 34/7-17A, indicating pressure communication in the Lower Brent between the Tordis Field, well 34/7-17A and well 34/7-18.

The well was permanently abandoned on 17 September 19921 as a minor oil discovery.

Testing

One DST test was performed in the interval 1770 - 1783.5 m in an intra-Lista Formation Sandstone. The maximum oil rate was 130 Sm³/day. Due to sand and clay plugging, flow was sluggish and reliable rates were not obtained. The well test summary reports 46 Sm³oil/day as a reference rate, measured during the main flow through a 7.9 mm choke. A gas rate of ca 9000 Sm³ /day was measured at the same time. Maximum down hole temperature measured in the test was 60.9 deg C.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1120.00	2441.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
2	1775.0	1780.3	[m]
3	2285.0	2287.7	[m]
4	2286.0	2289.8	[m]
5	2290.0	2306.0	[m]

Total kjerneprøve lengde [m]	27.8
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1775-1780m



1780-1780m



2285-2286m



2286-2289m



2290-2295m



2295-2300m



2300-2305m



2305-2306m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
261	NORDLAND GP



1054	UTSIRA FM
1064	HORDALAND GP
1238	NO FORMAL NAME
1339	NO FORMAL NAME
1374	NO FORMAL NAME
1500	NO FORMAL NAME
1652	ROGALAND GP
1652	BALDER FM
1683	LISTA FM
1770	NO FORMAL NAME
1783	LISTA FM
1807	SHETLAND GP
1807	JORSALFARE FM
2027	KYRRE FM
2274	CROMER KNOLL GP
2274	RØDBY FM
2283	MIME FM
2284	BRENT GP
2284	NESS FM
2298	ETIVE FM
2328	RANNOCH FM
2399	DUNLIN GP
2399	DRAKE FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
1819_1	pdf	0.34
1819_2	pdf	2.20

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1819_01_WDSS_General_Information	pdf	0.55
1819_02_WDSS_completion_log	pdf	0.15

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)





Dokument navn	Dokument format	Dokument størrelse [KB]
1819 34 7 18 COMPLETION REPORT AND LOG	pdf	15.96

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsventil størrelse [mm]
1.0	1770	1784	8.0

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0	6.000		25.000	61

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	46		0.890		

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL GR	825	1706
CBL VDL GR	1400	1861
DLL MSFL LSS LDL GR AMS	1099	1681
DLL MSFL LSS LDL SNL GR AMS	1681	2427
FMS GR AMS	1706	2429
MWD CDR - GR RES DIR TEMP	361	2443
RFT	1780	2355
SHDT GR AMS	1098	1685
VELOCITY	840	2420

Foringsrør og formasjonsstyrketester





Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 23:42

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	361.0	36	361.0	0.00	LOT
INTERM.	20	1099.0	26	1115.0	1.62	LOT
INTERM.	13 3/8	1709.0	17 1/2	1770.0	1.75	LOT
INTERM.	9 5/8	1889.0	12 1/4	2443.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
361	1.05			WATER BASED	23.07.1991
386	1.05			WATER BASED	23.07.1991
1115	1.30	34.0	26.0	WATER BASED	30.07.1991
1115	1.05			WATER BASED	24.07.1991
1115	1.05			WATER BASED	25.07.1991
1115	1.20			WATER BASED	26.07.1991
1115	1.20			WATER BASED	29.07.1991
1115	1.30			WATER BASED	30.07.1991
1121	1.30	23.0	17.0	WATER BASED	30.07.1991
1359	1.36	28.0	19.0	WATER BASED	31.07.1991
1404	1.47	24.0	20.0	WATER BASED	01.08.1991
1409	1.45	28.0	20.0	WATER BASED	02.08.1991
1423	1.30	28.0	21.0	WATER BASED	05.08.1991
1611	1.30	28.0	26.0	WATER BASED	06.08.1991
1681	1.35	30.0	25.0	WATER BASED	06.08.1991
1681	1.35	31.0	26.0	WATER BASED	06.08.1991
1730	1.40	35.0	25.0	WATER BASED	08.08.1991
1730	1.44	31.0	23.0	WATER BASED	09.08.1991
1730	1.44	21.0	23.0	WATER BASED	12.08.1991
1730	1.44	30.0	22.0	WATER BASED	13.08.1991
1730	1.45	31.0	22.0	WATER BASED	13.08.1991
1730	1.44	21.0	23.0	WATER BASED	13.08.1991
1770	1.44	29.0	24.0	WATER BASED	08.08.1991
1775	1.50	29.0	17.0	WATER BASED	14.08.1991
1775	1.51	29.0	18.0	WATER BASED	15.08.1991
1782	1.50	29.0	18.0	WATER BASED	16.08.1991
1782	1.51	29.0	19.0	WATER BASED	19.08.1991
1782	1.50	21.0	18.0	WATER BASED	20.08.1991



1782	1.51	23.0	19.0	WATER BASED	20.08.1991
1879	1.56	24.0	21.0	WATER BASED	20.08.1991
2110	1.62	29.0	26.0	WATER BASED	21.08.1991
2179	1.65	31.0	21.0	WATER BASED	22.08.1991
2233	1.65	31.0	18.0	WATER BASED	02.09.1991
2237	1.65	30.0	17.0	WATER BASED	04.09.1991
2237	1.55	26.0	30.0	WATER BASED	04.09.1991
2237	1.55	26.0	30.0	WATER BASED	04.09.1991
2237	1.55	26.0	30.0	WATER BASED	06.09.1991
2237	1.55	26.0	30.0	WATER BASED	06.09.1991
2237	1.55	26.0	30.0	WATER BASED	09.09.1991
2237	1.55	26.0	27.0	WATER BASED	10.09.1991
2237	1.55	26.0	27.0	WATER BASED	10.09.1991
2237	1.55	26.0	30.0	WATER BASED	10.09.1991
2237	1.55	26.0	27.0	WATER BASED	11.09.1991
2237	1.55	24.0	17.0	WATER BASED	04.09.1991
2237	1.55	26.0	27.0	WATER BASED	12.09.1991
2237	1.54	27.0	25.0	WATER BASED	13.09.1991
2285	1.65	29.0	17.0	WATER BASED	23.08.1991
2286	1.65	29.0	16.0	WATER BASED	27.08.1991
2286	1.65	30.0	20.0	WATER BASED	27.08.1991
2286	1.65	37.0	24.0	WATER BASED	27.08.1991
2286	1.65	37.0	24.0	WATER BASED	27.08.1991
2286	1.65	37.0	24.0	WATER BASED	29.08.1991
2286	1.65	29.0	18.0	WATER BASED	23.08.1991
2286	1.65	32.0	18.0	WATER BASED	29.08.1991

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]
1819 Formation pressure (Formasjonstrykk)	pdf	0.22

