



Generell informasjon

Brønnbane navn	25/1-7
Type	EXPLORATION
Formål	APPRAISAL
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	FRIGG
Funn	25/1-1 Frigg
Brønn navn	25/1-7
Seismisk lokalisering	73/0205 SP. 660 AND 73/F11 SP. 57.5
Utvinningstillatelse	024
Boreoperatør	Elf Petroleum Norge AS
Boretillatelse	455-L
Boreinnretning	BYFORD DOLPHIN
Boredager	80
Borestart	08.03.1985
Boreslutt	26.05.1985
Frigitt dato	26.05.1987
Publiseringsdato	10.01.2010
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	EOCENE
1. nivå med hydrokarboner, formasjon.	FRIGG FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	101.0
Totalt målt dybde (MD) [m RKB]	2719.0
Totalt vertikalt dybde (TVD) [m RKB]	2718.0
Maks inklinasjon [°]	3.7
Temperatur ved bunn av brønnbanen [°C]	58
Eldste penetrerte alder	LATE CRETACEOUS
Eldste penetrerte formasjon	JORSALFARE FM
Geodetisk datum	ED50
NS grader	59° 55' 8.28" N



ØV grader	2° 4' 52.33" E
NS UTM [m]	6642898.34
ØV UTM [m]	448624.87
UTM sone	31
NPDID for brønnbanen	463

Brønnhistorie

**General**

Well 25/1-7 was drilled on the main Frigg structure close to the UK border. The Frigg Field was discovered by well 25/1-1 in 1971. Production from the field started in 1977. Well 25/1-7 was designed to monitor the remaining producible gas accumulation in the Frigg Field, and to determine the Frigg Formation heterogeneity north of the producing platforms including the integrity and nature of the barrier between the Frigg sands and the Cod aquifer (Hermod Formation). The main objectives were to observe changes in gas/oil and oil/water contacts as the Frigg Field is produced, and to core the whole Frigg and Balder Formations. The prognosed depth was 2700 m.

Operations and results

Appraisal well 25/1-7 was spudded with the semi-submersible installation Byford Dolphin on 8 March 1985 and drilled to TD at 2719 m in the Late Cretaceous Jorsalfare Formation. Drilling proceeded without significant problems. The well was drilled water based.

The Frigg Formation came in at 1919 m, 34 m deeper than prognosed. The Frigg Formation in this well consist of an upper part down to 1977 m with fine grained shale interbedded with sand layers; a massive fine to very fine sand, occasionally micaceous and glauconitic, slightly shaly down to 2044 m; and a basal part consisting of sand and sandstone (calcareous), occasionally micaceous, with shale and silt layers down to 2180 m. The oil/water and gas/oil contacts were in the upper part and were difficult to define from the logs due to the shale. The following contacts were however defined for later reference: base of deepest gas at 1964.5 m (1938.7 m MSL), top of highest oil at 1965.8 m (1940 m MSL), and top of highest water at 1976.5 m (1950.7 m MSL). Residual oil was seen down to 1999.5 m.

Twenty-nine cores were cut in the interval 1876 m, (43 m above top Frigg Formation) to 2271 m (lower Balder Formation). Four more cores were cut in the Hermod, Lista, and Jorsalfare formations further down in the hole. Sixty-three good RFT pressure points were acquired over the Frigg, Balder, and Hermod Formations. No wire line fluid samples were taken. From the RFT pressures it was estimated that the gas/oil contact in the well had been lifted ca 7 m above the pre-production gas/oil contact (1972 m) in the area.

After setting the 9 5/8" casing at 2187 m the well was logged through casing with a Thermal Neutron Decay (TDT) log from 2127.5 m to 1900 m. This log measures primarily the content of chlorine (salt water) in the formation and the run made at this point will serve as reference for later monitoring of the fluid contacts.

The well was suspended on 26 May 1985 as a gas appraisal well. It will be re-entered several times in order to check the hydrocarbon contacts.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
200.00	2710.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1876.0	1879.0	[m]
2	1880.0	1880.9	[m]
3	1882.0	1890.0	[m]
4	1891.0	1897.8	[m]
5	1900.1	1917.4	[m]
6	1918.0	1933.5	[m]
9	1939.0	1947.8	[m]
11	1959.0	1985.0	[m]
12	1987.0	2007.0	[m]
13	2007.0	2033.1	[m]
14	2033.4	2045.0	[m]
15	2046.5	2063.0	[m]
16	2064.0	2065.8	[m]
17	2066.5	2079.0	[m]
18	2090.0	2101.9	[m]
19	2103.0	2116.0	[m]
20	2127.0	2132.5	[m]
21	2134.0	2146.0	[m]
22	2150.0	2165.3	[m]
23	2168.5	2177.3	[m]
24	2179.5	2195.0	[m]
25	2195.5	2202.8	[m]
26	2213.0	2220.8	[m]
27	2222.0	2240.2	[m]
28	2241.1	2246.6	[m]
29	2252.0	2270.0	[m]
30	2412.0	2419.0	[m]
33	2710.0	2719.9	[m]

Total kjerneprøve lengde [m]	330.3
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1876-1879m



1879-1880m



1880-1881m



1881-1882m



1882-1886m



1886-1890m



3547-3555m



1890-1891m



1891-1895m



1895-1897m



1900-1903m



1900-1901m



1903-1905m



1905-1908m



1908-1910m



1910-1913m



1913-1916m



1916-1917m



1917-1918m



1918-1921m



1924-1925m



1921-1924m



1925-1928m



1928-1931m



1931-1933m



1936-1937m



1938-1939m



1939-1941m



1933-1934m



1942-1945m



1945-1947m



1947-1948m



1948-1949m



1949-1952m



1952-1955m



1955-1958m



1957-1960m



1960-1962m



1963-1966m



1965-1969m



1969-1972m



1972-1975m



1975-1976m



1978-1981m



1981-1984m



1984-1985m



2005-2008m



1986-1987m



1987-1991m



2014-2017m



1993-1994m



1995-1999m



1995-1997m



2000-2003m



2003-2005m



2004-2005m



2008-2010m



2011-2013m



2017-2019m



2020-2023m



2023-2026m



2026-2029m



2029-2032m



2032-2033m



2032-2033m



2033-2036m



2036-2037m



2037-2041m



2037-2041m



2041-2045m



2045-2046m



2045-2048m



2049-2053m



2053-2054m



2054-2058m



2058-2062m



2062-2063m



2063-2064m



2064-2066m



2065-2066m



2066-2070m



2070-2073m



2075-2079m



2073-2075m



2079-2082m



2082-2083m



2084-2087m



2087-2090m



2090-2092m



2092-2093m



2093-2097m



2097-2101m



2101-2102m



2101-2103m



2103-2107m



2107-2111m



2111-2112m



2112-2116m



2116-2119m



2119-2120m



2120-2121m



2121-2122m



2122-2124m



2124-2126m



2124-2127m



2127-2130m



2126-2132m



2132-2133m



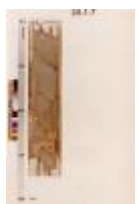
2134-2137m



2138-2142m



2142-2146m



2146-2147m



2147-2148m



2150-2154m



2154-2158m



2156-2157m



2158-2162m



2163-2165m



2162-2165m



2166-2167m



2166-2169m



2169-2172m



2177-2178m



2178-2179m



2172-2173m



2173-2177m



2179-2183m



2183-2186m



2178-2179m



2186-2189m



2189-2192m



2192-2195m



2195-2196m



2197-2000m



2201-2203m



2213-2217m



2217-2220m



2220-2221m



2223-2226m



2226-2229m



2235-2238m



2241-2244m



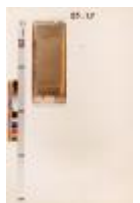
2229-2232m



2232-2235m



2238-2240m



2242-2243m



2244-2249m



2244-2244m



2245-2246m



2246-2247m



2252-2256m



2256-2260m



2260-2261m



2261-2262m



2262-2265m



2265-2268m



2266-2269m



2268-2269m



2269-2270m



2412-2416m



2416-2419m



2414-2415m



2417-2418m



2609-2612m



2612-2614m



2710-2713m



2713-2716m



2716-2718m

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
126	NORDLAND GP
746	HORDALAND GP
1919	FRIGG FM
2180	ROGALAND GP
2180	BALDER FM
2185	INTRA BALDER FM SS
2215	BALDER FM
2290	HERMOD FM
2439	LISTA FM



2680	VÅLE FM
2710	SHETLAND GP
2710	JORSALFARE FM

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
463_01_WDSS_General_Information	pdf	0.30
463_02_WDSS_completion_log	pdf	0.21

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
463_01_25_1_7_Completion_Log	pdf	1.60
463_01_25_1_7_Completion_report	pdf	2.23

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL	435	2127
CET	1330	2127
CET	1750	2127
CST	2271	2701
CST	2287	2701
DLL MSFL GR	1850	2065
HDT	1856	2720
HRT	1330	2127
HRT	1350	2115
ISF LSS GR	188	2720
LDL CNL NGT	1850	2720
LDL GR	188	1872
RFT	1919	2685
SHDT	1856	2720
TDT	1900	2127

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	188.0	0.00	LOT
SURF.COND.	20	846.0	26	863.0	1.41	LOT
INTERM.	13 3/8	1856.0	17 1/2	1876.0	1.56	LOT
INTERM.	9 5/8	2187.0	12 1/4	2719.0	0.00	LOT
OPEN HOLE		2720.0	8 1/2	2720.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
144	1.04			WATER BASED	11.03.1985
188	1.04			WATER BASED	12.03.1985
188	1.04			WATER BASED	11.03.1985
188	1.04			WATER BASED	12.03.1985
348	1.08	31.0	6.0	WATER BASED	14.03.1985
749	1.09	28.0	10.0	WATER BASED	17.03.1985
863	1.09	27.0	13.0	WATER BASED	17.03.1985
863	1.15	26.0	11.5	WATER BASED	18.03.1985
863	1.15	26.0	11.5	WATER BASED	18.03.1985
940	1.11	30.0	12.7	WATER BASED	24.03.1985
1130	1.15	30.0	8.3	WATER BASED	24.03.1985
1259	1.16	29.0	16.5	WATER BASED	25.03.1985
1359	1.20	32.0	10.5	WATER BASED	27.03.1985
1520	1.22	31.0	12.0	WATER BASED	27.03.1985
1601	1.24	33.0	11.0	WATER BASED	29.03.1985
1747	1.26	35.0	13.0	WATER BASED	02.04.1985
1747	1.24	34.0	13.0	WATER BASED	02.04.1985
1747	1.26	35.0	13.0	WATER BASED	02.04.1985
1870	1.26	37.0	13.0	WATER BASED	02.04.1985
1876	1.07	19.0	8.0	WATER BASED	10.04.1985
1880	1.08	25.0	10.0	WATER BASED	10.04.1985
1887	1.08	27.0	11.0	WATER BASED	10.04.1985
1900	1.08	25.0	9.0	WATER BASED	11.04.1985
1918	1.09	24.0	8.0	WATER BASED	11.04.1985
1938	1.10	24.0	8.0	WATER BASED	15.04.1985
1948	1.10	24.0	6.0	WATER BASED	15.04.1985
1948	1.10	24.0	6.0	WATER BASED	15.04.1985



1948	1.10	24.0	6.0	WATER BASED	15.04.1985
1978	1.10	26.0	9.0	WATER BASED	15.04.1985
2033	1.10	26.0	8.0	WATER BASED	19.04.1985
2064	1.11	26.0	9.0	WATER BASED	19.04.1985
2067	1.12	29.0	9.0	WATER BASED	23.04.1985
2096	1.11	27.0	9.0	WATER BASED	23.04.1985
2122	1.11	29.0	8.0	WATER BASED	25.04.1985
2143	1.11	27.0	7.0	WATER BASED	25.04.1985
2148	1.10	27.0	7.0	WATER BASED	29.04.1985
2150	1.11	30.0	9.0	WATER BASED	02.05.1985
2198	1.11	32.0	9.0	WATER BASED	02.05.1985
2202	1.14	32.0	10.0	WATER BASED	21.05.1985
2202	1.13	32.0	10.0	WATER BASED	20.05.1985
2202	1.14	32.0	10.0	WATER BASED	21.05.1985
2213	1.12	30.0	8.5	WATER BASED	03.05.1985
2230	1.12	32.0	10.0	WATER BASED	03.05.1985
2252	1.12	31.0	11.0	WATER BASED	04.05.1985
2271	1.12	31.0	10.5	WATER BASED	04.05.1985
2412	1.12	37.0	9.0	WATER BASED	07.05.1985
2490	1.12	29.0	10.5	WATER BASED	08.05.1985
2530	1.12	28.0	10.0	WATER BASED	09.05.1985
2584	1.12	34.0	10.0	WATER BASED	09.05.1985
2611	1.12	32.0	10.0	WATER BASED	10.05.1985
2664	1.12	32.0	10.0	WATER BASED	13.05.1985
2690	1.12	30.0	11.0	WATER BASED	13.05.1985
2710	1.12	34.0	13.0	WATER BASED	13.05.1985
2719	1.12	32.0	11.0	WATER BASED	15.05.1985
2719	1.12	32.0	11.0	WATER BASED	15.05.1985
2719	1.12	32.0	11.0	WATER BASED	20.05.1985
2719	1.12	28.0	11.5	WATER BASED	14.05.1985
2719	1.12	32.0	11.0	WATER BASED	20.05.1985

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
1922.00	[m]
1980.00	[m]
2080.00	[m]
2120.00	[m]
2124.00	[m]



2167.00	[m]
2068.00	[m]
2181.00	[m]
2181.00	[m]
2182.00	[m]
2182.00	[m]
2190.00	[m]
2192.00	[m]
2195.00	[m]
2199.00	[m]
2199.00	[m]
2199.00	[m]
2200.00	[m]
2217.00	[m]
2218.00	[m]
2223.00	[m]
2230.00	[m]
2416.00	[m]

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]
463_Formalion_pressure_(Formasjonstrykk)	pdf	0.22

