



Generell informasjon

Litostrat. enhet	ØRRET FM
NPDID for litostrat. enhet	196
Nivå	FORMATION
Litostrat. enhet, forelder	TEMPELFJORDEN GP

Nivå under

Litostrat. enhet

Beskrivelse

Ørret Formation

Name

From the Norwegian name for the Brown Trout (*Salmo trutta*).

Definition

The type section is defined as the interval from 3670 m to 3475 m in [7124/3-1](#) on the Bjarmeland Platform ([Fig 9.62](#), Table 9.1). The base of the formation is characterised by a sharp increase in gamma ray log response accompanied by increasing neutron and sonic log readings in the type section where the formation overlies silicified limestones of the [Røye Formation](#) ([Fig 9.62](#)).

Reference sections

Reference sections are defined:

In Loppa well [7120/1-1 R](#) with base at 2604 m, interfingering with a typical Røye development from 2458 m to 2430 and again overlain by the [Røye Formation](#) until the contact with overlying Triassic shales at 2402 m ([Fig 9.51](#), [9.55](#)), from 3966 m to 3884 m in [7228/9-1 S](#) on the northern margins of the Finnmark Platform ([Fig 9.57](#)). As in the type section, the base of the formation is defined by a sharp increase in gamma ray log response accompanied by increasing neutron and sonic log readings in reference well [7228/9-1 S](#) (and in [7229/11-1](#)) on the northern Finnmark Platform, where the formation also overlies silicified sediments of the [Røye Formation](#) ([Fig 9.51](#), [5.33](#)).

Thickness

The formation is 195 m thick in the type well and has an aggregate thickness of 173 m in [7120/1-1 R](#) on the Loppa High, whereas it is interpreted as not being developed in nearby well [7120/1-1 R](#). On the northern Finnmark Platform it is 82 m thick in well [7228/9-1 S](#), only 22 m in [7229/11-1](#) ([Fig 9.51](#)), and disappears northwards so that wells [7128/4-1](#) and [7128/6-1](#) and cores 7128/12-U-01 and 7129/10-U-01 on the central and southern Finnmark Platform show only the [Røye Formation](#) directly overlain by Triassic shales. Tentative interpretations on the southern margins of the Hammerfest Basin in wells [7120/12-2](#) and [7120/12-4](#) suggest cumulative thicknesses of 656-901 metres.

Lithology

The formation is dominated by siliciclastic sediments and includes sandstones, siltstones and shales. The more fine-grained lithologies dominate. The sandstones ([Fig 9.62](#)), appear as isolated thin beds, or as up to 35 m thick sandy units, or in intervals with numerous thin sandstone beds separated by shales. The sandstones are particularly common in the upper part of the Ørret Formation in [7120/12-2](#) ([Fig 9.58](#)), and [7120/12-4](#). On the Loppa High and further eastward, organic rich shales become progressively more



important. Coal fragments are reported from some levels in association with sandstones. The siliciclastics are, in contrast to those of the [Røye Formation](#), not silicified. Thin limestone beds are rare in the formation.

Lateral extent and variation

The formation is thickest in the deeper basinal and outer ramp areas of the Hammerfest Basin and the Finnmark and Bjarmeland platforms. Updip on the Finnmark Platform and the Loppa High it passes into the shallow marine carbonates of the [Røye Formation](#). The transition from thin and organic-rich shales with rare thin sandstone and limestone beds in the east ([7124/3-1](#), [7226/11-1](#), [7228/9-1 S](#) and [7229/11-1](#)) to thicker, more silty and sandy and less organic-rich lithofacies in wells [7120/12-2](#) and [7120/12-4](#) in the southwestern Hammerfest Basin and Finnmark Platform, suggests a southwesterly-located siliciclastic provenance area. In these southwestern wells, where the formation is thought to interfinger with the [Røye Formation](#), the basal transition is always characterised by a sharp increase in gamma ray log response reflecting the transition from silicified carbonates to fine-grained non-silicified siliciclastics ([Fig 9.58](#), [9.62](#)) .

Age

A ?Kungurian to ?Tatarian age is suggested by correlation to lateral equivalents.

Depositional environments

Deposition took place in a variety of siliciclastic-dominated environments ranging from deltaic and lower coastal plain environments in the southwestern Hammerfest Basin to deep shelf environments on the southern Bjarmeland Platform and the northern Finnmark Platform. Dysoxic to anoxic conditions occurred locally in the deeper shelf settings to the east.

Source

- Larssen, G. B., Elvebakk, G., Henriksen, L. B., Kristensen, S. E., Nilsson, I., Samuelsberg, T. J., Svånå, T. A., Stemmerik, L. and Worsley, D. 2002: Upper Palaeozoic lithostratigraphy of the Southern Norwegian Barents Sea. NPD-Bulletin No. 9, 69 pp.

Brønnbaner som penetrerer

Brønnbane navn	Dato for boreslutt	Topp dyp [m]	Bunn dyp [m]
7120/1-1	15.11.1985	2403	2430
7120/1-1	15.11.1985	2458	2569
7120/1-1 R	26.12.1985	2403	2430
7120/1-1 R	26.12.1985	2458	2604
7120/1-1 R2	21.07.1986	2403	2430
7120/1-1 R2	21.07.1986	2458	2604
7120/12-2	11.09.1981	3657	3920
7120/12-2	11.09.1981	3975	4031
7120/12-2	11.09.1981	4076	4485
7120/12-4	16.04.1984	1366	1469
7120/12-4	16.04.1984	1502	1648
7120/12-4	16.04.1984	1688	1700
7120/12-4	16.04.1984	1728	2003
7124/3-1	20.10.1987	3475	3670



7132/2-2	07.04.2019	3405	3454
7225/3-1	25.09.2011	3666	3771
7226/11-1	11.04.1988	3877	3966
7228/9-1 S	07.05.1990	3884	3966
7229/11-1	15.12.1993	3879	3901
7234/6-1	19.07.2021	3711	3758
7322/6-1 S	28.05.2021	2519	3094

Brønnbaner med kjerner

Brønnbane navn	Dato for boreslutt	Kjernelengde [m]
7120/12-2	11.09.1981	28
7120/12-4	16.04.1984	18