



Generell informasjon

Brønnbane navn	25/11-6
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	BALDER
Funn	25/11-1 Balder
Brønn navn	25/11-6
Seismisk lokalisering	
Utvinningstillatelse	001
Boreoperatør	Esso Exploration and Production Norway A/S
Boretillatelse	201-L
Boreinnretning	NORSKALD
Boredager	43
Borestart	20.08.1978
Boreslutt	01.10.1978
Frigitt dato	01.10.1980
Publiseringsdato	30.04.2010
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	EOCENE
1. nivå med hydrokarboner, formasjon.	INTRA BALDER FM SS
2. nivå med hydrokarboner, alder	PALEOCENE
2. nivå med hydrokarboner, formasjon	HEIMDAL FM
Avstand, boredekk - midlere havflate [m]	25.3
Vanndybde ved midlere havflate [m]	125.7
Totalt målt dybde (MD) [m RKB]	1948.0
Maks inklinasjon [°]	4.7
Temperatur ved bunn av brønnbanen [°C]	65
Eldste penetrerte alder	EARLY CRETACEOUS
Eldste penetrerte formasjon	CROMER KNOLL GP



Geodetisk datum	ED50
NS grader	59° 10' 58.63" N
ØV grader	2° 23' 39.13" E
NS UTM [m]	6560733.03
ØV UTM [m]	465378.94
UTM sone	31
NPDID for brønnbanen	367

Brønnhistorie

General

Well 25/11-6 was drilled ca 1 km west of the 25/11-1 Balder discovery well on the Utsira High in the North Sea. The primary objective was to delineate the Paleocene E-70 oil sand and older sands which are developed as topographic mounds (stratigraphic traps) in the Balder Field area. A secondary objective was Danian sand which had oil shows in an offset well.

Operations and results

Appraisal well 25/11-6 was spudded with the semi-submersible installation Norskald on 20 August 1978 and drilled to TD at 1948 m in the Early Cretaceous Cromer Knoll Group. The well was drilled with seawater/gel/lignosulphonate.

The well penetrated the Utsira Formation, a Skade Formation sand and a Grid Formation sand and then penetrated a ca 175 m thick section of shales belonging to the lower Hordaland Group before top Balder formation was encountered at 1646 m. An 8 m thick shaly Intra Balder Formation sand at 1664 m had some shows and appeared to be oil bearing on the logs. Two Paleocene Heimdal Formation sand units with tops at 1717.5 m and 1763.0 m were found oil bearing down to a clear oil-water contact at 1785.3 m in the lower sand unit. This defines the OWC of the Balder field at 1760 m MSL. The Danian sand (Ty Formation) was encountered at 1877 m, but was water wet.

Five cores were cut in the Lista and Heimdal Formation, recovering a total of 25.5 m core from the interval 1713 to 1797 m. Wire line fluid samples were attempted, but with no success.

The well was permanently abandoned on 1 October 1978 as an oil appraisal.

Testing

One production test was performed in the interval 1725 to 1740 m in the upper Heimdal Formation sand unit. It produced 485 Sm³ oil and 18123 Sm³ gas with 3-4% sand/day through a 35/64" choke. The GOR was 37 Sm³/Sm³, the oil gravity was 24.3 deg API, and the gas gravity was 0.61 (air = 1). No H₂S or Inert gas was detected.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
200.00	1945.00



Borekaks tilgjengeligg for prøvetaking?	YES
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Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1150.0	[m]	DC	
1180.0	[m]	DC	
1210.0	[m]	DC	
1230.0	[m]	DC	
1260.0	[m]	DC	
1290.0	[m]	DC	
1320.0	[m]	DC	
1346.5	[m]	SWC	
1350.0	[m]	DC	
1400.0	[m]	DC	
1410.0	[m]	DC	
1430.0	[m]	DC	
1440.0	[m]	DC	
1460.0	[m]	DC	
1480.0	[m]	DC	
1490.0	[m]	DC	
1500.0	[m]	DC	
1510.0	[m]	DC	
1520.0	[m]	DC	
1540.0	[m]	DC	
1560.0	[m]	DC	
1570.0	[m]	DC	
1590.0	[m]	DC	
1600.0	[m]	DC	
1610.0	[m]	DC	
1630.0	[m]	DC	
1652.0	[m]	SWC	
1656.0	[m]	SWC	
1669.0	[m]	SWC	
1673.0	[m]	SWC	
1675.0	[m]	SWC	
1679.0	[m]	SWC	
1684.0	[m]	DC	
1684.5	[m]	SWC	
1690.0	[m]	DC	



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 14.5.2024 - 08:11

1690.5	[m]	SWC	
1692.5	[m]	SWC	
1696.0	[m]	DC	
1697.0	[m]	SWC	
1702.0	[m]	DC	
1704.5	[m]	SWC	
1707.0	[m]	DC	
1708.0	[m]	DC	
1711.0	[m]	SWC	
1713.0	[m]	DC	
1714.0	[m]	DC	
1716.0	[m]	C	
1716.0	[m]	C	
1716.0	[m]	SWC	
1726.0	[m]	SWC	
1750.0	[m]	DC	
1751.7	[m]	DC	
1751.7	[m]	C	
1752.0	[m]	SWC	
1753.0	[m]	DC	
1753.2	[m]	C	
1753.3	[m]	C	
1754.0	[m]	SWC	
1754.7	[m]	C	
1756.0	[m]	DC	
1756.8	[m]	DC	
1756.8	[m]	C	
1757.0	[m]	DC	
1759.0	[m]	SWC	
1760.0	[m]	SWC	
1761.0	[m]	SWC	
1762.0	[m]	SWC	
1762.0	[m]	DC	
1767.0	[m]	DC	
1772.0	[m]	DC	
1776.0	[m]	SWC	
1780.0	[m]	DC	
1792.0	[m]	DC	
1798.0	[m]	DC	
1804.0	[m]	DC	



1810.0	[m]	DC	
1816.0	[m]	DC	
1822.0	[m]	DC	
1828.0	[m]	DC	
1834.0	[m]	DC	
1840.0	[m]	DC	
1846.0	[m]	DC	
1851.0	[m]	SWC	
1852.0	[m]	DC	
1856.0	[m]	SWC	
1858.0	[m]	DC	
1863.0	[m]	SWC	
1864.0	[m]	DC	
1868.5	[m]	SWC	
1870.0	[m]	DC	
1871.0	[m]	SWC	
1876.0	[m]	DC	
1882.0	[m]	DC	
1900.0	[m]	DC	
1906.0	[m]	DC	
1909.0	[m]	DC	
1912.0	[m]	DC	
1945.0	[m]	DC	

Oljeprøver i Sökkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	DST1	1725.00	1740.00		21.09.1978 - 00:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
151	NORDLAND GP
608	UTSIRA FM
730	NO FORMAL NAME
752	HORDALAND GP



752	SKADE FM
1011	NO FORMAL NAME
1080	SKADE FM
1100	NO FORMAL NAME
1462	GRID FM
1471	NO FORMAL NAME
1646	ROGALAND GP
1646	BALDER FM
1664	INTRA BALDER FM SS
1672	BALDER FM
1688	SELE FM
1702	LISTA FM
1718	HEIMDAL FM
1848	LISTA FM
1864	VÅLE FM
1877	TY FM
1903	SHETLAND GP
1903	EKOFISK FM
1908	TOR FM
1932	CROMER KNOLL GP

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
367_01_WDSS_General_Information	pdf	0.22
367_03_WDSS_lithlog	pdf	0.05

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
367_01_25_11_6_Completion_log	pdf	1.01
367_01_25_11_6_Completion_Report	pdf	156.00

Borestrengtester (DST)





Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	1725	1740	13.9

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0	17.600			

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0	485	1800000	0.900	0.600	210

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL	299	1302
CCL GR	1612	1785
DLL	1309	1945
FDC CNL	1304	1948
GR	152	405
HDT	1309	1947
ISF SONIC	186	405
ISF SONIC	394	1308
ISF SONIC MSFL	1301	1948
TEMP	108	1757
VELOCITY	0	1948

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	187.0	36	187.0	0.00	LOT
INTERM.	13 3/8	394.0	17 1/2	410.0	0.00	LOT
INTERM.	9 5/8	1310.0	12 1/4	1327.0	0.00	LOT
LINER	7	1927.0	8 1/2	1948.0	0.00	LOT



Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
995	1.13			waterbased	
1787	1.13			waterbased	
1947	1.14			waterbased	