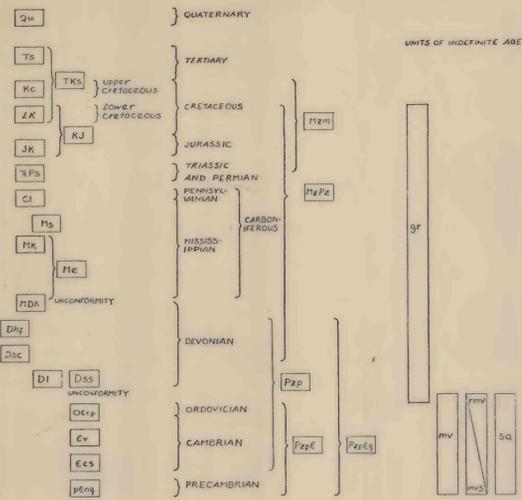


EXPLANATION

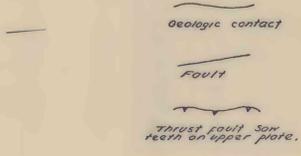
CORRELATION OF MAP UNITS



EXPLANATION
DESCRIPTION OF MAP UNITS

- Qu UNDIFFERENTIATED SURFICIAL DEPOSITS
- Ts SILTSTONE, SHALE AND CLAYSTONE--Marine and nonmarine
- Tks SHALE, SANDSTONE AND CONGLOMERATE--Marine and nonmarine
- Kc COLVILLE GROUP (Upper Cretaceous)--Sandstone, siltstone, shale, tuff and bentonite. Marine and nonmarine
- Lk LOWER CRETACEOUS SEDIMENTARY ROCKS--Sandstone, graywacke, conglomerate, shale, manganese shale. Marine and nonmarine. Includes Nanushuk Group, Bathub Graywacke, Kongakut Formation
- Jk LOWER CRETACEOUS SEDIMENTARY ROCKS AND KINGAK SHALE, UNDIFFERENTIATED
- Jk KINGAK SHALE (Jurassic)--Dark-gray shale and siltstone. Marine
- Mm MAFIC ROCKS, CHERT AND SHALE--Sedimentary rocks. Marine
- HcZ PHYLITE AND QUARTZITE--Marine
- Fps SHUBLIK AND IVISHAK FORMATIONS (Triassic) AND ECHOOKA FORMATION (Permian)--Sandstone, siltstone, shale, calcareous siltstone and limestone. Marine and nonmarine
- Ci LISBURN GROUP (Mississippian and Pennsylvanian)--Limestone and dolomite. Marine
- Ms BLACK SILTSTONE AND CHERT--Marine
- Mh KAYAK SHALE (Mississippian)--Black shale, ferruginous limestone, minor coal. Marine and nonmarine
- Hc ENDCOTT GROUP (Mississippian part only)--Kayak Shale (Mh) and Kekiktuk Conglomerate (nonmarine) undivided. Too thin to map in northwest part of area. Rests with angular unconformity on units Ds, D1, Dcp, Ev, Ecs, pEq, Pcp, mv, and with probable nonconformity on part of granite gr
- Mh KEKIKTUK CONGLOMERATE (Mississippian) AND KANAYUT CONGLOMERATE (Devonian) UNDIFFERENTIATED--Includes typical Kanayut Conglomerate, which rests conformably on Hunt Fork Shale (Dnf), and conglomerate of uncertain identity which is thicker than typical Kekiktuk Conglomerate, but like it rests unconformably on units mv, mvs and possibly on Pcp
- Dnf HUNT FORK SHALE (Devonian)--Dark gray shale, red shale locally at top. Marine
- Dsc SLATE AND CONGLOMERATE--Red, green slate; hematitic, partly calcareous conglomerate
- D1 NANOOK LIMESTONE AND KATAKTURUK DOLOMITE (Devonian) UNDIVIDED--Includes limestone of probable Devonian age in southwest part of area
- Ds SANDSTONE--Brown sandstone and shale. Rests unconformably on unit Dcp and with possible unconformity on units mv and mvs
- Dcp CHERT AND PHYLITE MEMBER OF NERUOKUK FORMATION (Cambrian and Ordovician?)--Varicolored chert and phyllite and mafic intrusive rocks
- Ev VOLCANIC AND CARBONATE MEMBER OF NERUOKUK FORMATION (Cambrian)--Mafic volcanic, volcanoclastic rocks; limestone
- Ecs CALCAREOUS SANDSTONE--Black phyllite underlain by brown calcareous sandstone and siltstone
- pEq QUARTZITE AND SEMISCHIST MEMBER OF NERUOKUK FORMATION (Precambrian)
- Pcp PHYLITE--Gray phyllite, schist and minor greenstone. Underlies units C1, Mh and D1(?)
- Pcpq LIMESTONE AND PHYLITE--Sequence of: limestone, chert and varicolored argillite; black sandy limestone; gray phyllite, and a correlative sequence of sandy limestone and calcareous sandstone and siltstone. Underlies unit pEq, but contact may be a fault
- Pcpq QUARTZITE AND SCHIST--Underlies units C1 and Pcp
- mv MAFIC VOLCANIC ROCKS--Extrusive and intrusive mafic rocks, volcanic wacke, gray slate, possibly of several different ages
- mvs RHYOLITE AND MAFIC VOLCANIC ROCKS--Rhyolite minor in northern part of area where unit underlies unit D1. Large bodies of rhyolite and some green slate in southern part where unit underlies units Ds and Mh
- sq MAFIC VOLCANIC ROCKS AND SLATE--Varicolored slate, minor mafic rocks, associated with unit mv
- sa SLATE AND ARGILLITE--Varicolored slate, argillite and chert
- gr GRANITIC ROCKS--Quartz monzonite, granite and rhyolite intrusive rocks. Probably includes rocks of different ages, Silurian to post-Mississippian or Cretaceous

EXPLANATION OF SYMBOLS



REFERENCES

Brosge, W.P. and Reiser, H.N., 1965, Preliminary geologic map of the Arctic quadrangle, Alaska, U.S. Geol. Survey open-file map, scale, 1:250,000.

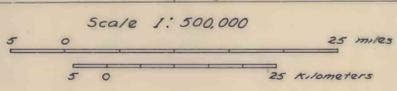
Brosge, W.P., Reiser, H.N., Dutro, J.T. Jr. and Datterman, R.L., 1976, Reconnaissance geologic map of the Table Mountain quadrangle, Alaska, U.S. Geol. Survey open-file map, scale, 1:250,000.

Reiser, H.N., Brosge, W.P., Dutro, J.T. Jr. and Datterman, R.L., 1974, Preliminary geologic map, Mt. Michaelson quadrangle, Alaska, U.S. Geol. Survey open-file map, scale, 1:200,000.

---, 1974, Preliminary geologic map of the Demarcation Point quadrangle, Alaska: U.S. Geol. Survey Misc. Field Studies map MF-610. Scale, 1:200,000.

Yeend, Warren and Brosge, W.P., 1973, Preliminary geologic map of a prospective transportation route from Prudhoe Bay, Alaska to Canadian border, Part II, Arctic quadrangle (north half), Alaska, and Part III, Arctic and Table Mtn. quadrangles: U.S. Geol. Survey Misc. Field Studies maps, MF-501 and MF-522. Scale 1:125,000.

Base from USGS 1:250,000 Topo Series:
BARTER ISLAND, 1959; FLAXMAN ISLAND, 1955;
DEMARCATON POINT, 1955; MT MICHAELSON, 1956;
ARCTIC, 1956; TABLE MOUNTAIN, 1956; CHRISTIAN,
1956; COLEEN, 1956, ALASKA.



Geology compiled from Reiser and others, 1971, 1974; Brosge and Reiser, 1965; Brosge and others, 1976; Yeend and Brosge, 1973, and unpublished geology in Arctic quadrangle by W.P. Brosge, H.N. Reiser and J.T. Dutro Jr., 1972. Much of the geology south of latitude 69°00' N. is based on interpretation of aerial photographs.

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey standards and nomenclature.

Preliminary Geologic and Mineral Resource Maps,
(excluding petroleum)
Arctic National Wildlife Range, Alaska
by W.P. Brosge and H.N. Reiser, 1976
Sheet 1 Generalized geologic map