General information

Lithostrat. unit	KOBBE FM
NPDID lithostrat. unit	83
Level	FORMATION
Lithostrat. unit, parent	SASSENDALEN GP

Level below

Lithostrat. unit

Description

Kobbe Formation

Name

From the Norwegian collective name for several seal species common in arctic waters. The unit corresponds to T1-3 or upper Grimsøy Formation of earlier usage.

Well type section

Well 7120/12-2 (Norsk Hydro), coordinates 71°7'30.03"N, 20°48'19.00"E, from 3095 to 2927 m (Fig 4.44).

Well reference section

Well 7120/9-2 (Norsk Hydro), coordinates 71°29'40.81"N, 20°42'05.38"E, from 4245 m to 3962 m (Fig 4.45).

Thickness

168 m in the type well and 283 m in the reference well.

Lithology

A basal 20 m thick shale unit passes up into interbedded shale, siltstone and carbonate cemented sandstone.

Basal Stratotype

The formation is defined by upwards increasing gamma ray, interval transit time and neutron porosity responses into the basal shale. Log responses show much more variation above this unit.

Lateral extent and variation

This unit shows a coarser proximal facies development, along the southern margin of the Hammerfest Basin and fines towards the basin axis. The formation thickens northwards from 140 m on the Troms - Finnmark Platform. Thicknesses vary more from platform to basin than in the underlying units.

Age

An Anisian age is suggested by palynomorphs, with a probable break in deposition in the early and/or late Anisian.

Depositional environment

A transgressive pulse marking the base of the unit was followed by renewed build-out of clastic marginal marine regimes from southern coastal areas.

Correlation

The base of the formation is a clear regional marker, which elsewhere (on Svalbard and in the Sverdrup Basin) marks the onset of deposition of phosphatic organic rich shales. This facies, well displayed by the Botneheia Member of the Barentsøya Formation in central and eastern Svalbard, has not yet been encountered in the Hammerfest Basin. The Kobbe Formation shows greater similarities to the Bravaisberget Formation of western Spitsbergen.

Source

- Dalland, A., Worsley, D. and Ofstad, K. (eds.) 1988: A lithostratigraphic scheme for the Mesozoic and Cenozoic succession offshore mid- and northern Norway. NPD-Bulletin No. 4, 65 pp.

Wellbores penetrating

Wellbore name	Wellbore completion date	Top depth [m]	Bottom depth [m]
7120/1-1	15.11.1985	2285	2315
7120/1-1 R	26.12.1985	2285	2315
7120/1-1 R2	21.07.1986	2285	2315
7120/1-3	07.10.2013	2203	2244
7120/1-4 S	03.08.2014	2274	2285
7120/2-1	29.10.1985	1933	1945
7120/9-2	20.10.1984	3962	4245
7120/12-1	12.10.1980	3474	3573
7120/12-2	11.09.1981	2927	3095
7120/12-4	16.04.1984	485	685
7120/12-5	03.01.2011	3572	3630
7121/1-1 R	23.08.1986	2210	2605
7122/6-2	19.09.2006	3006	3070
7122/7-3	08.01.2006	1808	2044
7122/7-4 S	25.11.2006	1794	2042
7122/7-5	23.12.2006	1868	2126
7122/7-5 A	13.01.2007	1844	2186
7122/7-6	04.01.2013	1754	1996
7122/10-1 S	28.09.2017	1425	1525
7124/3-1	20.10.1987	1893	2334
7124/4-1 S	12.10.2011	1888	2276
7125/1-1	30.12.1988	2105	2200
7125/4-1	07.03.2007	1206	1561
7125/4-2	01.12.2008	1299	1683
7128/4-1	26.02.1994	504	748
7128/6-1	08.11.1991	488	734
7130/4-1	08.01.2016	754	1302
7131/4-1	13.05.2005	1172	1295
7132/2-2	07.04.2019	1083	1469
7220/11-1	17.10.2014	1852	1895
7220/11-2	03.05.2015	1854	1865
7220/11-2 A	14.06.2015	1927	1952
7220/11-3	02.09.2015	1815	1830
7220/11-3 A	29.09.2015	1982	2013
7220/11-3 AR	10.10.2016	1982	2013
7220/11-4	17.07.2017	1842	1874
7220/11-4 A	28.08.2017	2165	2203

7220/11-5 S	08.10.2018	1904	1911
7221/4-1	01.12.2020	1356	1418
7222/1-1	02.08.2016	1464	1693
7222/6-1 S	10.03.2008	1890	2464
7222/11-1	04.11.2008	2007	2658
7222/11-2	27.02.2014	2023	2858
7223/5-1	14.01.2009	1856	2451
7224/2-1	04.03.2016	1720	2257
7224/6-1	21.08.2008	2010	2338
7224/7-1	19.06.1988	1642	2222
7225/3-1	25.09.2011	1522	2155
7225/3-2	07.08.2013	1517	2141
7226/2-1	19.07.2008	1694	2325
7226/11-1	11.04.1988	1878	2303
7227/10-1	10.11.2014	2785	3152
7228/1-1	26.04.2012	1513	1714
7228/2-1 S	20.12.1989	2438	3574
7228/7-1 A	02.02.2001	2255	2741
7228/9-1 S	07.05.1990	1595	2097
7229/11-1	15.12.1993	1843	2353
7322/6-1 S	28.05.2021	2190	2272
7324/7-1 S	03.11.2013	2063	2535
7324/10-1	19.08.1989	1607	2272
7325/1-1	21.07.2014	1888	2430
7335/3-1	15.06.2019	1162	1618
7435/12-1	01.09.2017	1168	1540

Wellbores with cores

Wellbore name	Wellbore completion date	Core length [m]
7120/12-1	12.10.1980	5
7122/7-3	08.01.2006	22
7122/7-4 S	25.11.2006	26
7122/7-5	23.12.2006	11
7122/7-6	04.01.2013	28
7220/11-2	03.05.2015	8
7220/11-2 A	14.06.2015	25
7220/11-3	02.09.2015	15
7221/4-1	01.12.2020	22
7222/1-1	02.08.2016	2

7222/6-1 S	10.03.2008	11
7222/11-1	04.11.2008	34
7222/11-2	27.02.2014	164
7223/5-1	14.01.2009	13
7224/7-1	19.06.1988	14
7225/3-1	25.09.2011	17
7225/3-2	07.08.2013	74
7226/2-1	19.07.2008	4
7226/11-1	11.04.1988	2
7228/7-1 A	02.02.2001	2
7324/10-1	19.08.1989	14