Standard Lithostratigraphy of Offshore Norway

This chart was produced with the assistance of Noreco, Lundin, Conoco Phillips and other members of the Diskos Consortium

For details see: ***"The Geologic Time Scale 2012"*** by F.M. Gradstein, J.G. Ogg, M. Schmitz and G. Ogg (2012, published by Elsevier), and the Geologic TimeScale Foundation website: ***https://engineering.purdue.edu/Stratigraphy***

Chronostratigraphy

Age | Era | Period | Epoch | Age/Stage

- **Cenozoic** — Quat. — Pleistocene — Lt. Pleist./Gelasian — Piacenzian/Zanclean
- Tertiary — Neogene — Pliocene — Messinian 7.25
- Miocene — Tortonian 11.63 — Serravallian 13.82 — Langhian 15.97 — Burdigalian 20.44 — Aquitanian 23.03
- Paleogene — Oligocene — Chattian 28.1 — Rupelian 33.9
- Eocene — Priabonian 37.8 — Bartonian 41.2 — Lutetian 47.8 — Ypresian 56.0
- Paleocene — Thanetian 59.2 — Selandian 61.6 — Danian 66.0
- **Mesozoic** — Cretaceous — Late — Maastrichtian 72.1 — Campanian 83.6 — Santonian 86.3 — Coniacian 89.8 — Turonian 93.9 — Cenomanian 100.5
- Cretaceous — Early — Albian 113.0 — Aptian 126.3 — Barremian 130.8 — Hauterivian 133.9 — Valanginian 139.4 — Berriasian 145.0 — Ryazanian
- Jurassic — Late — Tithonian 152.1 — Volgian — Kimmeridgian 157.3
- Jurassic — Middle — Oxfordian 163.5 — Callovian 166.1 — Bathonian 168.3 — Bajocian 170.3 — Aalenian 174.2
- Jurassic — Early — Toarcian 182.7 — Pliensbachian 190.8 — Sinemurian 199.3 — Hettangian 201.4
- Triassic — Late — Rhaetian 209.5 — Norian 228.4
- Triassic — Middle — Carnian 237.0 — Ladinian 241.5 — Anisian 247.1
- Triassic — Early — Olenekian 251.2 — Induan 252.2
- **Paleozoic** — Permian — Lopingian — Changhsingian 254.2 — Wuchiapingian 259.8
- Permian — Guadalupian — Capitanian 265.1 — Wordian 268.8 — Roadian 272.3
- Permian — Cisuralian — Kungurian 279.3 — Artinskian 290.1 — Sakmarian 295.5 — Asselian 298.9
- Carboniferous — Penn-sylvanian — Late — Gzhelian 303.7 — Kasimovian 307.0
- Penn-sylvanian — Middle — Moscovian 315.2
- Penn-sylvanian — Early — Bashkirian 323.2
- Carboniferous — Missis-sippian — Late — Serpukhovian 330.9
- Missis-sippian — Middle — Visean 346.7
- Missis-sippian — Early — Tournaisian 358.9
- Devonian — Late — Famennian 372.2
- Devonian — Late — Frasnian 382.7
- Devonian — Middle — Givetian 387.7 — Eifelian 393.3
- Devonian — Early — Emsian 407.6 — Pragian 410.8 — Lochkovian 419.2
- Silurian — Pridoli 423.0 — Ludlow — Ludfordian 425.6 — Gorstian 427.4 — Homerian 430.5 — Sheinwoodian 433.4 — Telychian 438.5 — Wenlock — Llandovery

Norwegian - Danish Basin

NO — DK

Nordland Gr — Nordland Gr — Hordaland — Vade — Hordaland — Lark — Hordaland — Hetring — Sele — Balder — Kolga — Fur — Lista — Vale — Bor — Tyr — Ekofisk — Tor — Hod — Chalk Gr. — Blodøks — Hidra — Rødby — Ran — Sola — Tuxen — Åsgard — Flekkefjord — Sauda/Bjerghavn — Egersund — Flyv-berg — Sandnes — Ula — Fjerritslev — Dunlin Gr. — Gassum — Skagerak — Vinding — Oddesund — Smith Bank — Tønder — Bunter sandst. — Falster — Bunter shale — Øresiev — Zechstein Gr. — Kupferschiefer — Fraser-burg — Auk Fm — Ely Mbr — Karl Fm — Laarstrine

Central Graben South

DK — UK/NO

Nordland Gr — Lark — Freja — Lark — Dufa — Hordaland — Fur — Kolga — Balder — Sele — Lista — Vade — Tyr — Ekofisk — Tor — Hod — Chalk Gr. — Mackerel — Blodøks — Black Band — Hidra — Herring — Rødby — Ran — Sola — Valhall — Tuxen — Åsgard — Mandal — Farsund — Ula — Ekofisk — Fulmar — Hod — Haugesund — Lola — Sola — Skagerak — Josephine — Joanne sst — Judy sst — Smith Bank — Zechstein Gr. — Sherwood — Anhydrite — Kupferschiefer — Flisfjord Fm — Auk — Rotliegend Gr.

Central Graben trough North

GB — NO

Nordland Gr — Stavanger — Lark — Vade — Hordaland — Balder — Forties — Sele — Fiskebank — Andrew — Lista — Maureen — Vale — Ekofisk — Tor — Hod — Blodøks — Hidra — Rødby — Ran — Sola — Tuxen — Valhall — Åsgard — Mandal — Farsund — Ula — Fulmar — Ekofisk — Haugesund — Sola — Bryne — Dunlin Gp — Statfjord Fm — Skagerak — Josephine — Joanne sst — Judy sst — Smith Bank — Zechstein — Sall Fm — Anhydrite Fm — Fraserburg Fm — Auk Fm — Karl Fm — Embla — Old Red sst

Southern Viking Graben Utsira - Stord Basin

W — E

Bergen — Hutton Sst — Utsira — Skade — Lark — Grid — Horda — Frigg — Balder — Sele — Lista — Forties — Heimdal — Vade — Ty — Vale — Ekofisk — Tor — Jorsalfare — Kyrre — Shetland Gr. — Tryggvason — Svarte — Rødby — Sola — Asgard — Draupne — Heather — Hugin — Mid Jurassic unconformity — Dunlin — Statfjord — Hegre Gr. — Skagerak — Smith Bank — Zechstein — Kupferschiefer — Rotliegendes Gp — Scale Break — 463 Ma — Ordovician

1 Bifrost Mbr. (Vatangrunnen)
2 Gimsan Mbr. (Sleipner Vest, Vatgjen)
3 Glitnetind Mbr. (Jotun, Krafla)
4 Gunge Mbr. (Krommelairgalo)

Northern Viking Graben Tampen - Graben - Hordapl.

W — E

Bergen — Utsira — Stavanger — Skade — Hordaland — Grid — Frigg — Balder — Sele — Lista — Hermod — Heimdal — Vale — Ty — Jorsalfare — Hardråde — Kyrre — Shetland Gp. — Tryggvason — Blodøks — Svarte — Rødby — Agat — Knoll Gp — Sola — Cromer — Mime — Asgard — Munin — Magne — Draupne — Heather — Tarbert — Etive — Rannoch — Oseberg — Cook — Burton — Dunlin Gr. — Johansen — Amundsen — Nansen — Eriksson — Statfjord — Raude — Lunde — Lomvi — Hegre — Teist

Southern Norwegian Sea

W — E

Naust — Molo — Kai — Brygge — Tare — Tang — Egga — Grindtval — Springar — Nise — Kvitnos — Tunge — Skolest — Blålange — Gåpeflyndre — Langebarn — Agat — Steinbit — Lyr — Draupne — Rogn — Ihaure — Garn — Not — Ile — Ror — Tilje — Åre — Grey Beds — Red Beds — Red Beds — Gossa High — Nordland Ridge — Trænadjupet Slope

Northern Norwegian Sea

W — E

Naust — Molo — Kai — Brygge — Tare — Tang — Hyttvall — Springar — Nebbhval — Nise — Kvitnos — Lysing — Breiflå — Tumler — Blålange — Skubbe — Gåpeflyndre — Sandflyndre — Langebarn — Lyr — Draupne — Heather — Garn — Not — Ile — Tofte — Ror — Tilje — Åre — Grey Beds — Red Beds — Nordland Ridge

South Western Barents Sea

SW — NE

Nordland — Torsk — Kveite — Kviting — Kolmule — Kolje — Knurr — Fuglen — Loppa High — Klippfisk — Hekkingen — Stø — Nordmela — Fruholmen — Kongsfjord — Svenskøya — Knorringfjellet — Snadd — Steinkobbe — Kobbe — Havert — Klappmyss — De Geerdalen — Bolmehau — Kapp Starostin — Ørret — Raye — Isbjørn — Ulv — Polarrev — Gipshuken — Wordiekammen — Ørn — Falk — Ugle — Ebbadalen — Tubåen — Tettegras — Murmie — Hekkingen Fm — Soldougg — Hardy Bre — Wood Bay — Red Bay — Siktefjell — West Spitsbergen orogenic belt

Svalbard

S — N

Aspelintoppen — Battfjellet — Gilsonryggen Fm — Grumantbyen Fm — Basilika Fm — Firkanten — Caroline — fjellet Mb — Rurikfjellet — Agardhfjellet — Kongsfjord — Svenskøya — Knorringfjellet — De Geerdalen — Bolmehau — Kapp Starostin — Gipshuken — Wordiekammen — Ebbadalen — Murmie — Hardy Bre — Wood Bay — Red Bay — Siktefjell — Hecla Hock

Chrono - stratigraphy

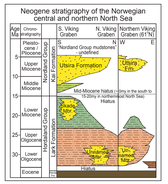
Lt. Pleist./Gelasian — Piacenzian/Zanclean — Messinian 7.25 — Tortonian 11.63 — Serravallian 13.82 — Langhian 15.97 — Burdigalian 20.44 — Aquitanian 23.03 — Chattian 28.1 — Rupelian 33.9 — Priabonian 37.8 — Bartonian 41.2 — Lutetian 47.8 — Ypresian 56.0 — Thanetian 59.2 — Selandian 61.6 — Danian 66.0 — Maastrichtian 72.1 — Campanian 83.6 — Santonian 86.3 — Coniacian 89.8 — Turonian 93.9 — Cenomanian 100.5 — Albian 113.0 — Aptian 126.3 — Barremian 130.8 — Hauterivian 133.9 — Valanginian 139.4 — Berriasian 145.0 — Ryazanian — Tithonian 152.1 — Volgian — Kimmeridgian 157.3 — Oxfordian 163.5 — Callovian 166.1 — Bathonian 168.3 — Bajocian 170.3 — Aalenian 174.2 — Toarcian 182.7 — Pliensbachian 190.8 — Sinemurian 199.3 — Hettangian 201.4 — Rhaetian 209.5 — Norian 228.4 — Carnian 237.0 — Ladinian 241.5 — Anisian 247.1 — Olenekian 251.2 — Induan 252.2 — Changhsingian 254.2 — Wuchiapingian 259.8 — Capitanian 265.1 — Wordian 268.8 — Roadian 272.3 — Kungurian 279.3 — Artinskian 290.1 — Sakmarian 295.5 — Asselian 298.9 — Gzhelian 303.7 — Kasimovian 307.0 — Moscovian 315.2 — Bashkirian 323.2 — Serpukhovian 330.9 — Visean 346.7 — Tournaisian 358.9 — Famennian 372.2 — Frasnian 382.7 — Givetian 387.7 — Eifelian 393.3 — Emsian 407.6 — Pragian 410.8 — Lochkovian 419.2 — Ludfordian 425.6 — Gorstian 427.4 — Homerian 430.5 — Sheinwoodian 433.4 — Telychian 438.5

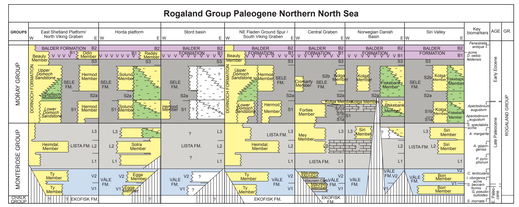
Legend

- Humid terrestrial shales
- Arid terrestrial shales
- Lacustrine
- Shallow marine sst
- Deep marine sst
- Chalk carbonate
- Marine shales and mudstones
- Tuff
- Conglomerate
- Sandstone
- Siltstone
- Shale
- Organic rich
- Coal layers
- Chert
- Marl
- Limestone / chalk
- Dolomite
- Extrusives
- Intrusives
- Rock salt
- Anhydrite / gypsum
- Reef build-ups
- Base of slope fans
- Channel fan systems
- Channel fills
- Aeolian dunes
- Hiatus
- Unconformity
- Metamorphic basement

Updates and refinements of the standard lithostratigraphy offshore Norway

All figures are interactive on ***www.nhm2.uio.no/norlex.***




Rogaland Group Paleogene Northern North Sea
MORAY GROUP
MONTROSE GROUP
ROGALAND GROUP
BALDER FORMATION
SELE FM.
LISTA FM.
VÅLE FM.
EKOFISK FM.
Heimdal Member
Lista Member
Sele Member
Forties Member
Hermod Member
Ty Member
Vade Member
Tor Member
Hod Member
Kyrre Fm.
Lower Balder Member
Upper Balder Member
Sele Formation
Lista Formation
Vade Formation
Tor Formation
Hod Formation
Ekofisk Formation
Våle Formation
Andrew Member
Maureen Member
Fiskebank Member
Kolga Member
Vidar Member
Intra Balder Sst
Intra Sele Sst
Intra Lista Sst
Intra Vade Sst
Intra Tor Sst
Intra Hod Sst
Intra Ekofisk Sst
Intra Våle Sst
Top Chalk
Base Tertiary
Paleocene
Eocene
Early Eocene
Late Paleocene
Danian
Selandian
Thanetian
Ypresian
Lutetian
Bartonian
Priabonian
Rogaland Group
Moray Group
Montrose Group
Hordaland Group
Nordland Group
Chalk Group
Shetland Group
Tryggvason Fm.
Svarte Fm.
Rødby Fm.
Sola Fm.
Asgard Fm.
Mime Fm.
Ty Member
Vade Member
Tor Member
Hod Member
Ekofisk Fm.
Våle Fm.
Lista Fm.
Sele Fm.
Balder Fm.
Forties Member
Hermod Member
Heimdal Member
Lista Fm.
Vade Fm.
Tor Fm.
Hod Fm.
Ekofisk Fm.
Våle