U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Preliminary Map of Major Bedrock Lithology - Explanation

- Alkali - unconsolidated sediment (clay, silt, sand, gravel). Includes glacial outwash deposits
- Dune sand - wind deposited
- Loess - windblown silt deposits
- Lake sediments and playa deposits
- Landslide deposits
- Glacial drift - material deposited by glacial processes. Includes till and moraine (unstratified) as well as outwash (stratified)
- Shale and mudstone - fine-grained sedimentary rock derived from clay
- Argillite and slate - fine-grained metamorphic rock formed from shale
- Tuff - volcanic ash. Includes minor amounts of detrital sediment
- Siltstone - fine-grained detrital sedimentary rock derived from silt
- Meta-siltstone - fine-grained metamorphic rock formed from siltstone
- Sandstone - medium-grained detrital sedimentary rock derived from sand
- Meta-sandstone - medium-grained metamorphic rock formed from sandstone
- Quartzite
- Conglomerate - coarse-grained detrital sedimentary rock derived from gravel. Locally includes angular-fraction breccia
- Meta-conglomerate - coarse-grained metamorphic rock formed from conglomerate
- Carbonate rock - sedimentary rock, mostly composed of limestone and dolomite, locally metamorphosed to marble
- Mixed sequences of migmatic sedimentary rocks. Includes interlayered shale, siltstone, lithic sandstone, quartzite, and conglomerate
- Mixed sequences of suevitic sedimentary rocks having abundant dark rock fragments and mafic minerals. Includes interlayered shale, siltstone, greywacke, conglomerate, and melange with subordinate mafic volcanic rock, chert, and calcareous rock
- Meta-sedimentary phyllites and schists - fine-grained metamorphic rocks derived from shale, mudstone, and siltstone
- Interlayered meta-sedimentary rocks - fine- to coarse-grained metamorphic rocks derived from clastic and carbonate sedimentary rocks
- Mixed sequences of carbonate rock and shale with subordinate sandstone and conglomerate
- Mixed sequences of metamorphosed carbonate rock and shale with subordinate sandstone and conglomerate
- Felsic pyroclastic rocks - rhyolitic
- Felsic volcanic flows - rhyolitic
- Calico-alkaline suite of pyroclastic rocks and volcanic flows - generally andesite to quartz latite
- Calico-alkaline suite of meta-volcanic rocks
- Mafic pyroclastic rocks - basaltic
- Mafic volcanic flows - basaltic
- Mafic meta-volcanic rocks - greenstone. Includes subordinate aplite, slate, argillite, and greywacke
- Granite - includes intrusive rhyolitic rocks
- Alkaline intrusive rocks
- Calico-alkaline suite of intrusive rocks - generally granodiorite to diorite
- Mafic intrusive rocks - generally diorite or gabbroic
- Ultramafic rocks - includes associated gabbroic rocks
- Mixed granitic gneiss - dominantly granite gneiss, migmatite, augen gneiss, and hornblende gneiss. Includes subordinate anorthosite, amphibolite, calc-silicate gneiss, schist, marble, and quartzite
- Mafic schist and foliated greenstone - dark-colored, fine-grained, foliated metamorphic rocks, mostly metamorphosed basaltic to dioritic rocks
- Mafic gneiss - dark-colored, medium- to coarse-grained, layered metamorphic rocks. Includes amphibolites
Preliminary Map of Major Bedrock Lithology