Geologic Map of Rocky Mountain National Park

Colorado

National Park Service
U.S. Department of the Interior

Geologic Resources Inventory
Natural Resource Stewardship and Science



NPS Boundary

Trails

Highways

Point Geologic Units

- Dk - Kimberlite (Devonian?)

Glacial Feature Lines

- moraine crest (Till of Pinedale-age (Qp))
- moraine crest (Till of Bull Lake-age (Qb))

Alteration and Metamorphic Lines

- metamorphic grade line, known or certain, S boundary
- metamorphic grade line, concealed, S boundary
- metamorphic grade line, known or certain, K boundary
- metamorphic grade line, known or certain, M boundary

Folds

solid where known or certain, dashed where approximate and dotted where concealed

- synform, known or certain
- syncline, known or certain
- overturned antiform, known or certain
- neutral fold with vertical axis, known or certain
- antiform, known or certain
- anticline, known or certain

Faults

- thrust fault, known or certain
- thrust fault, approximate
- thrust fault, concealed
- unknown offset/displacement, known or certain
- unknown offset/displacement, approximate
- unknown offset/displacement, concealed

Linear Dikes

- Ti - Intrusive rocks (Tertiary), undivided, known or certain
- Ti - Intrusive rocks, undivided (Tertiary), approximate
- Dk - Kimberlite dikes, known or certain
- Yg - Gabbro of the Iron Dike (Middle Proterozoic), known or certain
- Yd - Mafic dikes (Middle Proterozoic), known or certain
- YXp - Pegmatite (Middle and Early Proterozoic), known or certain

Geologic Contacts

- approximate
- map boundary
- water or shoreline
- ice or glacial, approximate

Geologic Units

- mf - Manmade fill (Holocene)
- Qf - Roaring River alluvial fan deposits (Holocene)
- Qd - Holzworth debris-flow deposits (Holocene)
- s - Snow and ice (Holocene)
- Qa - Alluvium (upper Pleistocene)
- Qo - Organic-rich sediment (Holocene and upper Pleistocene)
- Qc - Colluvium (Holocene and Pleistocene)
- Ql - Landslide deposits (Holocene and upper Pleistocene)
- Qt - Talus (Holocene and upper Pleistocene)
- Qr - Rock glacier (Holocene and upper Pleistocene)
- Qh - Till (Holocene)
- Qp - Till of Pinedale age (upper Pleistocene)
- Qb - Till of Bull Lake age (upper Pleistocene)
- Qpb - Till of pre-Bull Lake age (Pleistocene)
- Qg - Gravel deposits on benches and terraces (Pleistocene)
- QNd - Diamicton (Quaternary or Neogene)
- Tt - Troublesome Formation (lower Miocene and upper Oligocene)
- Tc - Coalmont Formation (Eocene and Paleocene)
- Ts - Sedimentary rocks, undivided (Tertiary)
- Ta - Trachyandesite and basalt (upper Oligocene)
- Tbr - Volcanic breccia (upper Oligocene)
- Tr - Rhyolite (upper Oligocene)
- Trw - Rhyolite welded tuff (upper Oligocene)
- Taw - Andesite welded tuff (upper Oligocene)
- Tv - Volcanic rocks, undivided (upper Oligocene)
- Ti - Intrusive rocks, undivided (Tertiary)
- Trp - Rhyolite prophyry (upper Oligocene)
- Tib - Basalt (upper? Oligocene)
- Tit - Intrusive tuff (upper? Oligocene)
- Tql - Quartz latite (upper Oligocene)
- Tqbr - Quartz latite breccia (upper Oligocene)
- Tg - Rhyolite porphyry and granite of the Mount Cumulus stock (upper Oligocene)
- Tgd - Granodiorite and monzonite of the Mount Richthofen stock (upper Oligocene)
- Tap - Andesite porphyry (upper? Oligocene)
- Kp - Pierre Shale (Upper Cretaceous)
- Kn - Niobrara Formation (Upper Cretaceous)
- Kb - Benton Shale (Upper and Lower Cretaceous)
- Kd - Dakota Formation (Lower Cretaceous)
- Jm - Morrison Formation (Upper and Middle Jurassic)
- Js - Sundance Formation (Upper and Middle Jurassic)
- Jms - Morrison and Sundance Formations
- TRPMc - Chugwater Formation (Lower Triassic and Upper Permian)
- MZu - Sedimentary and metamorphic rocks, undivided (Mesozoic)
- Yg - Gabbro of the Iron Dike (Middle Proterozoic)
- Ysp - Silver Plume Granite (Middle Proterozoic)
- Ysgg - Garnet-sillimanite granite (Middle Proterozoic)
- Ylg - Leucogranite (Middle Proterozoic)
- Yap - Granite-aplite (Middle Proterozoic)
- Ysb - Intrusion breccia (Middle Proterozoic)
- Ygh - Granite of Hagues Peak (Middle Proterozoic)
- Yd - Mafic dike (Middle Proterozoic)
- Ybg - Biotite-muscovite granite (Middle? Proterozoic)
- Yqd - Quartz diorite (Middle? Proterozoic)
- Xbc - Boulder Creek Granodiorite (Early Proterozoic)
- Xt - Trondhjemite of Thompson Canyon (Early Proterozoic)
- YXp - Pegmatite (Middle and Early Proterozoic)
- Xs - Biotite schist (Early Proterozoic)
- Xgf - Microcline-biotite-quartz-plagioclase granofels (Early Proterozoic)
- Xh - Hornblende gniess and amphibolite (Early Proterozoic)
- Xcg - Calc-silicate gneiss (Early Proterozoic)
- Xbh - Biotite schist and hornblende gneiss (Early Proterozoic)
- Xgg - Granitic gneiss (Early Proterozoic)
- Xlg - Leucocratic gneiss (Early Proterozoic)
- Fault Zone
- Water

This map displays geologic map data compiled by the National Park Service Geologic Resources Inventory.

It is not a substitute for site-specific investigations.

Source Map

Braddock, W.A., and Cole, J.C., 1990, Geologic Map of Rocky Mountain National Park and Vicinity, Colorado, U.S. Geological Survey, Miscellaneous Investigations Series Map, I-1973, 1:50000 scale

Source Scale 1:24,000. According to US National Map accuracy standards, features are within 12 m (40 ft) of their true location.

Poster Layout: Georgia Hybels (Colorado State University). **Poster Date**: February 2019

All Geologic Resources Inventory geologic map data and publications are available at http://go.nps.gov/gripubs