



Generell informasjon

Litostrat. enhet	JORSALFARE FM
NPDID for litostrat. enhet	74
Nivå	FORMATION
Litostrat. enhet, forelder	SHETLAND GP

Nivå under

Litostrat. enhet

Beskrivelse

Jorsalfare Formation

Name

Named after Sigurd "Jorsalfare" Magnusson, a Norwegian king (A.D. 1103-1130).

Well type section

Norwegian well [25/1-1](#) from 2997 m to 2711 m, coordinates N 59°53'17.40", E 02°04'42.70" ([Fig 5.33](#)). One core (17 m) in the middle of the formation and another (4 m) at the base.

Well reference sections

Norwegian well [35/3-2](#) from 1665 m to 1520 m, coordinates N 61051'05.98", E 03°46'28.22" ([Fig 5.34](#)). No cores. Norwegian well [24/9-1](#) from 3117 m to 2752 m, coordinates N 59°16'09.48", E 01°47'31.18" ([Fig 5.35](#)). No cores.

Thickness

The formation is 286 m thick in the type well ([25/1-1](#)), 145 m in well [35/3-2](#) and 365 m in well [24/9-1](#).

Lithology

The formation generally consists of mudstones interbedded with thin limestone beds. The mudstones are light to medium grey, often calcareous. The limestones are white to light grey, fine grained, occasionally sandy and dolomitic.

Basal stratotype

The lower boundary is defined by a decrease in gamma-ray intensity and an increase in velocity, reflecting an increase in calcareous content from the [Kyrre Formation](#) into the Jorsalfare Formation ([Fig 5.33](#), [5.34](#)). In the Tampen Spur area, however, the boundary may be difficult to identify due to small differences in calcareous content. The lower boundary may be unconformable above the Jurassic sequences (e.g. in the Gullfaks area).

Characteristics of the upper boundary

The upper boundary may be towards the [Våle](#), [Lista](#) or [Ty](#) formations of the [Rogaland Group](#). When the upper boundary is towards the shale of the [Lista Formation](#) it is usually characterised by an upward increase in gamma-ray intensity and a distinct drop in velocity ([Fig 5.34](#)). When it is towards the [Våle Formation](#) it does not show the same distinct drop in velocity and increase in gamma-ray intensity, because the overlying lithology consists of limestones or calcareous mudstones ([Fig 5.35](#)). Where the upper



boundary is towards the [Ty Formation](#) it is identified as a change to sandstone ([Fig 5.33](#)).

Distribution

The formation is present in the Viking Graben and on the Tampen Spur. Its boundaries towards the Jorsalfare Formation in the Viking Graben, the Hardråde Formation on the Horda Platform and the Tor Formation on the Utsira High are illustrated in ([Fig 5.32ab](#)). The main characteristics that can be used to distinguish the three formations are:

1. The Jorsalfare Formation contains shales with thin limestone beds which are usually no thicker than 5 m.
2. The [Tor Formation](#) is dominated by limestones, and has a negligible shale content,
3. The [Hardråde Formation](#) contains thick limestone beds (10-60 m), as well as shales, except in the Troll area where it is thin and may consist of only a single bed of limestone or marly limestone.

Separation of these three formations may be difficult in transitional areas.

Age

Late Campanian to Maastrichtian.

Depositional environment

Open marine.

Remarks

The Jorsalfare Formation is time-equivalent with the [Hardråde](#) and [Tor](#) formations of the [Shetland Group](#) and also with the informal "formation E" of Deegan & Scull (1977) ([Fig 5.6](#)).

Source

- Isaksen, D. and Tonstad, K. (eds.) 1989: A revised Cretaceous and Tertiary lithostratigraphic nomenclature for the Norwegian North Sea. NPD-Bulletin No. 5, 59 pp.

Brønnbaner som penetrerer

Brønnbane navn	Dato for boreslutt	Topp dyp [m]	Bunn dyp [m]
15/3-1 S	06.07.1975	2800	3178
15/3-3	09.08.1979	2764	3023
15/3-4	30.03.1982	2763	3017
15/3-5	13.05.1984	2803	3063
15/3-6	05.01.1999	2725	2793
15/3-7	01.09.2001	2696	3117
15/3-8	11.04.2006	2792	3213
15/3-9	13.08.2010	2792	3137
15/3-11	09.08.2018	2805	3058
15/3-12 A	03.03.2020	2813	3052
15/3-12 S	20.01.2020	2801	3034
15/9-11	23.12.1981	2557	2624
24/6-1	25.08.1985	2802	2844
24/9-1	03.07.1976	2752	3117



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

24/9-3	15.04.1981	2836	3051
24/9-5	26.01.1994	2828	2860
24/12-2	21.01.1982	2683	2902
24/12-6 S	20.12.2010	2761	3080
25/1-1	22.07.1971	2711	2997
25/1-6	18.03.1978	2799	2895
25/1-7	26.05.1985	2710	2719
25/1-7 R	14.02.1987	2710	2719
25/1-7 R2	10.05.1988	2707	2716
25/1-7 R3	16.04.1989	2707	2716
25/1-7 R4	05.04.1990	2707	2716
25/1-9	12.10.1986	2757	2807
25/4-1	09.12.1972	2620	2721
25/4-2	06.12.1973	2762	2775
25/4-3	22.11.1974	2646	2714
25/4-5	26.03.1981	2659	2960
25/6-6 S	22.04.2019	2371	2445
25/7-2	18.07.1990	2749	2925
25/7-7	09.11.2019	2758	2903
25/7-8 S	09.01.2020	2537	2647
25/10-6 S	22.03.1996	2789	3069
25/10-11	10.08.2011	2779	2869
25/10-17 S	10.02.2023	2765	2937
29/3-1	15.09.1986	2061	2267
29/6-1	09.05.1982	2373	2678
29/9-1	24.02.1984	2398	2633
30/2-2	04.05.1985	2224	2533
30/2-3	05.10.1992	2185	2438
30/2-4 S	09.08.2008	2447	2834
30/3-1	07.09.1979	2160	2472
30/3-1 R	26.04.1982	2160	2472
30/3-3	30.05.1983	2212	2429
30/3-4	12.06.1985	2275	2491
30/3-4 R	18.11.2001	2277	2493
30/3-7 A	29.01.1998	3139	3692
30/3-7 B	04.08.1998	3116	3437
30/3-7 BR	17.11.2001	3116	3437
30/3-7 S	12.12.1995	3139	3588
30/3-9	01.07.2000	2228	2550
30/3-10 S	29.04.2009	2213	2510
30/3-11 S	09.09.2022	2227	2513



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

30/4-1	14.05.1979	2262	3065
30/4-3 S	09.10.2016	2418	2761
30/5-1	29.07.1972	2304	2649
30/5-2	21.12.1996	2470	2702
30/5-3 A	30.05.2009	2584	3368
30/5-3 S	12.04.2009	2326	2811
30/6-1	22.09.1979	2194	2252
30/6-7	24.08.1982	2290	2360
30/6-17 A	18.03.1986	2235	2411
30/6-17 R	04.02.1986	2181	2296
30/6-18	23.11.1985	2400	2580
30/6-25 S	06.01.1999	2336	2526
30/6-27	30.10.2001	2405	2670
30/6-28 S	29.03.2012	2231	2305
30/6-30	18.11.2018	2311	3260
30/6-31 S	25.04.2020	2313	2334
30/6-31 S	25.04.2020	2334	2416
30/7-2	09.11.1975	2371	2591
30/7-3	25.10.1976	2542	2822
30/7-7	01.07.1979	2538	2805
30/8-1 S	01.03.1995	2472	2725
30/8-1 SR	01.03.1996	2472	2725
30/8-2	14.01.1996	2361	2405
30/8-3	05.01.1998	2454	2649
30/9-19	22.10.1998	2439	2652
30/9-19 A	21.12.1998	2441	2659
30/10-1	18.07.1973	2679	2834
30/10-5	01.05.1975	2683	2829
30/11-4	24.07.1984	2611	2870
30/11-7	03.02.2009	2626	2901
30/11-7 A	25.05.2009	2626	2912
30/11-10	26.12.2014	2544	2824
30/11-10 A	13.02.2015	2644	3024
31/1-1	15.02.2008	1993	2040
31/1-2 A	29.01.2021	2227	2444
31/1-2 S	12.01.2021	2234	2404
31/2-21 S	04.06.2014	2004	2059
31/4-12	14.03.2005	1977	1995
32/4-1	04.12.1996	846	849
33/2-1	26.12.2014	2109	2326
33/2-2 S	10.06.2015	1653	1952



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

33/5-1	18.10.1979	1650	2054
33/5-2	18.11.1981	1717	2085
33/6-2	02.01.1997	1933	2251
33/6-3 S	24.07.2012	1890	2159
33/6-4	03.08.2012	1797	1845
33/6-5 S	16.10.2021	1937	2264
33/9-6	31.08.1976	1890	2100
33/9-15	08.06.1992	1935	2120
33/9-16	20.01.1993	1912	2187
33/9-17	04.05.1994	1916	2165
33/9-18	20.12.1994	1933	2195
33/9-18 A	24.01.1995	1933	2230
33/9-19 A	09.08.1996	1869	2219
33/9-19 S	23.07.1996	1869	2237
33/9-22 S	17.09.2017	1936	2201
33/12-2	23.08.1974	1865	2049
33/12-10 S	23.10.2014	2060	2305
34/2-2 R	08.05.1981	1985	2193
34/2-3	13.08.1981	1982	2194
34/2-4	11.06.1985	2071	2470
34/2-5 S	31.03.2018	2000	2198
34/3-1 A	30.10.2008	2141	2315
34/3-1 S	10.09.2008	2141	2314
34/3-2 S	30.12.2009	2121	2303
34/3-3 A	03.01.2012	2090	2267
34/3-3 S	19.11.2011	2090	2267
34/3-4 A	13.02.2015	2155	2327
34/3-5	16.04.2015	2096	2282
34/4-1	16.12.1979	1788	2025
34/4-2	24.05.1980	1809	2127
34/4-4	03.02.1983	1787	1943
34/4-5	06.04.1984	1925	2145
34/4-6	27.03.1986	1775	2056
34/4-7	12.05.1987	1824	2076
34/4-8	21.06.1994	1838	2070
34/4-10	05.03.2000	1910	2195
34/4-10 R	18.04.2000	1910	2195
34/4-11	10.01.2010	1937	2235
34/4-13 S	02.01.2011	2063	2400
34/4-14 S	19.05.2015	1980	2193
34/4-15 S	15.07.2020	1935	2222



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

34/4-16 S	31.03.2021	1935	2221
34/4-18 S	06.03.2022	1847	2258
34/5-1 A	10.04.2010	2010	2241
34/5-1 S	13.03.2010	2010	2235
34/5-2 S	04.07.2018	2049	2307
34/6-1 S	28.08.2002	2053	2300
34/6-2 A	12.12.2012	2035	2273
34/6-2 S	05.11.2012	2035	2273
34/6-3 A	01.11.2014	2017	2245
34/6-3 S	24.09.2014	2022	2249
34/6-4	02.03.2016	2054	2241
34/6-5 S	08.06.2021	2041	2247
34/7-1	24.07.1984	1823	1933
34/7-2	10.10.1984	1757	1842
34/7-3	02.01.1985	1831	1940
34/7-4	16.01.1985	1848	1998
34/7-5	16.03.1985	1911	2090
34/7-6	30.05.1985	1846	2120
34/7-7	16.12.1985	1837	2139
34/7-8	11.04.1986	1833	1928
34/7-9	12.06.1986	1807	2025
34/7-10	29.10.1986	1863	2145
34/7-12	17.12.1987	1834	1997
34/7-13	13.04.1988	1852	2097
34/7-14	02.12.1989	1836	2007
34/7-15 S	03.09.1990	1977	2246
34/7-16	13.08.1990	1861	2150
34/7-16 R	15.10.1990	1862	2151
34/7-16 R2	05.07.1994	1861	2150
34/7-17	07.04.1991	1924	2116
34/7-17 A	04.05.1991	1924	2126
34/7-18	17.09.1991	1807	2027
34/7-19	27.12.1991	1870	2130
34/7-19 R	12.07.1994	1877	2137
34/7-20	27.08.1992	1881	2138
34/7-21	11.12.1992	1900	2168
34/7-21 A	12.02.1993	1900	2180
34/7-22	01.10.1993	1810	1974
34/7-23 A	20.05.1994	2283	2623
34/7-23 S	03.04.1994	2283	2596
34/7-24 S	24.03.1995	2065	2402



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

34/7-25 S	14.09.1996	2331	2634
34/7-26 A	26.02.1998	3072	3753
34/7-26 S	13.09.1997	3340	3866
34/7-26 SR	02.02.1998	3340	3866
34/7-27	07.10.1998	1864	2170
34/7-28	02.03.1998	1865	2109
34/7-29 S	14.04.1998	1999	2260
34/7-29 SR	17.03.1999	1998	2259
34/7-30 SR	02.12.1999	1935	2389
34/7-31	13.04.2001	1891	2160
34/7-31 A	25.04.2001	1892	2175
34/7-36 S	17.09.2014	2097	2395
34/7-37 S	02.12.2020	1958	2169
34/8-2	17.11.1986	1988	2218
34/8-3	14.09.1988	2012	2300
34/8-3 A	31.10.1988	2088	2395
34/8-5	01.04.1991	2065	2322
34/8-6	03.11.1991	2145	2340
34/8-7	16.07.1992	2081	2320
34/8-7 R	10.02.1993	2081	2320
34/8-8	24.08.1992	1998	2232
34/8-8 R	09.03.1993	1998	2231
34/8-10 S	09.12.1993	1994	2220
34/8-11	08.02.1994	2001	2220
34/8-12 S	09.12.2001	2070	2382
34/8-13 A	13.05.2009	2050	2277
34/8-13 S	26.06.2009	2123	2577
34/8-14 A	01.12.2008	2187	2376
34/8-14 B	25.01.2009	2187	2376
34/8-14 C	08.12.2008	2187	2376
34/8-14 D	10.02.2009	2187	2374
34/8-14 S	21.10.2008	2213	2375
34/9-1 S	19.06.2022	2089	2332
34/10-1	08.09.1978	1678	1718
34/10-2	08.12.1978	2017	2625
34/10-3	07.06.1979	1748	1827
34/10-3 R	10.10.1987	1745	1824
34/10-4	15.10.1979	1690	1745
34/10-5	02.01.1980	1734	1857
34/10-6	22.01.1980	1757	1990
34/10-7	23.03.1980	1666	1750



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

34/10-7 R	14.07.1983	1663	1747
34/10-8	25.05.1980	1719	1821
34/10-9	09.05.1980	1696	1767
34/10-9 R	03.07.1980	1696	1767
34/10-16	11.04.1983	2062	2355
34/10-16 R	27.09.1983	2059	2352
34/10-17	08.07.1983	1983	2295
34/10-18	30.08.1983	1878	2107
34/10-20	23.04.1984	2127	2408
34/10-21	22.10.1984	2014	2313
34/10-23	13.10.1985	2109	2465
34/10-33	15.12.1988	2055	2350
34/10-33 A	03.02.1989	2055	2350
34/10-33 B	10.07.1989	2048	2340
34/10-33 C	01.08.1989	2048	2340
34/10-33 CR	27.04.1990	2048	2340
34/10-36	13.07.1992	2061	2349
34/10-42 S	19.09.1999	2196	2451
34/10-54 A	18.04.2014	2081	2408
34/10-54 S	11.02.2014	2081	2408
34/10-55 S	26.03.2017	3045	3500
34/11-1	25.10.1994	2125	2415
34/11-2 S	17.05.1996	2033	2310
34/11-4	14.04.1999	2117	2428
34/11-5 S	03.07.2006	2372	2997
34/11-6 S	26.01.2017	2624	2626
34/12-1	30.04.2008	2007	2280
35/1-1	18.07.2002	2153	2280
35/1-2 S	19.12.2010	2155	2277
35/3-1	26.10.1976	1580	1720
35/3-2	26.10.1980	1520	1665
35/3-4	06.06.1981	1470	1561
35/3-5	31.03.1982	1420	1500
35/3-6	02.04.2002	1356	1429
35/3-7 S	01.10.2009	1520	1643
35/4-1	24.05.1997	1912	2033
35/4-3	17.05.2022	2063	2224
35/6-2 S	04.04.2009	1355	1411
35/7-1 S	15.08.2011	1991	2203
35/8-1	24.01.1981	1893	2102
35/8-2	21.05.1982	1941	2089



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

35/8-3	15.10.1988	1792	1960
35/8-4	10.08.1999	1810	1973
35/8-5 S	20.07.2003	1725	1886
35/8-6 A	14.05.2016	1930	2150
35/8-6 S	22.04.2016	1934	2168
35/9-1	07.05.1989	1229	1280
35/9-1 R	27.07.1989	1229	1280
35/9-2	03.04.1991	1305	1385
35/9-3	11.11.1997	1247	1310
35/9-5	07.02.2010	1464	1588
35/9-6 S	07.12.2010	1677	1841
35/9-7	14.04.2012	1767	1895
35/9-8	11.04.2013	1738	1862
35/9-9	18.11.2013	1350	1397
35/9-10 A	16.01.2014	1994	2159
35/9-10 S	26.11.2013	2035	2214
35/9-11 A	21.05.2014	1704	1854
35/9-11 S	15.04.2014	1704	1854
35/9-12 S	26.12.2014	1635	1761
35/9-13	20.01.2018	1390	1519
35/9-14	02.03.2018	1382	1518
35/9-14 A	29.03.2018	1382	1518
35/9-16 A	25.04.2022	1234	1334
35/9-16 S	06.04.2022	1234	1332
35/10-1	16.01.1992	2005	2227
35/10-2	22.08.1996	2106	2355
35/10-3	14.07.1999	2199	2250
35/10-4 A	12.11.2018	2023	2090
35/10-4 S	10.10.2018	2023	2090
35/10-7 A	27.12.2021	2191	2333
35/10-7 S	11.12.2021	2150	2274
35/10-8 S	08.04.2022	2033	2119
35/11-2	04.12.1987	1950	2087
35/11-4	29.12.1990	1835	1900
35/11-8 S	11.05.1996	2124	2292
35/11-9	01.05.1997	1973	2093
35/11-10	23.06.1997	1858	1965
35/11-10 A	14.07.1997	2004	2203
35/11-11	22.05.1998	1914	2056
35/11-12	14.05.2000	2019	2095
35/11-13	28.05.2005	1938	2088



Faktasider Stratigrafi

Utskriftstidspunkt: 16.5.2024 -
01:15

35/11-14 S	07.12.2006	1950	2098
35/11-15 S	28.06.2007	1947	2107
35/11-16 S	18.03.2014	2134	2338
35/11-17	01.05.2014	1904	1974
35/11-18	27.09.2015	2019	2168
35/11-18 A	16.12.2015	2020	2180
35/11-20 A	07.08.2016	1945	2152
35/11-20 B	15.09.2016	1943	2155
35/11-20 S	19.06.2016	1943	2138
35/11-21 A	17.10.2018	2055	2127
35/11-21 S	05.09.2018	1990	2080
35/11-22 S	02.02.2019	2069	2223
35/11-23	06.11.2019	1980	2059
35/11-23 A	21.11.2019	1978	2155
35/11-23 A	21.11.2019	2155	2216
35/11-24 A	28.08.2020	2089	2317
35/11-24 B	16.09.2020	2099	2327
35/11-24 S	09.08.2020	2064	2240
35/11-25 A	04.06.2021	2086	2262
35/11-25 S	14.05.2021	2043	2200
35/12-1	24.04.1992	1434	1513
35/12-2	15.07.2009	1770	1829
35/12-3 S	16.02.2011	1747	1792
35/12-4 A	17.07.2011	2037	2156
35/12-4 S	26.06.2011	1999	2106
35/12-5 S	19.06.2015	1583	1724
35/12-6 A	30.06.2018	1648	1808
35/12-6 S	14.06.2018	1649	2484
35/12-7	25.07.2018	1783	1864
36/1-1	14.06.1975	839	888
36/1-2	27.10.1975	1315	1335
36/1-3	25.03.2019	1202	1255
36/1-4 S	30.01.2022	1311	1385
36/4-1	01.10.1996	1253	1299
36/7-1	07.05.1996	1281	1323
36/7-3	06.01.2002	1249	1304
36/7-4	26.09.2016	1258	1285
6201/11-1	06.11.1987	2031	2170
6201/11-2	11.03.1991	2042	2220
6201/11-3	16.06.2012	2032	2120
6201/11-3 R	20.10.2012	2032	2156



6204/10-1	23.11.1995	1202	1250
6204/10-2 A	04.12.1997	1285	1331
6204/10-2 R	21.11.1997	1280	1327
6204/11-3	14.09.2020	928	938
6205/3-1	11.02.1990	1482	1573
6205/3-1 R	30.11.1990	1482	1573
6305/8-2	21.11.2014	3015	3047

Brønnbaner med kjerner

Brønnbane navn	Dato for boreslutt	Kjernelengde [m]
25/1-1	22.07.1971	21
25/1-7	26.05.1985	10
35/10-8 S	08.04.2022	17