



General information

Lithostrat. unit	SASSENDALLEN GP
NPDID lithostrat. unit	140
Level	GROUP

Level below

Lithostrat. unit
HAVERT FM
KLAPPMYSS FM
KOBBE FM
STEINKOBBE FM

Description



Sassendalen Group

Name

The group is named after a major valley in central Spitsbergen.

Type area

Sassendalen, central Spitsbergen.

Thickness

Up to 700 m in Svalbard, up to 1000 m on the Barents Sea Shelf.

Lithology

The Sassendalen Group comprises clastic sediments of Early and Middle Triassic age in Svalbard and on the Barents Sea Shelf. Dominant lithologies are shales and siltstones with subordinate sandstones and minor amounts of carbonate rocks.

Distribution

The group is exposed along the Tertiary fold-thrust belt on western Spitsbergen, in central and eastern Spitsbergen, as well as on Barentsøya, Edgeøya, southwestern Nordaustlandet and Bjørnøya. It continues in the subsurface between these islands southwards in the Barents Sea Shelf to the Hammerfest Basin.

Age

Early and Middle Triassic.

Depositional environment

The group represents coastal, deltaic to shallow shelf deposits in western Spitsbergen. These coastal sediments grade eastwards and southwards into shelf mudstones. The upper part is very organic-rich and phosphatic. In the southwestern Barents Sea Shelf shallow to deep shelf sediments were deposited. The Sassendalen Group represents a series of stacked transgressive-regressive successions, each formation being initiated by a regionally significant transgression (Mørk et al. 1989). These successions can also be traced across the Barents Sea Shelf to Arctic Canada and Eastern Siberia (Mørk et al. 1989; Egorov and Mørk, in press).

Subdivision

The subdivision into ten formations reflects the both lateral and vertical facies variations; there are three formations (Vardebukta, Tvillingodden and Bravaisberget formations) on western Spitsbergen, two (Vikingshøgda and Botneheia formations) in central and eastern Svalbard, one (Urd formation) on Bjørnøya, and one ([Steinkobbe Formation](#)) only documented on the Svalis Dome in the western Barents Sea. Three formations defined in the Hammerfest Basin ([Havert](#), [Klappmyss](#) and [Kobbe](#) formations) form the Ingøydjupet Subgroup.

Compiled from

- Dallmann, W. K. (ed.) 1999: Lithostratigraphic lexicon of Svalbard. Review and recommendations for nomenclature use. Upper Palaeozoic to Quaternary Bedrock. Norwegian Polar Institute, 318 pp.

Wellbores penetrating



Wellbore name	Wellbore completion date	Top depth [m]	Bottom depth [m]
7120/1-1	15.11.1985	2285	2403
7120/1-1 R	26.12.1985	2285	2403
7120/1-1 R2	21.07.1986	2285	2403
7120/1-3	07.10.2013	2203	2281
7120/1-4 S	03.08.2014	2274	2301
7120/2-1	29.10.1985	1933	1945
7120/9-2	20.10.1984	3962	4956
7120/12-1	12.10.1980	3474	3573
7120/12-2	11.09.1981	2927	3657
7120/12-4	16.04.1984	485	1366
7120/12-5	03.01.2011	3572	3630
7121/1-1 R	23.08.1986	2210	2993
7122/6-2	19.09.2006	3006	3070
7122/7-3	08.01.2006	1808	2595
7122/7-4 S	25.11.2006	1794	2550
7122/7-5	23.12.2006	1868	2228
7122/7-5 A	13.01.2007	1844	2186
7122/7-6	04.01.2013	1754	2026
7122/10-1 S	28.09.2017	1425	1525
7124/3-1	20.10.1987	1893	3475
7124/4-1 S	12.10.2011	1888	2814
7125/1-1	30.12.1988	2105	2200
7125/4-1	07.03.2007	1206	1615
7125/4-2	01.12.2008	1299	1750
7128/4-1	26.02.1994	504	1569
7128/6-1	08.11.1991	488	1623
7130/4-1	08.01.2016	754	1895
7131/4-1	13.05.2005	1172	1295
7132/2-2	07.04.2019	1083	3405
7220/11-1	17.10.2014	1852	1898
7220/11-2	03.05.2015	1854	1865
7220/11-2 A	14.06.2015	1927	1952
7220/11-3	02.09.2015	1815	1832
7220/11-3 A	29.09.2015	1982	2064
7220/11-3 AR	10.10.2016	1982	2064
7220/11-4	17.07.2017	1842	1903
7220/11-4 A	28.08.2017	2165	2227
7220/11-5 S	08.10.2018	1904	1911



7221/4-1	01.12.2020	1356	1565
7222/1-1	02.08.2016	1464	2195
7222/6-1 S	10.03.2008	1890	2895
7222/11-1	04.11.2008	2007	2658
7222/11-2	27.02.2014	2023	2918
7223/5-1	14.01.2009	1856	2549
7224/2-1	04.03.2016	1720	2944
7224/6-1	21.08.2008	2010	2338
7224/7-1	19.06.1988	1642	3067
7225/3-1	25.09.2011	1522	3666
7225/3-2	07.08.2013	1517	2210
7226/2-1	19.07.2008	1694	2992
7226/11-1	11.04.1988	1878	3877
7227/10-1	10.11.2014	2785	3152
7228/1-1	26.04.2012	1513	1714
7228/2-1 S	20.12.1989	2438	4300
7228/7-1 A	02.02.2001	2255	2881
7228/9-1 S	07.05.1990	1595	3884
7229/11-1	15.12.1993	1843	3879
7234/6-1	19.07.2021	1729	3711
7321/8-1	03.09.1987	3362	3398
7322/6-1 S	28.05.2021	2190	2519
7324/7-1 S	03.11.2013	2063	2535
7324/10-1	19.08.1989	1607	2919
7325/1-1	21.07.2014	1888	2865
7335/3-1	15.06.2019	1162	4300
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	23
7122/7-4 S	25.11.2006	37
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	17
7220/11-3 A	29.09.2015	49



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	44
7225/3-2	07.08.2013	74
7226/2-1	19.07.2008	8
7226/11-1	11.04.1988	37
7228/2-1 S	20.12.1989	9
7228/7-1 A	02.02.2001	30
7228/9-1 S	07.05.1990	17
7324/10-1	19.08.1989	33