



General information

Lithostrat. unit	STATFJORD GP
NPDID lithostrat. unit	157
Level	GROUP

Level below

Lithostrat. unit
EIRIKSSON FM
NANSEN FM
RAUDE FM

Description

Statfjord Group

Name

Named by Deegan and Scull (1977).

Well type section

Norwegian well [33/12-2](#) (Mobil), from 2700 m to 2951 m, coord N 61°13'31.18", E 01°51'25.97" ([Fig 3.6](#)).

Well reference sections

UK well 211/24-1 (Conoco) from 3112 m to 3434 m, coord N 61°11'46.2", E 01°46'26.3" ([Fig 3.7](#)). Norwegian wells [30/6-1](#) (Statoil), from 2712 m to 3003 m, coord N 60°33'15.10", E 02°46'38.36" ([Fig 3.8](#)). and [25/2-5](#) (Elf) from 3652 m to 3847 m, coord N 59°48'01.40", E 02°28'18.30" ([Fig 3.9](#)).

Thickness

251 m in the type well, 322 m in UK well 211/24-1, 291 m and 195 m in Norwegian wells [30/6-1](#) and [25/2-5](#) respectively. The group is thinner on the crest of fault blocks and thicker on the downthrown side. It attains its fullest development in the central part of the Viking Graben. To the west, e.g. in the area of the Cormorant Field, only the upper formation is present and this is reduced to a sandstone only a few meters in thickness. To the east, toward the bounding fault zone of the Fennoscandian Shield, the group is reduced to tens of meters in thickness.

Lithology

The group exhibits a transition from continental to shallow marine sediments. In the type well area it is a transitional "coarsening upward" sequence in the basal parts consisting of grey, green and sometimes red shale interbedded with thin siltstones, sandstones and dolomitic limestones. Above are massive white to grey sandstone bodies interbedded with greenish-grey to red-brown shales. The top part of the group consists of thick, white to grey, fossiliferous and glauconitic sandstones. On the Horda Platform, east of the Viking Graben, the group consists of massive, white, fine to coarse grained sandstones inter-bedded with light grey, and sometimes red, silty micaceous, lignitic shales. Towards the east the frequency of black, coaly shales and coal layers increases.

Boundaries

The base of the Statfjord Group is very difficult to define, and different operators have



established different boundaries. In the type well area the proposed boundary marks the base of the thin transitional unit (coarsening upward sequence), which marks the passage from the more shaly [Lunde Formation](#) of the [Hegre Group](#) to the massive sandstones of the Statfjord Group. It should be emphasized that this transition can only be clearly recognized in some wells in the area of the Brent and [Statfjord](#) fields. Towards the east, e.g. in the Viking Graben and the Horda Platform, the lower boundary is chosen at the base of the lowest massive sandstone unit before passing downwards into dominantly red brown shales. This boundary is often associated with a sonic log break. Lervik (2006) proposed to place the boundary between the Statfjord Group and the Hegre Group at the turning point of a fining upward mega-sequence of the Lunde Formation with the coarsening-upward sequence of the Statfjord Group which very often coincides with a sudden upward decrease of sonic log velocity. The top of the group is at the contact between the uppermost medium to coarse-grained calcareous sandstones and the dark shales and siltstones of the overlying [Dunlin Group](#). It should be noted that the top part of the calcareous sandstones in the UK sector (e.g. in the Brent Field and in UK part of the [Statfjord Field](#), passes laterally into calcareous shales and siltstones in the Norwegian sector. The group boundary, being a lithological one, however, is placed at the top of the sandstones, regardless of age.

Distribution

The Statfjord Group can be recognized in the entire area between East Shetland Platform to the west and the bounding fault zone of the Fennoscandian Shield to the east. The group is identified in the Viking Graben as far south as Norwegian blocks 25/8 and 11, e.g. in wells [25/8-1](#) and [25/8-2](#) (Esso).

Age

The formation ranges in age from Rhaetian to Sinemurian.

Depositional environment

The lower transitional unit in the type well area appears to represent an upward passage from the dominantly continental deposits of the [Lunde Formation](#) of the [Hegre Group](#) to lower alluvial plain and braided stream deposits which make up most of the Statfjord Group (Kirk, 1979, Chauvin and Valachi, 1980). Towards the top of the group coarse sandstones with pebble beds, crossbedding and channel structures appear to have been deposited in a coastal environment. The uppermost sandstones are relatively structureless but the presence of marine fossils and glauconite suggests a shallow marine environment (Deegan and Scull, 1977).

Subdivision

The Statfjord Group is divided in the type well area ([Statfjord Field](#)) into three formations, the [Raude Formation](#) (base) the [Eiriksson Formation](#) and the [Nansen Formation](#) (top) (Deegan and Scull, 1977). It should be emphasized that this subdivision can only be applied west of the Viking Graben. Even within this area application of the subdivision is often difficult. No workable subdivision has been established in the few well penetrations of the Statfjord Group east of the Viking Graben. For definition and detailed description of the formations (former members) of the Statfjord Group, see Deegan and Scull (op. cit). Lervik (2006) proposed to elevate the Statfjord Formation to group level and the members Raude, Eiriksson and Nansen to formation level.

Source

- Vollset, J. and Doré, A. G. (eds.) 1984: A revised Triassic and Jurassic lithostratigraphic nomenclature for the Norwegian North Sea. NPD-Bulletin No. 3, 53 pp.
- Lervik, K.-S. 2006: Triassic lithostratigraphy of the Northern North Sea Basin. Norwegian Journal of Geology, Vol. 86, pp. 93-116.

Wellbores penetrating



Wellbore name	Wellbore completion date	Top depth [m]	Bottom depth [m]
15/6-2 R	01.08.1974	3682	4779
15/6-11 A	13.03.2011	4291	4305
15/6-11 S	19.12.2010	3970	4042
16/1-20 A	21.10.2013	3049	3060
16/1-26 S	14.04.2016	4835	4896
16/1-33 S	05.08.2020	3006	3068
16/1-34 S	31.07.2021	2261	2383
16/1-35 S	28.02.2023	3098	3177
16/2-7	01.09.2011	1985	1986
16/2-7 A	29.09.2011	2039	2041
16/2-8	19.08.2011	1949	1951
16/2-15	13.01.2013	1945	1969
16/2-16	12.12.2012	1966	1999
16/2-16 A	07.02.2013	2356	2385
16/2-17 S	20.05.2013	1913	2020
16/2-19	03.04.2014	1945	1952
16/2-20 S	21.11.2013	2027	2038
16/2-21	07.06.2013	1948	1965
16/2-U-18	28.11.2016	1981	2057
16/4-10	07.03.2016	2583	2668
24/6-1	25.08.1985	4915	4937
25/2-4	20.10.1975	4084	4261
25/2-5	04.08.1976	3652	3847
25/2-6	15.11.1977	3504	3705
25/2-12	12.11.1988	3990	4102
25/2-13	25.01.1990	3696	3887
25/2-14	30.03.1991	3521	3623
25/3-1	05.09.1989	3870	3922
25/4-1	09.12.1972	3292	3513
25/4-5	26.03.1981	3949	4127
25/4-6 S	24.08.1991	4129	4170
25/4-6 SR	14.09.2003	4138	4179
25/5-1	01.08.1987	3232	3374
25/5-3	26.03.1990	2613	2752
25/5-4	07.03.1991	3052	3185
25/6-1	03.02.1986	2417	2503
25/6-6 S	22.04.2019	2927	3170
25/7-8 S	09.01.2020	2976	3120



25/8-1	04.07.1970	1987	2158
25/8-2	01.10.1975	2399	2578
25/8-5 S	22.09.1994	3040	3338
25/8-5 SR	03.08.1997	3040	3338
25/8-11	02.12.1997	1891	1994
25/8-12 A	19.06.1999	1946	2028
25/8-12 S	09.06.1999	1906	2040
25/8-13	20.11.2001	2237	2276
25/8-14 S	22.09.2003	2540	2825
25/8-15 S	07.08.2004	4698	4804
25/8-16 S	13.05.2009	2495	2550
25/8-19 A	19.03.2020	2211	2483
25/8-19 S	30.12.2019	2245	2434
25/8-20 B	28.05.2021	2276	2438
25/8-20 S	10.05.2021	2313	2504
25/8-21 S	20.06.2021	2310	2391
25/8-22 S	20.07.2021	2114	2325
25/9-1	22.04.1995	2301	2415
25/9-3	20.09.2009	2218	2267
25/10-1 R	03.08.1970	1963	2091
25/10-4	18.01.1981	2003	2154
25/10-4 R	13.06.1981	2003	2154
25/10-9	27.07.2009	2961	2985
25/10-10	02.04.2010	2072	2173
25/10-11	10.08.2011	4146	4351
25/10-12 S	18.01.2015	2241	2439
25/10-13 S	19.06.2015	2475	2555
25/10-14 S	17.01.2016	2341	2410
25/10-16 A	09.08.2018	3627	3653
25/10-16 C	26.08.2018	4277	4305
25/10-17 S	10.02.2023	3944	3978
25/11-1	09.07.1967	1988	2109
25/11-5	08.05.1974	1955	2087
25/11-15	25.12.1991	1983	2035
25/11-17	22.03.1993	1997	2146
25/11-19 S	18.05.1995	2200	2250
25/11-19 SR	06.05.1997	2200	2250
25/11-23	28.05.1999	1975	2014
25/11-24	29.03.2007	2029	2117
25/11-25 A	10.03.2008	2372	2448
25/11-26	17.02.2013	2184	2235



25/11-28	25.09.2015	2005	2147
25/11-29 S	13.05.2019	2050	2147
26/4-1	17.07.1987	3308	3665
29/3-1	15.09.1986	4389	4427
29/6-1	09.05.1982	4729	4786
29/9-1	24.02.1984	4640	4703
30/2-1	12.10.1982	4110	4243
30/2-3	05.10.1992	4288	4325
30/2-4 S	09.08.2008	4309	4325
30/3-1 R	26.04.1982	4227	4421
30/3-2 R	16.02.1981	3228	3567
30/3-3	30.05.1983	3387	3419
30/3-4	12.06.1985	3232	3287
30/3-4 R	18.11.2001	3234	3287
30/3-5 S	19.06.1992	4538	4724
30/3-6 S	06.03.1994	6027	6085
30/3-7 B	04.08.1998	4611	4948
30/3-7 BR	17.11.2001	4611	4948
30/3-7 S	12.12.1995	5271	5322
30/3-10 S	29.04.2009	4034	4168
30/4-2	16.05.1980	4337	4670
30/6-1	22.09.1979	2712	3003
30/6-2	11.12.1979	2568	2808
30/6-3	07.03.1980	2884	2940
30/6-5	15.08.1981	3223	3550
30/6-7	24.08.1982	3152	3236
30/6-8	06.08.1982	3532	3600
30/6-9	16.12.1982	3046	3389
30/6-9 R	12.05.1990	3044	3387
30/6-11	30.03.1983	3893	4001
30/6-14	08.02.1984	2784	2900
30/6-15	05.09.1984	3241	3548
30/6-16	21.01.1985	2960	3224
30/6-17 A	18.03.1986	2632	2686
30/6-17 R	04.02.1986	2563	2650
30/6-18	23.11.1985	3121	3670
30/6-19	21.06.1986	3255	3301
30/6-19 R	25.05.1994	3254	3300
30/6-20	13.04.1986	2937	3046
30/6-21	09.04.1987	3052	3100
30/6-22	13.07.1988	3290	3336



30/6-22 R	02.06.1994	3289	3335
30/6-23	01.07.1990	3163	3210
30/6-24 S	06.12.1991	3682	3940
30/6-26	07.10.2001	2669	2865
30/6-27	30.10.2001	3101	3432
30/6-28 S	29.03.2012	2483	2754
30/6-29 S	03.03.2015	5735	5765
30/7-7	01.07.1979	4884	5127
30/7-8 R	29.01.1982	4482	4687
30/8-1 SR	01.03.1996	4691	5149
30/9-3 A	20.05.1984	3679	4249
30/9-4 S	30.03.1985	4173	4303
30/9-5 S	19.07.1985	2604	2872
30/9-6	21.04.1987	2981	3034
30/9-7	23.12.1988	3535	3565
30/9-9	06.11.1989	2757	2809
30/9-10	21.09.1990	3622	3649
30/9-11 A	29.12.1990	2973	3002
30/9-13 S	11.10.1991	3976	4027
30/9-13 SR	17.07.2002	3980	4031
30/9-15	05.01.1994	2616	2764
30/9-16	08.08.1994	3457	3550
30/9-24	17.10.2009	3150	3718
30/9-28 S	26.02.2016	3645	4083
30/10-5	01.05.1975	5049	5127
30/11-3	14.03.1983	4637	4662
30/11-4	24.07.1984	4640	5255
30/12-1	07.03.1994	3596	3641
31/1-1	15.02.2008	2882	2920
31/2-1	09.11.1979	2293	2381
31/2-1 R	09.11.1981	2294	2382
31/2-2 R	06.10.1980	2360	2500
31/2-3	20.07.1980	2236	2358
31/2-4 R	06.04.1981	2256	2422
31/2-4 R2	12.11.1982	2256	2422
31/2-5	21.12.1980	2404	2471
31/2-5 R	20.07.1981	2397	2464
31/2-5 R2	22.04.1984	2397	2464
31/2-8	18.08.1982	3048	3274
31/2-19 S	13.07.1996	4059	4114
31/3-1	13.10.1983	2105	2160



31/3-3	18.11.1984	2432	2573
31/4-2	15.11.1979	2632	2786
31/4-3	11.05.1980	2702	2879
31/4-4	17.02.1981	3087	3150
31/4-5	29.07.1981	2645	2849
31/4-7	11.09.1984	2384	2505
31/4-8	11.05.1986	2346	2438
31/4-11	12.09.2000	3178	3271
31/5-2	11.11.1983	2336	2393
31/5-2 R	30.08.1984	2336	2393
31/5-7	06.03.2020	2832	2915
31/6-1	28.10.1983	2111	2156
31/6-2 R	08.09.1984	2164	2198
31/6-3	26.12.1983	2143	2195
31/6-6	29.07.1984	2225	2277
31/11-1 S	28.06.2021	3008	3120
32/2-1	01.07.2008	1228	1247
32/4-1	04.12.1996	1816	1832
32/4-3 S	26.10.2019	1823	1847
33/2-1	26.12.2014	4388	4459
33/5-2	18.11.1981	4412	4455
33/6-1	06.07.1979	3792	3862
33/6-2	02.01.1997	3913	3950
33/6-3 S	24.07.2012	4267	4377
33/9-1	04.06.1974	2923	3126
33/9-3	14.11.1974	2849	2973
33/9-4	17.09.1975	2889	2974
33/9-5	01.01.1976	2998	3157
33/9-6	31.08.1976	3322	3354
33/9-7	07.11.1976	2958	3127
33/9-8	18.02.1977	3055	3085
33/9-9	17.11.1977	2715	3100
33/9-10	12.06.1978	3500	3715
33/9-11	28.08.1978	3437	3528
33/9-12	03.08.1987	2814	2936
33/9-13 S	24.12.1987	3003	3077
33/9-19 S	23.07.1996	3122	3197
33/12-1	18.04.1974	2836	3060
33/12-2	23.08.1974	2700	2951
33/12-4	17.07.1975	2776	2896
33/12-6	21.06.1976	3721	4030



33/12-7	27.04.1989	3660	3703
33/12-8 S	26.04.2002	3647	3750
34/2-2 R	08.05.1981	3840	4074
34/2-4	11.06.1985	4063	4107
34/2-5 S	31.03.2018	3451	3568
34/3-1 S	10.09.2008	4125	4221
34/3-2 S	30.12.2009	4273	4331
34/4-2	24.05.1980	2597	2697
34/4-3	30.03.1982	4353	4410
34/4-5	06.04.1984	3559	3599
34/4-8	21.06.1994	2799	2913
34/4-10 R	18.04.2000	4186	4246
34/4-11	10.01.2010	4131	4224
34/4-13 S	02.01.2011	4800	4905
34/4-14 S	19.05.2015	4640	4754
34/4-18 S	06.03.2022	2855	3045
34/5-1 S	13.03.2010	3834	3900
34/6-1 S	28.08.2002	4199	4313
34/6-2 S	05.11.2012	4055	4252
34/6-3 A	01.11.2014	3953	4019
34/6-3 S	24.09.2014	4360	4462
34/7-2	10.10.1984	2152	2271
34/7-3	02.01.1985	2414	2513
34/7-4	16.01.1985	2536	2628
34/7-5	16.03.1985	2893	3010
34/7-6	30.05.1985	2510	2654
34/7-7	16.12.1985	2560	2678
34/7-8	11.04.1986	2299	2373
34/7-10	29.10.1986	2531	2683
34/7-12	17.12.1987	2606	2763
34/7-13	13.04.1988	2859	2962
34/7-16 R	15.10.1990	2821	2945
34/7-16 R2	05.07.1994	2820	2944
34/7-17	07.04.1991	2943	3085
34/7-20	27.08.1992	3046	3128
34/7-34	10.03.2009	2461	2584
34/7-34 A	20.03.2009	2639	2972
34/8-1	08.03.1986	3324	3417
34/8-2	17.11.1986	3001	3051
34/8-3	14.09.1988	3278	3328
34/8-4 A	27.05.1992	3057	3143



34/8-4 AR	07.03.2003	3065	3151
34/8-5	01.04.1991	3384	3484
34/8-7	16.07.1992	5118	5208
34/8-7 R	10.02.1993	5118	5208
34/8-8	24.08.1992	3388	3474
34/8-8 R	09.03.1993	3387	3474
34/8-9 S	28.12.1992	3150	3245
34/8-10 S	09.12.1993	3039	3125
34/8-12 S	09.12.2001	3185	3253
34/8-13 A	13.05.2009	3735	3852
34/8-13 S	26.06.2009	4123	4282
34/8-17 S	14.03.2014	4285	4485
34/8-18 S	22.02.2019	5769	6001
34/10-1	08.09.1978	2268	2367
34/10-2	08.12.1978	3325	3540
34/10-3	07.06.1979	2495	2715
34/10-3 R	10.10.1987	2492	2712
34/10-4	15.10.1979	2340	2481
34/10-5	02.01.1980	2562	2764
34/10-7	23.03.1980	2053	2180
34/10-7 R	14.07.1983	2050	2177
34/10-9 R	03.07.1980	2375	2421
34/10-11	05.03.1981	1890	2089
34/10-12	12.09.1981	2688	2800
34/10-13	05.01.1982	1924	2052
34/10-14	19.03.1982	2372	2596
34/10-15	12.12.1982	2213	2400
34/10-16	11.04.1983	3798	4010
34/10-16 R	27.09.1983	3796	4007
34/10-17	08.07.1983	3422	3466
34/10-18	30.08.1983	2978	3025
34/10-19	06.12.1983	2005	2188
34/10-21	22.10.1984	3906	4005
34/10-23	13.10.1985	4715	4764
34/10-30	12.05.1986	3120	3375
34/10-32	13.07.1987	3353	3538
34/10-32 R	10.08.1987	3353	3538
34/10-33	15.12.1988	3799	3870
34/10-35	01.07.1992	4239	4310
34/10-38 S	29.05.1995	3451	3844
34/10-39 S	20.06.1995	3238	3290



34/10-41 S	28.08.1997	3368	3420
34/10-43 S	11.04.2001	3878	4370
34/10-44 S	08.07.2001	3720	4200
34/10-46 S	30.01.2002	5428	5568
34/10-47 A	14.11.2002	2964	3020
34/10-49 B	21.05.2006	3405	3482
34/10-49 B	21.05.2006	4196	4563
34/10-49 S	08.05.2006	3278	4563
34/10-53 S	24.03.2011	4424	4526
34/10-54 A	18.04.2014	4467	4656
34/10-55 S	26.03.2017	7274	7390
34/11-1	25.10.1994	4514	4580
34/11-2 S	17.05.1996	4696	4743
34/11-3	16.01.1997	4471	4482
35/1-1	18.07.2002	4264	4476
35/1-2 S	19.12.2010	4142	4202
35/3-2	26.10.1980	4143	4167
35/4-1	24.05.1997	4704	4918
35/8-1	24.01.1981	4093	4345
35/8-2	21.05.1982	4203	4336
35/9-1	07.05.1989	2312	2314
35/9-1 R	27.07.1989	2312	2314
35/9-2	03.04.1991	2754	2856
35/9-6 S	07.12.2010	3691	3710
35/9-11 A	21.05.2014	3801	3860
35/10-1	16.01.1992	3826	3986
35/10-2	22.08.1996	4601	4677
35/11-1	06.08.1984	2995	3265
35/11-2	04.12.1987	3798	4025
35/11-3 S	09.09.1989	3930	4040
35/11-4	29.12.1990	3082	3127
35/11-4 R	27.01.1992	3092	3137
35/11-5	03.11.1991	3689	3769
35/11-6	20.04.1992	3943	3995
35/11-7	29.09.1992	2840	2895
35/11-18 A	16.12.2015	3968	4020
35/11-20 B	15.09.2016	5075	5114
35/11-22 S	02.02.2019	3738	3882
35/12-4 S	26.06.2011	3534	3585
36/7-1	07.05.1996	2808	2834
36/7-2	22.09.1997	1363	1429



Wellbores with cores

Wellbore name	Wellbore completion date	Core length [m]
16/2-7 A	29.09.2011	2
16/2-8	19.08.2011	2
16/2-15	13.01.2013	24
16/2-16	12.12.2012	20
16/2-16 A	07.02.2013	28
16/2-17 S	20.05.2013	106
16/2-19	03.04.2014	7
16/2-20 S	21.11.2013	10
16/2-21	07.06.2013	17
25/2-6	15.11.1977	9
25/2-12	12.11.1988	25
25/2-13	25.01.1990	144
25/3-1	05.09.1989	4
25/4-1	09.12.1972	143
25/4-5	26.03.1981	58
25/4-6 S	24.08.1991	5
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