

LEGEND

Quaternary Deposits

- Ql** Placer Mine Tailings: Sorted gravels with fines removed.
- Qal** Stream Alluvium: Silt, sand and gravel.
- Qaf** Alluvial Fan Deposits: Coarse, stratified sand and gravel.
- Qb** Bench Gravels: Poorly stratified sand and gravel of several ages.
- Qd** Till: Wisconsin age.
- Qu** Undifferentiated Deposits
- Qsl** Landslide Deposits: Poorly sorted soil and rock colluvium derived from large scale slope failure.

Tertiary Sedimentary Rocks

Ts Nenana Gravel (?): Poorly exposed consolidated silt, sand, and gravel.

Tertiary Intrusive and Related Rocks

- Tf** Quartz Felsite: Light gray, porphyritic. Forms plugs in Eldorado and Friday Creeks, and forms dikes.
- Tb** Basalt: Dark gray, fine grained, equigranular, forms dikes.
- Tm** Gabbroic to Ultramafic: Fresh to altered dikes and plugs. Occurs in structural zones.
- Th** Hornfels and Skarn: Green gray aphanitic, epidote, garnet + magnetite skarn and tremolite hornfels.

Lower Paleozoic Spruce Creek Sequence

- Psm** Marble: Gray blue schistose, locally interbedded Psg and Psc.
- Psmq** Marble and Quartzite: Interbedded Psm with 50% interlayered fine grained vitreous quartzite.
- Psg** Graphitic Phyllite: Black to dark gray, locally siliceous and carbonaceous.
- Pscg** Chloritic Phyllite: Light green to gray, locally quartzofeldspathic. Includes chloritic calc-phyllite (Psc).
- Psq** Quartzite: Fine grained, vitreous quartzite.
- Pst** Meta felsite: Tan to black, foliated, rhyolitic volcanic and tuffaceous rocks. Blastoporphyratic variety (Pstq) contains quartz and feldspar phenocrysts.
- Psa** Meta andesite and Diorite: Foliated with unaltered hornblende blastopheno crystals. Includes small intrusive plug in Eldorado Creek.

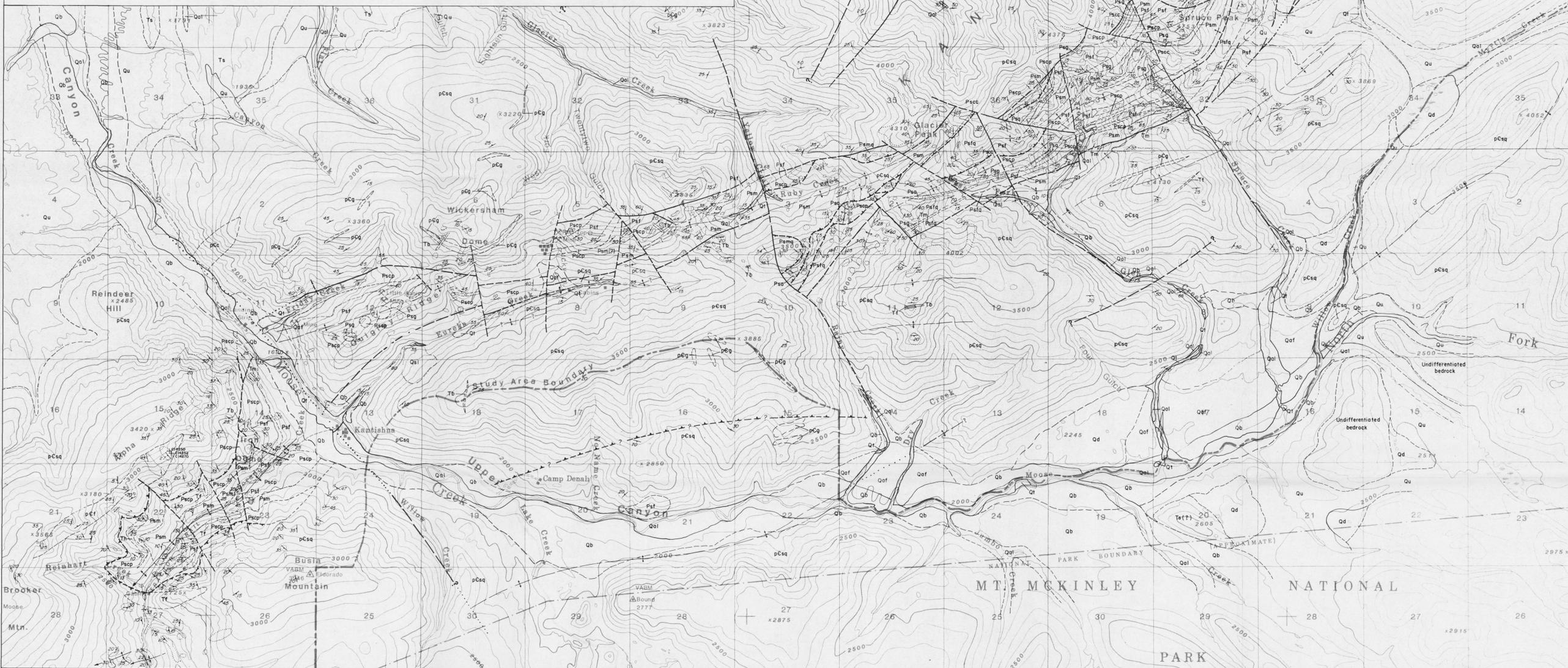
Precambrian to Lower Paleozoic Birch Creek Schist

- pCg** Greenstone and Greenschist: Dark green, garnetiferous. Locally includes biotite, muscovite schist.
- pCsq** Undifferentiated Schist and Quartzite
- pCc** Calcareous Schist: Gray, tan weathered calcareous quartz mica schist with interbedded marble and quartzite.
- pCf** Quartz feldspar Schist and Gneiss: Garnetiferous, local relict gneiss quartzite.
- pCs** Graphitic Schist: Dark gray to black, limonically stained, locally siliceous or calcareous. Includes minor quartz sericite schist.

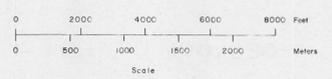
Geologic Symbols

- High Angle Fault
- Contact
- Thrust Fault (barbs on upper plate)
- Antiform: showing trace of axial surface and plunge.
- Synform: showing trace of axial surface and plunge.
- Strike and Dip of Foliation

Geology by J. Bressler, C. Hale, T. Hinderman, J. Kurka, M. Stevens, C. McKee, 1983; T. Bundzen, 1981; Cartography by L. Nelson.



Base map adopted from U.S.G.S. Mt. McKinley 1:25,000, C-1, 2, 3; D-1, 2, 3 100,000 quadrangles. Work performed for the U.S. Bureau of Mines under contract number SO134031. Prime contractor: Salisbury & Dietz, Inc. Technical subcontractors: C.C. Hawley and Associates, Inc. and WGM Inc.



Contour interval 100 feet

GEOLOGY OF THE SOUTHERN KANTISHNA HILLS STUDY AREA

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