

Grünehogna Craton

Maud Belt

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Schirmacher Oasis

Sør Rondane Southwestern Terrane TOAST

Sør Rondane Northeastern Terrane/ Yamato-Belgica complex

Lützow-Holm complex

Heimefrontfjella, Kiwanveggen

H.V. Sverdrupfjella, Heimefrontfjella Gjelsvikfjella, Mühlig-Hofmanfjella, Orvinfjella

2 Moraine and undifferentiated cover
Lithology unknown

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Jurassic

3 Mafic dikes
4 Basalt

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4 Basalt
5 Gabbro

3 Mafic dikes

Straumsvola-Tvora alkaline complex
6 Sistefjell syenite
Tvora syenite
7 Syenite, outer layer
8 Syenite, inner layer
Straumsvola syenite
9 Syenite, outer layer
10 Syenite, mesocratic
11 Syenite, central layer

12 Sedimentary rocks

13 Amelang Formation

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Carboniferous - Permian

Ordovician ?

Urjell Group (Ordovician ?)
14 Urnsa Formation
15 Kuvungen Formation
16 Tunga Formation
17 Uven Formation

Neoproterozoic-Early Cambrian

20 Granite, syenite, in part charnockitic
22 Metagabbro
23 Diorite

19 Syenite dikes
21 Brattskarvet granite (ca. 517 ± 15 Ma)

20 Pegmatite, granitic dikes and stocks

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18 Mafic dikes (488-434 Ma)
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24 Charnockite
25 Anorthosite/meta-anorthosite (625 - 506 Ma)
26 Granite and granosyenite
27 Gabbro

28 Granodiorite-diorite (620-500 Ma)
29 Olivine-bearing monzonite (620-500 Ma)
30 Pyroxene syenite (620-500 Ma)
35 Calc-alkaline Niis Larsenfjellet tonalitic gneiss (772-730 Ma)

31 Granodiorite-diorite (620-500 Ma)
32 Metagabbro (Balchenfjella; 620-500 Ma)
33 Pyroxene-free syenite (550-530 Ma)
34 Pyroxene syenite (550-530 Ma)

36 Pelitic gneiss and schist
37 Banded gneiss
38 Metamorphosed ultrabasic rocks
39 Amphibolite
40 Banded gneisses (metavolcanics)
41 Marble, calc-silicate and skarn

42 Garnet-biotite gneiss
43 Pelitic gneiss and schist
44 Banded gneiss
45 Mafic gneiss and schist / mafic lenses and dikes

46 Garnet-biotite gneiss
47 Sillimanite-garnet-biotite gneiss
48 Garnet-biotite-hornblende gneiss
49 Biotite-hornblende gneiss
50 Amphibolite
51 Mafic granulite/mafic lenses
52 Marble, calc-silicate and skarn (~ 850-880 Ma)

53 Garnet-biotite gneiss
54 Sillimanite-garnet-biotite gneiss
55 Biotite-hornblende gneiss
56 Hornblende gneiss
57 Pyroxene-biotite gneiss
58 Amphibolite
59 Migmatitic gneiss
60 Charnockite gneiss
61 Mafic granulite/mafic lenses
62 Marble, calc-silicate and skarn (~ 790-820 Ma)

63 Granitic gneiss (variable protolith including granite, arkose) (ca. 774 Ma & ca. 800 Ma)
64 Augen gneiss and mylonite (ca. 772 Ma)

65 Garnet-biotite-hornblende gneiss /enderbite/gabbro (980-915 Ma)
66 Granitic gneiss and migmatite
67 Calc-alkaline tonalitic gneiss (960-925 Ma)
68 Calc-alkaline metagabbro (995-975 Ma)
69 Tholeiitic tonalitic gneiss (995-975 Ma)

73 Garnet-bearing aplitic granite (~ 1000 Ma)
74 Granitic gneiss (~ 1000 Ma)

70 Granitic to granodioritic migmatite (1000-750 Ma)
71 Quartzo-feldspathic garnet gneiss (1000-750 Ma)
72 Granitic gneiss and gneissose granite (1000-750 Ma)

Mesoproterozoic

Borgmassivet Intrusive Suite (~ 1107 Ma)

90 Mafic sills
91 Diorite

Ritscherflya Supergroup (~ 1130-1107 Ma)

Jutulstraumen Group

92 Straumsvolane Formation (lavas)
93 Fasettfjellet Formation
94 Istind Formation
95 Tyndeklypa Formation

Ahlmannryggen Group

96 Raudberget Formation
97 Jekselen Formation
98 Høgfonna Formation
99 Schumacherfjellet Formation
100 Framnyggen Formation
101 Pyramiden Formation

128 Annandagstoppane gabbro-norite (~ 1200 Ma)

Kirwanveggen complex

102 Banded orthogneiss
103 Migmatite
104 Augen gneiss
105 Quartzitic mylonite

Kottas Terrane (~ 1088-1130 Ma)

106 Laudalkammen granite
107 Buråsbotnen augen gneiss (1088 Ma)
108 Undifferentiated metavolcanosedimentary rocks (1090 Ma)
109 Vikenegga tonalite (1130 Ma)

Vardeklettane Terrane (~ 1080-1135 Ma)

110 Granulite

87 Western granitic gneiss
88 Amphibolite
89 Sveabreen granitic gneiss (1070-1100 Ma)

84 Granitic gneiss and migmatite (1050-1200 Ma)
85 Heterogeneous migmatite (1050-1200 Ma)

Jutulrøra complex (~ 1130 Ma)

111 Banded gneiss
112 Quartz-feldspar gneiss

Fuglefjellet complex (~ 1130 Ma)

113 Marble and calc-silicate
114 Pelitic gneiss

Rootshorga complex (~ 1130 Ma)

115 Quartz-feldspar gneiss
116 Pelitic and semi-pelitic gneiss (ca. 1130 Ma)
117 Granitic gneiss (ca. 1131 Ma)

Sivorg Terrane (~ 1045-1170 Ma)

118 Cottontoppen granite
119 Refsdahlbrekka granodiorite
120 Worsfoldfjellet monzonorite (1045-1080 Ma)
121 Månesigden porphyritic granite (1050-1100 Ma)
122 Cottontoppen diorite
123 Granodiorite (Fish Gneiss - 1080 Ma)
124 Undifferentiated metavolcanosedimentary rocks
125 Metavolcanic rocks (1130-1170 Ma)
126 Metasedimentary rocks
127 Juckeskammen orthogneiss

Heimefront Shear Zone

Pre-African metamorphic event (ca. 600 Ma) is linked to the collision between the Sør (downgoing) and the Main (tectonic) Boundary of Sør Rondane along the Main Tectonic Boundary

Subduction zone formed during the Proterozoic collision (Pan-African event)

129 Annandagstoppane granite and granodiorite (~ 3067 Ma)

Mesoproterozoic